UNDERGROUND STORAGE TANK CLOSURE AND SITE INVESTIGATION REPORT BUILDING 9061 UST NO. 36 NJDEP FACILITY UST NO. 090029 TMS NO. C-93-3896 SPILL CASE NO. 94-5-2-1314-24

January 1995

Work Order No.: 03886-088-001

Prepared For:

UNITED STATES ARMY
Directorate of Public Works
Building 167
Fort Monmouth, New Jersey 07703

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Corrections in Red.
3-15-95 Charles Appleby.

WESTON
MANAGERS DESIGNERS/CONSULTANTS

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EXECUTIVE SUMMARY

On 5 February 1990, 13 November 1990 and 13 September 1991, one underground storage tank (UST), identified as UST No. 36, located adjacent to Building 9061 in the Evans Area of Fort Monmouth, was tightness tested by Tank Testing, Inc. (TTI). The results indicated that the 5,000-gallon capacity, gasoline tank was tight.

On 30 July 1993, an UST Decommissioning/Closure Plan was submitted to the New Jersey Department of Environmental Protection and Energy (NJDEP). Closure Approval No. TMS C-93-3896 was issued with an effective date of 7 September 1993. The UST Decommissioning/ Closure Plan, UST Closure Plan Approval application and Closure Approval are provided in Appendix A.

On 29 April 1994, UST No. 36 was closed at U.S. Army Fort Monmouth, in Fort Monmouth, New Jersey. Cute Inc. performed the tank closure.

Soils surrounding the tank were screened visually and with air monitoring instruments for evidence of contamination. The tank was inspected following removal for cracks, corrosion holes and puncture holes as indications of historical leakage from the tank. Several corrosion holes of approximately 1/16-inch diameter were noted. A discharge was reported to the NJDEP by the Fort Monmouth Directorate of Public Works (DPW) on 2 May 1994 (Case No. 94-5-2-1314-24). Groundwater was encountered in the excavation at approximately 14 feet below ground surface (BGS).

After the removal of UST No. 36 approximately 45 cubic yards of potentially contaminated soil was excavated and transported to the Evans Area soil impoundment location, Building 9192, for storage prior to ultimate disposal.

On 3 May 1994, a Standard Reporting Form was submitted to the NJDEP by the DPW.

On 5 May 1994, nine post-excavation soil samples were collected and analyzed by U.S. Army Fort Monmouth Environmental Laboratory (FMEL) for total petroleum hydrocarbons (TPHC) and Princeton Testing Laboratory, Inc. for volatile organic compounds plus 15 tentatively identified compounds (VO+15) and lead. Analytical results were compared to NJDEP Impact to Ground Water (ITGW) and Residential Direct Contact (RDC) Soil Cleanup Criteria. The results were below both sets of criteria.

Based on the analytical testing results indicating that all potentially contaminated soils have been removed and the USTs history of favorable tightness testing results, no further action is recommended for soils.

On 27 and 28 September 1994, in accordance with N.J.A.C. 7:26E-1 et seq., two monitor wells were installed and developed in accordance with NJDEP requirements outlined in the Field Sampling Procedures Manual, May 1992. Two rounds of groundwater samples will be collected within 30 days and analyzed for volatile organics with a library search, methyl tertiary butyl ether, tertiary butyl alcohol and lead. Results of the testing, soil disposal manifests and recommendations for groundwater will be provided in an addendum to this report.

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SECTION 1.0

UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

On 29 April 1994, one tank identified as UST No. 36, was closed by removal at Building 9061 at U.S. Army Fort Monmouth, New Jersey. UST No. 36 was a single wall steel, 5,000-gallon capacity, gasoline tank. UST No. 36 was located immediately adjacent to Building 9061. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP-DHWM on 30 July 1993 and approved 7 September 1993 (Closure approval No. C-93-3896).

Activities associated with the decommissioning of UST No. 36 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., N.J.A.C. 7:26E-I et seq. and Occupational Safety and Health Administration (OSHA) 29 CFR 1910.146 & 29 CFR 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. Cute, Inc., the contractors that conducted the decommissioning activities, are currently registered and certified by the NJDEP for performing UST closure activities.

The NJDEP Closure Approval and correspondence with the NJDEP have been included in Appendix A. The UST Site Assessment Summary Form for UST No. 36 has been included in Appendix B. The UST Site Assessment Summary Form has been signed and sealed by Mr. James Ott, Acting Director of DPW, U.S. Army Fort Monmouth.

This UST Closure and Site Investigation Report was prepared by Roy F. Weston Inc. (WESTON®), to assist the United State Army DPW in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations at the date of closure were the "Technical Requirements for Site Remediation" (N.J.A.C. 7:26E-1 et seq., June 1993).

Section 1 of this UST Closure and Site Investigation Report provides a summary of the tank decommissioning activities. Section 2 of this report describes the site investigation activities. Conclusions and recommendations, including the results of the soil sampling investigation, are presented in the final section of this report.

1.2 SITE DESCRIPTION AND UST HISTORY

Building 9061 is located off 6th Street in the Evans Area of U.S. Army, Fort Monmouth. A site location map is provided in Figure 1-1. Building 9061 is used as a maintenance and repair shop. UST No. 36 was located immediately adjacent to the northern corner of Building 9061. A site plan is provided in Figure 1-2.

On 5 February 1990, 13 November 1990 and 13 September 1991, one tank, identified as UST No. 36, located adjacent to Building 9061, was tightness tested by Tank Testing, Inc. (TTI). The results indicated that the single walled steel 5,000-gallon capacity, gasoline tank was tight.

On 30 July 1993, a UST Decommissioning/Closure Plan was submitted to the NJDEP. Closure Approval No. TMS C-93-3896 was issued with an effective date of 7 September 1993. The UST Closure Plan Approval application and Closure Approval are provided in Appendix A.

On 29 April 1994, one UST was closed by Cute, Inc. at U.S. Army Fort Monmouth, in Fort Monmouth, New Jersey. UST No. 36 was located adjacent to Building 9061 in the Evans Area of Fort Monmouth.

1.3 GEOLOGICAL/HYDROGEOLOGICAL SETTING

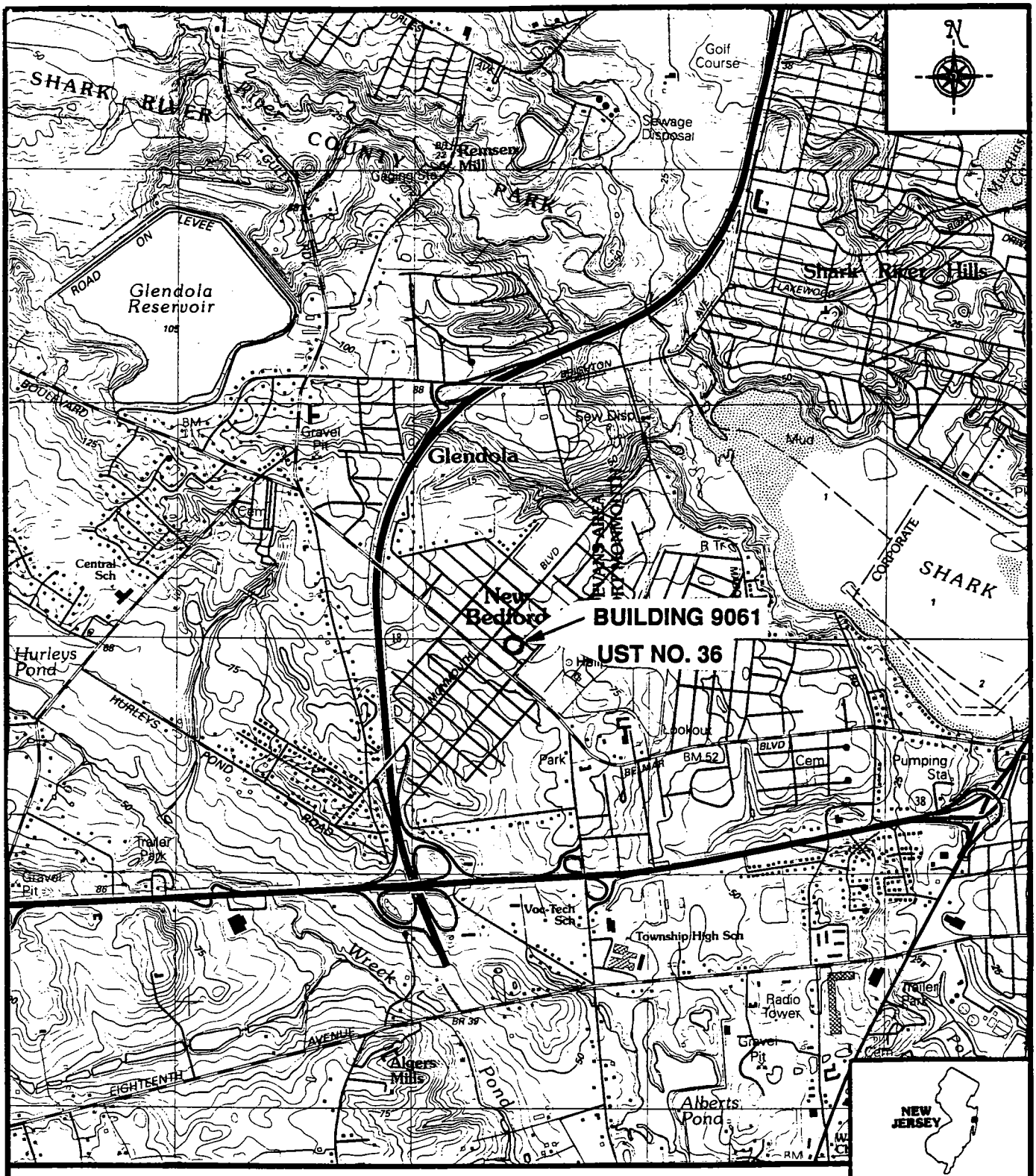
The following is a description of the geological/hydrogeological setting of the area surrounding Building 9061. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Evans Area.

1.3.1 Geological Setting

Regional Geology

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

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



REFERENCE: U.S.G.S. QUADRANGLE ASBURY PARK, NJ: PHOTOREVISED 1969
CONTOUR INTERVAL 20 FEET SCALE 1 INCH = 2000 FEET

UST LATITUDE: N 40 Deg. 10 Min. 1 Sec.
UST LONGITUDE: W 74 Deg. 3 Min. 50 Sec.

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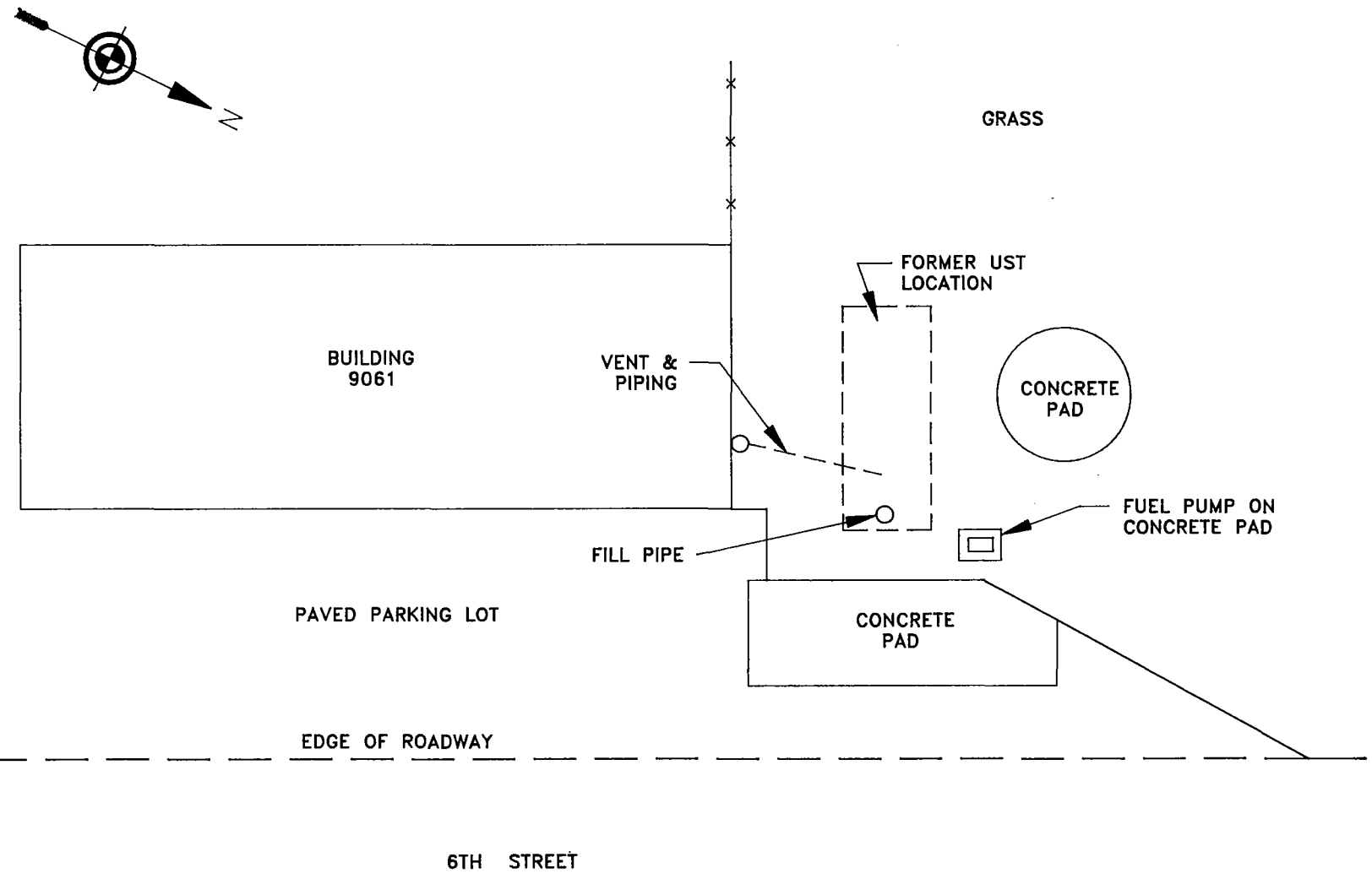
FIGURE 1-1
FACILITY LOCATION MAP
U.S. ARMY - DIRECTORATE OF PUBLIC WORKS
FORT MONMOUTH, NEW JERSEY

DDB-83FG.DRW



0' 20'

SCALE

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BUILDING 9061 – UST NO. 36
FORT MONMOUTH, NEW JERSEY

CLIENT NAME: U.S. ARMY– FORT MONMOUTH
DIRECTORATE OF PUBLIC WORKS

SITE MAP

DATE: 2/15/95

FIGURE #: 1–2

REVISION #: 2 DATE: 2/15/95
FILE NAME: B9061.DWG DRAWN BY: B. MAC

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

Local Geology

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

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

On 27 and 28 September borings performed during the installation of two wells indicated the presence of approximately 18 feet of fine silty sand beneath a six inch top soil layer. The fine sand layer overlies a medium to coarse grained sand layer.

Over the last 80 years, the natural topography of Fort Monmouth has been altered by excavation and filling activities by the military. Topographic elevations for the Evans Area range from five feet above mean sea level (MSL) to 31 feet above MSL.

1.3.2 Hydrogeological Setting

Hydrogeology

The water table aquifer at the Evans Area is identified as part of the "composite confining units", or minor aquifers. The minor aquifers include the Navesink formation, Red Bank Sand,

Tinton Sand, Hornerstown Sand, Vincentown Formation, Manasquan Formation, Shark River Formation, Piney Point Formation, and the basal clay of the Kirkwood Formation.

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

Shallow groundwater is locally influenced within the Evans Area by the following factors:

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

Due to the fluvial nature of the overburden deposits (i.e. sand and clay lenses), shallow groundwater flow direction is best determined on a case-by-case basis. This is consistent with lithologies observed in borings installed within the Evans Area, which primarily consisted of fine-to-medium grained sands, with occasional lenses or laminations of silt and/or clay.

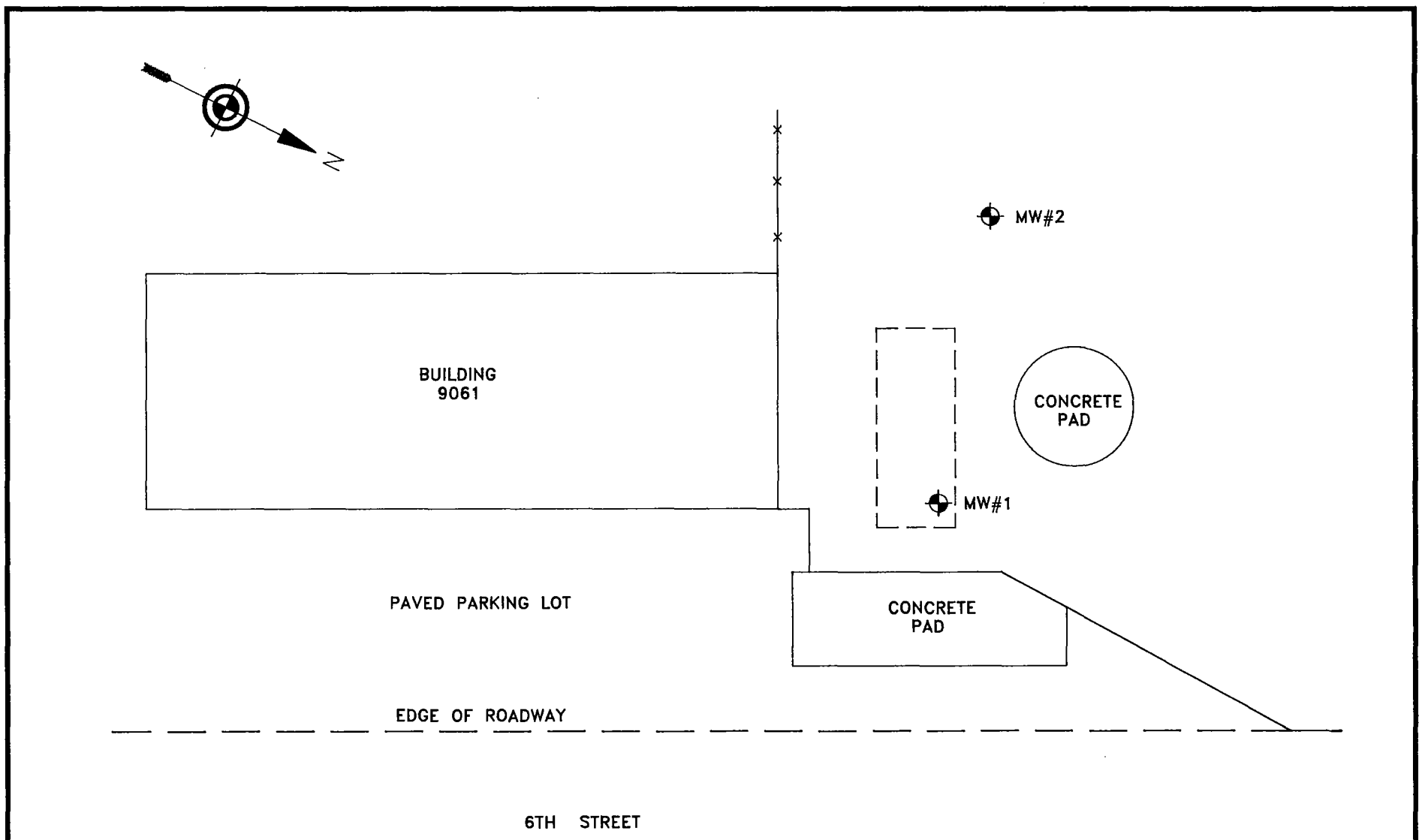
Building 9061 is less than 1 mile east of Shark River, the nearest water body. The Atlantic Ocean is located approximately 5 miles east of the site.

The groundwater for the Evans area was determined, during a previous investigation, to flow in the west-southwest direction. Based on this information two monitoring wells were installed on 27 September 1994 (MW#1) and 28 September 1994 (MW#2). Well MW#1 was installed in the tank excavation and well MW#2 was installed west-southwest of MW#1. Water levels in both wells were at approximately 20 feet. Both wells were installed in accordance with N.J.A.C. 7:26E-1 et seq. and will be sampled in accordance with NJDEP requirements outlined in the Field Sampling Procedures Manual, dated May 1992.

Figure 1-3 depicts the well locations. Monitoring well permits and well records are provided in Appendix C.

1.3.3 Offsite Groundwater Usage

In compliance with the NJDEP regulations, WESTON conducted a well search to identify all irrigation, monitoring, domestic, industrial and public supply wells within one half mile of U.S. Army Fort Monmouth, Evans Area. The file search produced records for 38 wells. The well search summary table includes the following information on surrounding wells: well identification number; well owner; well address; total depth (feet BGS); casing length (feet);



LEGEND

MW#1 ⊕ MONITORING WELL LOCATION

0' 20'

SCALE

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CLIENT NAME: U.S. ARMY– FORT MONMOUTH
DIRECTORATE OF PUBLIC WORKS

WELL LOCATION MAP

DATE: 2/15/95

FIGURE #: 1–3

REVISION #: 2 DATE: 2/15/95
FILE NAME: B9061.DWG DRAWN BY: B. MAC

static water level elevation (feet BGS); use code; and NJDEP permit number. In addition, a summary table of all U.S. Army wells located at Fort Monmouth, which includes the following information: well number; NJDEP permit number; New Jersey State Plane Coordinates; casing elevation; elevation of ground surface and, well records for the nearest identified offsite well have been included, if available. This information is included in Appendix D.

A review of the well records indicated that the majority of the wells within the area of concern are used for irrigation purposes. A domestic well (Permit Number 29-22410), owned by Redacte is the closest to the site. The well is located at 1301 Monmouth Road, approximately 1,800 feet south of the site.

1.4 HEALTH AND SAFETY

Before, during, and after all activities, hazards at the work site which may have posed a threat to the health and safety of all personnel who were involved with, or were affected by, the decommissioning of the UST system were minimized. All areas which posed, or may have been suspected to pose a vapor hazard were monitored by a qualified individual utilizing approved equipment. The trained individual ascertained if the area was properly vented to render the area safe, as defined by OSHA.

1.5 REMOVAL OF UNDERGROUND STORAGE TANK

1.5.1 General Procedures

On 29 April 1994, UST No. 36 was closed by removal at Building 9061 on the Evans Area of Fort Monmouth. Tank closure activities were conducted as follows:

- All underground obstructions (utilities,... etc.) were marked out by the contractor performing the closure prior to excavation activities.
- Surface materials (i.e, asphalt, concrete, etc...) were excavated and staged separate from all soils. These materials were later recycled in accordance with all applicable laws and regulations.
- The tank atmosphere was inerted.
- Access ways on top of the tank were opened.
- Licensed tank closure contractor personnel entered the tank to visually inspect and manually clean the insides of the tank.
- All wastes (tank bottom sludge and tank rinsate) generated during cleaning were collected and disposed.

- Post closure soil samples were collected for laboratory analysis.
- The tank was removed from the excavation and staged on plastic sheeting.
- Approximately 45 cubic yards of potentially contaminated soil was excavated during the tank closure, and transported to the Evans Area impoundment location site for storage prior to ultimate disposal/reuse at Soil Remediation of Philadelphia.
- The excavation was backfilled with clean fill material to the original surface grade.
- A Sub-Surface Evaluator from the DPW was present during all closure activities.

1.5.2 Underground Storage Tank Excavation

Soil was excavated to expose the UST and the associated piping. The piping was not removed/disturbed until all free product was drained into the UST. The UST was rendered vapor free by purging prior to any cutting or access. After removal of the associated piping, a manway from the UST was made to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal. Approximately 71 gallons of liquids were transported by Freehold Cartage, Inc. to Cycle Chem, Inc. for disposal. Freehold Cartage, Inc. is a licensed hazardous waste transporter (USEPA ID No. NJD054126164). Hazardous waste manifests were completed and can be found in Appendix E. All of the openings in the tank were plugged except for one hole (manway).

After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for cracks, corrosion or puncture holes. The presence or absence of holes was documented by the Sub-Surface Evaluator. Several corrosion holes of approximately 1/16-inch diameter were noted. A discharge was reported to the NJDEP by the DPW on 2 May 1994 (Case No. 94-5-2-1314-24). Groundwater was present in the excavation at approximately 14 feet BGS.

Soils surrounding the UST were screened visually and with a Photoionization Detector (PID) for evidence of contamination. Approximately 45 cubic yards of potentially contaminated soil were removed from the area surrounding UST No. 36. The potentially contaminated soil was transported to the Evans Area impoundment location for storage prior to ultimate disposal/reuse at Soil Remediation of Philadelphia.

1.6 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

The tank was transported by Cute, Inc. to Mazza and Sons, Inc., for recycling in compliance with all applicable regulations and laws. The Tank Reclamation Certificates are provided in Appendix F.

The contractor labelled the UST prior to transport with the following information:

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

1.7 MANAGEMENT OF EXCAVATED SOIL

Approximately 45 cubic yards of potentially contaminated soil was removed from the area surrounding UST No. 36 and placed on and covered with polyethylene sheets. Potentially contaminated soils were stockpiled separately from other excavated material. Potentially contaminated soils were transported to the Evans Area impoundment location for storage prior to ultimate disposal at Soil Remediation of Philadelphia. All soils free of evidence of contamination were backfilled into the excavation following removal of the UST.

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SECTION 2.0

SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S ARMY DPW personnel. All analyses were performed and reported by FMEL and Princeton Testing Laboratory, Inc. which are NJDEP-certified testing laboratories. All sampling was performed under the direct supervision of a NJDEP Certified Sub-Surface Evaluator, ~~according to the methods described in the NJDEP Field Sampling Procedures Manual (May 1992).~~ Sampling frequency and parameters analyzed complied with the NJDEP-BUST document "Technical Requirements for Site Remediation" (June 1993) which was the applicable regulation at the date of closure. All records of the Site Investigation activities are maintained by Fort Monmouth DPW: Environmental Office.

The following Parties participated in Closure and Site Investigation activities:

- Closure Contractor #1: Cute, Inc.
  Contact Person: Nancy Williams
  Phone Number: (908) 636-7125
  NJDEP Company Certification No.: 0200128

- Hazardous Waste Transporter: Freehold Cartage, Inc.
  Contact Person: David S. Smith
  Phone Number: (908) 462-1001
  USEPA Identification No.: NJD054126164

- Subsurface Evaluator: Charles Appleby
  Employer: U.S. Army, Fort Monmouth
  Phone Number: (908) 532-6224
  NJDEP Certification No.: 2056

- Analytical Laboratory: Princeton Testing Laboratory.
  Contact Person: Laura Stewart
  Phone Number: (609) 452-9050
  NJDEP Laboratory Certification No.: 11118

- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Testing Laboratory
  Contact Person: Brian McKee
  Phone Number: (609) 532-4359
  NJDEP Laboratory Certification No.: 13461

2.2 FIELD SCREENING/MONITORING

All soils that were excavated as part of the removal of the UST were screened using a PID, for evidence of contamination. Soils were also inspected visually for evidence of contamination (staining, free product, etc..). Soils on the sidewalls and base of the excavation were screened with a PID by an individual under the direct supervision of the NJDEP Certified Sub-Surface Evaluator. Evidence of contamination was noted during excavation of soils surrounding the UST and soils were subsequently removed.

2.3 SOIL SAMPLING

On 5 May 1994, following the removal of UST No. 36, nine post-excavation samples were collected and analyzed by FMEL for TPHC, and by Princeton Testing Laboratory, Inc. for VO+15 and lead. Due to the removal of potentially contaminated soil, the post-excavation soil samples were collected from different depths.

A summary of sampling activities including parameters analyzed is provided in Table 2-1. Figure 2-1 depicts the location of the post-excavation soil samples. The post-excavation soil samples were collected using ~~decontaminated stainless steel scoops~~[1] CA. Following soil sampling activities, the samples were chilled and delivered to the applicable testing laboratory.

The frequency of sampling and parameters analyzed were consistent with the applicable NJDEP regulations at the date of closure, which were the "Technical Requirements for Site Remediation" (N.J.A.C. 7:26E-1 et seq. June 1993).

1. Polyethylene scoops, CA.

TABLE 2-1

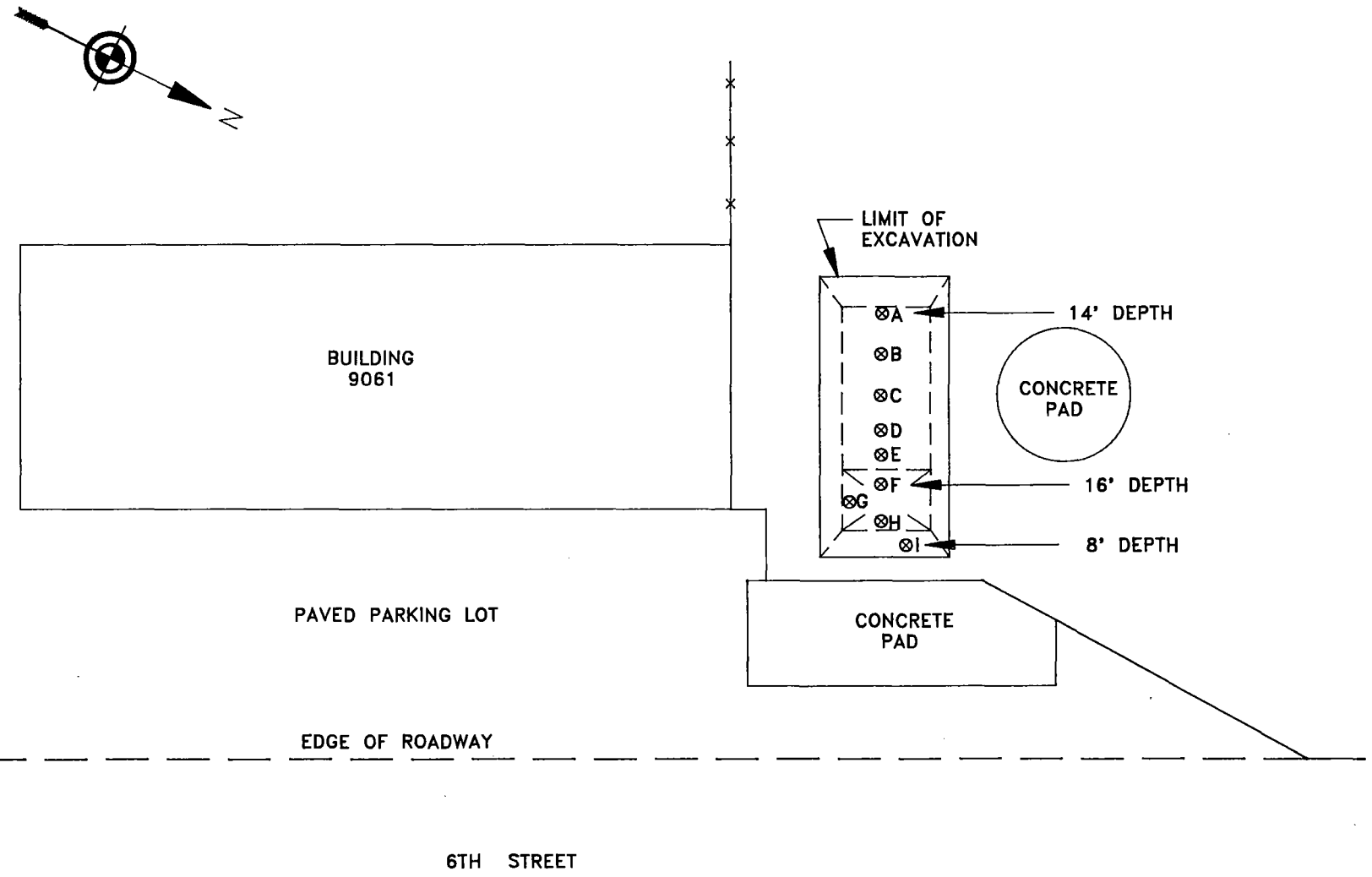
SUMMARY OF POST-EXCAVATION SOIL SAMPLING
BUILDING NO. 9061
UST NO. 36
FORT MONMOUTH, NEW JERSEY

Sample ID No.	Lab ID No.	Date of Collection	Sample Location	Sample Depth (feet BGS)	Matrix	Sample Type	Analytical Parameters	Sampling Method
A	1479.1	5/5/94	North Bottom	14	Soil	Post-Excavation	TPHC, VO+15, LEAD	~~Stainless Steel~~ Scoop
B	1479.2	5/5/94	Pit Bottom	14	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
C	1479.3	5/5/94	Pit Bottom	14	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
D	1479.4	5/5/94	Pit Bottom	14	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
E	1479.5	5/5/94	Pit Bottom	14	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
F	1479.6	5/5/94	North Wall	16	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
G	1479.7	5/5/94	West Wall	16	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
H	1479.8	5/5/94	South Wall	16	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
I	1479.9	5/5/94	South Wall	8	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop
J	1479.10	5/5/94	Duplicate	8	Soil	Post-Excavation	TPHC, VO+15, LEAD	Stainless Steel Scoop

Polystyrene Scoops CA.

Abbreviations:

TPHC - Total Petroleum Hydrocarbons
VO+15 - Volatile Organic Analysis Plus 15 tentatively identified compounds



LEGEND

⊗ D POST-EXCAVATION SAMPLE LOCATIONS

0' 20'

SCALE

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POST-EXCAVATION SAMPLE LOCATIONS

DATE: 2/15/95

FIGURE #: 2-1

REVISION #: 2 DATE: 2/15/95
FILE NAME: B9061.DWG DRAWN BY: B. MAC

SECTION 3.0

CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated soils, the post-excavation sample results were compared to NJDEP ITGW and RDC Soil Cleanup Criteria (N.J.A.C. 7:26D and revisions dated 3 February 1994). Summaries of analytical results for soils are presented in Table No. 3-1.

A summary of the analytical methods used and quality assurance information is provided in Table 3-2. The analytical data package summary is provided in Appendix G. The full data package, including associated quality control and chromatograph data is on file at U.S. Army Fort Monmouth, DPW.

The results of the soil samples collected on 5 May 1994 indicated that all samples contained either non-detectable concentrations of contaminants or concentrations of contaminants below NJDEP ITGW and RDC Soil Cleanup Criteria.

3.2 CONCLUSIONS AND RECOMMENDATIONS

On 29 April 1993, DPW successfully closed UST No. 36 at Building 9061 in the Evans Area of U.S. Army Fort Monmouth.

Based on the analytical testing results indicating that all potentially contaminated soils have been removed and the USTs history of favorable tightness testing results, no further action is recommended for soils.

On 27 and 28 September 1994, in accordance with N.J.A.C. 7:26E-1 et seq., two monitor wells were installed and developed in accordance with NJDEP requirements outlined in the Field Sampling Procedures Manual, dated May 1992. Two rounds of groundwater samples will be collected within 30 days and analyzed for volatile organics with a library search, methyl tertiary butyl ether, tertiary butyl alcohol and lead. Results of the testing and recommendations for groundwater will be provided in an addendum to this report.

TABLE 3-1

SUMMARY OF ANALYTICAL RESULTS FOR SOILS
BUILDING NO. 9061
UST NO. 36
FORT MONMOUTH, NEW JERSEY

Sample ID No.		A	B	C	D	E	F	NJDEP Impact to Groundwater Soil Cleanup Criteria	Residential Direct Contact Soil Cleanup Criteria
Lab ID No.		1479.1	1479.2	1479.3	1479.4	1479.5	1479.6		
Matrix		Soil	Soil	Soil	Soil	Soil	Soil		
Sample Type		PE	PE	PE	PE	PE	PE		
Date of Collection		5/5/94	5/5/94	5/5/94	5/5/94	5/5/94	5/5/94		
Analytical Parameter	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
Volatile Organic Compounds									
Acetone		0.0092 JB	0.02B	0.012 B	ND	0.012 B	0.016 B	100	1,000
Methylene Chloride		0.0079 JB	0.0041 BJ	0.013 B	0.0046 JB	0.0042 JB	0.0038 JB	1	49
Inorganics									
Lead		3.08	2.48	1.57	1.20	1.38	1.32	NC	400
TPHC		ND	9.44	5.08	ND	ND	ND	NC	NC

Abbreviations:

PE: - Post excavation.
J: - Indicates an estimated value.
B: - Indicates present in method blank.
NC: - No cleanup criterion has been proposed by NJDEP.
ND: - Not Detected.
mg/kg: - Milligrams per kilogram.

TABLE 3-1 (CONTINUED)

SUMMARY OF ANALYTICAL RESULTS FOR SOILS
BUILDING NO. 9061
UST NO. 36
FORT MONMOUTH, NEW JERSEY

Sample ID No.		G	H	I	J Duplicate	Trip Blank	Field Blank	NJDEP Impact to Groundwater Soil Cleanup Criteria	Residential Direct Contact Soil Cleanup Criteria
Lab ID No.		1479.7	1479.8	1479.9	1479.10	1479.11	1479.12		
Matrix		Soil	Soil	Soil	Soil	Soil	Soil		
Sample Type		PE	PE	PE	PE	PE	PE		
Date of Collection		5/5/94	5/5/94	5/5/94	5/5/94	5/5/94	5/5/94		
Analytical Parameter	Units	mg/kg	mg/kg	mg/kg	mg/kg	mg/L	mg/L	mg/kg	mg/kg
Volatile Organic Compounds									
Acetone		0.026 B	0.002 B	0.0091 JB	0.0042 JB	0.013 B	0.019 B	100	1,000
Methylene Chloride		0.004 JB	0.0041 JB	0.0044 JB	0.016 B	0.0027 JB	0.0025 JB	1	49
Inorganics									
Lead		2.47	1.46	1.98	2.05	NA	6.8	NC	400
TPHC		ND	ND	ND	ND	NA	NA	NC	NC

Abbreviations:

PE: - Post excavation.
J: - Indicates an estimated value.
B: - Indicates present in method blank.
NA: - Indicates not analyzed.
NC: - No cleanup criterion has been proposed by NJDEP.
ND: - Not Detected.
mg/kg: - Milligrams per kilogram.

TABLE 3-2

ANALYTICAL METHODS/QUALITY ASSURANCE SUMMARY TABLE
BUILDING NO. 9061
UST NO. 36
FORT MONMOUTH, NEW JERSEY

Analytical Parameter	No. of Samples Collected	Matrix	Date Collected	Date Analysis Completed	Preservation Method	USEPA SW-84 Analytical Method
TPHC	10	S	5/5/94	5/6/94	Cool to 4°C	418.1
VOCs	10	S	5/5/94	5/8/94	Cool to 4°C	USEPA-CLP-IFB
LEAD	10	S	5/5/94	5/8/94	Cool to 4°C	6010

APPENDIX A

NJDEP-BUST CLOSURE APPROVAL, CORRESPONDENCE WITH NJDEP AND TANK TIGHTNESS TEST RESULTS

UNDERGROUND STORAGE TANK SYSTEM
CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND ENERGY

DIVISION OF RESPONSIBLE PARTY SITE REMEDIATION
BUREAU OF UNDERGROUND STORAGE TANKS
CN-029, TRENTON, NJ 08625-0029

TMS # C-93-3896 **UST #** 0090029

USArmy
Bldg. 9061
Ft. Monmouth, NJ

Monmouth

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

Removal of: one 5,000 gallon gasoline UST(s) and associated piping.

SITE ASSESSMENT: Soil samples will be taken every five (5) feet along the centerline of each tank and one (1) sample every 15 feet along all appurtenant piping. Two (2) additional samples will be taken from each tank area and biased to the areas of highest field screened readings. Samples will be analyzed for VO+10 (and lead when applicable).

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

OWNER: TELEPHONE:

EFFECTIVE DATE: SEP 07 1993

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

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

Bldg. 706

TankTest Inc. TTI

February 21, 1990

E-Systems, Inc.
P.O. Box 369 Bldg 1209
Fort Monmonth, New Jersey 07703-5000

Attention: Ms. Gail Sutton

Reference: TTI Project Report No. 2037

Dear Ms. Sutton:

This report covers the testing of three (3) underground storage tanks by TankTest Inc. (TTI). The testing was conducted on February 5th, and 6th, at the Fort Monmonth facility. For your ease of review, this report is organized as follows:

- Summary of Test Results
- Methodology
- Field Data Sheets

If you have any questions or comments concerning this report, please do not hesitate to contact me at anytime.

Respectfully submitted,

TankTest, Inc.

Robert Giunta
Tank Testing Supervisor

RG/nj

Test\2037

II. METHODOLOGY

TTI tests underground storage tanks through the use of the Petro Tite system. This system, also known as the Kent-Moore system was developed in cooperation with the American Petroleum Institute (API). TTI uses this system for the leak testing of a wide variety of tanks, systems, and tank contents.

The Petro Tite testing process is by definition a "temperature compensated standpipe test with product circulation". The tank testing equipment is connected to the tank system (and associated piping) subsequently filled with the existing product in the tank. Any observable decrease in liquid volume in the standpipe gives a direct measurable reading of loss if the system is leaking. However a drop in the standpipe liquid level can also be the result of other factors such as temperature change or a change in the tank volume due to a phenomenon known as "tank end deflection". The temperature variable is compensated for using the Petro Tite system by accurate temperature measurement while vigorously circulating the tank contents. Tank end deflection is also compensated for by stabilizing the tank geometry using procedures developed for the testing system. When these factors are controlled, loss in the standpipe means loss in the system, with compensation for all of the important factors that can give false results. The Petro Tite process is the only approved system that compensates for all these important variables, thus providing the user with the most reliable results available.

The Petro Tite system as applied by TTI using certified testers, adheres to the National Fire Protection Association (NFPA) guidelines as described in NFPA Bulletin No. 329, Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids.

I. SUMMARY OF PROJECT RESULTS

PROJECT NUMBER: 2037-1

Date Tested	02/05/90
System Location	Evans Area 9061
Tank Size	5,000 gallons
Product	Gasoline
Ground water depth	Below tank bottom
Standpipe elevation *	154"
Results **	-0.036 GPH
Conclusion	System passed inspection

* From tank bottom to the twelve (12) inch mark on the standpipe, meets 4 pound rule requirement.

** The NFPA (National Fire Protection Association) criteria of plus or minus 0.050 gph used to certify tank system tightness is a mathematical calculation based on actual liquid volume change and temperature change and is not intended as permission of a leak.

Data Chart for Tank System Tightness Test

PLEASE PRINT 2087-1

1. OWNER Property ☐ Tank(s) ☐

Fort Monmouth (Evans Area)
Name | Address | Representative | Telephone

Name | Address | Representative | Telephone

2. OPERATOR

Fort Monmouth
Name | Address | Telephone

3. REASON FOR TEST (Explain Fully)

Integrity

4. WHO REQUESTED TEST AND WHEN

Joe Fallen / Gail Sutton — E-Systems Inc
Name — Title — Company or Affiliation — Date

PoBox 369 Bldg 1209, Fort Monmouth NJ — 201-532-435[illegible]
Address — Telephone

5. TANK INVOLVED

Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
Bldg 9061	5000		GAS	10+	Steel

6. INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
Bldg 9061	Earth	1-4"	1-1½"	—	Suction
North inside driveway, Rear of station, etc.	Concrete, Black Top, Earth, etc.	Size, Titefill make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

7. UNDERGROUND WATER

Depth to the Water table Below Tank

Is the water over the tank? ☐ Yes ☒ No

8. FILL-UP ARRANGEMENTS

Tanks to be filled _____ hr. _____ Date Arranged by _____
Name | Telephone

Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.

Terminal or other contact for notice or inquiry _____
Company | Name | Telephone

9. CONTRACTOR, MECHANICS, any other contractor involved

10. OTHER INFORMATION OR REMARKS

Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.

11. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
Bldg 9061	YES	-0.036 GPH	1-5-90

12. SENSOR CERTIFICATION

1-5-90
Date

200
Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians

1. R Giunta

Certification # _____

2 _____

Certification # _____

Tank Test Inc
Testing Contractor or Company. By: Signature

4 Stow Rd Marlton NJ
Address

Name of Supplier, Owner or Dealer	Address No. and Street(s)	City	State	Date of Test
[illegible]		[illegible]	[illegible]	[illegible]

15. TANK TO TEST

Bldg 2061 EVANS AreA
Identity by position

GAS
Brand and Grade

15a. BRIEF DIAGRAM OF TANK FIELD

16. CAPACITY

Nominal Capacity 5000 Gallons

By most accurate capacity chart available 5000 Gallons

From
- ☐ Station Chart
- ☐ Tank Manufacturer's Chart
- ☐ Company Engineering Data
- ☒ Charts supplied with
- ☐ Other ______

17. FILL-UP FOR TEST

Stick Water Bottom before Fill-up: 0 in. (to ¼") | 0 Gallons | 64 in. Tank Diameter

		Gallons	Total Gallons ea. Reading
Inventory	64		5000
	WATer		± 0
	TOPOFF		+10
			5010

Transfer total to line 25a

18. SPECIAL CONDITIONS AND PROCEDURES TO TEST THIS TANK

☐ Water in tank ☐ Line(s) being tested with LVLLT ☐ High water table in tank excavation

See manual sections applicable. Check below and record procedure in log (27).

Use maximum allowable test pressure for all tests.
Four pound rule does not apply to doublewalled tanks.

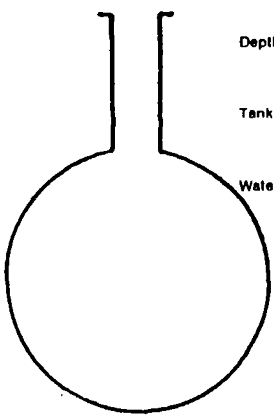
Complete section below:

1 Is four pound rule required? Yes ☒ No ☐

2 Height to 12" mark from bottom of tank 154 in.

3 Pressure at bottom of tank 4 P.S.I.

4. Pressure at top of tank — P.S.I.



Depth of burial 52 in.

Tank dia. 64 in.

Water table below 116 in.

NOTES:

The above calculations are to be used for dry soil conditions to establish a positive pressure advantage, or when using the four pound rule to compensate for the presence of subsurface water in the tank area.

Refer to N.F.P.A. 30, Sections 2-3.2.4 and 2-7.2 and the tank manufacturer regarding allowable system test pressures.

19. TANK MEASUREMENTS FOR TSTT ASSEMBLY

Bottom of tank to grade* 116 in.

Add 30" for "T" probe assy. 30 in.

Total tubing to assemble — approximate 146 in.

20. EXTENSION HOSE SETTING

Tank top to grade* 52 in.

Extend hose on suction tube 6" or more below tank top 6+ 58 in.

*If Fill pipe extends above grade, use top of fill.

21. VAPOR RECOVERY SYSTEM ☐ Stage I ☐ Stage II

22. Thermal-Sensor reading after circulation 45,046 digits

45-46 °F Between

23. Digits per °F in range of expected change 1000 digits

COEFFICIENT OF EXPANSION (Complete after circulation)

24a. Corrected A.P.I. Gravity

Observed A.P.I. Gravity ______

Hydrometer employed ______ H

Observed Sample Temperature ______ °F

Corrected A.P.I. Gravity @ 60°F, From Table A ______

Coefficient of Expansion for Involved Product From Table B ______

Transfer COE to Line 25b.

24b. COEFFICIENT OF EXPANSION RECIPROCAL METHOD

Type of Product GAS

Hydrometer Employed 6 H

Temperature in Tank After Circulation ______ °F

Temperature of Sample ______ °F

Difference (+/-) ______ °F

Observed A.P.I. Gravity 60.2

Reciprocal 1461 Page # 64

5010 ÷ 1461 = 3.4291581

Total quantity in full tank (16 or 17) ÷ Reciprocal = Volume change in this tank per °F

Transfer to Line 26a.

24c. FOR TESTING WITH WATER see Table C & D

Water Temperature after Circulation Table C ______ °F

Coefficient of Water Table D ______

Added Surfactant? ☐ Yes ☐ No Transfer COE to Line 25b.

25. (a) ______ × (b) ______ = (c) ______ gallons

Total quantity in full tank (16 or 17) × Coefficient of expansion for involved product = Volume change in this tank per °F

26. (a) 3.4291581 ÷ 1000 = 0.0034291 This is test (0.0034)

Volume change per °F (25 or 24b) ÷ Digits per °F in test = Volume change per digit

LOG OF TEST PROCEDURES

[redacted] 29

Time		#	Reading	Restored	Before Reading	After Reading	Product Recovered (+)	Sensor Reading	Change =	Expansion Contraction -	Contraction (-) #33(V) — #37(T)	Change per Hour (NFPA criteria)
1100	STARTed CirculATion							Thermal Sensor			ser	200
1125	CompleTed										Ref	81.694
											InIT	81.684
1130	START High level Test	1		42				45.046	FA=	0.0034	FiN	81.687
45	1 Reading	2	41.8	42	0.535	0.515	-0.020	.072	+26	+0.088	-0.108	
1200	2	3	41.9	42	0.515	0.510	-0.005	.087	+15	+0.051	-0.056	
15	3	4	42.2	42	0.510	0.515	+0.005	.113	+26	+0.088	-0.083	
30	4	5	42.3	42	0.515	0.530	+0.015	.130	+17	+0.058	-0.043	
45	5	6	42.5	42	0.530	0.550	+0.020	.156	+26	+0.088	-0.068	
1250	Dropped To Low Level			12				45.161				
1305	Reading		14.0	12	0.550	0.640	+0.090	.179	+18	+0.061	+0.029	
20	"		12.9	12	0.640	0.690	+0.050	.196	+17	+0.058	-0.008	
1325	START Low Level Test	7		12				45.204				
30	1 Reading	8	12.1	12	0.100	0.110	+0.010	.212	+8	+0.027	-0.017	-0.017
35	2	9	12.2	12	0.110	0.125	+0.015	.215	+3	+0.010	+0.005	-0.012
40	3	10	12.2	12	0.125	0.140	+0.015	.224	+9	+0.031	-0.016	-0.028
45	4	11	12.2	12	0.140	0.155	+0.015	.230	+6	+0.020	-0.005	-0.033
50	5	12	12.2	12	0.155	0.165	+0.010	.236	+6	+0.020	-0.010	-0.043
55	6	13	12.2	12	0.165	0.175	+0.010	.242	+6	+0.020	-0.010	-0.053
1400	7	14	12.2	12	0.175	0.185	+0.010	.248	+6	+0.020	-0.010	-0.063
05	8	15	12.2	12	0.185	0.205	+0.015	.256	+8	+0.027	-0.012	-0.075
10	9	16	12.3	12	0.205	0.220	+0.020	.265	+9	+0.031	-0.011	-0.086
15	10	17	12.2	12	0.220	0.235	+0.015	.273	+8	+0.027	-0.012	-0.098
20	11	18	12.2	12	0.235	0.250	+0.015	.280	+7	-0.024	-0.009	-0.107
25	12	19	12.2	12	0.250	0.265	+0.015	.285	+5	+0.017	-0.002	-0.109
30	13	20	[illegible]	12	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

								.289				-0.103
35	14	21	12.2	12	0.285	0.305	±0.020	.294	±5	±0.017	±0.003	-0.100
40	15	22	12.2	12	0.305	0.320	±0.015	.297	±3	±0.010	±0.005	-0.095
45	16	23	12.2	12	0.320	0.340	±0.020	.303	±6	±0.020	±0.000	-0.095
50	17	24	12.2	12	0.340	0.360	±0.020	.308	±5	±0.017	±0.003	-0.092
55	18	25	12.2	12	0.360	0.380	±0.020	.314	±6	±0.020	±0.000	-0.092
1500	19	26	12.2	12	0.380	0.400	±0.020	.317	±3	±0.010	±0.010	-0.082
05	20	27	12.2	12	0.400	0.415	±0.015	.322	±5	±0.017	-0.002	-0.084
10	21	28	12.2	12	0.415	0.435	±0.020	.326	±4	±0.014	±0.006	-0.078
15	22	29	12.2	12	0.435	0.455	±0.020	.331	±5	±0.017	±0.003	-0.075
20	23	30	12.2	12	0.455	0.475	±0.020	.336	±5	±0.017	±0.003	-0.072
25	24	31	12.2	12	0.475	0.495	±0.020	.342	±6	±0.020	±0.000	-0.072
	Test Complete							-0.072 ÷ 2 = 0.036				
								-0.036 GPH				
								System Passed Insp.				

P-T Tank Test Data Chart
Additional Info

1. Net Volume Change at Conclusion of Precision Test -0.036 gph

Signature of Tester: R. [signature]

Date: 1-5-90

2. Statement:

☒ Tank and product handling system has been tested tight according to the Precision Test Criteria as established by N.F.P.A. publication 329. This is not intended to indicate permission of a leak.

OR

☐ Tank and product handling system has failed the tank tightness test according to the Precision Test Criteria as established by N.F.P.A. publication 329.

It is the responsibility of the owner and/or operator of this system to immediately advise state and local authorities of any implied hazard and the possibility of any reportable pollution to the environment as a result of the indicated failure of this system. Heath Consultants Incorporated does not assume any responsibility or liability for any loss of product to the environment.

Tank Owner/Operator _____

Bldg. 1061

TTI TANK MANAGEMENT SERVICES

A Division of TankTest Incorporated

November 30, 1990

E-Systems, Inc.
P.O. Box 360
Fort Monmouth, New Jersey 07703

Attention: Ms. Gail Sutton

Reference: TTI Project Report No. 2288

Dear Ms. Sutton

This report covers the testing of three (3) underground storage tanks by TankTest Inc. (TTI). The testing was conducted on November 13, at Building 9061, ~~on November 14, at the Charles Woods Building,~~ and on November 15, at the Motor Pool facility. For your ease of review, this report is organized as follows:

- Summary of Test Results
- Methodology
- Field Data Sheets

If you have any questions or comments concerning this report, please do not hesitate to contact me at anytime.

Respectfully submitted,

TankTest, Inc.

Robert Giunta
Tank Testing Supervisor

RG/nj

Test\2288

II. METHODOLOGY

TTI tests underground storage tanks through the use of the Petro Tite system. This system, also known as the Kent-Moore system was developed in cooperation with the American Petroleum Institute (API). TTI uses this system for the leak testing of a wide variety of tanks, systems, and tank contents.

The Petro Tite testing process is by definition a "temperature compensated standpipe test with product circulation". The tank testing equipment is connected to the tank system (and associated piping) subsequently filled with the existing product in the tank. Any observable decrease in liquid volume in the standpipe gives a direct measurable reading of loss if the system is leaking. However a drop in the standpipe liquid level can also be the result of other factors such as temperature change or a change in the tank volume due to a phenomenon known as "tank end deflection". The temperature variable is compensated for using the Petro Tite system by accurate temperature measurement while vigorously circulating the tank contents. Tank end deflection is also compensated for by stabilizing the tank geometry using procedures developed for the testing system. When these factors are controlled, loss in the standpipe means loss in the system, with compensation for all of the important factors that can give false results. The Petro Tite process is the only approved system that compensates for all these important variables, thus providing the user with the most reliable results available.

The Petro Tite system as applied by TTI using certified testers, adheres to the National Fire Protection Association (NFPA) guidelines as described in NFPA Bulletin No. 329, Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids.

III. FIELD DATA AND CALCULATIONS

I. SUMMARY OF PROJECT RESULTS

PROJECT NUMBER: 2288-1

Date Tested	November 13, 1990
System Location	E-Systems, Inc. - Building 9061
Tank Size	5,000 gallons
Product	Gasoline
Ground water depth	Below tank bottom
Standpipe elevation *	154 inches
Results **	-0.024 gallons per hour
Conclusion	System passed inspection

* From tank bottom to the twelve (12) inch mark on the standpipe, meets 4 pound rule requirement.

** The NFPA (National Fire Protection Association) criteria of plus or minus 0.050 gallons per hour used to certify tank system tightness is a mathematical calculation based on actual liquid volume change and temperature change and is not intended as permission of a leak.

Data Chart for Tank System Tightness Test

ASE PRINT

OWNER Property ☐ Tank(s) ☐

Name	Address	Representative	Telephone
Fort Monmouth	Fort Monmouth NJ		
Name	Address	Representative	Telephone

OPERATOR

Name	Address	Telephone

REASON FOR TEST (Explain Fully)

Integrity

WHO REQUESTED TEST AND WHEN

Name	Title	Company or Affiliation	Date
Joe Fallon		E-Systems	
Address			Telephone
P.O. Box 360 Fort Monmouth NJ			

TANK INVOLVED

Use additional lines for manifolded tanks

Identify by Direction	Capacity	Brand/Supplier	Grade	Approx. Age	Steel/Fiberglass
Bldg 9061	5000		Gas	—	Steel

INSTALLATION DATA

Location	Cover	Fills	Vents	Siphones	Pumps
	Asphalt	2-4"	1-2"	—	Suction
North inside driveway, Rear of station, etc.	Concrete, Black Top, Earth, etc.	Size, Titefill make, Drop tubes, Remote Fills	Size, Manifolded	Which tanks?	Suction, Remote, Make if known

UNDERGROUND WATER

Depth to the Water table: Below Tank

Is the water over the tank? ☐ Yes ☒ No

FILL-UP ARRANGEMENTS

Tanks to be filled _____ hr. _____ Date Arranged by _____ Name _____ Telephone

Extra product to "top off" and run tank tester. How and who to provide? Consider NO Lead.

Terminal or other contact for notice or inquiry _____ Company _____ Name _____ Telephone

CONTRACTOR, MECHANICS, any other contractor involved

OTHER INFORMATION OR REMARKS

Additional information on any items above. Officials or others to be advised when testing is in progress or completed. Visitors or observers present during test, etc.

1. TEST RESULTS

Tests were made on the above tank systems in accordance with test procedures prescribed for as detailed on attached test charts with results as follows:

Tank Identification	Tight	Leakage Indicated	Date Tested
Bldg 9061	Yes	-0.024 GPH	11-13-90

2288-1

2. SENSOR CERTIFICATION

Date: 200

Serial No. of Thermal Sensor

13. This is to certify that these tank systems were tested on the date(s) shown. Those indicated as "Tight" meet the criteria established by the National Fire Protection Association Pamphlet 329.

Technicians

1. R Giunta — Certification # _____

2. _____ — Certification # _____

Tank Test Inc — Testing Contractor or Company. By: Signature

4 Stow Rd Marlton NJ — Address

27. Sensor Calibration ____/____ LOG OF TEST PROCEDURES			30. HYDROSTATIC PRESSURE CONTROL		31. VOLUME MEASUREMENTS (V) RECORD TO .001 GAL.			34. TEMPERATURE COMPENSATION USE FACTOR (a)			38. NET VOLUME CHANGING EACH READING	39. ACCUMULATED CHANGE
28. DATE / TIME (24 hr.)	Record details of setting up and running test. (Use full length of line if needed.)	29. Reading No.	Standpipe Level in Inches: Beginning of Reading	Standpipe Level in Inches: Level to which Restored	32. Product in Graduate: Before Reading	32. Product in Graduate: After Reading	33. Product Replaced (-) / Product Recovered (+)	35. Thermal Sensor Reading	36. Change Higher + Lower - (c)	37. Computation (c) × (a) = Expansion + Contraction -	Temperature Adjustment: Volume Minus Expansion (+) or Contraction (-) #33(V) — #37(T)	At Low Level compute Change per Hour (NFPA criteria)
1020	STARTED Circulation							Thermal Sensor			Ser	200
1045	Completed										Ref	81.694
											INIT	81.694
1050	START High Level Test			42				56.653	FA=	0.0034	FIN	81.694
1105	1 Reading		42.4	42	0.580	0.590	to.010	.714	+61	to.207	-0.197	
20	2 "		42.2	42	0.590	0.600	to.010	.729	+15	to.051	-0.041	
35	3 "		42.2	42	0.600	0.610	+0.010	.740	+11	to.037	-0.027	
50	4 "		42.2	42	0.610	0.620	to.010	.750	+10	to.034	-0.024	
1205	5 "		42.3	42	0.620	0.635	to.015	.760	+10	to.034	-0.019	
20	6 "		42.3	42	0.635	0.650	to.015	.770	+10	to.034	-0.019	
1225	Dropped To Low Level			12				56.780				
40	Reading		13.5	12	0.650	0.680	to.030	.789	+9	to.031	-0.001	
55	"		12.9	12	0.680	0.700	to.020	.797	+8	to.027	-0.007	
1300	START Low Level Test			12				56.800				
05	1 Reading		12.2	12	0.730	0.735	to.005	.802	+2	to.007	-0.002	-0.002
10	2 "		12.1	12	0.735	0.740	to.005	.805	+3	to.010	-0.005	-0.007
15	3 "		12.1	12	0.740	0.745	to.005	.807	+2	to.007	-0.002	-0.009
20	4 "		12.2	12	0.745	0.755	to.010	.809	+2	to.007	to.003	-0.006
25	5 "		12.1	12	0.755	0.760	to.005	.812	+3	to.010	-0.005	-0.011
30	6 "		12.1	12	0.760	0.765	to.005	.814	+2	to.007	-0.002	-0.013
35	7 "		12.1	12	0.765	0.770	to.005	.816	+2	to.007	-0.002	-0.015
40	8 "		12.1	12	0.770	0.775	to.005	.819	+3	to.010	-0.005	-0.020
45	9 "		12.1	12	0.775	0.780	to.005	.821	+2	to.007	=0.002	-0.022
50	10 "		12.1	12	0.780	0.785	to.005	.823	+2	to.007	-0.002	-0.024
55	11 "		12.1	12	0.785	0.790	to.005	.826	+3	to.010	-0.005	-0.029
14	12											

TTI TANK MANAGEMENT SERVICES

A Division of TankTest Incorporated

September 27, 1991

E-Systems / Serv-Air
P.O. Box 360
Fort Monmouth, NJ 07703

Attention: Mr. Charles Appleby, Project Manager

Reference: TTI Project Report No. 3104

Dear Mr. Appleby:

This report covers the testing of eight (8) underground storage tank(s) by TankTest Inc. (TTI). The testing was conducted on September 9, 10, 11, 12, 13, 14, 15 and 16, 1991, at the Fort Monmouth, New Jersey facility. For your ease of review, this report is organized as follows:

- Summary of Test Results
- Methodology
- Field Data Sheets

If you have any questions or comments concerning this report, please do not hesitate to contact me at anytime.

Respectfully submitted,

TankTest, Inc.

Robert W. Giunta
Tank Testing Supervisor

RG/bc
Test\3104

II. METHODOLOGY

TTI tests underground storage tanks through the use of the Petro Tite system. This system, also known as the Kent-Moore system was developed in cooperation with the American Petroleum Institute (API). TTI uses this system for the leak testing of a wide variety of tanks, systems, and tank contents.

The Petro Tite testing process is by definition a "temperature compensated standpipe test with product circulation". The tank testing equipment is connected to the tank system (and associated piping) subsequently filled with the existing product in the tank. Any observable decrease in liquid volume in the standpipe gives a direct measurable reading of loss if the system is leaking. However a drop in the standpipe liquid level can also be the result of other factors such as temperature change or a change in the tank volume due to a phenomenon known as "tank end deflection". The temperature variable is compensated for using the Petro Tite system by accurate temperature measurement while vigorously circulating the tank contents. Tank end deflection is also compensated for by stabilizing the tank geometry using procedures developed for the testing system. When these factors are controlled, loss in the standpipe means loss in the system, with compensation for all of the important factors that can give false results. The Petro Tite process is the only approved system that compensates for all these important variables, thus providing the user with the most reliable results available.

The Petro Tite system as applied by TTI using certified testers, adheres to the National Fire Protection Association (NFPA) guidelines as described in NFPA Bulletin No. 329, Recommended Practice for Handling Underground Leakage of Flammable and Combustible Liquids.

III. FIELD DATA AND CALCULATIONS

SUMMARY OF PROJECT RESULTS

PROJECT NUMBER: 3104

Date Tested	September 13, 1991
System Location	Building 9061
Tank Size	5,000 Gallons
Product	Gasoline
Ground water depth	Below Tank
Standpipe elevation *	154"
Results **	+ 0.018 Gallons Per Hour
Conclusion	System Passed Inspection

* From tank bottom to the twelve (12) inch mark on the standpipe, meets 4 pound rule requirement.

** The NFPA (National Fire Protection Association) criteria of plus or minus 0.050 gallons per hour used to certify tank system tightness is a mathematical calculation based on actual liquid volume change and temperature change and is not intended as permission of a leak.

DEH File Copy

US ARMY
FORT MONMOUTH NJ

DIRECTORATE OF
ENGINEERING AND HOUSING
ENVIRONMENTAL OFFICE

UNDERGROUND STORAGE TANK
CLOSURE PLAN

BUILDING 9061
GASOLINE
NJDEP# 0090029 - 36

PREPARED BY
CHARLES M. APPLEBY
ENVIRONMENTAL PROTECTION SPECIALIST
NJDEPE UST SUBSURFACE CERTIFICATION # 002056

JULY 30, 1993

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 30, JULY 1993
Building #: 9061-GASOLINE
NJDEPE UST Reg. #:0090029 - 36

UNDERGROUND STORAGE TANK (UST)
DECOMMISSIONING / CLOSURE PLAN

A. General Requirements:

All activities associated with the decommissioning of any underground storage tank (UST) shall comply with all applicable Federal, State and Local laws and ordinances. These laws include but are not limited to: NJAC 7:14B et seq., 5:23 et seq. and OSHA 1910.146, 1910.120. All permits including but not limited to this document, the NJDEP Closure Plan Approval Package, etc..., shall be posted on site for inspection. The Contractor conducting the decommissioning activities shall be registered and certified by the NJDEP for performing said activities.

B. Safety and Health:

Before, during, and after all activities, the work site shall be made free of all hazards which may pose a threat to the health and safety of all personnel who are involved with, or are affected by, the decommissioning of the UST. All areas which pose, or may be suspected of posing, a vapor hazard shall be monitored by a qualified individual utilizing approved equipment. This individual will ascertain if the area is properly vented to render the area safe, as defined by OSHA. THIS SITE IS AN NJDEPE REPORTED SPILL SITE AND ALL OSHA REQUIREMENTS WILL BE FOLLOWED. THIS INCLUDES A SITE SPECIFIC HEALTH AND SAFETY PLAN. ALL WORKERS WILL HAVE A MINIMUM OF 40 HOURS H&S TRAINING.

C. UST Excavation:

1. All underground obstructions (utilities,... etc.) shall be marked out by the contractor performing the excavation.

2. All activities shall be carried out with the greatest regard to safety and health and the safeguarding of the environment.

3. All excavated soils will be evaluated as to the possibility of contamination. Soils suspected to be contaminated with product shall be staged on poly-sheeting separate from soils not suspected to be contaminated (see section E Excavated Soils management).

4. Surface materials (ie. asphalt, concrete, etc...) shall be excavated and staged separate from all soils.

5. Soil will be excavated to expose the UST and associated piping. The piping shall not be removed/disturbed until all free product is drained into the UST. The UST will be rendered vapor free by purging or addition of dry ice prior to any cutting or access. After the removal of the associated piping, a manway will be made in the UST to allow for the proper cleaning of the UST. The UST will be completely emptied of all liquids prior to removal of the UST from the ground. All of the openings in the tank will be plugged except for one vent hole.

6. After the UST is removed from the ground, it will be staged on poly-sheeting and examined for corrosion holes. The presence or absence of corrosion holes will be documented by the Sub-Surface Evaluator. If corrosion holes are observed, or if upon inspection of the excavation site evidence of a discharge to the environment exists, the NJDEPE hotline shall be notified at (609)292-7172.

7. In the event of a discharge to the environment, additional soils will be excavated as needed. Site assessment activities under the direct supervision of the Sub-Surface Evaluator will determine to what extent the contractor will excavate.

8. After completion of the Site Assessment activities, the excavation will be backfilled to grade with noncontaminated soils form the site and additional certified clean fill provided by the contractor.

D. UST Transport / Disposal:

1. The tank will be transported and disposed / recycled in compliance with all applicable regulations and laws.

2. The contractor shall label the tank with the following information:

   a. site of origin
   b. generator / contact person
   c. NJDEPE UST ID number
   d. product previously stored
   e. name of transporter / contract person
   f. destination site / contact person
   g. other information as required

3. The contractor shall provide Fort Monmouth with sufficient documentation certifying that transport / disposal (recycling) of the tank was completed according to all applicable Federal and State regulations.

E. Excavated Soils Management:

1. All excavated soils suspected to be contaminated will be transported, by the contractor, to a designated staging area within Fort Monmouth. The designated area will contain the soils and direct all stormwater runoff away from any contact with the soil.

2. All soils stored in the designated staging areas will be maintained in piles no larger than 100 cubic yards each. Each pile will be lined and covered with poly-sheeting and weighted to ensure proper containment.

3. Each soil pile will be sampled and analyzed for waste classification as outlined in the NJDEPE document titled "Management of Excavated Soils" dated August 17, 1990.

4. All soils categorized as Hazardous waste or nonhazardous waste will be managed as such, in accordance with N.J.A.C. 7:26-1 et seq..

5. All soils that contain levels of contaminants below the Category 3 soil limits will be used in accordance with Federal and State requirements.

F. Changes / Authorizations:

All deviations in activities related to the closure of a UST as outlined in this document shall require prior authorization from the NJDEPE-DWR-BUST.

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 30, JULY 1993
Building #: 9061-GASOLINE
NJDEPE UST Reg. #:0090029 - 36

UNDERGROUND STORAGE TANK (UST)
SITE ASSESSMENT PLAN

General:

This site specific assessment plan will be managed and carried out by U.S. Army DEH and Serv-Air Inc. personnel. All analyses will be performed and reported by NJDEPE certified testing laboratories. All monitoring wells will be installed by NJDEPE licensed well drillers. All sampling will be performed under the direct supervision of a NJDEPE Certified Sub-Surface Evaluator and according to the methods described in the 1992 NJDEP Field Sampling Procedures Manual. All records of the Site Assessment will be maintained by DEH and submitted to the NJDEPE-DWR-Bust in accordance with NJAC 7:14B-9.2 and 9.3.

PHASE I
UST DECOMMISSIONING

A. Initial Soil Excavation:

1. Soil will be excavated from the UST site and screened utilizing a Photo Ionization Detector (PID) and/or a Flame Ionization Detector (FID).

2. All soils suspected to be contaminated will be treated in accordance with the UST Decommissioning Plan.

B. Continued Excavation:

1. Excavation of suspect contaminated soil will continue until one of the following situations is encountered:

   a. groundwater

   b. excavated soils no longer exhibit characteristics of contamination determined in the field as determined by the Sub-Surface Evaluator

   c. excavation equipment can no longer remove soils due to the depth of the excavation or other restrictive cause.

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 30, JULY 1993
Building #: 9061-GASOLINE
NJDEPE UST Reg. #:0090029 - 36

PHASE II
Site Survey

A. Vapor Screening:

1. An individual under the direct supervision of a NJDEPE Sub-Surface Evaluator and trained in the operation of a FID and/or PID shall evaluate the sides and pit bottom of the excavation.

2. All observed instrument readings will be documented and included in the Site Assessment Survey report. This documentation will include all factory and daily calibrations of the instrument.

PHASE III
Site Sampling

A. Soil samples will be collected from the UST excavation and analyzed according to the following schedule:

PRODUCT	SIZE (gal.)	# TPHC SAMPLES	VOA +15
GASOLINE	5000	8	8
FIELD BLANKS		1	1
DUPLICATE SAMPLES		1	1
TOTAL # SAMPLES		10	10

B. Soil samples will be collected from the Pipe excavation at the same time as UST pit sampling and analyzed according to the following schedule:

PRODUCT	LENGTH OF PIPING	# TPHC SAMPLES	VOA +15 (if TPHC >10000)
GASOLINE	22 FEET	2	2
FIELD BLANKS		0	0
DUPLICATE SAMPLES		0	0
TOTAL # SAMPLES		2	2

C. All TPHC samples will be taken in the native soil below the bedding material. The sample locations should be along the mid-lines of the tank outline except for at least two of the samples which should be taken within one foot of each of the two highest field survey readings. All of the soil samples should be discrete samples taken within a 6" vertical interval. All samples will be collected by utilizing laboratory decontaminated stainless steel trowels dedicated to each sample location. All VOA+15 samples will be taken within 24 hours of UST excavation at a depth of 0-6" with the use of a laboratory decontaminated stainless steel core sampler. Each VOA+15 sample will be screened with an FID and\or PID and recorded immediately after collection.

D. The excavations of USTs containing #2 Fuel Oil will remain open until laboratory results determine all TPHC samples are less than 1000 ppm. If levels greater than 1000 ppm are reported, further excavation and resampling may be requested by the Sub-Surface Evaluator for those contaminated areas. If further excavation is not possible, additional VOA+15 analyses on 25% of the TPHC samples with the highest results will be performed and the excavation will be filled to grade with certified clean fill. In the case of USTs containing gasoline, all samples will be sampled for TPHC and VOA+15. If TPHC results are greater than 100 ppm TPHC additional excavation and subsequent sampling may be requested by the Sub-Surface Evaluator.

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 30, JULY 1993
Building #: 9061-GASOLINE
NJDEPE UST Reg. #:0090029 - 36

PHASE IV
Groundwater Monitoring

A. Monitoring wells will be installed within the UST field at all UST locations where the tanks(s) being closed stored gasoline, kerosene, jet fuel and/or site specific factors indicate a know or potential impact of soil contamination exists.

B. Groundwater monitoring wells will be installed by a New Jersey licensed Well Driller in accordance with N.J.S.A 58:4A-4.1 et seq.. The well driller will obtain all required permits prior to well installation.

C. All monitoring wells will be sampled as described in the NJDEP Field Sampling Procedures Manual, 1992.

D. All monitoring wells will be analyzed in accordance with the following table:

PRODUCT	NUMBER OF MONITORING WELLS REQUIRED	EPA METHOD 624 (A)	EPA METHOD 624/625 (B)
GASOLINE	2	0	4
FIELD BLANKS		0	2
DUPLICATE SAMPLES		0	2
TOTAL # SAMPLES		0	8

Note (A): Sample must be analyzed by EPA Method 624 + 15 (GC/MS plus identification of non-targeted compounds) modified to include calibration for xylene, methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA) and LEAD.

Note (B): Sample must be analyzed by EPA method 624 + 15 (GC/MS plus identification of non-targeted compounds) modified to include calibration for xylene mtbe, TBA and lead; and EPA Method 625 + 15 (base/neutral extractable, extractable organics).

C. All monitoring well sampling will be conducted according to methods described in the NJDEP Field Sampling Procedure Manual 1992.

D. All laboratory analyses will be performed by NJDEP certified Laboratories using approved methods and follow all Quality Control/Assurance procedures as described for each method.

DIRECTORATE OF ENGINEERING AND HOUSING
FORT MONMOUTH, NEW JERSEY 07703-5108

DATE: 12-31-92

Building Number: 9061 Tank Number: 90029-36

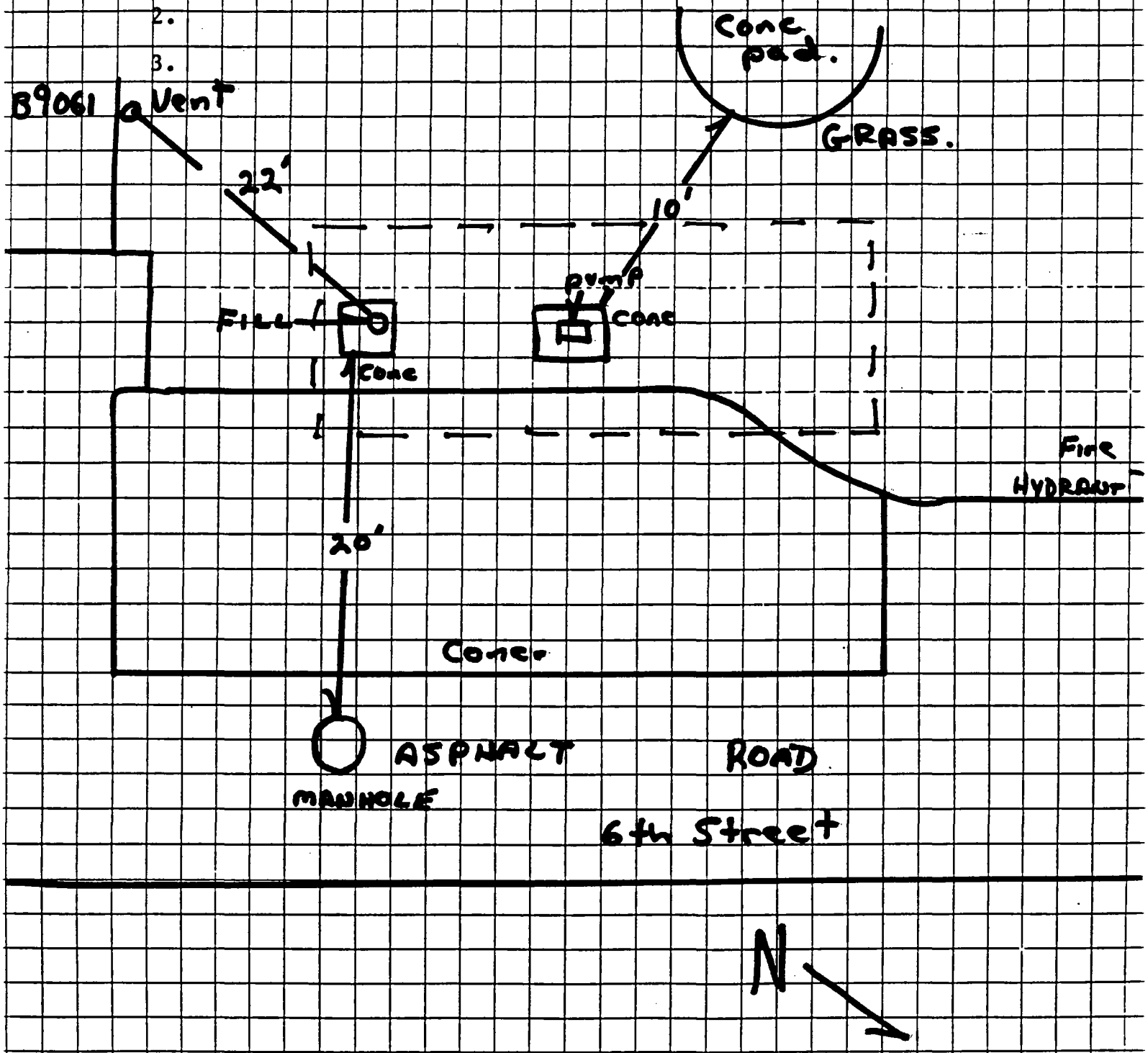
Tank Size: 5000gal Contents: GASOLINE

Remarks:

1.

2.

3.



UST-013
9/90

FOR STATE USE ONLY

UST #
Date Recd
CA #
Staff

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
TANK MANAGEMENT SECTION

CN 029; 401 EAST STATE STREET
TRENTON, N.J. 08625-0029

UNDERGROUND STORAGE TANK CLOSURE PLAN APPROVAL APPLICATION

Under the provisions of the Underground Storage of Hazardous Substances Act in accordance with N.J.A.C. 7:14B-9 et seq.

This application form shall be used by all applicants who plan to close Underground Storage Tank Systems pursuant to N.J.A.C. 7:14B-9 et seq.

INSTRUCTIONS:

- *Before completing application form please refer to the attached Application Instruction Sheet.*
- *Please print legibly or type.*
- *Fill in all appropriate blanks. This application form requires that additional sheets be attached for some of the information requested. You may call the Bureau of Underground Storage Tanks/Tank Management Section (609/984-3156) for assistance.*
- *Return one original of this form (including all attachments required) and a copy of the complete Standard Reporting Form (SRF) to the address above. You must sign all forms as required and attach a check for the proper fee (see the fee schedule on Page 3). Make check payable to the Treasurer, State of New Jersey.*
- *If the subject facility is not registered the Closure Plan will not be approved.*
- *Please Note: Make sure that all required informaiton on the Standard Reporting Form (SRF) is submitted. The SRF and this Closure Plan Application must be submitted together.*

Date of Application 8/4/93

Bldg. 9061

FACILITY REGISTRATION # 000029-36

I. **FACILITY NAME AND ADDRESS**

U.S. Army Fort Monmouth

DEH Bldg. 167

Fort Monmouth NJ 07703

Telephone No. (908) 532-1475

II. THIS CLOSURE PLAN IS FOR:

A. Substance stored in subject tank(s):

1. Petroleum Products:

Indicate Type of Product: #2 Heating oil
(Write out product name; e.g.)

a. Gasoline; Jet Fuel; or Kerosene
b. Heating Oil (#2, 4, 6), or Diesel
c. Waste Oil (Please indicate total storage capacity of waste oil at the facility [including the tank(s) being closed]) _____ gals.

2. Hazardous Substances other than Petroleum Products *(Describe)*

Indicate Type of Product _____
(Write out product name; add sheet if necessary.)

B. Type of Activity: *(Circle one)*

1. Abandonment of Tank(s)

Attach the closure plan for abandonment, as required by N.J.A.C. 7:14B-9.2(b) or 9.3(b), which must contain the following items:

a. Implementation schedule (3 copies per N.J.A.C. 7:14B-9.2(a)3)
b. Site assessment plan
c. Tank decommissioning plan
d. A site map
e. Attach all justification for abandonment-in-place as required by N.J.A.C. 7:14-9.1(d). Attach the certification statement (on the back page) for abandonment-in-place, if applicable.

2. Removal of Tank(s)

Attach the closure plan for removal as required by N.J.A.C. 7:14B-9.2(b) or 9.3(b). The following items must be included:

✓ a. Implementation schedule (3 copies)
✓ b. Site assessment plan
✓ c. Tank decommissioning plan
✓ d. A site map

3. Temporary Closure

Indicate which situation applies and attach appropriate documentation:

a. _____ Temporary closure for 12 months or less is subject to requirements of N.J.A.C. 7:14B-9.1(a).

b. _____ Requesting an extension of temporary closure for more than 12 months per N.J.A.C 7:14B-9.1(b) must perform site assessment and submit results.

4. Change in Service

Attach documentation that the tank system being changed from the storage of a regulated to a non-regulated substance has been emptied and cleaned and that a site assessment has been performed, as required by N.J.A.C. 7:14B-9.1(e).

III. FEE SCHEDULE

Check the activities below that apply; calculate the Total Fee and submit that amount with this application. Make checks payable to: Treasurer, State of New Jersey. Public schools and religious and charitable institutions are exempt from the fees. The owner or operator shall submit a separate fee for each excavation where an activity occurs.

A. Activities Which Require a Site Assessment	120.00	$ 120.00
1. Removal or Abandonment without exemption to site assessment requirements		
2. Change in service from a regulated substance to a non-regulated substance		
3. Extension of period of Temporary Closure		
B. Activities Not Requiring a Site Assessment		$ 80.00
1. Removal or abandonment with valid exemption		
C. Additional Activities		
1. Change in service from one regulated substance to another regulated substance		NO FEE
APPLICATION REVIEW FEE (activities in A, B, C)	+	$ 50.00
TOTAL FEE DUE		$ 170.00

IV. THE BUREAU OF UNDERGROUND STORAGE TANKS WILL REVIEW THE CLOSURE PLAN FOR COMPLETENESS AND APPROPRIATENESS AS SPECIFIED IN SUBCHAPTER 9 OF THE UST REGULATIONS. PLAN APPROVAL WILL INDICATE THAT THE OWNER OR OPERATOR MAY PROCEED WITH THE CLOSURE. FINAL APPROVAL OF THE CLOSURE IS NOT IMPLIED. ALL APPROPRIATE AND APPLICABLE PERMITS, LICENSES AND CERTIFICATES REQUIRED FOR ANY OF THE ABOVE ACTIVITIES FROM ANY LOCAL, STATE AND/OR FEDERAL AGENCIES MUST BE OBTAINED SEPARATELY FROM THIS APPLICATION.

THE SITE ASSESSMENT SAMPLING AND ANALYTICAL REQUIREMENTS WILL BE SENT WITH THE APPROVAL TO PROCEED.

NOTE: Notice of Approval to Proceed or Disapproval will be mailed to the facility address unless some other address is specified here:

SIGNATURE OF CONTACT PERSON

This application form must be signed by a contact person of the owner or operator of the subject facility. The contact person should have overall knowledge of tank decommissioning procedures and the site assessment requirements applicable to the tank closure which is the subject of this application.

NAME (Print or Type) CHARLES M. APPLEBY *SIGNATURE*

TITLE ENVIRONMENTAL PROTECTION SPEC. *DATE* 8/4/93

U.S. Army
DEH Bldg. 167
SELFM-EH
Fort Monmouth, NJ 07703

Date: 30, JULY 1993
Building #: 9061-GASOLINE
NJDEPE UST Reg. #:0090029 - 36

UNDERGROUND STORAGE TANK
REMOVAL / ABANDONMENT
IMPLEMENTATION SCHEDULE

Facility Name: U.S. Army, Fort Monmouth
Facility Location: BLDG. 9061
Fort Monmouth, Monmouth County NJ 07703

Owners Mailing Address: DEH Bldg. #167
Fort Monmouth, NJ 07703

Owners Name: U.S. Army

Contact Person: Charles Appleby
Phone Number: (908) 532-6224

UST Regestration Number: 0090029

TANK ID #	PRODUCT	CAPACITY (gal.)	SITE ASSESS. REQUIRED	MONITORING WELL REQ.
36	GASOLINE	5000	YES	YES

SCHEDULE

ACTIVITY	START DATE	COMPLETION
Removal	10/28/93	10/28/93
Site Assessment	10/28/93	10/28/93
Monitoring Well Installation	N/A	
Site Assessment Analytical Results	10/29/93	10/29/93
Monitoring Well Analytical Results	N/A	
UST Site Assessment Summary	01/29/94	01/29/94

U.S. ARMY, Fort Monmouth
Directorate of Engineering and Housing
Fort Monmouth, New Jersey 07703

August 04, 1993

New Jersey Department of
Environmental Protection and Energy
DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
TANK MANAGEMENT SECTION
CN 029
401 EAST STATE STREET
Trenton, NJ 08625 - 0029
ATTN: Monmouth County UST Closure Specialist

Dear Sir:

Enclosed please find UST Closure Plan Approval Applications for the following Fort Monmouth Areas:

EVANS AREA - 0090029
UST #'s: 06, 20, 26, 30, 33 AND 36
Closure Activity Fees 6 @ $170.00 ..... $ 1,020.00

Main Post East - 0090010
UST # : 45, 54 AND 71
Closure Activity Fees 3 @ $170.00 ..... $ 510.00

Total: $ 1,530.00

To identify any specific UST location, correlate the corresponding building number located in the Closure Plan with the building number on the detailed area map which was issued with the initial UST Registrations. Due to the complexity of our facility's registrations, we have developed and are currently using this system for locating and managing our USTs.

If the information provided in this enclosure is inadequate or you require further information with regard to any UST activities please contact me at (908) 532-6224.

Sincerely,

Charles M. Appleby
Engineering Technician
Sub-Surface Evaluator 2056
Closure 2056

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

Scott A. Weiner
Commissioner

SEP 08 1993

Karl

Dear Applicant:

The Department of Environmental Protection (the Department received an "Underground Storage Tank Closure Plan Approva Application" for your facility. This application detailed th procedures to be implemented as required by the Undergroun Storage Tank Systems Technical Requirements and Procedures a N.J.A.C. 7:14B-1 et seq. Based upon our review of th information submitted, a Closure Approval is hereby granted.

A Standard Reporting Form (SRF) must be submitted to th Department within seven (7) days of removal or abandonment of th tank(s). The date of removal or abandonment must be include with the SRF. The SRF will be used to delist the tank(s) fro the Bureau of Underground Storage Tanks (BUST) registratio files. A copy of the SRF is attached.

Within ninety (90) days of completion of the tank(s) closure, Site Assessment Summary pursuant to N.J.A.C. 7:14B-9.5 must b submitted to BUST (copy attached). If contamination i discovered during closure, you are required to initiat corrective action as per N.J.A.C. 7:14B-8 and outlined in th Department's Scope of Work document. All discharges must b reported to the Spill Hotline at (609) 292-7172.

Once you have obtained a Closure Approval, a demolition permi issued pursuant to N.J.A.C. 5:23 et seq. and authorized by th Department of Community Affairs (DCA), Construction Code Elemen must be procured from your local construction code official. Fo further information in obtaining a demolition permit, pleas contact the local construction code official directly, or DCA' Code Assistance Unit at (609) 530-8793.

If you require further information or assistance, please contac the Tank Management Section of BUST at (609) 984-3156.

Attachments: Closure Approval
SRF
SAS

State of New Jersey
Department of Environmental Protection and Energy
Division of Responsible Party Site Remediation
CN 028
Trenton, NJ 08625-0029

ATTN: UST Program
(609) 984-3156

For State Use Only	
Date Rec'd.	
Auth.	
Routing	
UST NO.	

STANDARD REPORTING FORM
for reporting activities at an UST facility:

____ General Facility Information Changes	____ Sale or Transfer
_X_ Closure (Abandonment or Removal)	____ Substantial Modification
____ Temporary Closure	____ Financial Responsibility
____ Change in Service	____ Address Change Only

Check ONLY One Type of Activity – Complete Form For That Activity

(More than one tank can be listed per activity)

*** * * NOTE * * * ALL NEW tank installations at existing registered facilities must submit a Registration Questionnaire for the new tanks.**

Answer questions 1 through 5 and others as applicable.

1. Company name and address (as it appears on registration questionnaire): U.S. ARMY Fort Monmouth
DEH Bldg 167
Fort Monmouth NJ 07703
ATTN: Charles Appleby

2. Facility name and location (if different from above):

3. Contact person for this activity: Charles Appleby
Telephone Number: (908) 532-6224

4. The identification number of the affected tank as it appears in Question Number 12 on the Registration Questionnaire: 0090029
Bldg. 9061

5. Registration Number (if known): UST- 36

6. For GENERAL FACILITY INFORMATION changes (address, telephone, contact person, etc. – supply NEW information only):

a. Facility name:
b. Facility location:
c. Owner's mailing address:
NJ
d. Block: Lot:
e. Contact person (facility operator):
f. Contact telephone number: ( ) -
g. Other (Specify):

(OVER)

7. For CLOSURE (abandonment or removal – check all that apply):

a. ☐ Abandonment Date: ___/___/___ Case No: ___

Attach the necessary implementation schedule (3 copies) and all documentation needed for abandonment per N.J.A.C. 7:14B-9.1 (d).

b. ☒ Removal Date: 4/29/94 Case No. 94-5-2-1314-24

Attach the necessary implementation schedule (3 copies). TMS # - C-93-3896

8. For CHANGES IN HAZARDOUS SUBSTANCES STORED (check all that apply):

a. ☐ Temporary Closure (12 month maximum time – see N.J.A.C. 7:14B-9.1(b)). Remove all hazardous substances; leave tank in place.

b. ☐ Change in service from a regulated substance to a non-regulated substance. Tank must be cleaned and site assessment performed per N.J.A.C. 7:14B-9.1(e).

c. ☐ Changes in service from one regulated hazardous substance to another regulated hazardous substance.

Tank No. ___ Old ___ New ___
Tank No. ___ Old ___ New ___
Tank No. ___ Old ___ New ___
(Attach additional sheets if more space is needed)

9. For TRANSFER OF OWNERSHIP: Effective Date: ___/___/___

a. New Owner (operator) ___

b. New Facility Name ___

___

___ NJ ___

___
County

c. Closing Attorney ___ Tele: (___) ___ - ___

10. For SUBSTANTIAL MODIFICATIONS (to include any retrofitted activity – e.g. the addition of spill/overfill protection, monitoring systems, cathodic protection, etc.):

a. Type of Modification ___ Date: ___/___/___

b. * NOTE * Substantial modifications require a permit under N.J.A.C. 7:14B-10.

11. For changes in FINANCIAL RESPONSIBILITY to (check appropriate changes and attach copies of new information):

a. Policy Type: ☐
b. Policy Number: ☐
c. Other: ☐
d. Company/Carrier: ☐
e. Expiration Date: ☐

___
___
___
(Specify)

NOTE: ALL appropriate and applicable permits, licenses and certificates required by the above activity(ies) from any local, state and/or federal agencies must be obtained separately from this notification.

CERTIFICATION

This registration form shall be signed by the highest ranking individual at the facility with overall responsibility for that facility (N.J.A.C. 7:14B-2.3 (a) 1).

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

Signature: James Ott

Name (print or type): Mr. James Ott

Title: Asst. Dir. Directorate of Public Works Date: 5/3/94

SRF-1/90
(IND/MOD-2/92)

APPENDIX B

NJDEP UST SITE ASSESSMENT SUMMARY FORM

UST-014
2/91

UST #	
Date Rec'd	
TMS #	
Staff	

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF WATER RESOURCES
BUREAU OF UNDERGROUND STORAGE TANKS
TANK MANAGEMENT SECTION

CN 029, 401 EAST STATE STREET
TRENTON, N.J. 08625-0029

UNDERGROUND STORAGE TANK SITE ASSESSMENT SUMMARY

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

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

INSTRUCTIONS:

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

Date of Submission March 14, 1995

090029
FACILITY REGISTRATION #

I. FACILITY NAME AND ADDRESS

U.S. Army Fort Monmouth
Directorate of Public Works, Building 167
Fort Monmouth, NJ 07703 County Monmouth
Telephone No. (908) 532-1475

OWNER'S NAME AND ADDRESS, if different from above

Telephone No.

II. DISCHARGE REPORTING REQUIREMENTS

A. Was contamination found? X Yes ___ No If Yes, Case No. 94-5-2-1314-24
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)

B. The substance(s) discharged was(were) Gasoline

C. Have any vapor hazards been mitigated? X Yes ___ No ___ N/A

III. DECOMMISSIONING OF TANK SYSTEMS Closure Approval No. C-93-3896

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

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

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

B. Scaled Site Diagrams

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

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

C. Soil samples and borings (check appropriate answer)

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

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

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

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed 0

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

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

V. SOIL CONTAMINATION

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

B. The highest soil contamination still remaining in the ground has been determined to be:
1. 0 ppb total BTEX, 781 ppb total non-targeted VOC
2. N/A ppb total B/N, N/A ppb total non-targeted B/N
3. 9.44 ppm TPHC
4. 3080 ppb Lead (for non-petroleum substance)

C. Remediation of free product contaminated soils

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

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

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

VI. GROUND WATER CONTAMINATION

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

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

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

C. Result(s) of well search

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

2. The number of these wells identified is _____.

D. Proximity of wells and contaminant plume

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

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

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

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

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

G. Delineation of contamination

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

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

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

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

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

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

NAME (Print or Type) Charles Appleby / John Lonagan SIGNATURE [signature]

COMPANY NAME CUTE, Inc. U.S. Army (Preparer of Site Assessment Plan) DATE 3/15/95

CERTIFYING ORGANIZATION NJDEP CERTIFICATION NUMBER 2056

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

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

NAME (Print or Type) John Lonagan SIGNATURE See Attached pg 5b

COMPANY NAME CUTE, Inc. DATE 4/
(Performer of Tank Decommissioning)

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

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

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

NAME (Print or Type) James Ott SIGNATURE James Ott

COMPANY NAME U.S. Army Fort Monmouth DATE 3/25/95

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

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

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

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____

UNDERGROUND STORAGE TANK (UST)
CLOSURE CERTIFICATION

BUILDING NO. 9061

NJDEP UST REGISTRATION NO. 90029-36

DATE TANK REMOVED May 2, 1993

IJO / CONTRACT NUMBER 93-1019

I CERTIFY UNDER PENALTY OF LAW THAT TANK DECOMMISSIONING ACTIVITIES WERE PERFORMED IN COMPLIANCE WITH NJAC 7:14B-9.2(b)3. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE, INACCURATE, OR INCOMPLETE INFORMATION, INCLUDING FINES AND/OR IMPRISONMENT.

NAME (Print or Type) John Lonergan

SIGNATURE

NJDEP UST CLOSURE CERTIFICATE NO. 0003248

COMPANY PERFORMING TANK DECOMMISSIONING CUTE Inc.

NJDEP UST CLOSURE CORPORATE CERTIFICATE NO. 0200128

DATE OF SUBMITTAL 2/20/95

ATTACHMENT I

NO/NA RESPONSE EXPLANATION

SAS QUESTION #	RESPONSE	EXPLANATION
IV.C.2	No	No soil borings were taken at the tank system closure site. Three monitoring wells will be placed in the area surrounding the excavation.
V.A	No	Soil samples indicated either non-detectable concentrations of contaminants for concentrations of contaminants below NJDEPE Impact to Ground Water Quality Criteria.
VI.A	No	No groundwater monitoring wells have been placed at the site, therefore, no groundwater samples have been collected.
VI.B	No	Same as above.
IVC1	No	- Poly Styrene Sample Spoons were used.

APPENDIX C

MONITORING WELL INFORMATION

SERIAL # 41173

DWR-133M (10/93)

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

Mail to
NJDEPE
Bureau Water Allocation
CN426
Trenton, NJ 08625

MONITORING WELL PERMIT

Permit No. 2931796

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

COORD #: 27.13.613

Owner US Army - Fort Monmouth
Address SELFM-PW-EV
Fort Monmouth NJ 07703

Driller Tyree Organization, Ltd
Address 1350 U.S Hwy 130
Burlington NJ 08016

Name of Facility Bldg T-7061
Address Evans Area
Fort Monmouth NJ

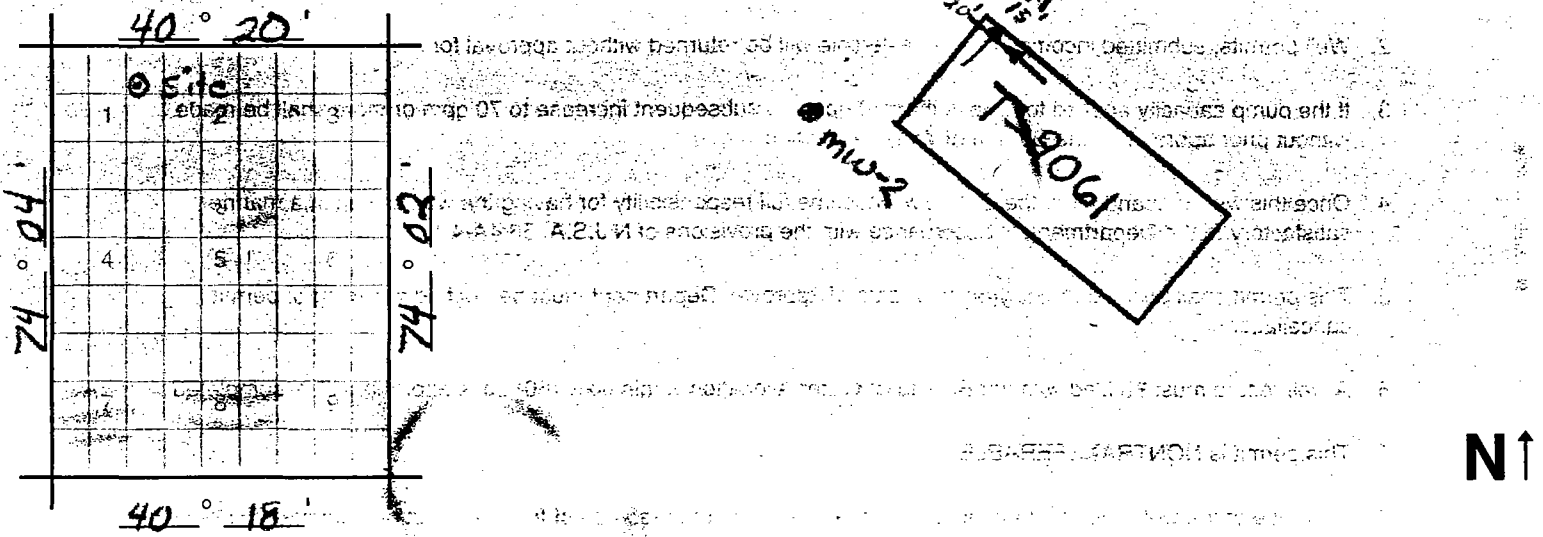
Diameter of Well(s) 4 Inches	Proposed Depth of Well(s) 15 Feet
# of Wells Applied for (max. 10) 2	Will pumping equipment be installed? YES ☐ NO ☒
Type of Well (see reverse) Monitoring	If Yes, give pump capacity N/A GPM

LOCATION OF WELL(S)

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

State Atlas Map No. 29 Oceanport

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



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

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

CASE I.D. Number: ~~N/A~~ 94-5-2-1314-24 (Sit Bldg. 9061)

This Space for Approval Stamp

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

FOR D.E.P.E. USE

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

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

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

Date 7-25-94 Signature of Driller _____ License # 1421

Signature of Owner _____ SELFM-PW-EV

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

DWR-138 M
12/91

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

MONITORING WELL RECORD

Well Permit No. 29 - 31798
Atlas Sheet Coordinates ~~29~~ : ~~13~~ : 613

OWNER IDENTIFICATION - Owner US ARMY FORT MONMOUTH
Address SELFM-PW-EV
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg. 7061 MW-1
County MONMOUTH Municipality OCEANPORT BORO Lot No. Block No.
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 9/27/94
Regulatory Program Requiring Well UST Case I.D. # 94-6-2 1314 24

CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 25 ft.
Well finished to 25 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: [x] above grade [ ] flush mounted
If finished above grade, casing height (stick up) above land surface 2 ft.
Was steel protective casing installed? [x] Yes [ ] No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0	5'	4	PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	5'	25'	4	20 slot PVC
Tail Piece				
Gravel Pack	3'	25'		#2 Morie sand
Annular Seal/Grout	0	3'		Bentonite Pellets
Method of Grouting	Tremie			

Static water level after drilling 20 ft.
Water level was measured using tape
Well was developed for 1 hours at 10 gpm
Method of development pump
Was permanent pumping equipment installed? [ ] Yes [x] No
Pump capacity gpm
Pump type:
Drilling Method Auger
Drilling Fluid Type of Rig B 50
Name of Driller Michael E. Buck
Health and Safety Plan submitted? [x] Yes [ ] No
Level of Protection used on site (circle one) (None) D C B A
N.J. License No. 471
Name of Drilling Company [illegible]

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

0-6" Topsoil (vegetation)
6"-3' Light brown, silty fine sand
3-5' Brown, fine-medium sand
5-6' White, v. fine sand
6-7' White + brown v. fine sand
7-8' White, v. fine sand
8-10' Yellowish-orange, v. fine sand
10-13' Light brown fine-medium sand
13-16' Brown, silt, fine [illegible]
16-25' Yellowish-orange [illegible] sand

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

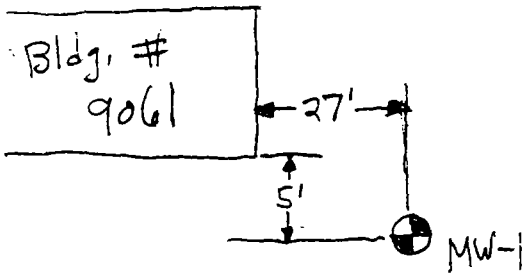
Driller's Signature [signature] Date [illegible]-94

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

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING:



PROJECT: US Army Ft. Monmouth
BORING NO: MW-1
TOTAL DEPTH: 25'
JOB NO:
LOGGED BY: E. Pye
PROJ. MGR.: Capritti
EDITED BY:
DRILLING CONTRACTOR: Tyree Organization
DRILL RIG TYPE: B 80
DRILLERS NAME: M. Beck
SAMPLING METHODS: SS
HAMMER WT.: 120 lbs. DROP:
STARTED, TIME: 8:00 AM DATE:
COMPLETED, TIME: 10:15 AM DATE:
BORING DEPTH (ft): 25'
CASING DEPTH (ft): 5
WATER DEPTH (ft): 19'10"
TIME: 8:50
DATE: 9/28/94
BACKFILLED, TIME: 10:30 AM DATE: 9/27/94 BY: Tyree
SURFACE ELEV: DATUM:
CONDITIONS:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6 IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min./ft.)	PID READING (ppm)	ODOR (Y / N ?)	GRAPHIC WELL CONST.	DEPTH IN FEET	GRAPHIC LOG	
									Casing with 2' stick up; bentonite	0		Topsoil, vegetation
										1	ML	Light brown, silty fine sands
2-4'	SS	7	6	19			<1	N		2		
		6	6									
		2	6							3		Brown, fine-medium sand with fines
		1	6								SP	
4-6'	SS	3	6	16			<1	N		4		
		5	6									
		5	6							5	SP	White, very fine sand with black fines
		5	6									
6-8'	SS	3	6	16			<1	N	Screen; Morie Sand	6	SP	White and brown, very fine sand
		2	6									
		4	6							7	SP	White, very fine sand
		11	6									
										8	SP	Yellowish-orange, very fine sand w/ black fines
										9		
10-12'	SS	6	6	17			<1	N		10	ML	Light brown, silty fine sands with

9061

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: NO: BORING NO: MW-1

DEPTH	TYPE	BLOWS	DRIVEN	REC'VD	COND.	D. RATE	PID	ODOR	GR.WELL	DEPTH	GRAPHIC LOG	
		10	6							11		rounded gravel.
		17	6								SP	Yellowish-orange, fine-med. sand w/ few rounded pebb
		28	6								SP	Light brown, very fine sand w/ black fines
										12		
											SP	Light brown, fine-medium sand with few rounded pebbles. Moist at approx. 12'
13-15'	SS	5	6	17	.		<1	N		13		
		11	6								SM	Orange, medium sand with fines
		16	6							14		
		22	6								SP	Yellowish-orange, fine-med. sand w/ rounded p
										15		
												Brown, silty fine sands with rounded gravel and black fines
										16		
									Screen		ML	
									Sand	17		
										18		Yellowish-orange, medium-coarse sand with rounded gravel. Wet at approx. 18'.
										19		
										20		
										21	SP	
										22		
										23		
										24		
										25		
										26		* No samples were collected.
										27		
										28		

TYREE ENVIRONMENTAL TECHNOLOGIES

DWR-138-M
12/91

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

MONITORING WELL RECORD

Well Permit No. 29 31791
Atlas Sheet Coordinates 23 13 613

OWNER IDENTIFICATION - Owner US ARMY FORT MONMOUTH
Address SELFR PW BY
City FORT MONMOUTH State NJ Zip Code

WELL LOCATION - If not the same as owner please give address. Owner's Well No. Bldg. 901 MW-2
County MONMOUTH Municipality OCEANPORT BORO Lot No. Block No.
Address

TYPE OF WELL (as per Well Permit Categories) MONITORING Date well completed 9/28/94
Regulatory Program Requiring Well RCRA Case I.D. # 94 5 2 1314 24
CONSULTING FIRM/FIELD SUPERVISOR (if applicable) Tele. #

WELL CONSTRUCTION

Total depth drilled 35 ft.
Well finished to 35 ft.
Borehole diameter:
Top 8 in.
Bottom 8 in.
Well was finished: ☑ above grade ☐ flush mounted
If finished above grade, casing height (stick up) above land surface 2 ft.
Was steel protective casing installed? ☑ Yes ☐ No

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	0	5'	4	PVC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	5'	35'	4	20 slot PVC
Tail Piece				
Gravel Pack	3'	35'		#2 Morie sand
Annular Seal/Grout	0	3'		Bentonite Portland
Method of Grouting	Tremie			

Static water level after drilling 21 ft.
Water level was measured using tape
Well was developed for 1 hours at 10 gpm
Method of development pump
Was permanent pumping equipment installed? ☐ Yes ☑ No
Pump capacity gpm
Pump type:
Drilling Method Auger
Drilling Fluid J Type of Rig BSo
Name of Driller Michael E Brick
Health and Safety Plan submitted? ☑ Yes ☐ No
Level of Protection used on site (circle one) None D C B A
N.J. License No. 14321
Name of Drilling Company

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

0-6" Topsoil, vegetation
6"-2' Brown, vry fine sands
2-5' Yellowish-orange vry fine-fine sd.
5'-9' white, vry fine-fine sand
9'-16' light brown, vry fine-fine sand.
16'-18' Orange, med sand
18'-25' light brown, vry fine-fine sands

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

Driller's Signature Date

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

FIELD LOG OF BORING

SHEET 1 OF 2

LOCATION OF BORING: 30' → MW-2 (~7')

Building #9061

PROJECT: US Army Ft. Monmouth | BORING NO: MW-2
TOTAL DEPTH: 25'
JOB NO: | LOGGED BY: E. Pye
PROJ. MGR.: Capriffi | EDITED BY:
DRILLING CONTRACTOR: Tyree Organization
DRILL RIG TYPE: B 80
DRILLERS NAME: M. Beck
SAMPLING METHODS: SS
HAMMER WT.: 120 lbs. | DROP:
STARTED, TIME: 8:30 AM | DATE:
COMPLETED, TIME: 10:30 AM | DATE:
BORING DEPTH (ft): 25'
CASING DEPTH (ft): 5'
WATER DEPTH (ft): 20'9"
TIME:
DATE: 9/30/94
BACKFILLED, TIME: 10:35 AM DATE: 9/29/94 BY: Tyree
SURFACE ELEV: | DATUM:
CONDITIONS:

SAMPLE DEPTH	SAMPLER TYPE	BLOWS / 6 IN.	INCHES DRIVEN	INCHES RECOVERED	SAMPLE CONDITION	DRILLING RATE (min./ft.)	PID READING (ppm)	ODOR (Y / N ?)	GRAPHIC WELL CONST.	DEPTH IN FEET	GRAPHIC LOG	
												Topsoil, vegetation
										1	SP	Brown, very fine sands
2-4'	SS	1	6	24			<1	N	Casing with 2' stick up	2	SP	Yellowish-orange, very fine-fine sand with black fines
		2	6									
		4	6							3		
		5	6									
4-6'	SS	5	6	15			<1	N		4		
		4	6									
		4	6							5	SP	Orange, fine-medium sand w/ black fines
		5	6									White, very fine-fine sand with
6-8'	SS	5	6	24			<1	N	Screen Morie sand	6	SP	black fines
		9	6									
		12	6							7		
		30	6									
										8		Light brown, very fine-fine sand
											SP	with black fines and few well
										9		rounded gravel.
										10		

9061

FIELD LOG OF BORING (CONTINUED) SHEET 2 OF 2

PROJECT: | NO: | BORING NO: MW-2

DEPTH	TYPE	BLOWS	DRIVEN	REC'V'D	COND.	D. RATE	PID	ODOR	GR.WELL	DEPTH	GRAPHIC LOG	
										11		
										12		
										13	SP	
										14		
16-17	SS	9	6	24			<1	N		15		
		12	6									
		12	6							16	SP	Orange, medium sand with fines and rounded gravel. Moist at approx. 16'.
		12	6							17		
										18		Light brown, very fine-fine sand with black fines and few well rounded gravel.
										19		
										20		
										21	SP	
										22		
										23		
										24		
									Screen Sand	25		
										26		* No samples were collected.
										27		
										8		

TYREE ENVIRONMENTAL TECHNOLOGIES

APPENDIX D

WELL SEARCH INFORMATION

SECTION 3.0

EVANS AREA - WELL SEARCH

WELL SEARCH SUMMARY TABLE
EVANS AREA
U.S. ARMY FORT MONMOUTH

WELL ID NO.	WELL OWNER	WELL ADDRESS	TOTAL DEPTH (FEET BGS)	CASING LENGTH (FEET)	STATIC WATER ELEV. (FEET BGS)	USE CODE	NJDEPE PERMIT NO.
66	Redacted - Privacy Act	1519 Rogers Road, Wall	95	85	25	G	29-23274
67	Redacted - Privacy Act	3012 Clayton Dr., Wall	95	75	53	G	29-22388
68	Redacted - Privacy Act	3005 Hincks Dr., Wall	85.5	75.5	40	G	29-21875
69	Redacted - Privacy Act	1512 Rogers Rd., Wall	85	75	22	G	29-22743
70	Redacted - Privacy Act	3005 Alicia Dr., Wall	80	60	29	G	29-22558
71	Redacted - Privacy Ac	3221 Brighton Ave., Wall	80	70	15	G	29-24504
72	Redacted - Privacy A	1301 Monmouth Rd., Wall	44	24	20	G	29-22410
73	Redacted - Privacy Act	New Belford Rd.Block 190, Lot 5,Wall	117	93	34	G	29-19146
74	Redacted - Privacy Act	1714 New Belford Rd., Wall	58	43	24	G	29-20898
75	Wall Township	Roosevelt St. & Lincoln Ave., Wall	474	427	115.6	P	29-2871
76	Redacted - Privacy Act	3012 Alicia Dr., Wall	90	70	32	G	29-20550
77	Redacted - Privacy Act	3016 Alicia Dr., Wall	90	75	40	G	29-16621
78	Redacted	1654 Rogers Ct., Wall	60	50	25	G	29-19370
79	Redacted - Privacy Act	3014 Alicia Dr., Wall	90	90	35	G	29-20235
80	Township of Wall	Romano Blvd. & Sharpe Rd., Wall	456	421	238.08	P	29-17963
81	Redacted - Privacy Act	3004 Alicia Dr., Wall	80	80	25	G	29-20198
82	Redacted - Privacy Act	3008 Alicia Dr., Wall	85	65	31	G	29-20972
83	Redacted - Privacy Ac	1101 1/2 Morris La., Wall	105	89	50	D	29-17163
84	Redacted - Privacy Act	3113 Harrison St., Wall	118	94	46	G	29-18981
85	Redacted - Privacy Act	1105 Morris La., Wall	50	40	22	G	29-20718
86	Redacted - Privacy Act	3201 Brighton Ave., Wall	103	78	34	G	29-20495
87	Redacted - Privacy Ac	3205 Brighton Ave., Wall	100	76	27	G	29-21769
88	Redacted - Privacy Act	Brighton Ave.Block 213, Lot 2, Wall	90	75	38	D	29-13660
89	Redacted - Privacy Act	1214 Remsen Mill Rd., Wall	97	93	20	D	29-8984
90	Redacted - Privac	1902 Marconi Rd., Wall	61	61	45	D	29-590
91	Redacted - Privacy Act	1522 Edgemore Rd., Wall	72	72	36	D	29-1563
92	Redacted - Privacy Act	1801 Marconi Rd., Wall	61	61	29	D	29-550
93	Redacted - Privacy Act	1409 Valley Dr., Wall	63	63	43	D	29-626
94	Redacted - Privacy Act	1401 Rogers Rd., Wall	71	71	32	D	29-865
95	Redacted - Priva	1406 Valley Dr., Wall	77	77	38	D	29-1482
96	Redacted - Privacy Act	1205 Remsen Mill Rd., Wall	75	71	44	D	29-5675
106	Redacted - Privacy Act	3216 Brighton Ave., Wall	103	83	34	G	29-22900
T27/1	U.S. Army, Fort Monmouth		*	*	*	P	*
908/1	U.S. Army, Fort Monmouth		*	*	*	P	*
P3	U.S. Army, Fort Monmouth		*	*	*	P	*
9099	U.S. Army, Fort Monmouth		*	*	*	M	*
9332	U.S. Army, Fort Monmouth		*	*	*	M	*
9049	U.S. Army, Fort Monmouth		*	*	*	M	*

ID – Identification
BGS – Below Ground Surface
G – Irrigation Well
D – Domestic Well
* – This information was not available during the well search
P – Inactive Production Well
M – Monitoring Well
E – Recovery Well
S – Sealed Well

US Army Fort Monmouth Well Coordinates Evans Area

Well No.	Permit No.	NJ Planar Coord****		Elevation-TOC	Elevation-GRD
		Northing	Easting		
P2	*	533300	2162235	***	***
P3	*	491475	2169000	***	***
T27/1	*	494100	2168360	***	***

Notes: * - This information was not available during the well search

** - This well was not issued a permit by NJDEPE

*** - No elevation data was found for this well location.

**** - Except for wells 699/1-14, all coordinates shown are approximate. The information given does not represent surveyed coordinates.

TOC - Top of Casing

GRD - Ground Surface

Form DWR-138
11/85

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WATER RESOURCES

WELL ID NO. 72

WELL RECORD

Well Permit No. 29 - 22410
Atlas Sheet Coordinates 29 . 23 : 865

OWNER IDENTIFICATION - Owner Redacted - Privacy Act
Address ~~1301 MONMOUTH BLVD.~~
City ~~WALL~~ State ~~NJ~~ Zip Code

WELL LOCATION - If not the same owner please give address. Owner's Well No.
Address
County Municipality ~~WALL TWP.~~ Lot No. 5 Block No. ~~230~~

WELL USE Irrigation Status Completed

WATER USE Same Average 1000 gals. daily Maximum 1000 gals. daily

WELL CONSTRUCTION
BOREHOLE DIMENSIONS
Date well completed 4 / 18 / 89
Depths: Total 45½ ft. Finished 44 ft.
Diameter: Top 5½ in. Bottom 5½ in.
Land Surface Elevation at well 40 ft. Elevation was determined using Topo 29
Casing Height (stick-up) above land surface ____ ft.

	DEPTH TO TOP (FT.)	LENGTH (FT.)	DIAMETER (IN.)	TYPE AND MATERIAL (Screens: Note Slot Sizes)
Casing 1		24'	4"	SCH 40 4" PVC
Casing 2				
Casing 3				
Screen 1	24'	10'	4"	SCH 40 4" PVC .010 SLOT
Screen 2				
Tail Piece		10'	4"	
Gravel Pack	20'	24'		6000 lbs #1 Sand
Grout	12"	9'		Portland Cement
Grouting Method		Tremied		

WELL FLOWS NATURALLY 0 gals. per min. at ~~0~~ ft. above the land surface.
Water rises to ~~40~~ ft. above the land surface.

RECORD OF TEST Test Date 4 / 18 / 89
Static water-level before pumping 20 ft. below land surface. Water level 16' ft. below land surface after 24 hrs. of pumping.
Water level was measured using Probe Drawdown 4' ft.
Discharge rate measured using Container Discharge Rate 6 gals. per min.
Well was pumped using Sub Specific Capacity 1 gals. per min. per ft. of drawdown
Observed effects on nearby wells None
Water Quality (taste, odor, color, etc.) Good Clear None

PERMANENT PUMPING EQUIPMENT Installed by Diller Pump Type Sub
Mfrs. Name Goulds Model 13EM07422
CAPACITY: Pump delivers 6 GPM at 60 PSI pressure.
POWER: ¾ HP at 3450 RPM Power Source 220 AC
DEPTHS: Pump 40 ft. Footpiece None ft. Airline None ft.
FLOW METER: Model None installed on 1 in. diameter pipe.

CONTRACTOR - Name of Drilling Contractor BRIAN FUNKHOUSER
Address RD 2 Box 5
City Howell State NJ Zip Code 07731
Name of Driller Brian K Funkhouser License No. 1450

Signature of Contractor [signature] Date ____ / ____ / ____

COPIES: White - DEP Canary - Driller Pink - Owner Goldenrod - Health Dept.

APPENDIX E

HAZARDOUS WASTE MANIFESTS

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

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

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No. [illegible] Manifest Document No. 05188	2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

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

A. State Manifest Document Number: NJA [illegible]188

4. Generator's Phone (908) 532-6223

B. State Generator's ID: [illegible]

5. Transporter 1 Company Name: Freehold Cartage Inc. — 6. US EPA ID Number: NJD054126164

C. State Trans. ID: [illegible]

D. Transporter's Phone: 908 [illegible]-1001

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

E. State Trans. ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: Cycle Chem Inc., 217 South First St., Elizabeth, NJ 07206 — 10. US EPA ID Number: NJD002200046

G. State Facility's ID

H. Facility's Phone: 908 355-5800

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Combustible Liquid, N.O.S. Combustible Liquid NA 1993 PG III (Oil/Water)	X	001	TT	000206	G	X 7 2 2
b. RQ Waste Gasoline Mixture, N.O.S. Class 3 UN 1203 PG II (Gasoline/Water)	X	001	TT	000711	G	D018 D008 D001
c. Waste combustible liquid, nos combustible liquid, NA 1993 PG III (Oil/water)	X	001	TT	000250	G	X 7 2 2
d. Waste combustible liquid, nos combustible liquid, NA 1993 PG III (Oil/water)	X	001	TT	000215	G	X 7 2 2

J. Additional Descriptions for Materials Listed Above — K. Handling Codes for Wastes Listed Above
a. 80% oil/19% water/1% scale — 80% oil 19% water 1% scale
b. 90% Gasoline/10% Water — 80% oil 19% water [illegible]

15. Special Handling Instructions and Additional Information
11a. 349266 OW-02 ERG #27 — 11b. 349264 OW ERG #27 — A) NJ DEP 0090029-20
Emergency Phone # 24 Hours: 201-427-2881 — C) NJ DEP 0090029-16 D) 0090029-16 — B) NJ DEP 0090029-21
NJ DECAL# 35180

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

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

Printed/Typed Name	Signature	Month Day Year
Charles M. Aerts, SELFM-PW-EV	[signature]	0 4 2 8 9 4

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
David S Smith	[signature]	0 4 2 8 9 4

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

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

Printed/Typed Name	Signature	Month Day Year

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

SIGNATURE AND INFORMATION *MUST* BE LEGIBLE ON ALL COPIES

CYCLE CHEM
RECYCLING TREATMENT & DISPOSAL OF HAZARDOUS WASTE

LAND DISPOSAL NOTIFICATION AND CERTIFICATION FORM

GENERATOR: 45 ARMY COMMUNICATIONS ELECTRONICS COMMAND CAMP EVANS Fort Monmouth NJ 07703 MANIFEST NJA 1603188

USEPA ID NO. NJ 3210020324

Is Waste Analysis available? X No ____ Yes, Copy Attached

I. MANIFEST INFORMATION

LINE ITEM	WASTEWATER OR NONWASTEWATER	LIST ALL EPA HAZARDOUS WASTE CODES (RCRA CODES)	CCI PRODUCT CODES
A	NON WASTE WATER	NONE	349266OW-02
B	NON WASTE WATER	D001, D018, D008	349266OW

II. D001, D002, D003 (ICR WASTES)

LINE ITEM	CODE	WASTE DESCRIPTION AND/OR TREATMENT TECHNOLOGY	TECHNOLOGY REFERENCE CODES WW	NWW
ABCD	D001	IGNITABLE LIQUIDS - WASTEWATERS	(1)	NA
ABCD	D001	IGNITABLE LIQUIDS - WASTEWATERS	(2)	NA
ABCD	D001	IGNITABLE LIQUIDS <10% TOC	NA	(2)
(B)CD	D001	IGNITABLE LIQUIDS ≥ 10% TOC	NA	(3)
ABCD	D001	IGNITABLE REACTIVE	NA	(2)
ABCD	D001	OXIDIZERS	(2)	(2)
ABCD	D002	ACID SUBCATEGORY	(2)	(2)
ABCD	D002	ALKALINE SUBCATEGORY	(2)	(2)
ABCD	D002	OTHER CORROSIVES	(2)	(2)
ABCD	D003	REACTIVE SULFIDES	(1)	(1)
ABCD	D003	WATER REACTIVE	NA	(1)
ABCD	D003	OTHER REACTIVE	(1)	(1)

☐ CHECK HERE IF WASTE IS D001, OR D002 WHICH BDAT IS (2) DEACT AND DOES NOT CONTAIN ANY UNDERLYING HAZARDOUS CONSTITUENTS AS LISTED IN RCRA WASTE CODE F039 MULTISOURCE LEACHATE,OR THE WASTE WILL BE MANAGED IN CLEAN WATER ACT SYSTEMS.

☐ CHECK HERE IF WASTE IS D001, OR D002 WHICH BDAT IS (2) DEACT AND MUST MEET UNDERLYING HAZARDOUS CONSTITUENTS TREATMENT STANDARDS AS LISTED IN RCRA WASTE CODE F039 MULTI-SOURCE LEACHATE.

III. D004 - D011 (TCLP INORGANICS)

			WW	NWW
ABCD D004-ARSENIC	ABCD D005-BARIUM	ABCD D006-CADMIUM	(6)	(4)
ABCD D007-CHROMIUM	A(B)CD D008-LEAD	ABCD D009 MERCURY < 260 mg/kg		
ABCD D010-SELENIUM	ABCD D011-SILVER			

IV. ABCD D006 CADMIUM CONTAINING BATTERIES — NA (7)

V. ABCD D008 LEAD ACID BATTERIES — NA (8)

VI. ABCD D009 TOTAL MERCURY

☐ High Hg,≥ 260 mg/kg mercury and organics not including incinerator residues — NA (9) or (10)

☐ High Hg,≥ 260 mg/kg inorganics including incinerator residues and RMERC residue — NA (10)

VII. D012-D017

		WW	NWW		WW	NWW
ABCD D012 ENDRIN		(11) or (13)	(6)	ABCD D015 TOXAPHENE	(11) or (13)	(6)
ABCD D013 LINDANE		(12) or (13)	(6)	ABCD D016 2,4-D	(11),(13) or (15)	(6)
ABCD D014 METHOXYCHLOR		(13) or (14)	(6)	ABCD D017 2,4,5-TP (SILVEX)	(13) or (15)	(6)

VIII. RESTRICTED WASTE NOTIFICATION (OTHER LISTED HAZARDOUS WASTE F, K, P, AND U CODES)

LINE ITEM	RCRA CODE	TECHNOLOGY CODE	TREATMENT STANDARD 40 CFR 268. WW	NWW	APPLICABLE SUBCATEGORY
ABCD			41(a) ☐	42(a) ☐	43(a) ☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐
ABCD			☐	☐	☐

IX. CALIFORNIA LIST WASTES

ABCD ___ NICKEL ≥ 134 mg/1

ABCD ___ THALLIUM ≥ 130 mg/1

ABCD ___ LIQUIDS WITH PCB's ≥ 50 PPM

ABCD ___ HALOGENATED ORGANIC CARBON (HOC's) ≥ 1000 mg/1

X. F001 – F005 SPENT SOLVENT WASTES RESTRICTIONS NUMERICAL TREATMENT STANDARDS

LINE ITEM	RCRA CODE(S)	CONSTITUENT(S)	WW mg/l	NWW mg/kg	LINE ITEM	RCRA CODE(S)	CONSTITUENT(S)	WW mg/l	NWW mg/kg
ABCD	F001	☐ carbon tetrachloride	.057	5.6	ABCD	F004	☐ m,p-cresol	.77	3.2
		☐ o-cresol	.11	5.6			☐ o-cresol	.11	5.6
		☐ nitrobenzene	.068	14			☐ nitrobenzene	.068	14
ABCD	F002	☐ chlorobenzene	.057	5.7	ABCD	F005	☐ benzene	.070	3.7
		☐ 1,2-dichlorobenzene	.088	6.2			☐ carbon disulfide	.014	4.8*
		☐ methylene chloride	.089	33			☐ isobutanol	5.6	170
		☐ methylene chloride (pharmaceutical)	.44	NA			☐ methyl ethyl ketone	.28	.36
		☐ tetrachloroethylene	.056	5.6			☐ pyridine	.014	16
		☐ 1,1,1-trichloroethane	.054	5.6			☐ toluene	.08	28
		☐ 1,1,2-trichloroethane	.030	7.6			**BDAT TREATMENT STANDARDS**		
		☐ trichloroethylene	.054	5.6	ABCD	F005	☐ 2-ethoxy ethanol	ref(11) or (13)	ref(13
		☐ 1,1,2-trichloro-1,2,2-trifluoroethane	.057	28			☐ 2-nitropropane	ref(12);(13); (14) or (15)	ref(13
		☐ trichlorofluoromethane	.02	33					
ABCD	F003	☐ acetone	.28	160					
		☐ n-butyl alcohol	5.6	2.6					
		☐ cyclohexanone	0.36	.75*					
		☐ ethyl acetate	0.34	33					
		☐ ethyl benzene	.057	6.0					
		☐ ethyl ether	0.12	160					
		☐ methanol	5.6	.75*					
		☐ methyl isobutyl ketone	.14	33					
		☐ xylene (total)	.32	28					

XI. LAB PACK CERTIFICATION (APPENDIX IV & V)

A. APPENDIX IV - ORGANOMETALLICS LAB PACKS

*For line items ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack(s) contain(s) only the wastes specified in Appendix IV (one of those excluded is D009) to Part 268 or solid wastes not subject to regulation under Part 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment."

B. APPENDIX V - ORGANIC LAB PACKS

*For line items ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______ ______

I certify under penalty of law that I personally have examined and am familiar with the waste and that the lab pack(s) contain(s) only the organic wastes specified in Appendix V to Part 268 or solid wastes not subject to regulation under Part 261. I am aware that there are significant penalties for submitting a false certification, including the possibility of fine or imprisonment."

XII. NON HAZARDOUS / NON RESTRICTED WASTE CERTIFICATION

The following manifest line items are not subject to any land disposal restrictions as specified in 40 CFR Subpart D and all applicable prohibitions set forth in 268.32 or RCRA: (A)BCD — WASTE CODE(S) X722 ABCD — WASTE CODE(S) ______

(A)BCD — WASTE CODE(S) D018 ABCD — WASTE CODE(S) ______

XIII. REFERENCE CODES

REFERENCE CODE 1	SEE 40 CFR 268.42(a)–DEACT	REFERENCE CODE 9	SEE 40 CFR 268.42(a)–IMERC
REFERENCE CODE 2	SEE 40 CFR 268.42(a)–DEACT and meet F039	REFERENCE CODE 10	SEE 40 CFR 268.42(a)–RMERC
REFERENCE CODE 3	SEE 40 CFR 268.42(a)–FSUBS;RORGS;orINCIN	REFERENCE CODE 11	SEE 40 CFR 268.42(a)–BIODG
REFERENCE CODE 4	SEE 40 CFR 268.41 TABLE CCWE	REFERENCE CODE 12	SEE 40 CFR 268.42(a)–CARBN
REFERENCE CODE 5	SEE 40 CFR 268.42 TABLE 2 - BDAT	REFERENCE CODE 13	SEE 40 CFR 268.42(a)–INCIN
REFERENCE CODE 6	SEE 40 CFR 268.43 TABLE CCW	REFERENCE CODE 14	SEE 40 CFR 268.42(a)–WETOX
REFERENCE CODE 7	SEE 40 CFR 268.42(a)–RTHRM	REFERENCE CODE 15	SEE 40 CFR 268.42(a)–CHOXD
REFERENCE CODE 8	SEE 40 CFR 268.42(a)–RLEAD		

*These treatment standards are based on TCLP, not total constituent concentrations. The treatment standards for these constituents apply to F001-F005 wastes which contain only one, two or all three of these constituents. If the waste contains any of the other 26 constituents found in F001-F005, only the total analysis need be performed.

XIV. CERTIFICATION

"I notify that I personally examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this notification that the waste described on this page and/or the reverse of this page does not comply with the treatment standards specified in 40 CFR 268, Subpart D or RCRA Section 3004(d), and all applicable prohibitions set forth in appropriate regulatory treatment standards prior to land disposal."

Signature: ____________ Date: 4-28-94 Print Name: Charles M Appleby Title: SELFm-Pe

CYCLE CHEM

RECYCLING TREATMENT & DISPOSAL OF HAZARDOUS WASTE

217 SOUTH FIRST STREET
ELIZABETH, NJ 07206
(908) 355-5800

MATERIAL PROFILE SHEETS
PRODUCT CODE _____
PROCESS CODE _____

A. GENERATOR INFORMATION

GENERATOR US EPA I.D. N J [illegible]
GENERATOR STATE I.D. [illegible]

GENERATOR NAME [illegible] ELECTRONIC [illegible]
PICK-UP ADDRESS [illegible]

BILLING ADDRESS IF DIFFERENT [illegible]

CONTACT [illegible]

TECHNICAL CONTACT [illegible] TITLE [illegible] PHONE [illegible]
NAME OF WASTE VIRGIN GASOLINE WATER
PROCESS GENERATING WASTE [illegible]

B. PHYSICAL CHARACTERISTICS OF WASTE

COLOR/VISUAL DESCRIPTION
[illegible]

☐ WASTEWATER
☒ NONWASTEWATER

STRONG INCIDENTAL ODOR PRESENT? ☒ YES ☐ NO
DESCRIBE [illegible]

PHYSICAL STATE @ 70°F
☐ SOLID ☒ SINGLE PHASE
☒ LIQUID ☐ BI-LAYERED
☐ POWDER ☐ MULTI-LAYERED
☐ SEMI-SOLID ☐ SLUDGE

FREE LIQUIDS
☒ YES [illegible] % ☐ NO
Pumpable? ☒ YES ☐ NO
Pourable? ☒ YES ☐ NO

CORROSIVITY (pH)
☐ ≤2.0 ☐ 9.01-12.49
☐ 2.01-5 ☐ ≥12.50
☒ 5.01-9 ☐ EXACT pH _____

SPECIFIC GRAVITY
☐ <.8 ☐ 1.2-1.4
☐ .8-1.0 ☐ 1.4-1.7
☐ 1.0-1.2 ☐ >1.7
☐ EXACT _____

FLASH POINT
☒ <70°F ☐ >200°F
☐ 70°F - 100°F ☐ NO FLASH
☐ 101°F - 139°F ☐ EXACT _____
☐ 140°F - 200°F
IGNITABLE (if solid) ☐ CLOSED CUP
☐ YES ☐ NO ☐ OPEN CUP

LIQUID/SOLID
% Total Solids [illegible]
% Suspended Solids _____
% Dissolved Solids _____
% Free Liquids 98

C. OTHER HAZARDOUS CHARACTERISTICS

INDICATE IF THIS WASTE IS ANY OF THE FOLLOWING:

☐ RCRA REACTIVE
☐ WATER REACTIVE
☐ EXPLOSIVE
☐ SHOCK SENSITIVE
☐ PYROPHORIC
☐ RADIOACTIVE
☐ ETIOLOGICAL
☐ PESTICIDE MANUFACTURING WASTE
☒ OTHER [illegible]
☐ NONE OF THE ABOVE

SPECIAL HANDLING CONSIDERATIONS

D. CHEMICAL COMPOSITION

1.	RANGE MIN.-MAX.	
GASOLINE	80 - 90	%
WATER	10 - 20	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
	-	%
TOTAL		%

PLEASE NOTE: The chemical composition total in the maximum column must be greater than or equal to 100%.

ALSO LIST ALL SUBSTANCES REGULATED UNDER OSHA 1910.1000, SUBPART Z.

2. INDICATE IF THIS WASTE CONTAINS ANY OF THE FOLLOWING:

	NONE	or LESS THAN	or ACTUAL
PCB's	☒	☐ <50 ppm	_____ ppm
Cyanides	☒	☐ <250 ppm	_____ ppm
Phenolics	☒	☐ <50 ppm	_____ ppm
Sulfides	☒	☐ <500 ppm	_____ ppm

☐ MSDS ATTACHED
☐ SUPPLEMENTAL ANALYSIS ATTACHED
DESCRIBE: _____

NO. OF PAGES ATTACHED: _____

E. METALS (mg/kg or ppm) ☐ EP TOX ☐ TCLP ☐ TOTAL

METAL	EP TOX EPA CODE	LESS THAN	ACTUAL	METAL	EP TOX EPA CODE	LESS THAN	ACTUAL
Arsenic	D004	☐ <5.0		Hexachlorobenzene	D032	☐ <0.13	
Barium	D005	☐ <100		Hexachloro-1,3-butadiene	D033	☐ <0.5	
Benzene	D018	☐ <0.5		Hexachloroethane	D034	☐ <3.0	
Cadmium	D006	☐ <1.0		Lead	D008	☐ <5.0	
Carbon tetrachloride	D019	☐ <0.5		Lindane	D013	☐ <0.4	
Chlordane	D020	☐ <0.03		Mercury	D009	☐ <0.2	
Chlorobenzene	D021	☐ <100.0		Methoxychlor	D014	☐ <10.0	
Chloroform	D022	☐ <6.0		Methyl ethyl ketone	D035	☐ <200.0	
Chromium	D007	☐ <5.0		Nitrobenzene	D036	☐ <2.0	
o-Cresol	D023	☐ <200.0		Pentachlorophenol	D037	☐ <100.0	
m-Cresol	D024	☐ <200.0		Pyridine	D038	☐ <5.0	
p-Cresol	D025	☐ <200.0		Selenium	D010	☐ <1.0	
Cresol	D026	☐ <200.0		Silver	D011	☐ <5.0	
2,4-D	D016	☐ <10.0		Tetrachloroethylene	D039	☐ <0.7	
1,4-Dichlorobenzene	D027	☐ <7.5		Toxaphene	D015	☐ <0.5	
1,2-Dichloroethane	D028	☐ <0.5		Trichloroethylene	D040	☐ <0.5	
1,1-Dichloroethylene	D029	☐ <0.7		2,4,5-Trichlorophenol	D041	☒ <400.0	
2,4-Dinitrotoluene	D030	☐ <0.13		2,4,6-Trichlorophenol	D042	☐ <2.0	
Endrin	D012	☐ <0.02		2,4,5-TP (Silvex)	D017	☐ <1.0	
Heptachlor (and its hydroxide)	D031	☐ <0.008		Vinyl chloride	D043	☐ <0.2	

F. LIQUID WASTE CHARACTERISTICS Fuels and WWT Candidates

ORGANIC PHASE [illegible] %
+ AQUEOUS PHASE ____ % = 100%

RANGE

HEAT VALUE [illegible] BTU/lb
TOTAL HALOGENS [illegible] % ____ mg/l
ASH CONTENT [illegible] %
% SULFUR ☐ <0.5% ____ %
BS&W ____ %
WATER CONTENT ____ %
VISCOSITY (cps): ____ @ ____ °F
TOC ____ mg/l
COD ____ mg/l
BOD ____ mg/l
OIL & GREASE ____ mg/l
TOX ____ mg/l
HOC ____ mg/l

G. SHIPPING/MANIFEST INFORMATION

SHIPMENT METHOD
☒ BULK LIQUID ☐ OTHER (SPECIFY)
☐ BULK SOLID
☐ DT ☐ RO
☐ DRUM (SIZE)

ANTICIPATED VOLUME ☒ GALS. ☐ DRUMS
150 ☐ TONS ☐ CUBIC YDS.
(QUANTITY)
PER ☐ ONE TIME ☒ QUARTER ☐ YEAR

TRANSPORTER: [illegible]
TRANSPORTER PHONE/CONTACT: Bill / Jack
TRANSPORTER USEPA I.D. NJD 0 0 2 4 4 2 6 1 6 4

REGULATORY INFORMATION
USEPA HAZARDOUS WASTE? ☒ YES ☐ NO
USEPA HAZARDOUS CODE(S) [illegible]
APPLICABLE SUBCATEGORIES
STATE HAZARDOUS WASTE? ☒ YES ☐ NO
STATE CODE(S) I E
D.O.T. HAZARDOUS WASTE? ☒ YES ☐ NO
PROPER SHIPPING NAME
RQ WASTE GASOLINE MIXTURE N.O.S. PG II
HAZARD CLASS 3 I.D. NO. UN1203 R.Q. 100

H. WASTE CERTIFICATION

1. Does this waste material contain polychlorinated biphenyls? YES ____ NO ✓
2. Does this waste material contain herbicides or pesticides as described in the CFR Part 861.24 Table #1, Hazard #'s DO12-DO17? YES ____ NO ✓
3. Does this waste material contain or ever contain the listed "spent" solvents which would classify the waste as any or all USEPA waste types F001, F002, F003, F004, F005 as per CFR 40 Section 251.31? YES ____ NO ____
4. Does this waste material contain leachable levels of any of the metals covered by EPA waste types D004 thru D011 as per CFR 40 Section 261.24? YES ✓ NO ____
5. Does this waste contain any dioxins as specified by 40 CFR 261.31 Hazardous #'s F020, F021, F022, F023, F026, F027, F028? YES ____ NO ✓
6. Is this waste material a "California List" waste, as per CFR 40 Section 268.32? YES ____ NO ✓ (PCB ≥50, Ni ≥134, HOC ≥1000, Th ≥130)
7. Does this waste material contain D018-D043 as per CFR 40 Section 261.24 (Fed. Reg. 3/29/90)? YES ✓ NO ✓
8. Does this waste material contain "U", "K" or "P" wastes as defined per CFR 40 Section 261.33? YES ____ NO ✓
9. Is this waste considered non-hazardous by USEPA standard? YES ____ NO ✓

AFTER COMPLETION OF QUESTIONS 1 THROUGH 9 PLEASE INITIAL Initial: ____

I. MPS CHANGE VERIFICATION

I hereby authorize CYCLE CHEM to amend and/or correct any information on the MPS with the full understanding that if any amendment or correction is performed, I will be contacted as such to issue my approval. Initial: ____

GENERATOR CERTIFICATION

I hereby certify that all information submitted in this and all attached documents is complete, contains true and accurate descriptions and is representative of the waste material, and that all relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.

If CYCLE CHEM discovers, after having taken delivery of the waste, that any waste does not conform to the identification and description on this MPS, then CYCLE CHEM shall provide notice of such condition to the Generator and coordinate the return of the nonconforming waste to the point of origin as set forth on the manifest or to such other locations designated in writing by the Generator. Generator agrees to reimburse CYCLE CHEM for all handling, packaging, clean up and transportation costs or charges, damage to equipment, and costs associated with lost time incurred by CYCLE CHEM during the receipt, handling, temporary storage and return of such nonconforming waste to point of origin or to such other location designated by Generator.

[signature] — Authorized Signature
Enviro Prot. Spec Stf Mgr [illegible] — Title
Charles M. Appleby — Name (Print or Type)
4-28-94 — Date

APPENDIX F

TANK RECLAMATION CERTIFICATE

72823

Recycling Division

3230 Shafto Road • Tinton Falls, NJ 07753

(908) 922-9292

Recycling Material Receipt Form

Customer: Cuts Inc

Address: _____

Job Location: [illegible]

Date: [illegible] 94

Concrete Ring B12 9661 61000 LB G

Truck/Container No [illegible]

License Plate/D.E.P.# _____

- ☐ 10 yd
- ☐ 20 yd
- ☐ 30 yd
- ☐ 40 yd
- ☐ 50 yd

35300 LB G

25/00

12.85

Concrete		
Asphalt		
Stumps		
Brush		
Wood		
Pallets		
Glass		
Tires		
Painted Wood		
Shingles		
	COD	BILL
TOTAL:	✓	

Weighmaster: [signature]

Customer: [signature]

MAZZA & SONS, INC.

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

NO. _____

DATE 5 May 94

Evans Area
Bldg 9061, 9090

Customer's Name Cute Inc

Address _____

Make of Autos

Tires
Tank
Price

65940 LB G

61000 LB G
4940

	Weight	Price
Cast Iron		
Steel	6	5
Lt. Iron		
Copper #1		
Copper #2		
Lt. Copper		
Brass		
Alum Clean		
Lead		
Stainless		
Radiators		
Battery		
TOTAL AMOUNT:		

Weigher _____ Customer Don Ellis

APPENDIX G

ANALYTICAL DATA PACKAGE

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

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

Lab. ID #: 1479.1-.10
Sample Rec'd: 05/05/94
Analysis Start: 05/06/94
Analysis Comp: 05/06/94

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

NJDEPE UST Reg.#: **0090029-36**
Closure #: **C-93-3896**
DICAR #:
Location #: **Bldg. 9061**

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1479.1	Site A, N. BOTTOM 14' OVA= ND	95	ND	5.0
1479.2	Site B, PIT BOTTOM 14'	93	9.44	5.0
1479.3	Site C, PIT BOTTOM 14' OVA= ND	94	5.08	5.0
1479.4	Site D, PIT BOTTOM 14' OVA= ND	93	ND	5.0
1479.5	Site E, PIT BOTTOM 14' OVA= ND	93	ND	5.0
1479.6	Site F, N. WALL 16' OVA= ND	95	ND	5.0
1479.7	Site G, W. WALL 16' OVA= 125.	94	ND	5.0
1479.8	Site H, S. WALL 16' OVA= 7.0	95	ND	5.0
1479.9	Site I, S. WALL 8' OVA= ND	93	ND	5.0
1479.10	Site J, DUPE	92	ND	5.0
M. Bl.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added, NA = Not Applicable
1479.1dup= 100% 1479.1spike= 103% 1479.1spike dup= 106% RPD= 1.2%

Brian K. McKee
Laboratory Director

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 #: 1479.1-.10
Sample Rec'd: 05/05/94
Analysis Start: 05/06/94
Analysis Comp: 06/06/94

Analysis: Munsel

Lab ID#	Soil Color
1479.1	10YR 6/4 Light Yellowish Brown
1479.2	10YR 5/4 Yellowish Brown
1479.3	10YR 5/4 Yellowish Brown
1479.4	10YR 5/6 Yellowish Brown
1479.5	10YR 5/6 Yellowish Brown
1479.6	10YR 4/6 Dark Yellowish Brown
1479.7	10YR 4/6 DarkYellowish Brown
1479.8	10YR 4/6 DarkYellowish Brown
1479.9	10YR 7/2 Light Gray
1479.10	10YR 7/2 Light Gray

Brian K. McKee
Laboratory Director

SERV-AIR, INC.
An E-SYSTEMS Company

P.O. #: PWS-007 / BPA-Princeton

Chain of Custody

Project #: C-93-3896	Sampler: C. Appleby / Cute Inc.	Date / Time: ~~1400~~ 5/5/94 / 1400	Analysis Parameters	Start:
Customer: C. Appleby. DPW-EV	Site Name: Bldg. 9061 UST# 0090029-36 Closure # C-93-3896			Finish:
Phone: x 26224				

Preservation Method

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	VOA+15	Pb	TPHC	munsel	% Solid		OVA reading	Remarks
1479.1	5/5/94	1443	Site A- 14' N-Pit Bottom	Soil	2	X	X	X	X	X		ND	Kept <4°C
.2		1500	Site B - 14' Pit Bottom		2	X	X	X	X	X			
.3		1504	Site C - 14' Pit Bottom		2	✓	X	X	X	X		ND	
.4		1506	Site D - 14' Pit Bottom		2	X	X	X	X	X		ND	
.5		1526	Site E - 14' Pit Bottom		2	X	X	X	X	X		ND	
.6		1537	Site F - N - Side Wall 16'		2	X	X	X	X	X		ND	
.7		1550	Site G - W - Side Wall 16'		2	X	X	X	X	X		125	OVA - 128 GC SN. A52114
.8		1642	Site H - S - Side Wall 16'		2	X	X	X	X	X		7	Calibrated w/ Zero Air + 95P.
9		1650	Site I - S Side Wall 8'		2	X	X	X	X	X		ND	methane 5/5/94 1315 hrs
.10		NA	Site J DUPE		2	X	X	X	X	X		N/A	Read 99 PPM - OK
.11	5/4/94	NONE	TRIP BLANK	AQ	2	X	●						
.12	5/5/94	1640	Field BLANK	AQ	3	X	X						

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

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
[signature]	5/5/94 / 1740	[signature]	5/5/94 / 1740

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

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

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

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

princeton testing laboratory inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
FAX (609) 452-0347

U.S. ARMY, FORT MONMOUTH
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108

Attn: Charles Appleby

Project Name: UST #0090029-36

JOB #9402341-001

(Client Job #C-93-3896)

Laboratory Certification #11118

Reviewed by: W. Alan Volk 6/7/94

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Page #

Inventory Sheet
Cover Page
Conformance/Non-Conformance Summary Report
Inorganic Analysis Data Sheet
Initial & Continuing Calibration Verification
CRDL Standards for AA and ICP
Blanks
ICP Interference Check Sample
Spike Sample Recovery
Post Digest Spike Sample Recovery
Duplicates
Laboratory Control Sample
Standard Addition Results
ICP Serial Dilutions
Instrument Detection Limits
ICP Interelement Correction Factors
ICP Interelement Correction Factors
ICP Linear Ranges
Preparation Log
Analysis Run Log
ICP Raw Data
Furnace AA Raw Data
ICP Raw Data
Preparation Logs Raw Data
Percent Solids Determination Log
Traffic Report
EPA Shipping/Receiving Documents
 Airbill
 Chain-of-Custody Records
 Sample Tags
 Sample Log-In Sheet (Lab &DC1)
 SDG Cover Sheet
Internal Lab Sample Transfer Records &
 Tracking Sheets
Internal Original Sample Prep & Analysis Records
 Prep Records
 Analysis Records
 Description

Disk enclosed

APPROVED SAMPLE ANALYSIS REQUEST

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby
Phone:(908) 532-6224 FAX:(908) 532-2367

Temp. Cust#: L9094
CONTRACT
Standard Tests
Project Name: UST #0090029-36

Project No.: 9402341-001MEW
Client Job#: C-93-3896
Date Received: 05/06/94
Analysis Due : 06/01/94

Number Of Samples : 12
Number Of Containers: 23

Approved By: Jane Dennison

Reports: Custom Report Format

Sample I.D.'s	Code	Requested Analytical Services	Sampled
001 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.1 Site A	VMS0A	Volatile Organics, SW, SW-846 8240	
002 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.2 Site B	VMS0A	Volatile Organics, SW, SW-846 8240	
003 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.3 Site C	VMS0A	Volatile Organics, SW, SW-846 8240	
004 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.4 Site D	VMS0A	Volatile Organics, SW, SW-846 8240	
005 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.5 Site E	VMS0A	Volatile Organics, SW, SW-846 8240	
006 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.6 Site F	VMS0A	Volatile Organics, SW, SW-846 8240	
007 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.7 Site G	VMS0A	Volatile Organics, SW, SW-846 8240	
008 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.8 Site H	VMS0A	Volatile Organics, SW, SW-846 8240	
009 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.9 Site I	VMS0A	Volatile Organics, SW, SW-846 8240	
010 Bldg. 9061	VMS0B	Volatile Organics Library Search	05/05/94
5/5/94	/PBS1	Lead, SW, GFAA, SW-846 7421 (Dry Weight)	
1479.10 Site J	VMS0A	Volatile Organics, SW, SW-846 8240	

(cont'

Initials/Date

Received By Lab: _____
Reviewed By: _____
Q.A. Approved: _____

Printed By: Rose Kovacs
Date: 06/06/94
Time: 14:04:26

DPW U.S. Army, Fort Monmouth

~~SERV-AIR, INC.~~

PTL 94 .341-001 MEU

P.O. #: BPA-Princeton

Chain of Custody

Project #: C-93-3896	Sampler: C. Appleby / C.U.T.E.	Date / Time: 5/5/94 | 1400	Analysis Parameters	Start:
Customer: C. Appleby DPW-EV	Site Name: Bldg. 9061 UST # 0090029-36 Closure # C-93-3896			Finish:
Phone:				

Lab Sample ID Number	Date	Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	VOA's +xylenes (13 Ar+TBE)	Pb						OVA Reading	Remarks	Preservation Method
1479.1	5/5/94	1443	1479.1 Site A	Soil		X	X						ND		<4°C
1479.2	↓	1500	1479.2 Site B	↓		X	X								
1479.3		1504	1479.3 Site C			X	X						ND		
1479.4		1506	1479.4 Site D			X	X						ND		
1479.5		1526	1479.5 Site E			X	X						ND		
1479.6		1537	1479.6 Site F			X	X						ND		
1479.7		1550	1479.7 Site G			X	X						125		
1479.8		1642	1479.8 Site H			X	X						7		
1479.9		1650	1479.9 Site I			X	X						ND		
1479.10	↓	N/A	1479.10 Site J DSP	↓		X	X						N/A		
1479.11			Trip Blank 1479.11			X							↓		
1479.12		1640	Field Blank 1479.12			X	X						↓		

Relinquished By (signature)	Date / Time	Received By (signature)	Shipped By:
Sarah J. Hubbard	5/6/94 | 1340	[signature]	

Relinquished By (signature)	Date / Time	Received for Lab by (signature):	Date / Time
[signature]	05/06/94 | 1500	Uma Chaudhary	05/06/94 13:40

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

C. S6 5/8/94 1530

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)

CASE NO. _____ SDG NO. _____ SDG NOS. TO FOLLOW _____
_____ _____ SAS NO. _____

	PAGE NOs FROM	TO	CHECK LAB	EPA
5. Semivolatiles Data				
a. QC Summary				
Surrogate Percent Recovery Summary (Form II SV)	____	____	____	____
MS/MSD Summary (Form III SV)	____	____	____	____
Method Blank Summary (Form IV SV)	____	____	____	____
GC/MS Instrument Performance Check (Form V SV)	____	____	____	____
Internal Standard Area and RT Summary (Form VIII SV)	____	____	____	____
b. Sample Data	____	____		
TCL Results (Form I SV-1, SV-2)				
Tentatively Identified Compounds (Form I SV-TIC)			____	____
Reconstructed total ion chromatograms (RIC) for each sample			____	____
For each sample:				
Raw spectra and background-subtracted mass spectra of target compounds			____	____
Quantitation reports			____	____
Mass spectra of TICs with three best library matches			____	____
GPC chromatograms (if GPC performed)			____	____
c. Standards Data (All Instruments)	____	____		
Initial Calibration Data (Form VI SV-1, SV-2)			____	____
RICs and Quan Reports for all Standards			____	____
Continuing Calibration Data (Form VII SV-1, SV-2)			____	____
RICs and Quantitation Reports for all Standards			____	____
Semivolatile GPC Calibration Data-UV detector traces			____	____
d. Raw QC Data				
DFTPP	____	____	____	____
Blank Data	____	____	____	____
Matrix Spike/Matrix Spike Duplicate Data	____	____	____	____
6. Pesticides				
a. QC Summary				
Surrogate Percent Recovery Summary (Form II PEST)	____	____	____	____
MS/MSD Duplicate Summary (Form III PEST)	____	____	____	____
Method Blank Summary (Form IV PEST)	____	____	____	____

ORGANICS COMPLETE SDG FILE (CSF) INVENTORY SHEET (Cont.)

CASE NO. _____ SDG NO. _____ SDG NOS. TO FOLLOW _____
_____ _____ SAS NO. _____

	PAGE NOs FROM	TO	CHECK LAB	EPA
7. Miscellaneous Data				
Original preparation and analysis forms or copies of preparation and analysis logbook pages	___	___	___	___
Internal sample and sample extract transfer chain-of-custody records	___	___	___	___
Screening records	___	___	___	___
All instrument output, including strip charts from screening activities (describe or list)				
_____	___	___	___	___
_____	___	___	___	___
8. EPA Shipping/Receiving Documents				
Airbills (No. of shipments ___)	___	___	___	___
Chain-of-Custody Records	___	✓	___	___
Sample Tags	___	___	___	___
Sample Log-In Sheet (Lab & DCl)	___	___	___	___
Miscellaneous Shipping/Receiving Records (describe or list)				
_____	___	___	___	___
_____	___	___	___	___
9 Internal Lab Sample Transfer Records and Tracking Sheets (describe or list)				
_____	___	___	___	___
_____	___	___	___	___
10. Other Records (describe or list)				
Telephone Communication Log	___	___	___	___
_____	___	___	___	___
_____	___	___	___	___

11. Comments: _____

_____

_____

_____

Completed by: _____ W.A. Vosk QA/QC Coordinator 6/7/94
(CLP Lab) (Signature) (Printed Name/Title) (Date)

Audited by: _____ _____ _____
(EPA) (Signature) (Printed Name/Title) (Date)

FORM DC-2-4

GCMS ANALYSIS NON CONFORMANCE-SUMMARY

		No	Yes
1.	GCMS Tune Specifications		
	a. BFB Passed	___	✓
	b. DFTPP Passed	___	___
2.	GCMS Tuning Frequency		
	a. Performed every 12 hours.	___	✓
	b. Performed every 24 hours.	___	___
3.	GCMS Calibration		
	a. Initial calibration performed w/i 30 days of sample analysis.	___	✓
	b. Continuing calibration w/i 24 hours of sample analysis.	___	___
4.	GCMS Calibration Requirements		
	a. Calibration Check Compounds	___	✓
	b. System Performance Check Cmpds.	___	___
5.	Blank Contamination		
	a. VOA Fraction Acetone and Methylene chloride		
	b. B/N Fraction _____		
	c. Acid Fraction _____		
6.	Surrogate Recoveries Within Limits		
	a. VOA Fraction	___	✓
	b. B/N Fraction	___	___
	c. Acid Fraction	___	___
7.	Extraction Holding Time Met	___	___
8.	Analysis Holding Time Met	___	✓

Comments:

_____

_____

_____

_____

Laboratory Manager _____ Date 5/25/94

QUALITY CONTROL SUMMARY

2A
VOLATILE SURROGATE SUMMARY

Lab Name:_Princeton Testing Lab. Contract:_US Army, Fort Monmouth.

Lab Code:_PTL_ Case No.:_2341_ SAS No.:_____ SDG No.:____

Matrix: (soil/water) _WATER_ Level:(low/med)_LOW_____

Instrument ID: _FINN500V____

SAMPLE NO.	(1,2-DCE)	(TOL-D8)	(4-BFB)
1479.11 TB	111	90	94
1479.12 FB	114	94	93
M.BLK5/11/94	104	90	93

(1,2-DCE)= 1,2-DICHLOROETHANE-d4 (76-111)
(TOL-d8)= TOLUENE-d8 (88-90)
(4-BFB) = 4-BROMOFLUOROBENZENE (86-115)

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name:_Princeton Testing Lab. Contract:_US Army, Fort Monmouth.

Lab Code:_PTL_ Case No.:_2341_ SAS No.:_____ SDG No.:____

Lab File ID: _CBLK508_____ Lab Sample ID:M.BLK5/08/94

Date Analyzed: _5/8/94_____ Time Analyzed: 13:21_____

Matrix: (soil/water) _SOIL__ Level:(low/med)_LOW_____

Instrument ID: _FINN500V____

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

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1479.1 SITE A	2341-01	C7567	15:50
1479.2 SITE B	2341-02	C7568	16:38
1479.3 SITE C	2341-03	C7569	17:29
1479.4 SITE D	2341-04	C7570	18:18
1479.5 SITE E	2341-05	C7571	19:07
1479.6 SITE F	2341-06	C7572	19:57
1479.7 SITE G	2341-07	C7573	20:48
1479.8 SITE H	2341-08	C7574	21:38
1479.9 SITE I	2341-09	C7575	22:26
1479.10 SITE J	2341-010	C7576	23:15

COMMENTS:

4A
VOLATILE METHOD BLANK SUMMARY

Lab Name:_Princeton Testing Lab. Contract:_US Army, Fort Monmouth.

Lab Code:_PTL_ Case No.:_2341_ SAS No.:_____ SDG No.:_____

Lab File ID: _CBLK509_____ Lab Sample ID:M.BLK5/11/94

Date Analyzed: _5/11/94_____ Time Analyzed: 17:59_____

Matrix: (soil/water) _WATER_ Level:(low/med)_LOW_____

Instrument ID: _FINN500V____

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

SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
1479.11 TB	2341-011	C7610	18:48
1479.12 FB	2341-012	C7611	19:37

COMMENTS:

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH

Lab Code: PTL Case No.: 2341 SAS No.: _____ SDG No.: _____

Lab File ID: BFB508 BFB Injection Date: 5/08/94

Instrument ID: FINN500V BFB Injection Time: 1138

Matrix:(soil/water) SOIL Level:(low/med) Low Column:(pack/cap) Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.6
75	30.0 - 60.0% of mass 95	43.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.2
173	Less than 2.0% of mass 174	0.2 (0.3)1
174	Greater than 50.0% of mass 95	66.4
175	5.0 - 9.0% of mass 174	4.9 (7.4)1
176	Greater than 95.0%, but less than 101.0% of mass 174	65.1 (98.1)1
177	5.0 - 9.0% of mass 176	4.4 (6.7)2

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

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
50 PPB STD	50 PPB STD	CV0508	5/08/94	1152
LAB BLANK	M.BLK5/08/94	CBLK508	5/08/94	1321
1479.1SITE A	2341-001-01	C7567	5/08/94	1550
1479.2SITE B	2341-001-02	C7568	5/08/94	1638
1479.3SITE C	2341-001-03	C7569	5/08/94	1729
1479.4SITE D	2341-001-04	C7570	5/08/94	1818
1479.5SITE E	2341-001-05	C7571	5/08/94	1907
1479.6SITE F	2341-001-06	C7572	5/08/94	1957
1479.7SITE G	2341-001-07	C7573	5/08/94	2048
1479.8SITE H	2341-001-08	C7574	5/08/94	2138
1479.9SITE I	2341-001-09	C7575	5/08/94	2226
1479.10SITEJ	2341-001-010	C7576	5/08/94	2315

5A

VOLATILE ORGANIC GC/MS TUNING AND MASS CALIBRATION - BROMOFLUOROBENZENE (BFB)

Lab Name: Princeton Testing Lab. Contract:_US ARMY, FORT MONMOUTH_____

Lab Code: PTL Case No.:___2341_____ SAS No.:_____ SDG No.:_____

Lab File ID:___BFB511_____ BFB Injection Date:_5/11/94_____

Instrument ID:___FINN500V__ BFB Injection Time:__1008_____

Matrix:(soil/water)_WATER__ Level:(low/med)_Low__ Column:(pack/cap)_Cap

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.3
75	30.0 - 60.0% of mass 95	42.2
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	8.3
173	Less than 2.0% of mass 174	0.6 (0.9)1
174	Greater than 50.0% of mass 95	69.7
175	5.0 - 9.0% of mass 174	5.2 (7.5)1
176	Greater than 95.0%, but less than 101.0% of mass 174	67.6 (96.9)1
177	5.0 - 9.0% of mass 176	5.2 (7.7)2

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

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

EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
_50_PPB STD_	__50 PPB STD__	___CV0511_____	_5/11/94__	__1709____
_LAB_BLANK___	_M.BLK5/11/94_	_CBLK511A_____	_5/11/94__	__1759____
1479.11 TB	_2341-001-11__	_C7610_____	_5/11/94__	__1848____
1479.12 FB	_2341-001-12__	_C7611_____	_5/11/94__	__1937____

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Princeton Testing Lab. Contract: US ARMY, FORT MONMOUTH__.
Case No.: 2341_ Lab File ID (standard):CV0509_____ Instrument ID:FINN
Date Analyzed: 05/09/94____ Time Analyzed: 12:25_____

	IS1(BCM)	RT	IS2(DFB)	RT	IS3(CB)	RT
12hr. STD __	77953____	09:19	524072____	11:50	222645____	24:09_
Upper Limit_	155906____	09:69	1048144____	12:00	445290____	24:59_
Lower Limit	38977____	08:69	136019____	11:00	111323____	23:59_
EPA Sample.						
1 M.BLK5/09/94	74400	09:18	250010	11:49	230151	24:09
2 1479.10SITE J MS	73146	09:19	262698	11:50	215763	24:09
3 1479.10SITE J SD	66496	09:19	234720	11:50	203546	24:09

IS1=BROMOCHLOROMETHANE
IS2=1,4-DIFLUOROBENZENE
IS3=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.

* Values outside of QC limits. FORM VIII V-1 PAGE 1 of 1.

SAMPLE DATA

SAMPLE NO.
1479.1 SITE A

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Princeton Testing Lab Contract: US ARMY FORT MONMOUTH

Lab Code: PTL Case No.: 2341 SAS No.: _____ SDG No.: _____

Matrix: (Soil/Water) SOIL Lab Sample ID: 2341-001

Sample wt/vol: 2.5 (g/mL) g Lab File ID: C7567

Level: (low/med) LOW Date Received: 5/6/94

%Moisture: not dec. 95.2 Date Analyzed: 5/8/94

GC Column: CAP ID: 0.53 mm Dilution Factor: 2.0

Soil Extract Vol: _____ul Soil Aliquot Vol: _____ul

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

#S	CAS NUMB	COMPOUND NAME	RT	EST. CONC.	SCAN
01	124196	NONANAL	39:13	5.6	1557

Quantitation Report File: C7567

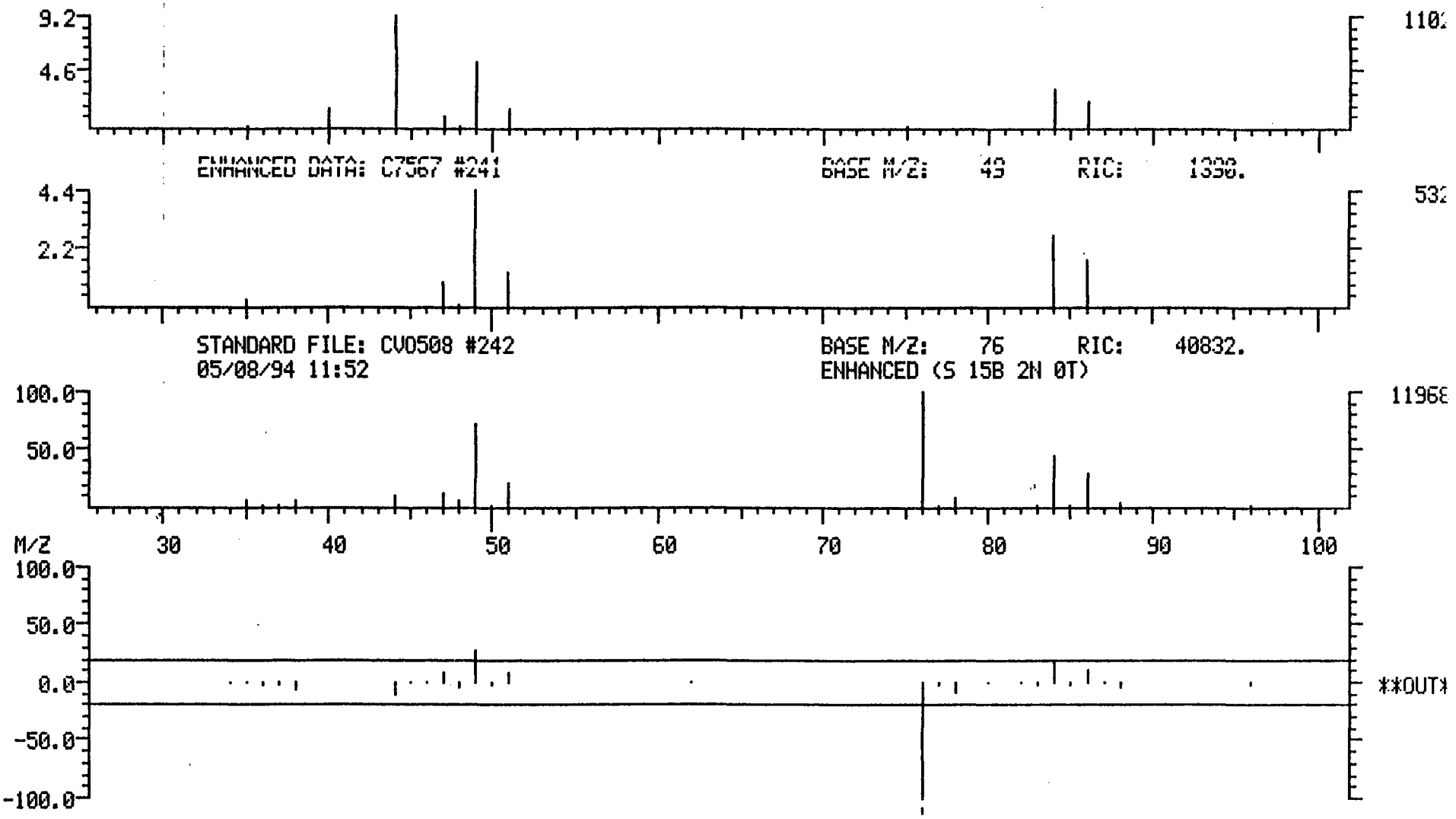
Data: C7567.TI
05/08/94 15:50:00
Sample: 2341-001-01 BLDG.9061 1479.1
Cmds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

DATA FILE: C7567 #241 STANDARD FILE: CV0508 #242
TARGET COMPOUND COMPARISON CALI: C7567 #3
COMPOUND: C030 METHYLENE CHLORIDE

RAW DATA: C7567 #241 BASE M/Z: 44 RIC: 2956.
05/08/94 15:50



PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 5/08/94 16:50:34

DATA FILE: C7567

FILTER SCAN PARAMETERS

MAX. NUMBER TICS:	15
11-TABLE ENTRIES:	528
SCAN TOLERANCE :	2
MIN. RIC HT. [%]:	10
FIRST SCAN :	1
LAST SCAN :	1600
TIC THRESHOLD :	600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLS
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LS
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

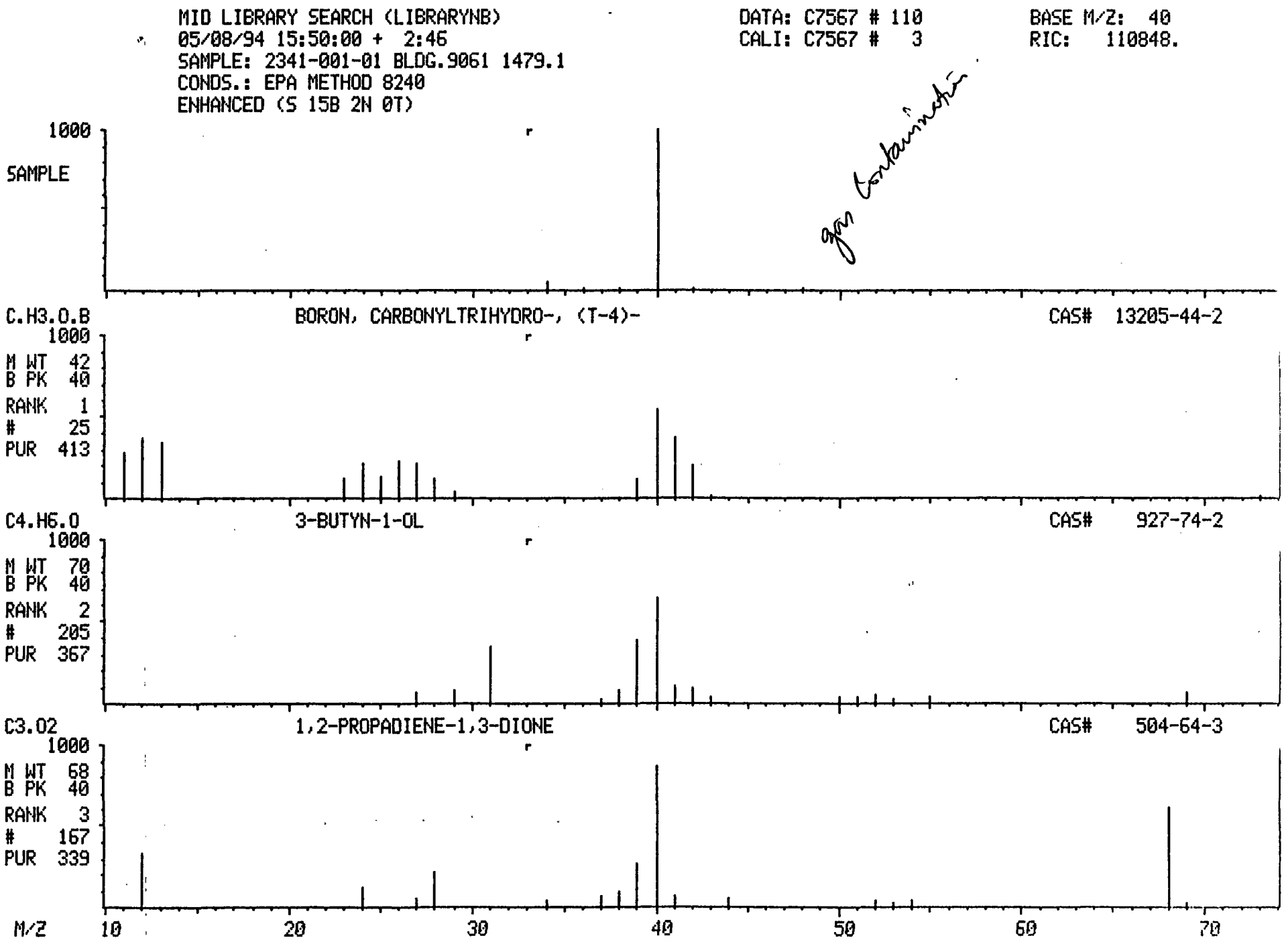
TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
5	3	8

FILTER PROCESSING:

	<----------REJECT PEAKS---------->						
TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
10	0	0	1	7	0	8	2

TIC PROCESSING:

NO.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	110	413	436	42	BORON, CARBONYLTRIHYDRO-, (T-4
2	1557	766	995	142	NONANAL


MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 15:50:00 + 2:46
SAMPLE: 2341-001-01 BLDG.9061 1479.1
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)
DATA: C7567 # 110
CALI: C7567 # 3
BASE M/Z: 40
RIC: 110848.
gas Contaminate
1000
SAMPLE
C.H3.O.B
BORON, CARBONYLTRIHYDRO-, (T-4)-
CAS# 13205-44-2
1000
M WT 42
B PK 40
RANK 1
25
PUR 413
C4.H6.O
3-BUTYN-1-OL
CAS# 927-74-2
1000
M WT 70
B PK 40
RANK 2
205
PUR 367
C3.O2
1,2-PROPADIENE-1,3-DIONE
CAS# 504-64-3
1000
M WT 68
B PK 40
RANK 3
167
PUR 339
M/Z
10
20
30
40
50
60
70

Princeton Testing Laboratory Inc.

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(609) 452-9050
(FAX) (609) 452-0347

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

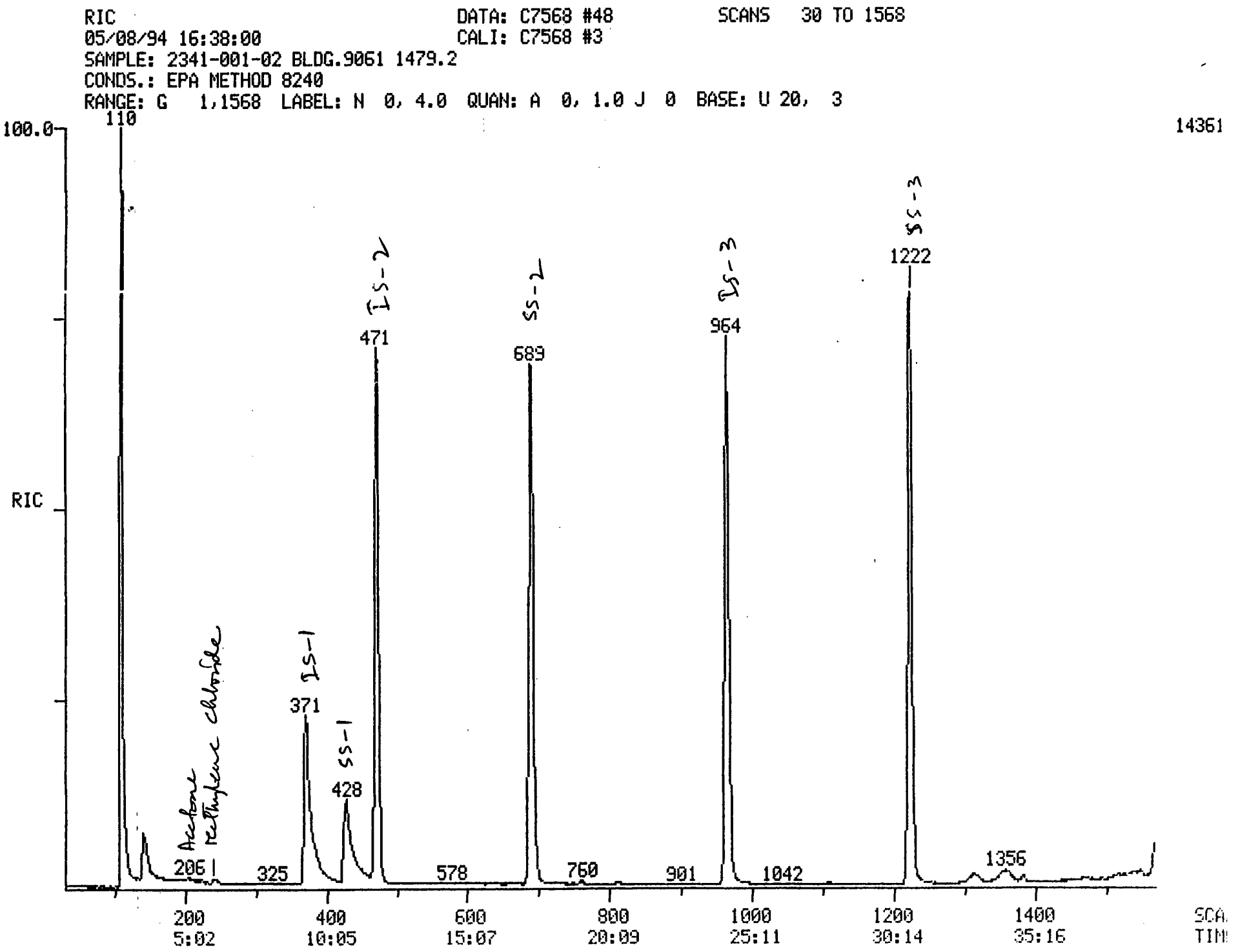
Report Date: 05/17/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters	*Sample I.D.: Bldg. 9061 5/5/94 1479.2 Site B*
Chloromethane	<22
Bromomethane	<22
Vinyl chloride	<22
Chloroethane	<22
Methylene chloride	4.1 BJ
Acetone	20 B
Carbon disulfide	<11
1,1-Dichloroethene	<11
1,1-Dichloroethane	<11
1,2-Dichloroethene (Total)	<11
Chloroform	<11
1,2-Dichloroethane	<11
2-Butanone	<11
1,1,1-Trichloroethane	<11
Carbon tetrachloride	<11
Bromodichloromethane	<11
1,1,2,2-Tetrachloroethane	<11
1,2-Dichloropropane	<11
trans-1,3-Dichloropropene	<11
Trichloroethene	<11
Dibromochloromethane	<11
1,1,2-Trichloroethane	<11
Benzene	<11
cis-1,3-Dichloropropene	<11
Bromoform	<11
2-Hexanone	<11
4-Methyl-2-Pentanone	<11
Tetrachloroethene	<11
Toluene	<11
Chlorobenzene	<11
Ethylbenzene	<11
Styrene	<11
Total Xylenes	<11

RECOVERY DATA	QC LIMITS	
1,2-Dichloroethane-d4 (Surrogate)	70-121%	105
Toluene-d8 (Surrogate)	84-138%	103
4-Bromofluorobenzene (Surrogate)	59-113%	96

B = Compound Found In Blank


RIC
05/08/94 16:38:00
SAMPLE: 2341-001-02 BLDG.9061 1479.2
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: C7568 #48
CALI: C7568 #3
SCANS 30 TO 1568
14361
100.0
RIC
110
Acetone
Methylene chloride
206
325
IS-1
371
SS-1
428
IS-2
471
578
SS-2
689
760
IS-3
964
901
1042
SS-3
1222
1356
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16
SCA
TIM

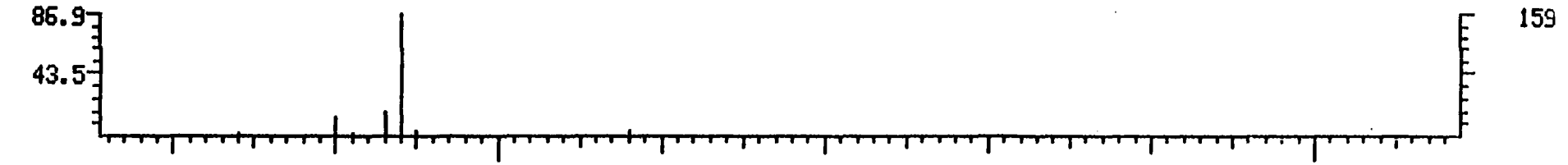
c7568

No	Name
48	C250 O-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	371	9:21	1	1.000	A BB	78990.	50.000 NG	15.96
2	114	471	11:52	2	1.000	A BB	248356.	50.000 NG	15.96
3	117	964	24:17	3	1.000	A BB	212635.	50.000 NG	15.96
4	65	428	10:47	1	1.154	A BB	50623.	52.434 NG	16.74
5	98	689	17:21	3	0.715	A BB	252886.	51.647 NG	16.49
6	95	1222	30:47	3	1.268	A BB	179792.	48.217 NG	15.39
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	241	6:04	1	0.650	A BB	2944.	1.896 NG	0.61
12	NOT FOUND								
13	43	206	5:11	1	0.555	A BV	2833.	9.054 NG	2.89
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

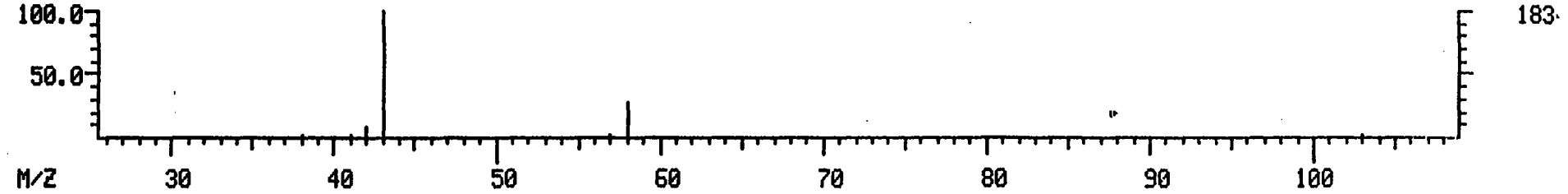
DATA FILE: C7568 #206 STANDARD FILE: CV0508 #207
TARGET COMPOUND COMPARISON CALI: C7568 #3
COMPOUND: C035 ACETONE

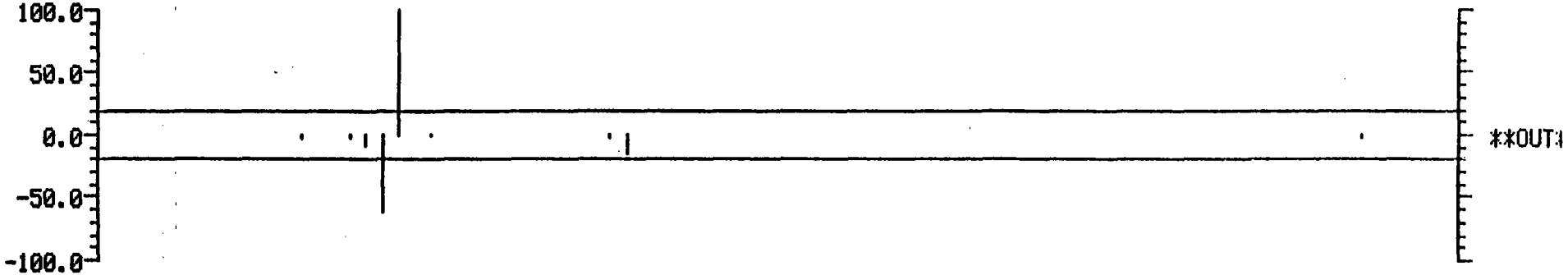
RAW DATA: C7568 #206 BASE M/Z: 44 RIC: 2284.
05/08/94 16:38



ENHANCED DATA: C7568 #206 BASE M/Z: 44 RIC: 905.

STANDARD FILE: CV0508 #207 BASE M/Z: 43 RIC: 2656.
05/08/94 11:52 ENHANCED (S 15B 2N 0T)





Quantitation Report File: C7568

Data: C7568.TI
05/08/94 16:38:00
Sample: 2341-001-02 BLDG.9061 1479.2
Cmnds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	CAS #	Name
1	0-00-0	CI01 BROMOCHLOROMETHANE **INT.STD.**
2	0-00-0	CI10 1,4-DIFLUOROBENZENE **INT. STD.**
3	0-00-0	CI20 CHLOROBENZENE-D5 **INT.STD.**
4	0-00-0	UNKNOWN

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	TOT	371	9:21	0	ISINV	A BB	238649.	******	UG/L	00.00
2	TOT	471	11:52	0	ISINV	A BB	521106.	******	UG/L	00.00
3	TOT	964	24:17	0	ISINV	A BB	522792.	******	UG/L	00.00
4	TOT	110	2:46	1	0.296	A BB	427203.	89.505		*100.

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:13	1.01	1.000						
2	19:21	0.61	1.000						
3	23:54	1.02	1.000						
4					89.50	1.00	89.505	1.000	89.50

Princeton Testing Laboratory Inc.

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Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-0347

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

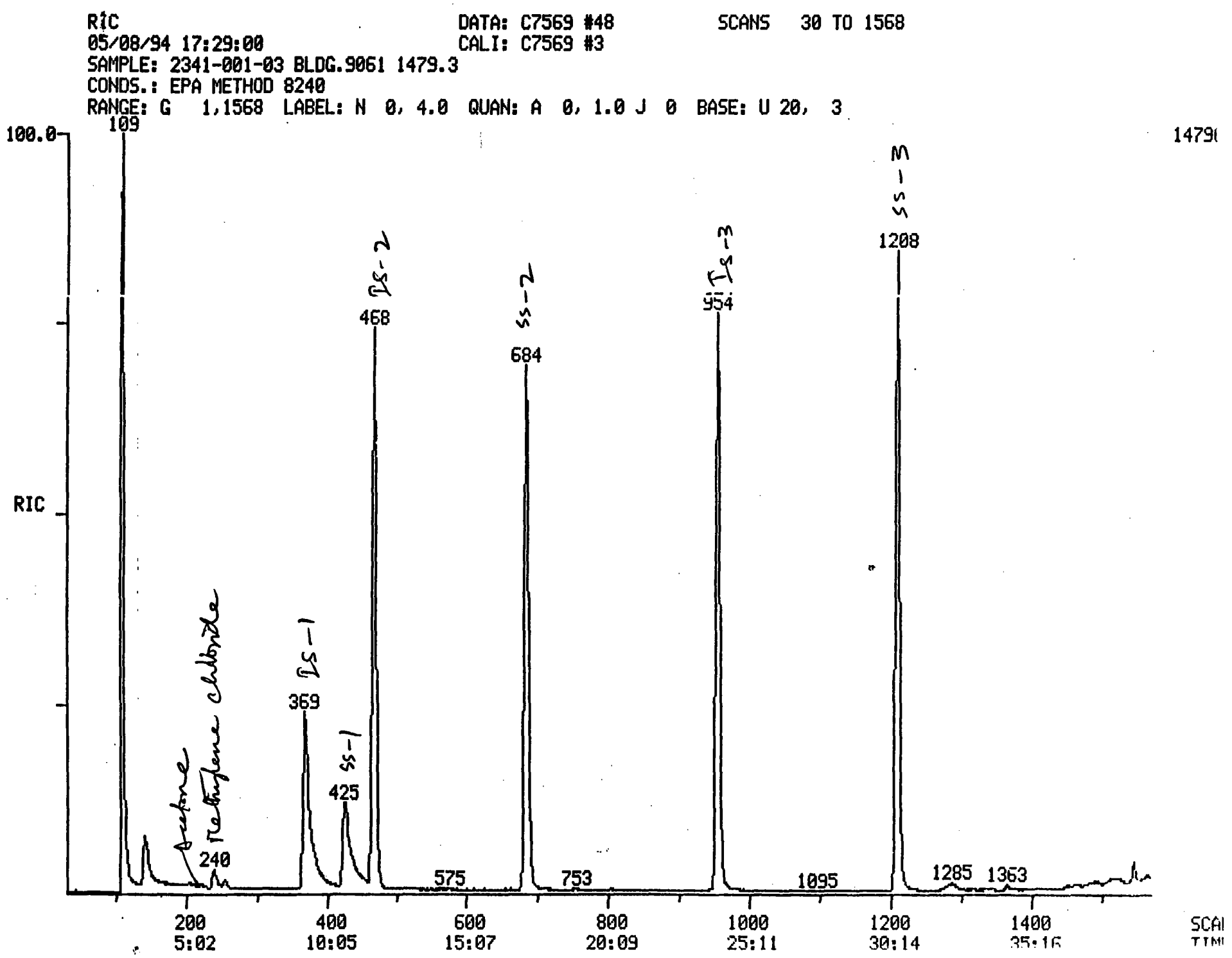
Report Date: 05/17/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters	*Sample I.D.: Bldg. 9061, 5/5/94 1479.3 Site C*
Chloromethane	<21
Bromomethane	<21
Vinyl chloride	<21
Chloroethane	<21
Methylene chloride	13 B
Acetone	12 B
Carbon disulfide	<11
1,1-Dichloroethene	<11
1,1-Dichloroethane	<11
1,2-Dichloroethene (Total)	<11
Chloroform	<11
1,2-Dichloroethane	<11
2-Butanone	<11
1,1,1-Trichloroethane	<11
Carbon tetrachloride	<11
Bromodichloromethane	<11
1,1,2,2-Tetrachloroethane	<11
1,2-Dichloropropane	<11
trans-1,3-Dichloropropene	<11
Trichloroethene	<11
Dibromochloromethane	<11
1,1,2-Trichloroethane	<11
Benzene	<11
cis-1,3-Dichloropropene	<11
Bromoform	<11
2-Hexanone	<11
4-Methyl-2-Pentanone	<11
Tetrachloroethene	<11
Toluene	<11
Chlorobenzene	<11
Ethylbenzene	<11
Styrene	<11
Total Xylenes	<11

RECOVERY DATA	QC LIMITS	
1,2-Dichloroethane-d4 (Surrogate)	70-121%	106
Toluene-d8 (Surrogate)	84-138%	99
4-Bromofluorobenzene (Surrogate)	59-113%	94

B = Compound Found In Blank


RIC
05/08/94 17:29:00
SAMPLE: 2341-001-03 BLDG.9061 1479.3
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: C7569 #48
CALI: C7569 #3
SCANS 30 TO 1568
100.0
RIC
109
Acetone
Naphthalene chlorite
240
369
IS-1
425
SS-1
468
IS-2
575
684
SS-2
753
954
IS-3
1095
1208
SS-3
1285
1363
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16

c7569

No	Name
48	C250 O-XYLENE

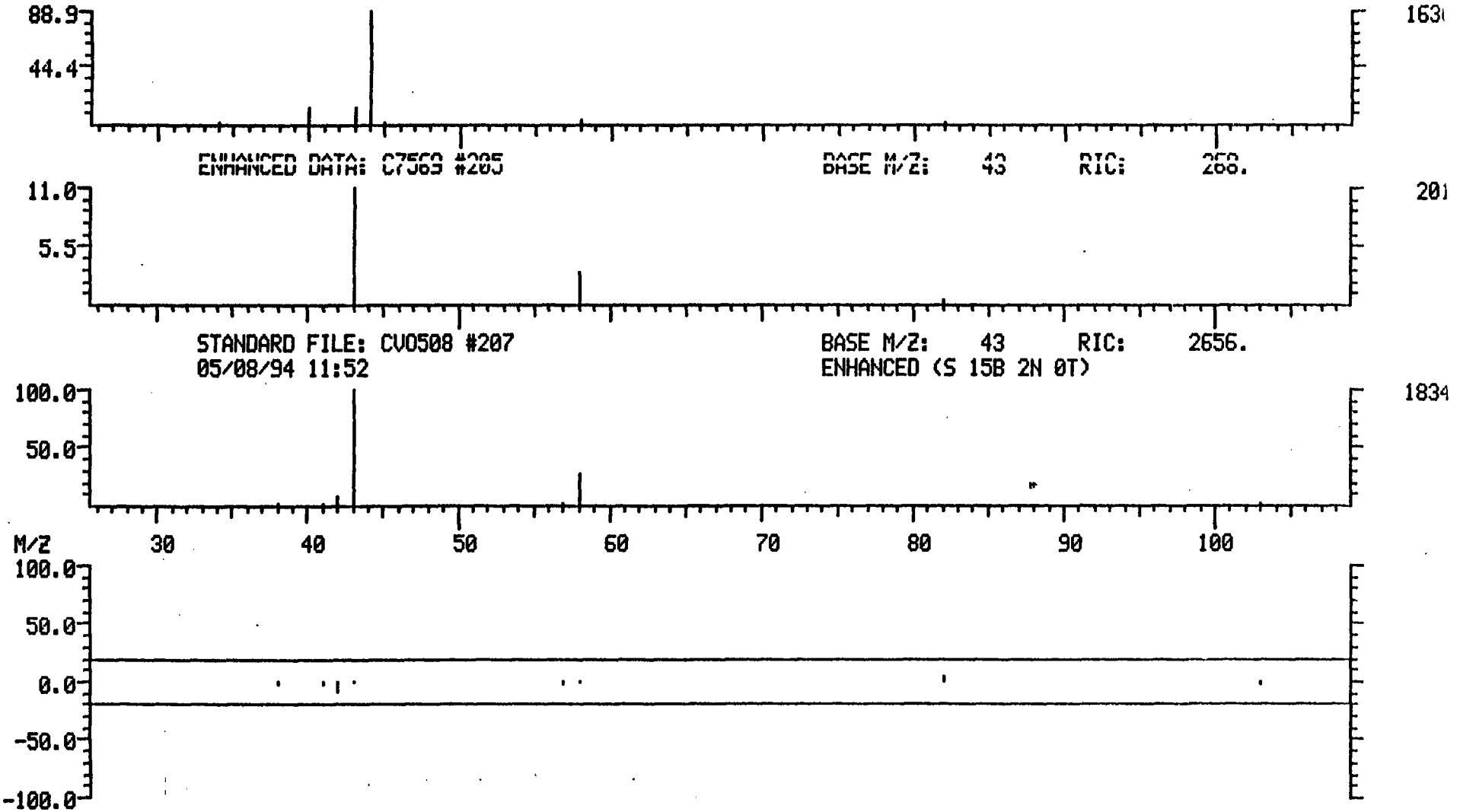
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	369	9:18	1	1.000	A BB	81585.	50.000 NG	16.07
2	114	468	11:47	2	1.000	A BB	264028.	50.000 NG	16.07
3	117	954	24:02	3	1.000	A BB	230098.	50.000 NG	16.07
4	65	425	10:42	1	1.152	A BB	52817.	52.967 NG	17.02
5	98	684	17:14	3	0.717	A BB	263535.	49.737 NG	15.98
6	95	1208	30:26	3	1.266	A BB	188993.	46.838 NG	15.05
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	240	6:03	1	0.650	A BB	10061.	6.273 NG	2.02
12	NOT FOUND								
13	43	206	5:11	1	0.558	A BB	1748.	5.410 NG	1.74
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

DATA FILE: C7569 #205
TARGET COMPOUND COMPARISON
COMPOUND: C035 ACETONE

STANDARD FILE: CV0508 #207
CALI: C7569 #3

RAW DATA: C7569 #205
05/08/94 17:29

BASE M/Z: 44 RIC: 2256.



Quantitation Report File: C7569

Data: C7569.TI
05/08/94 17:29:00
Sample: 2341-001-03 BLDG.9061 1479.3
Cmnds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	CAS #	Name
1	0-00-0	CI01 BROMOCHLOROMETHANE **INT.STD.**
2	0-00-0	CI10 1,4-DIFLUOROBENZENE **INT.STD.**
3	0-00-0	CI20 CHLOROBENZENE-D5 **INT.STD.**
4	0-00-0	UNKNOWN

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	TOT	369	9:18	0	ISINV	A BB	241285.	******	UG/L	00.00
2	TOT	468	11:47	0	ISINV	A BB	553517.	******	UG/L	00.00
3	TOT	954	24:02	0	ISINV	A BB	561427.	******	UG/L	00.00
4	TOT	109	2:45	1	0.295	A BB	430733.	89.258		*100.

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:13	1.01	1.000						
2	19:21	0.61	1.000						
3	23:54	1.01	1.000						
4					89.26	1.00	89.258	1.000	89.26

Princeton Testing Laboratory Inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
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U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
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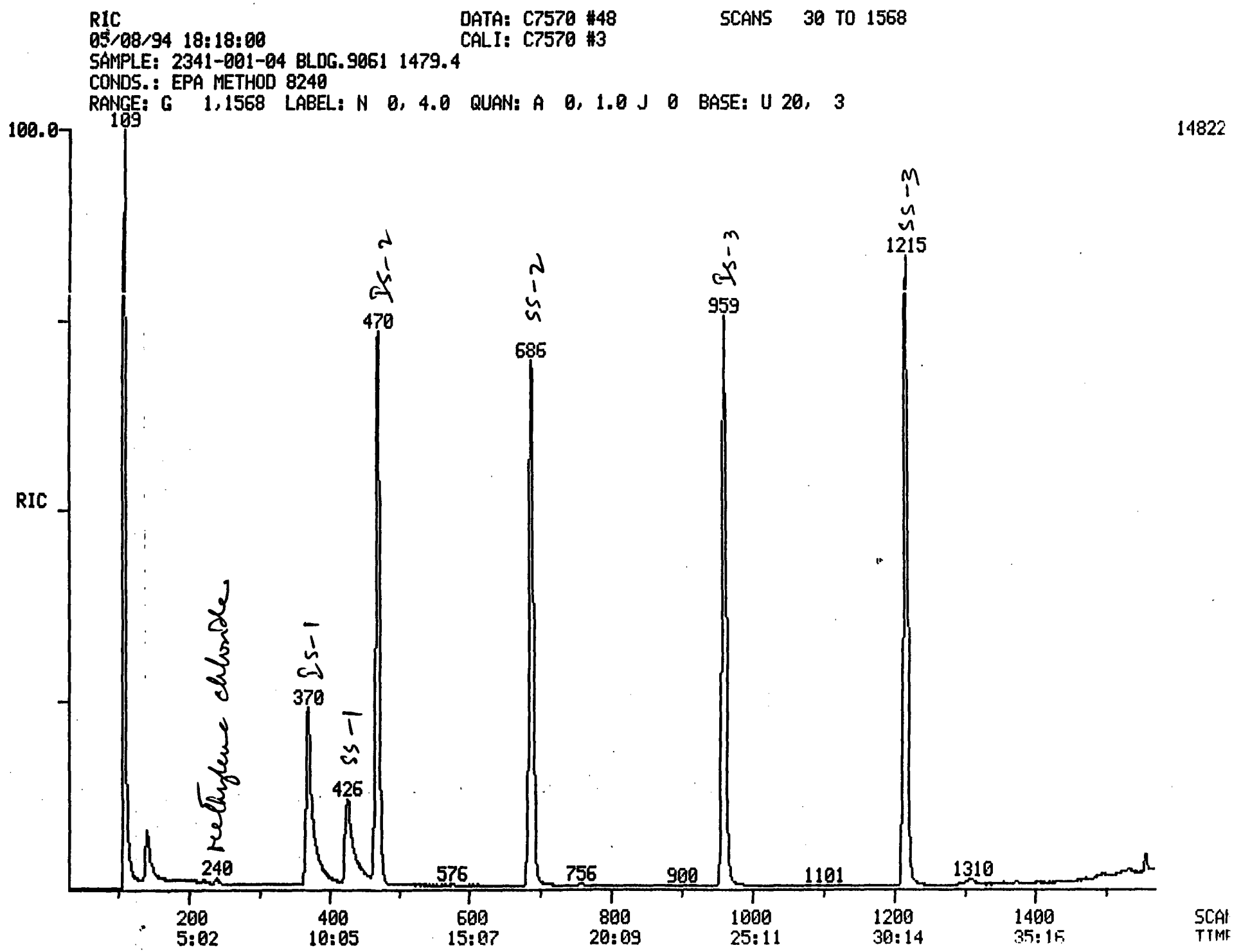
Attention: Charles Appleby

Report Date: 05/17/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters	*Sample I.D.: Bldg. 9061 5/5/94 1479.4 Site D*
Chloromethane	<24
Bromomethane	<24
Vinyl chloride	<24
Chloroethane	<24
Methylene chloride	4.6 BJ
Acetone	<12
Carbon disulfide	<12
1,1-Dichloroethene	<12
1,1-Dichloroethane	<12
1,2-Dichloroethene (Total)	<12
Chloroform	<12
1,2-Dichloroethane	<12
2-Butanone	<12
1,1,1-Trichloroethane	<12
Carbon tetrachloride	<12
Bromodichloromethane	<12
1,1,2,2-Tetrachloroethane	<12
1,2-Dichloropropane	<12
trans-1,3-Dichloropropene	<12
Trichloroethene	<12
Dibromochloromethane	<12
1,1,2-Trichloroethane	<12
Benzene	<12
cis-1,3-Dichloropropene	<12
Bromoform	<12
2-Hexanone	<12
4-Methyl-2-Pentanone	<12
Tetrachloroethene	<12
Toluene	<12
Chlorobenzene	<12
Ethylbenzene	<12
Styrene	<12
Total Xylenes	<12

RECOVERY DATA	QC LIMITS	
1,2-Dichloroethane-d4 (Surrogate)	70-121%	107
Toluene-d8 (Surrogate)	84-138%	101
4-Bromofluorobenzene (Surrogate)	59-113%	93


RIC
05/08/94 18:18:00
DATA: C7570 #48
CALI: C7570 #3
SCANS 30 TO 1568
SAMPLE: 2341-001-04 BLDG.9061 1479.4
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
14822
109
Methylene chloride
240
IS-1
370
SS-1
426
IS-2
470
576
SS-2
686
756
IS-3
959
900
SS-3
1215
1101
1310
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16
SCAN
TIME

C7570

No	Name
48	C250 O-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	370	9:19	1	1.000	A BB	81890.	50.000 NG	16.52
2	114	470	11:50	2	1.000	A BB	266464.	50.000 NG	16.52
3	117	959	24:09	3	1.000	A BB	228035.	50.000 NG	16.52
4	65	426	10:44	1	1.151	A BB	53676.	53.628 NG	17.72
5	98	686	17:17	3	0.715	A BB	265502.	50.562 NG	16.71
6	95	1215	30:36	3	1.267	A BB	186223.	46.569 NG	15.39
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	240	6:03	1	0.649	A BB	3137.	1.949 NG	0.64
12	NOT FOUND								
13	NOT FOUND								
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 5/08/94 19:19:32

DATA FILE: C7570

FILTER SCAN PARAMETERS

MAX. NUMBER TICS:	15
11-TABLE ENTRIES:	528
SCAN TOLERANCE :	2
MIN. RIC HT. [%]:	10
FIRST SCAN :	1
LAST SCAN :	1600
TIC THRESHOLD :	600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLS
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LS
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
4	3	7

FILTER PROCESSING:

	<----------REJECT PEAKS---------->						
TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
8	0	0	1	7	0	8	0

) UNKNOWN PEAKS TO BE IDENTIFIED.

SAMPLE NO.
1479.5 SITE E

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Princeton Testing Lab Contract: US ARMY FORT MONMOUTH

Lab Code: PTL Case No.: 2341 SAS No.: _____ SDG No.: _____

Matrix: (Soil/Water) SOIL Lab Sample ID: 2341-005

Sample wt/vol: 2.5 (g/mL) g Lab File ID: C7571

Level: (low/med) LOW Date Received: 5/6/94

%Moisture: not dec. 95.0 Date Analyzed: 5/8/94

GC Column: CAP ID: 0.53 mm Dilution Factor: 2.0

Soil Extract Vol: _____ul Soil Aliquot Vol: _____ul

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

#S	CAS NUMB	COMPOUND NAME	RT	EST. CONC.	SCAN

Quantitation Report File: C7571

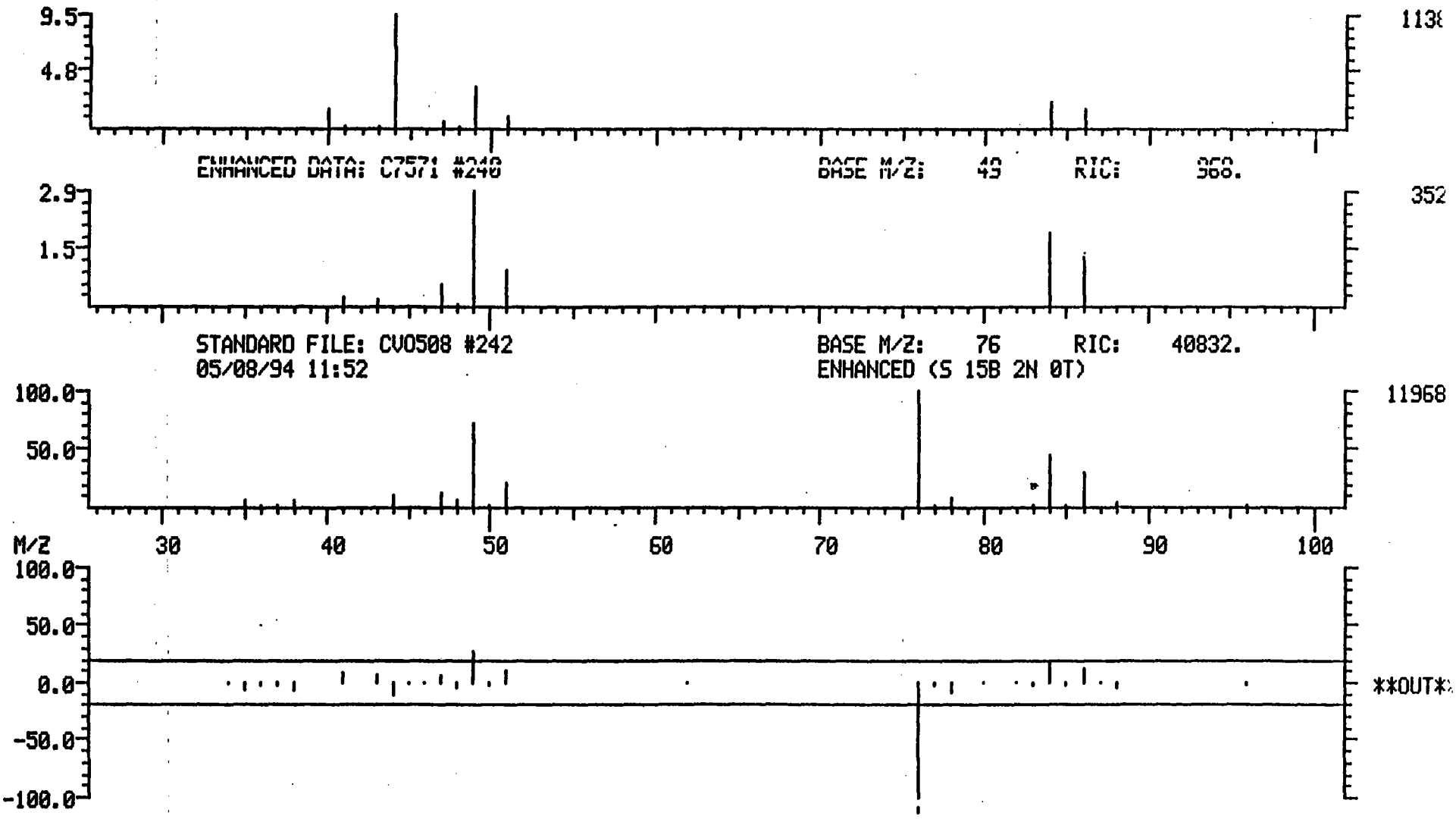
Data: C7571.TI
05/08/94 19:07:00
Sample: 2341-001-05 BLDG.9061 1479.5
Cmnds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

DATA FILE: C7571 #240 STANDARD FILE: CV0508 #242
TARGET COMPOUND COMPARISON CALI: C7571 #3
COMPOUND: C030 METHYLENE CHLORIDE

RAW DATA: C7571 #240 BASE M/Z: 44 RIC: 2480.
05/08/94 19:07



PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 5/08/94 20:09:05

DATA FILE: C7571

'LTER SCAN PARAMETERS

MAX. NUMBER TICS:	15
11-TABLE ENTRIES:	528
SCAN TOLERANCE :	2
MIN. RIC HT. [%]:	10
FIRST SCAN :	1
LAST SCAN :	1600
TIC THRESHOLD :	600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLS
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LS
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
5	3	8

FILTER PROCESSING:

	<----------REJECT PEAKS---------->						
TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
10	0	0	0	7	0	7	3

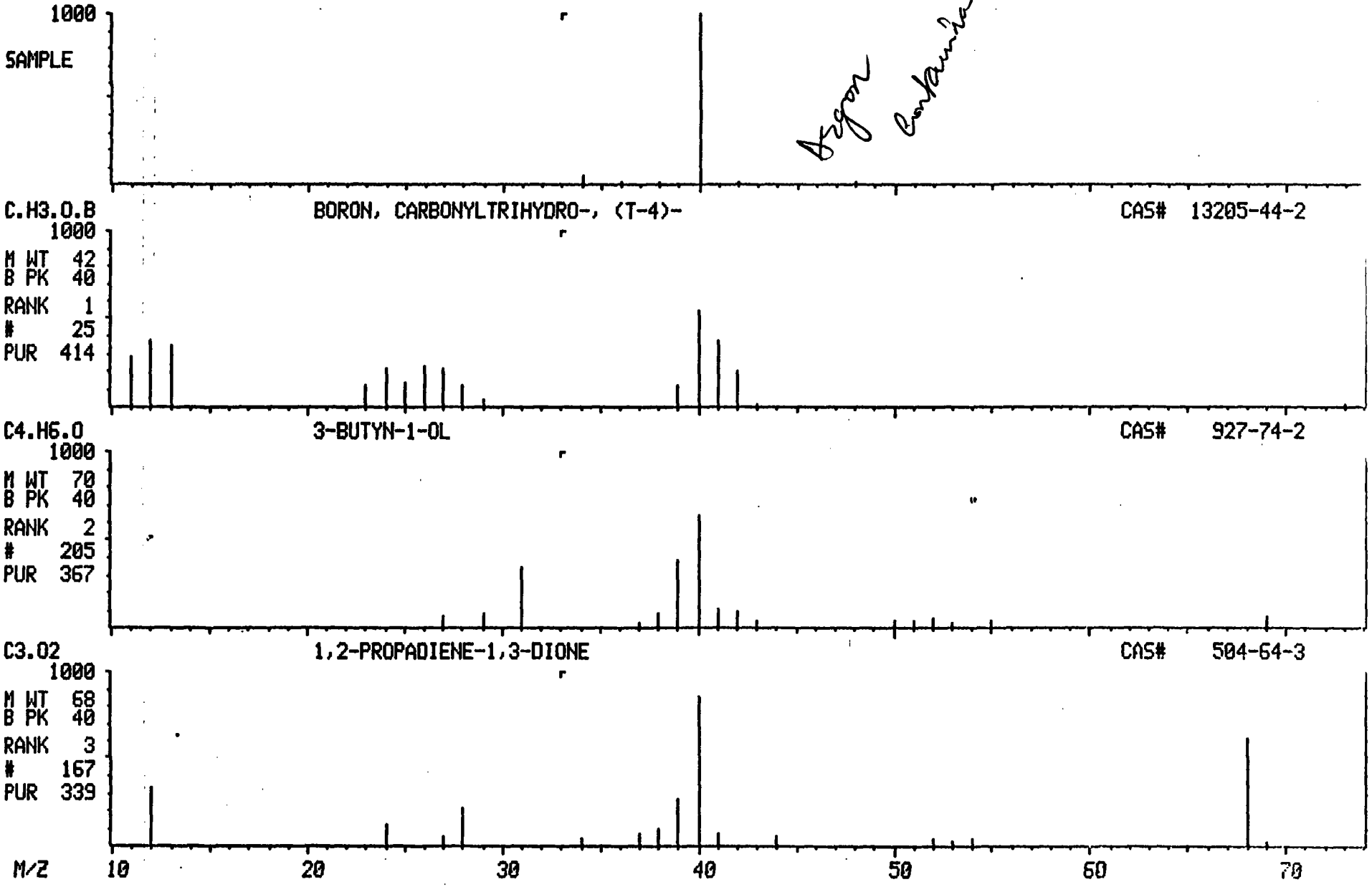
'IC PROCESSING:

NO.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	109	414	436	42	BORON, CARBONYLTRIHYDRO-, (T-4
2	257	908	914	86	HEXANE (DOT)
3	1545	738	987	142	NONANAL

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 19:07:00 + 2:45
SAMPLE: 2341-001-05 BLDG.9061 1479.5
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7571 # 109
CALI: C7571 # 3

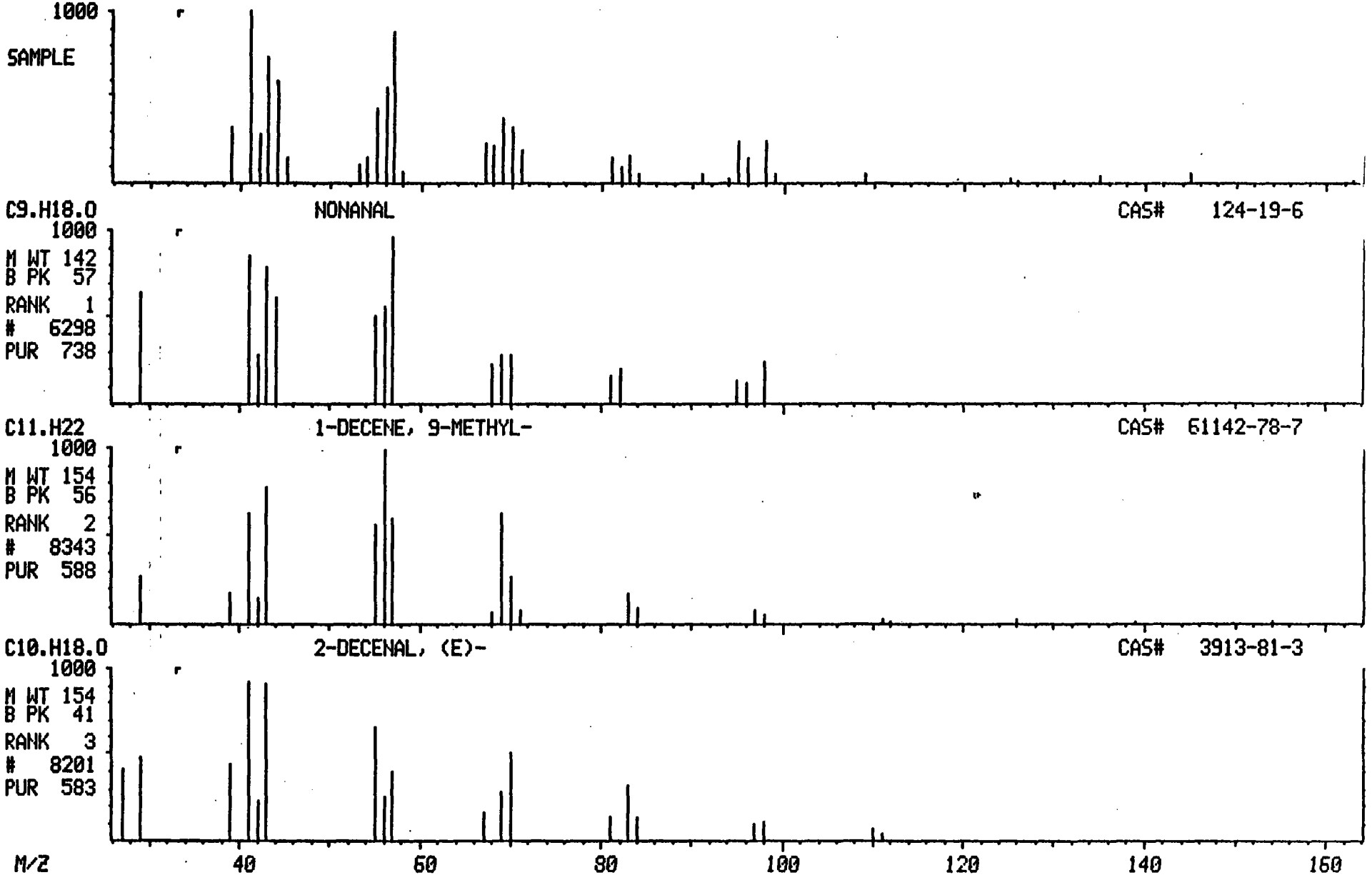
BASE M/Z: 40
RIC: 121216.



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 19:07:00 + 38:55
SAMPLE: 2341-001-05 BLDG.9061 1479.5
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7571 #1545
CALI: C7571 # 3

BASE M/Z: 41
RIC: 6720.



SAMPLE NO.
1479.6 SITE F

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Princeton Testing Lab Contract: US ARMY FORT MONMOUTH

Lab Code: PTL Case No.: 2341 SAS No.: _____ SDG No.: _____

Matrix: (Soil/Water) SOIL _____ Lab Sample ID: 2341-006 _____

Sample wt/vol: 2.5 _____ (g/mL) g Lab File ID: C7572 _____

Level: (low/med) LOW _____ Date Received: 5/6/94 _____

%Moisture: not dec. 95.2 _____ Date Analyzed: 5/8/94 _____

GC Column: CAP _____ ID: 0.53 mm Dilution Factor: 2.0 _____

Soil Extract Vol: _____ ul Soil Aliquot Vol: _____ ul

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

#S	CAS NUMB	COMPOUND NAME	RT	EST. CONC.	SCAN

Quantitation Report File: C7572

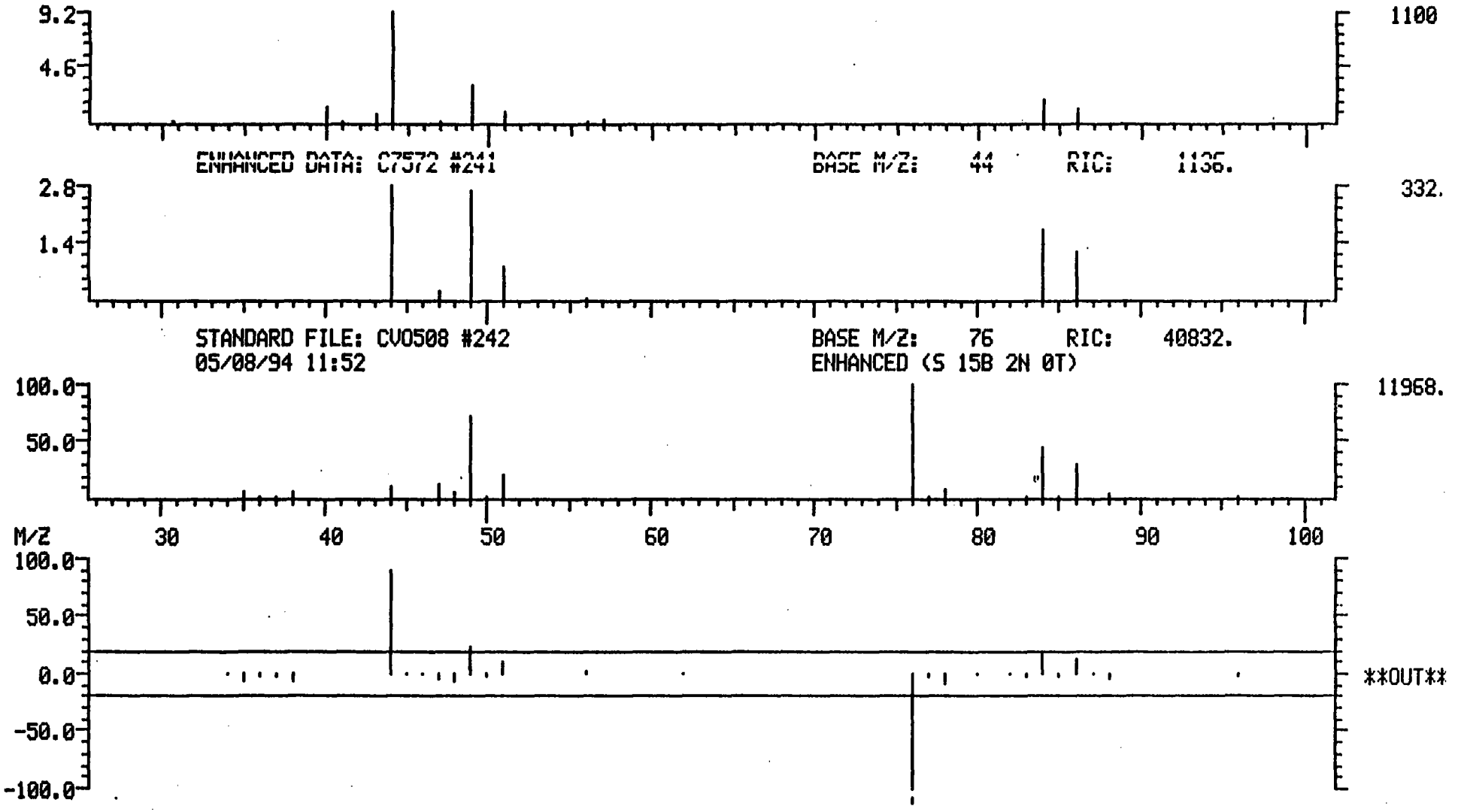
Data: C7572.TI
05/08/94 19:57:00
Sample: 2341-001-06 BLDG.9061 1479.6
Conds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

DATA FILE: C7572 #241 STANDARD FILE: CV0508 #242
TARGET COMPOUND COMPARISON CALI: C7572 #3
COMPOUND: C030 METHYLENE CHLORIDE

RAW DATA: C7572 #241 BASE M/Z: 44 RIC: 2324.
05/08/94 19:57



PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 5/06/94 21:01:44

DATA FILE: C7572

FILTER SCAN PARAMETERS

MAX. NUMBER TICS:	15
11-TABLE ENTRIES:	528
SCAN TOLERANCE :	2
MIN. RIC HT. [%]:	10
FIRST SCAN :	1
LAST SCAN :	1600
TIC THRESHOLD :	600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLS
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LS
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
6	3	9

FILTER PROCESSING:

	<----------REJECT PEAKS---------->						
TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
8	0	0	1	6	0	7	1

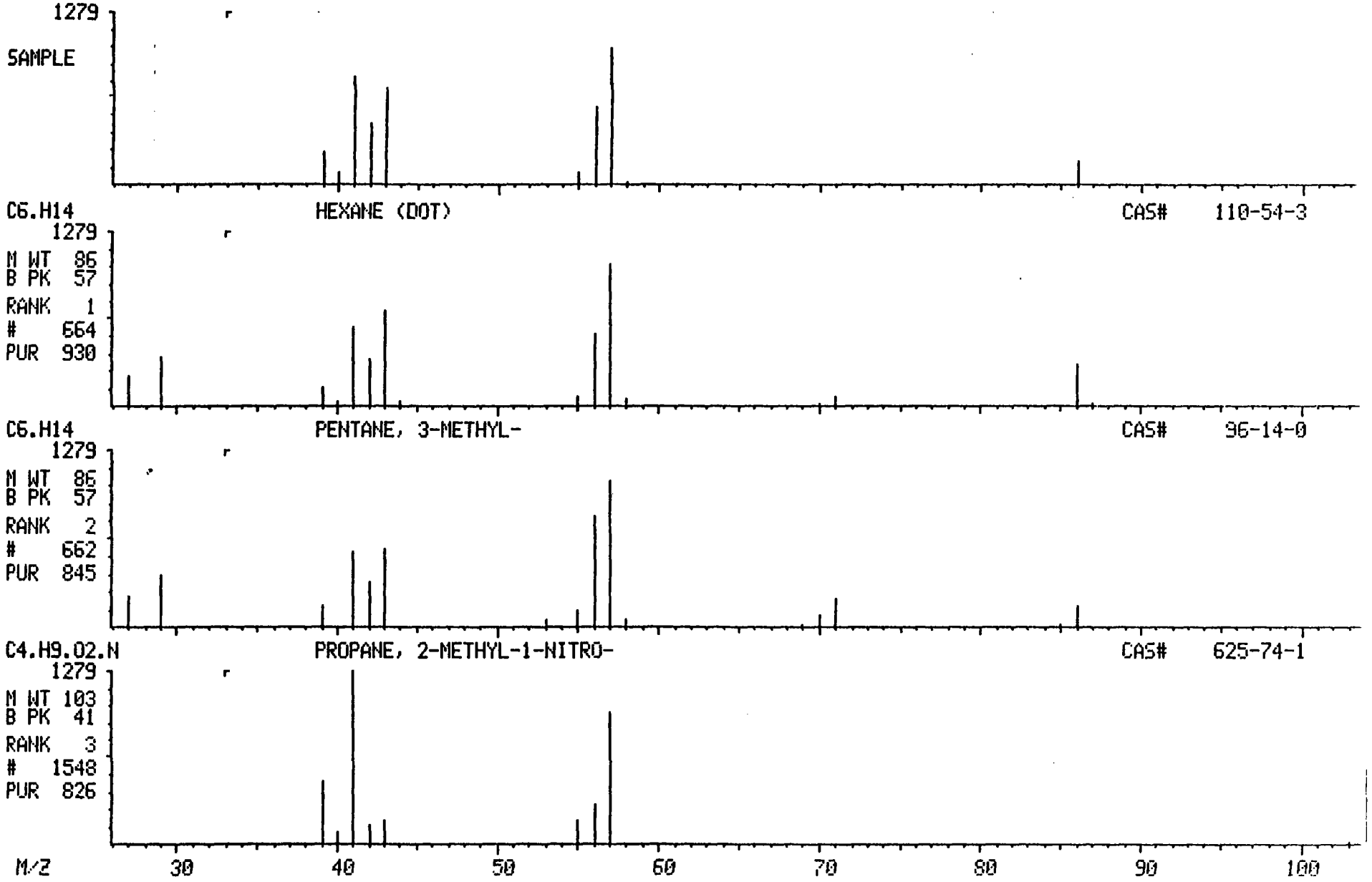
TIC PROCESSING:

NO.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	257	930	930	86	HEXANE (DOT)

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 19:57:00 + 6:28
SAMPLE: 2341-001-06 BLDG.9061 1479.6
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7572 # 257
CALI: C7572 # 3

BASE M/Z: 57
RIC: 3792.



SAMPLE NO.
1479.7 SITE G

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Princeton Testing Lab Contract: US ARMY FORT MONMOUTH

Lab Code: PTL Case No.: 2841 SAS No.: _____ SDG No.: _____

Matrix: (Soil/Water: SOIL _____ Lab Sample ID: 2841-007 _____

Sample wt/vol: 5.5 _____ (g/mL) g _____ Lab File ID: _____

Level: (low med.) LOW _____ Date Received: _____

% Moisture: not dec. 3 _____ Date Analyzed: _____

GC Column: AT ID: 0.53 mm Dilution Factor: _____

Soil Extract Vol.: _____ (ul) Soil Aliquot Vol.: _____ (ul)

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

#3	CAS NUM	COMPOUND NAME	RT	EST. CONC.	SCAN
01	611143	1-ETHYL-3-METHYL BENZENE	32:04	61	1273
02	108678	1,3,5-TRIMETHYL BENZENE	32:21	71	1281
03	622968	1-ETHYL-4-METHYL BENZENE	33:33	58	1332
04	95636	1,2,4-TRIMETHYL BENZENE	34:11	59	1357
05		TRIMETHYL BENZENE ISOMER	36:10	78	1436
06	25340174	DIETHYL BENZENE	37:04	82	1469
07	1758889	DIMETHYL ETHYL BENZENE	37:10	180	1482
08	1074437	METHYL PROPYL BENZENE	37:56	36	1504
09		DIMETHYL ETHYL BENZENE ISOMER	38:05	87	1515
10		DIMETHYL ETHYL BENZENE ISOMER	38:48	81	1538
11	1587048	1-METHYL-2-(2-PROPENYL) BENZENE	39:03	11	1550
12	58134071	PENTAMETHYLHEPTYL BENZENE	39:19	18	1557
13	767588	2,3-DIHYDRO-1-METHYL-1H-INDENE	39:32	34	1563

Quantitation Report File: C7573

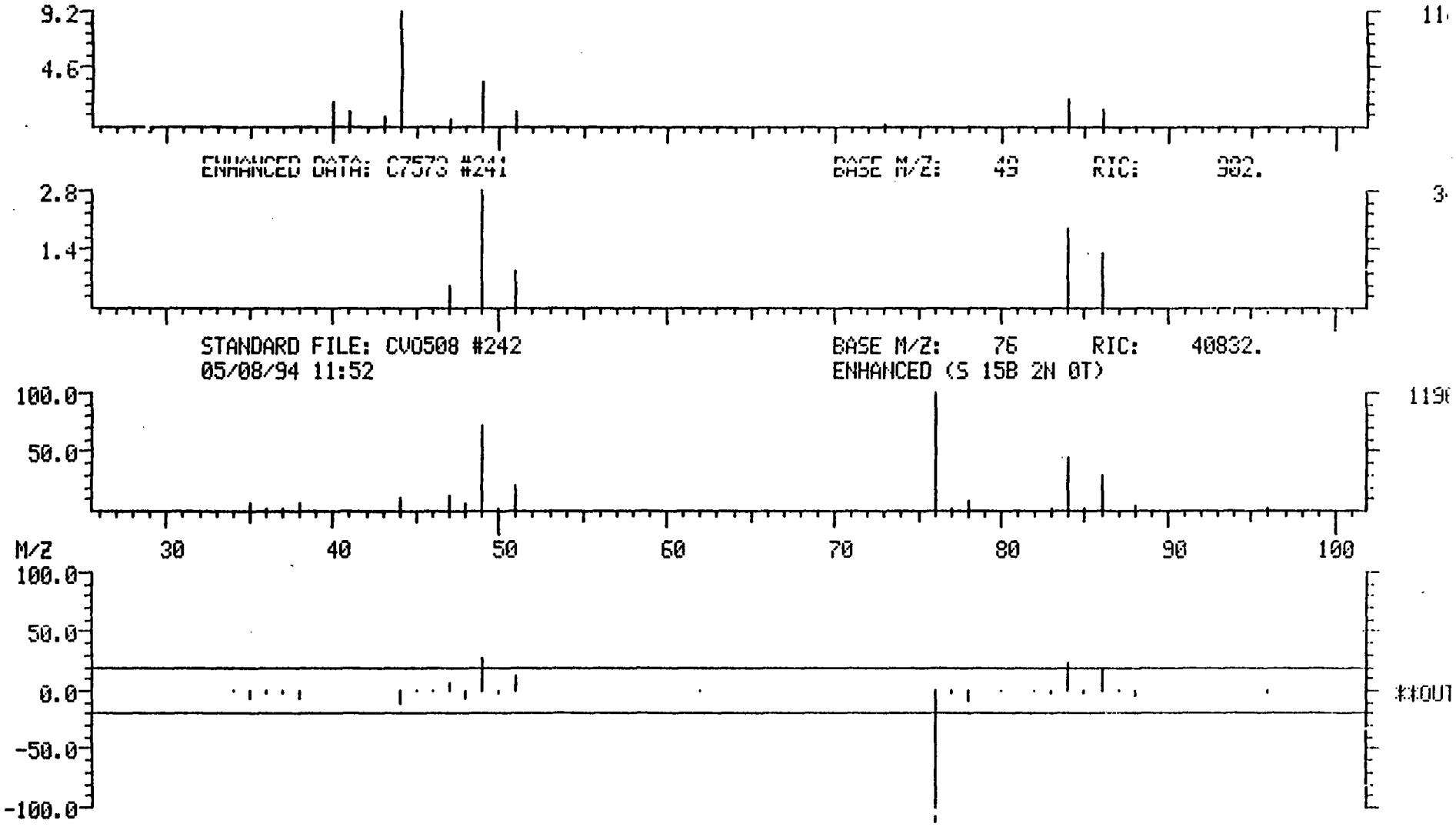
Data: C7573.TI
05/08/94 20:48:00
Sample: 2341-001-07 BLDG.9061 1479.7
Mods.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

DATA FILE: C7573 #241 STANDARD FILE: CV0508 #242
TARGET COMPOUND COMPARISON CALI: C7573 #3
COMPOUND: C030 METHYLENE CHLORIDE

RAW DATA: C7573 #241 BASE M/Z: 44 RIC: 2644.
05/08/94 20:48

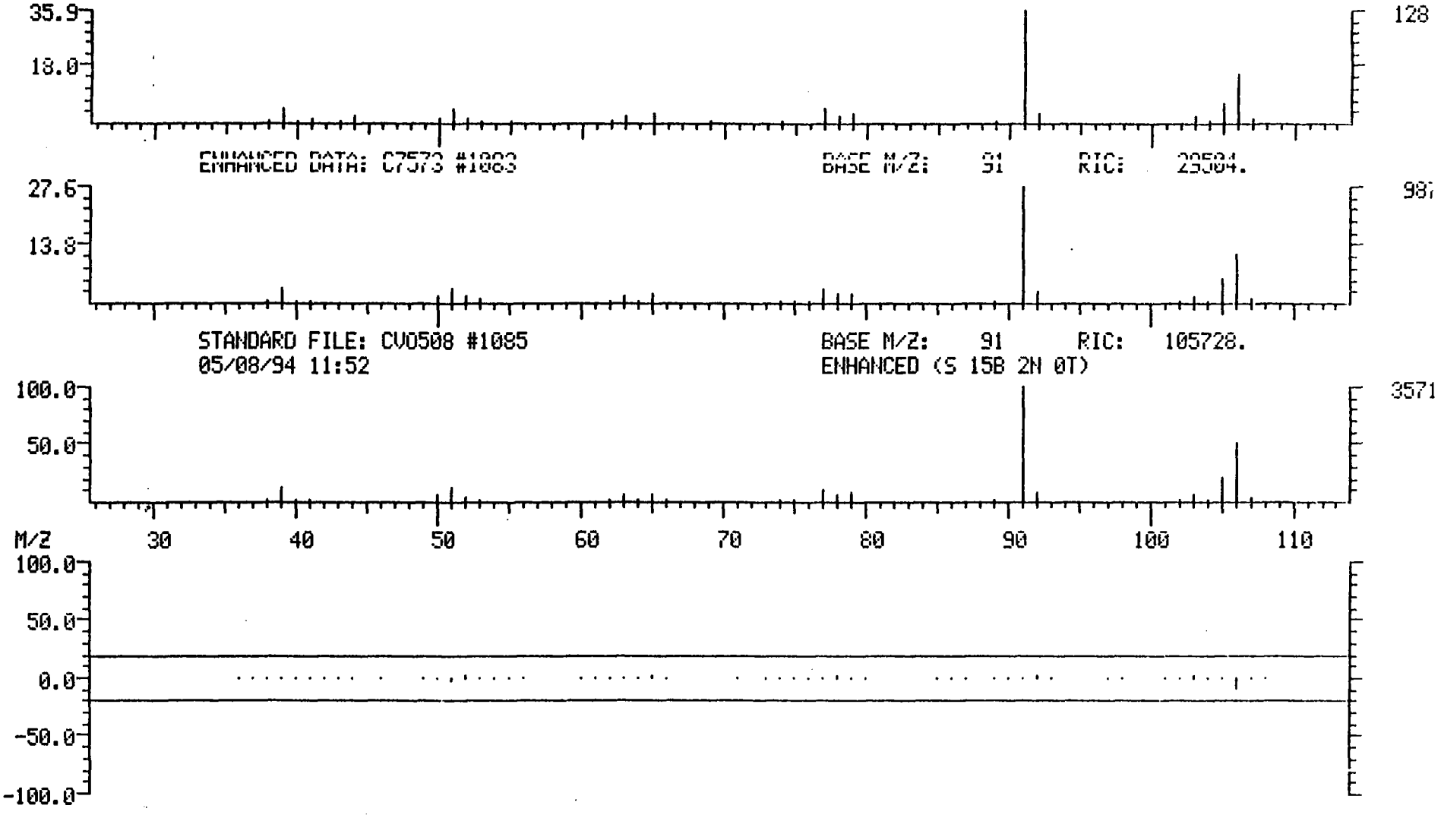


DATA FILE: C7573 #1083
TARGET COMPOUND COMPARISON
COMPOUND: C250 O-XYLENE

STANDARD FILE: CV0508 #1085
CALI: C7573 #3

RAW DATA: C7573 #1083
05/08/94 20:48

BASE M/Z: 91 RIC: 37696.



Quantitation Report File: C7573

Data: C7573.TI
05/08/94 20:48:00
Sample: 2341-001-07 BLDG.9061 1479.7
Mnds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	CAS #	Name
1	0-00-0	CI01 BROMOCHLOROMETHANE **INT. STD.**
2	0-00-0	CI10 1,4-DIFLUOROBENZENE **INT. STD.**
3	0-00-0	CI20 CHLOROBENZENE-D5 **INT. STD.**
4	0-00-0	UNKNOWN
5	611-14-3	BENZENE, 1-ETHYL-2-METHYL-
6	108-67-8	BENZENE, 1,3,5-TRIMETHYL-
7	611-14-3	BENZENE, 1-ETHYL-2-METHYL-
8	95-63-6	BENZENE, 1,2,4-TRIMETHYL-
9	62108-23-0	DECANE, 2,5,6-TRIMETHYL-
10	95-63-6	BENZENE, 1,2,4-TRIMETHYL-
11	25340-17-4	BENZENE, DIETHYL-
12	1758-88-9	BENZENE, 2-ETHYL-1,4-DIMETHYL-
13	1074-43-7	BENZENE, 1-METHYL-3-PROPYL-
14	1758-88-9	BENZENE, 2-ETHYL-1,4-DIMETHYL-
15	1758-88-9	BENZENE, 2-ETHYL-1,4-DIMETHYL-
16	1587-04-8	BENZENE, 1-METHYL-2-(2-PROPENYL)-
17	55134-07-1	BENZENE, (1,1,4,6,6-PENTAMETHYLHEPTYL)-
18	767-58-8	1H-INDENE, 2,3-DIHYDRO-1-METHYL-

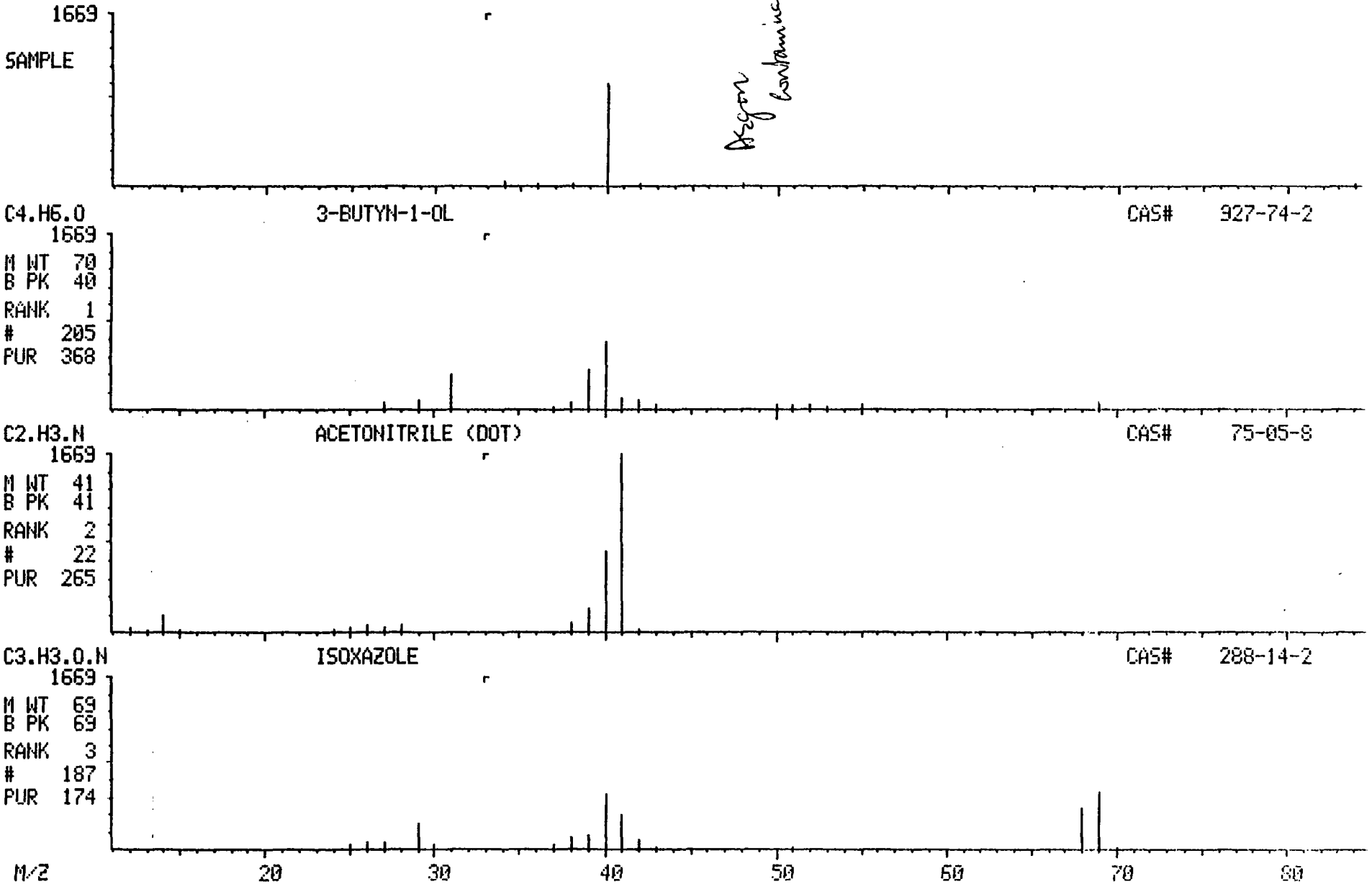
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	TOT	370	9:19	0	ISINV	A BB	253722.	******	UG/L	00.00
2	TOT	470	11:50	0	ISINV	A BB	571977.	******	UG/L	00.00
3	TOT	959	24:09	0	ISINV	A BB	566994.	******	UG/L	00.00
4	TOT	110	2:46	1	0.297	A BB	486627.	95.898		20.53
5	TOT	1273	32:04	3	1.327	A BV	322672.	28.455		6.09
6	TOT	1284	32:21	3	1.339	A VB	378552.	33.382		7.15
7	TOT	1332	33:33	3	1.389	A BB	278888.	24.594		5.27
8	TOT	1357	34:11	3	1.415	A BV	312471.	27.555		5.90
9	TOT	1375	34:38	3	1.434	A BV	51680.	4.557		0.98
10	TOT	1436	36:10	3	1.497	A BV	415697.	36.658		7.85
11	TOT	1469	37:00	3	1.532	A BV	434012.	38.273		8.19
12	TOT	1482	37:20	3	1.545	A VB	697144.	61.477		13.16
13	TOT	1506	37:56	3	1.570	A BB	156016.	13.758		2.95
14	TOT	1525	38:25	3	1.590	A BB	461878.	40.730		8.72
15	TOT	1538	38:45	3	1.604	A BB	432132.	38.107		8.16
16	TOT	1550	39:03	3	1.616	A BV	60276.	5.315		1.14
17	TOT	1558	39:15	3	1.625	A VV	80953.	7.139		1.53
18	TOT	1563	39:22	3	1.630	A BB	126908.	11.191		2.40

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:13	1.01	1.000						
2	19:21	0.61	1.000						
3	23:54	1.01	1.000						

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 20:48:00 + 2:46
SAMPLE: 2341-001-07 BLDG.9061 1479.7
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7573 # 110
CALI: C7573 # 3

BASE M/Z: 40
RIC: 146688.

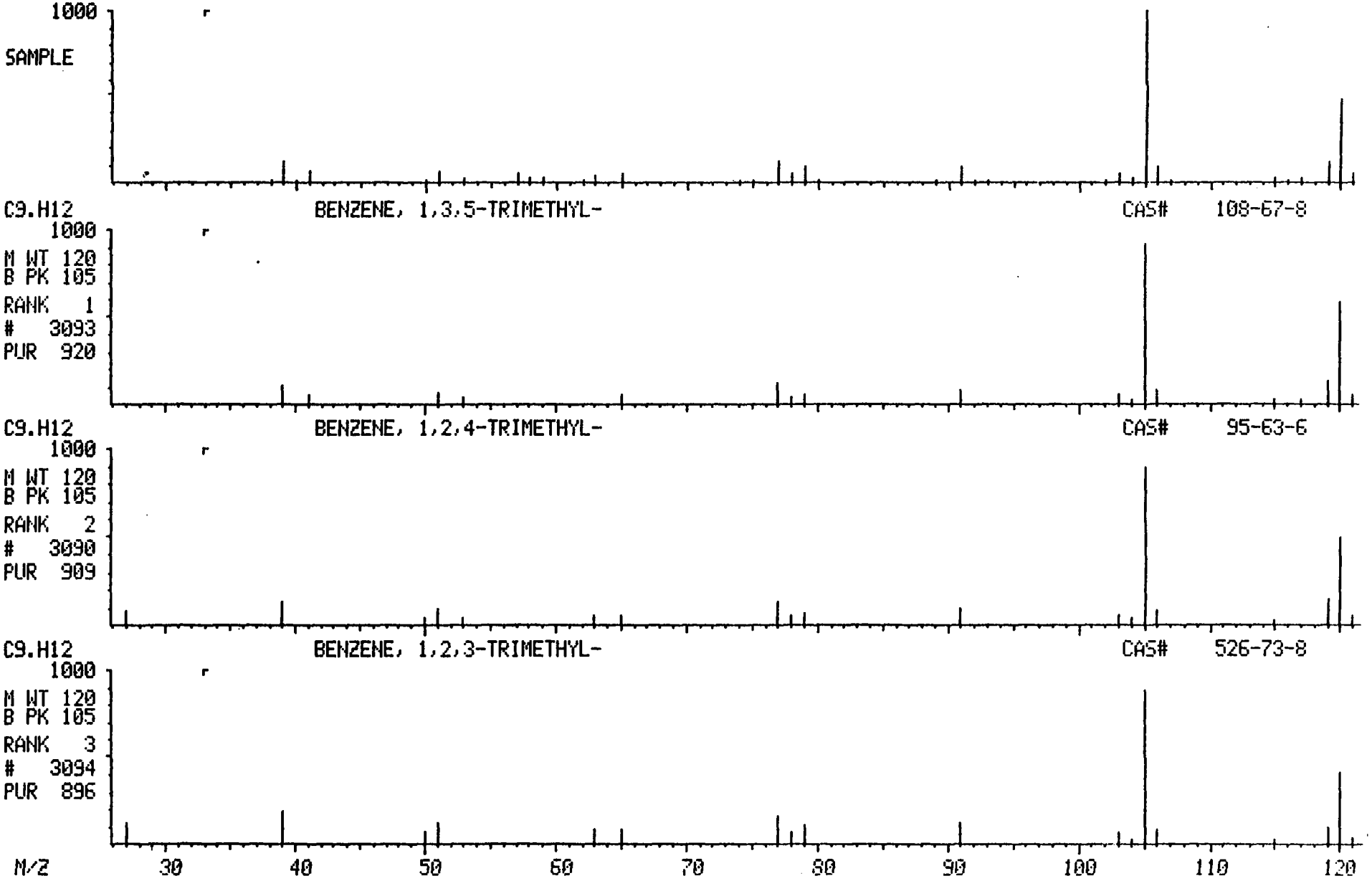


1.6

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 20:48:00 + 32:21
SAMPLE: 2341-001-07 BLDG.9061 1479.7
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7573 #1284
CALI: C7573 # 3

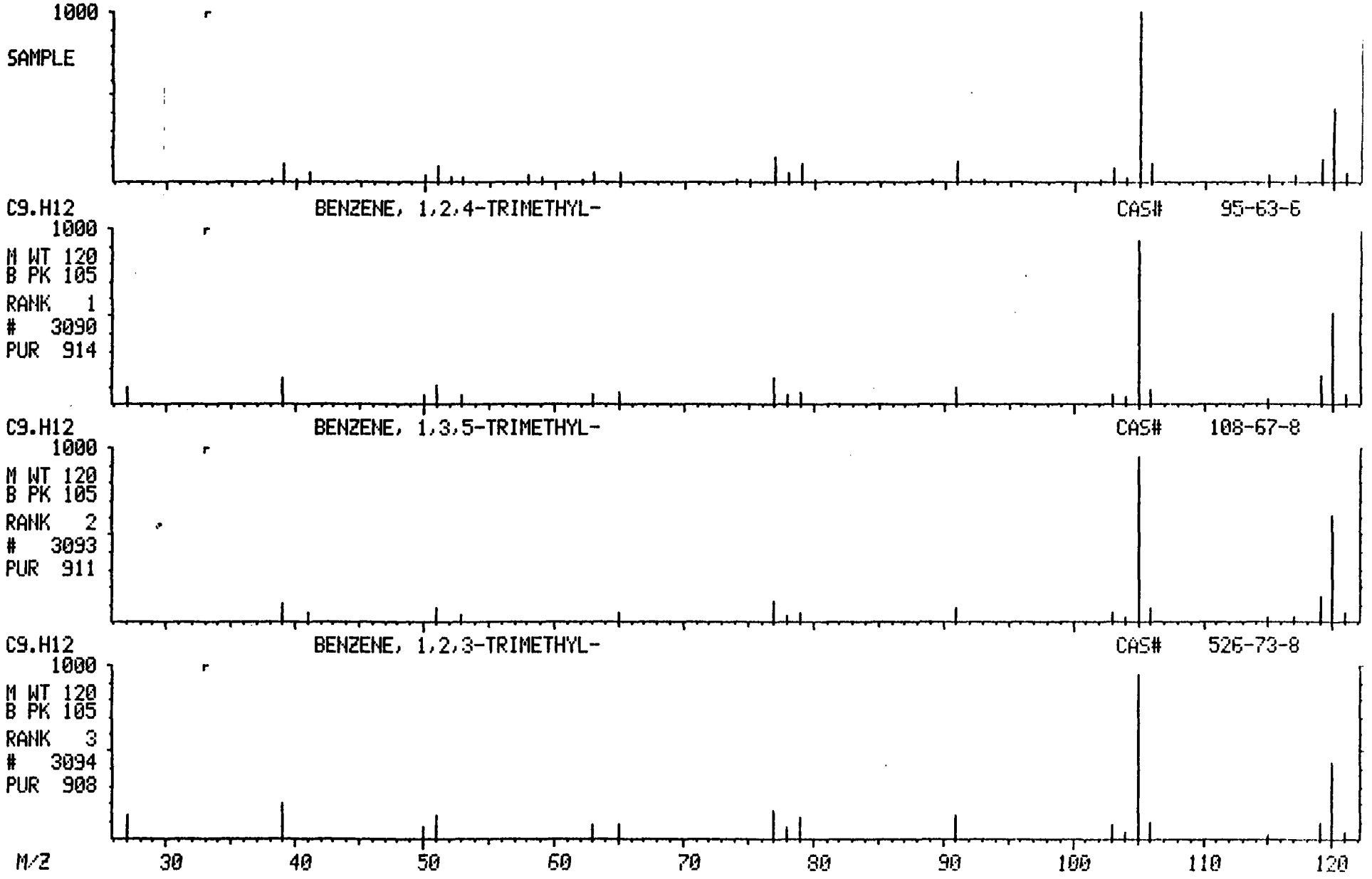
BASE M/Z: 105
RIC: 50112.



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 20:48:00 + 34:11
SAMPLE: 2341-001-07 BLDG.9061 1479.7
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7573 #1357
CALI: C7573 # 3

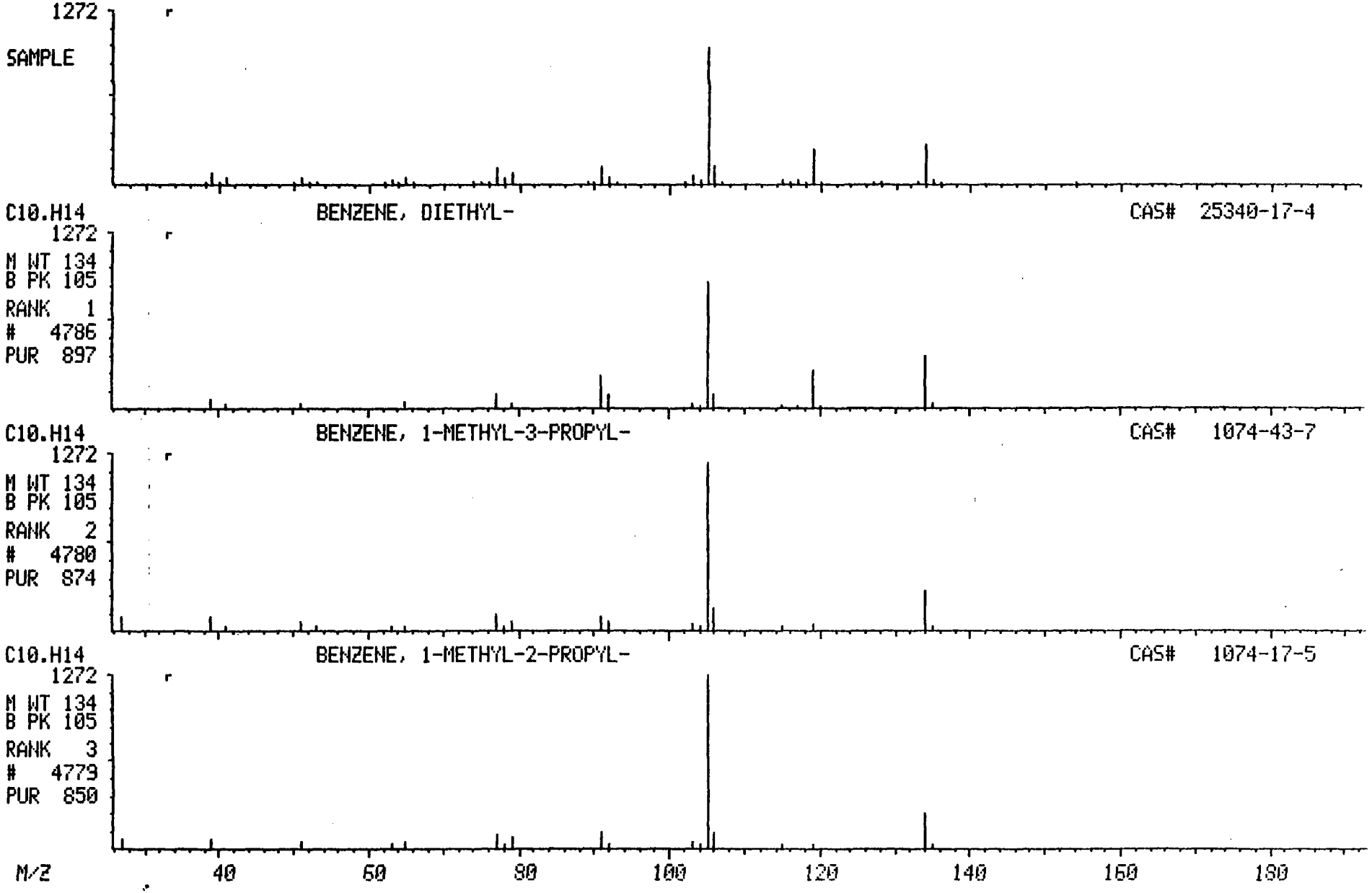
BASE M/Z: 105
RIC: 51284.



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 20:48:00 + 37:00
SAMPLE: 2341-001-07 BLDG.9061 1479.7
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7573 #1469
CALI: C7573 # 3

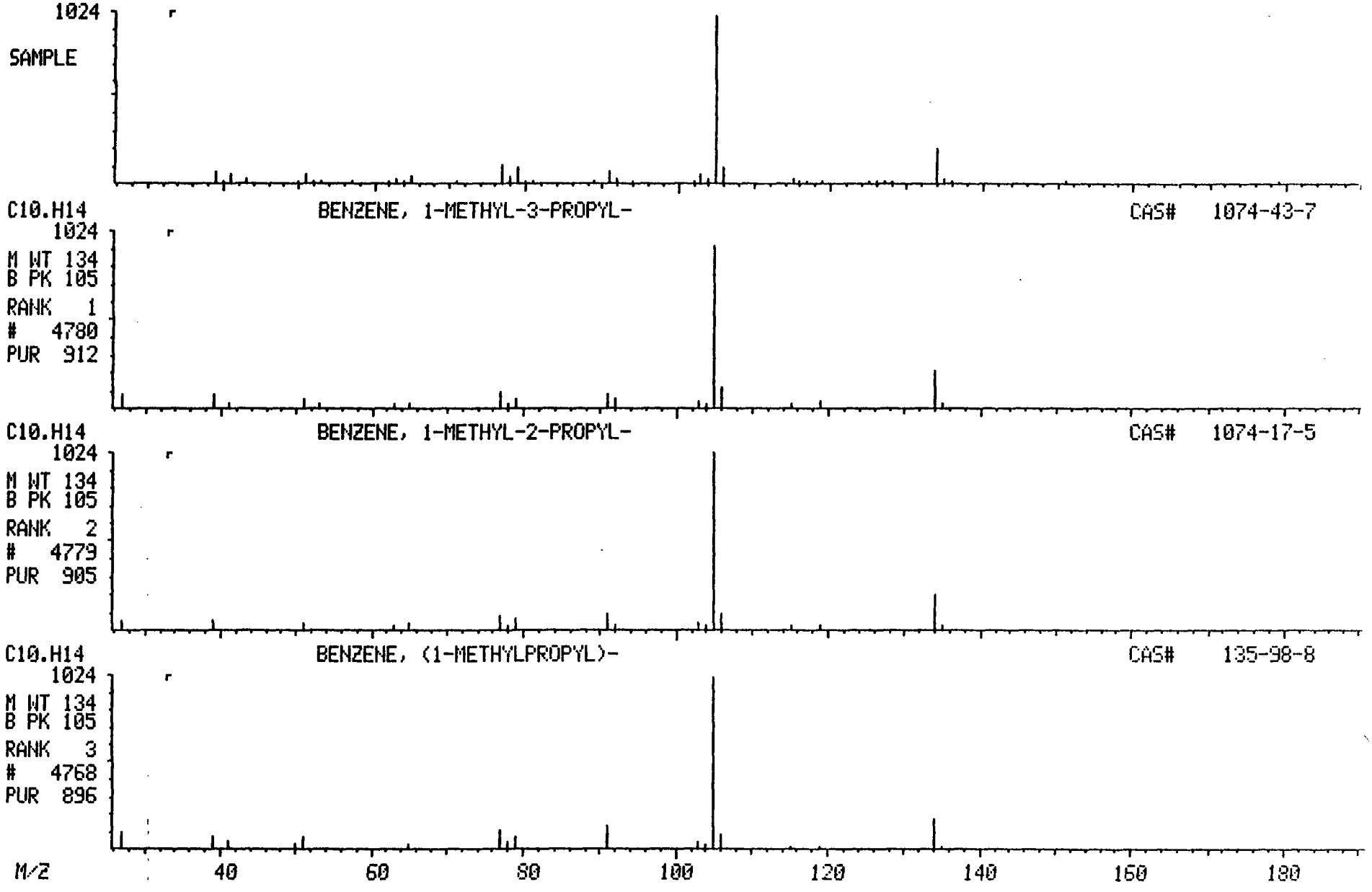
BASE M/Z: 105
RIC: 70400.



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 20:48:00 + 37:56
SAMPLE: 2341-001-07 BLDG.9061 1479.7
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7573 #1506
CALI: C7573 # 3

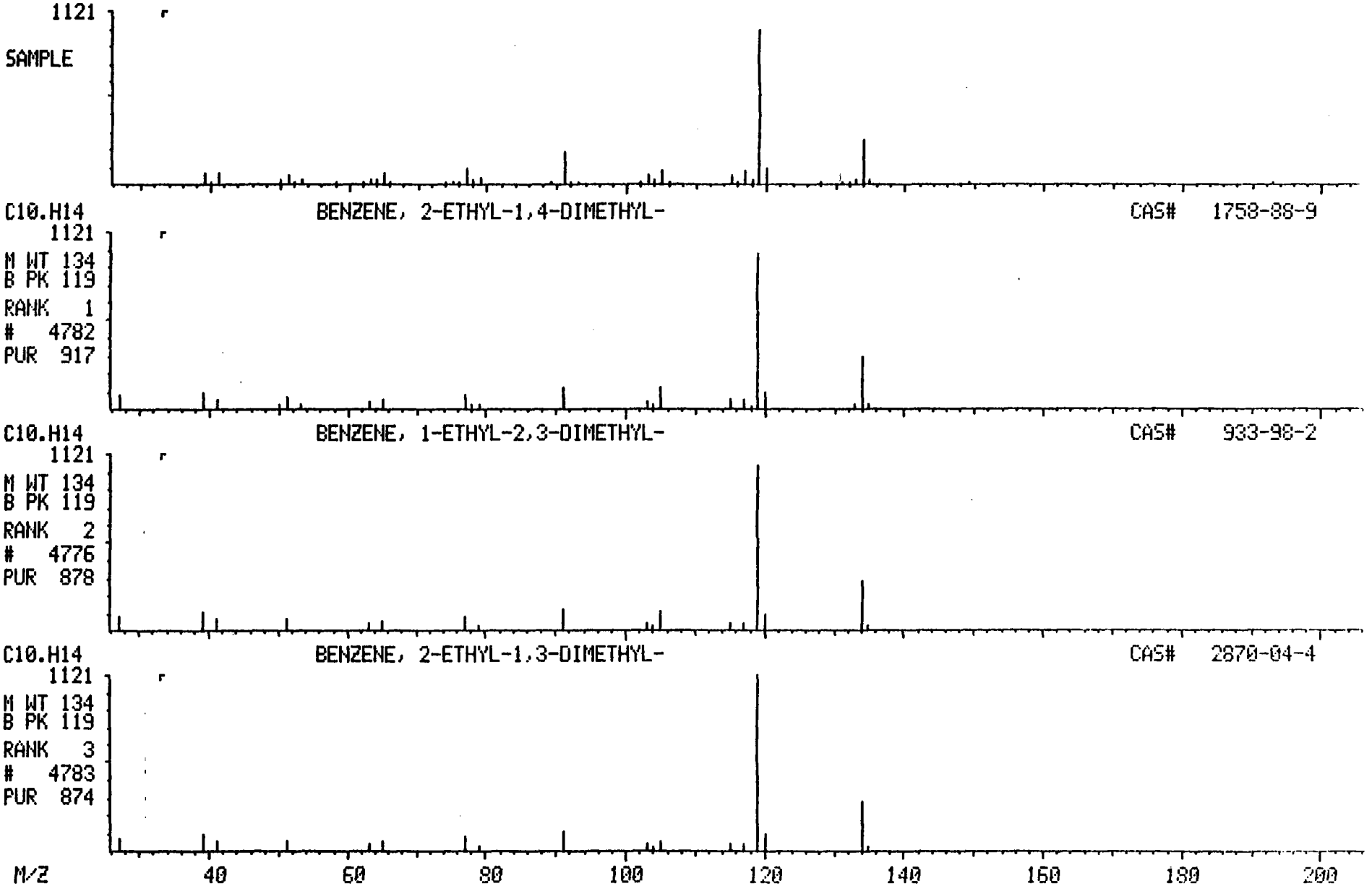
BASE M/Z: 105
RIC: 24608.



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 20:48:00 + 38:45
SAMPLE: 2341-001-07 BLDG.9061 1479.7
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7573 #1538
CALI: C7573 # 3

BASE M/Z: 119
RIC: 92928.

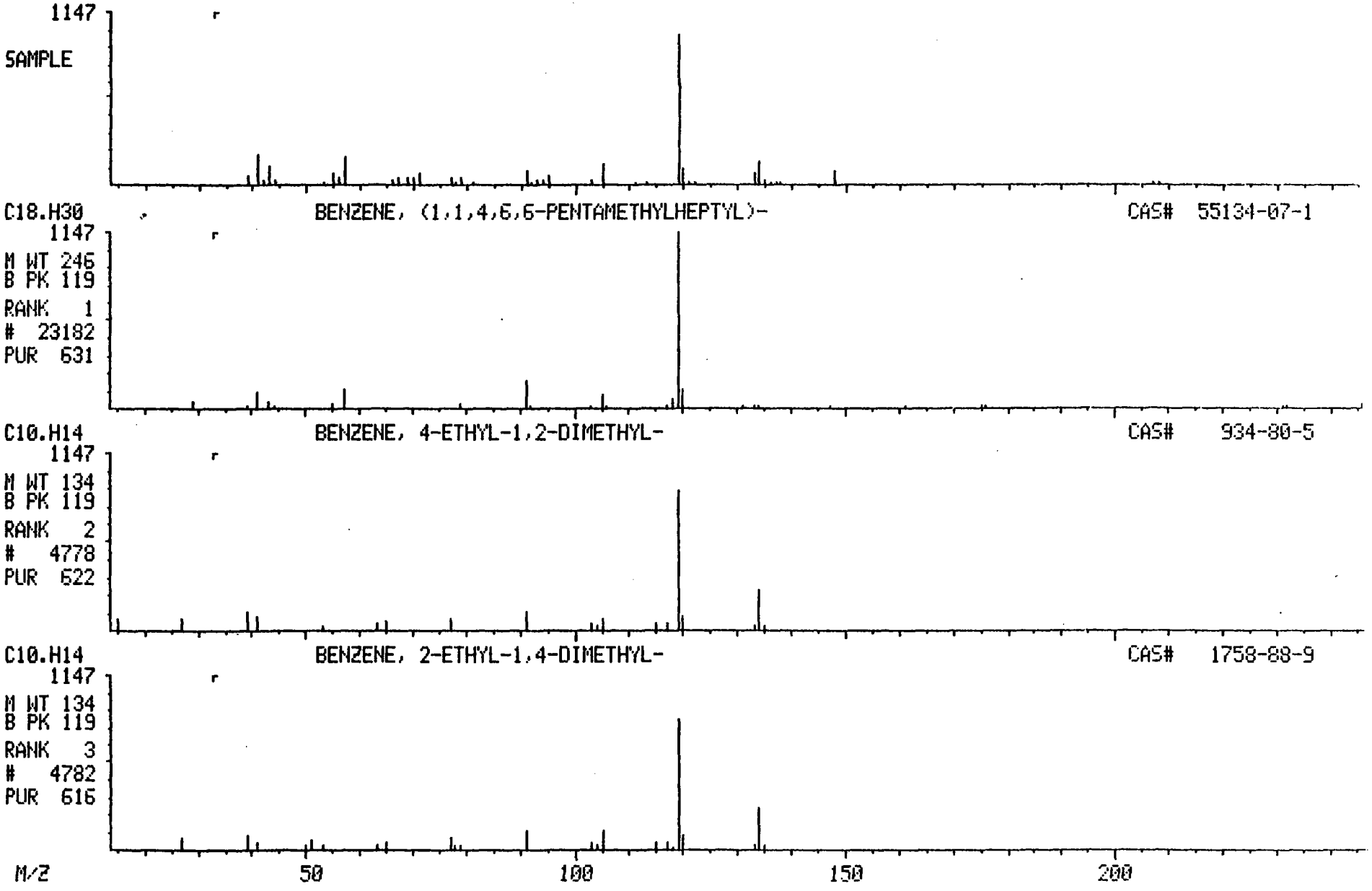


10/

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 20:48:00 + 39:13
SAMPLE: 2341-001-07 BLDG.9061 1479.7
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7573 #1557
CALI: C7573 # 3

BASE M/Z: 119
RIC: 17920.



Princeton Testing Laboratory Inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-0347

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

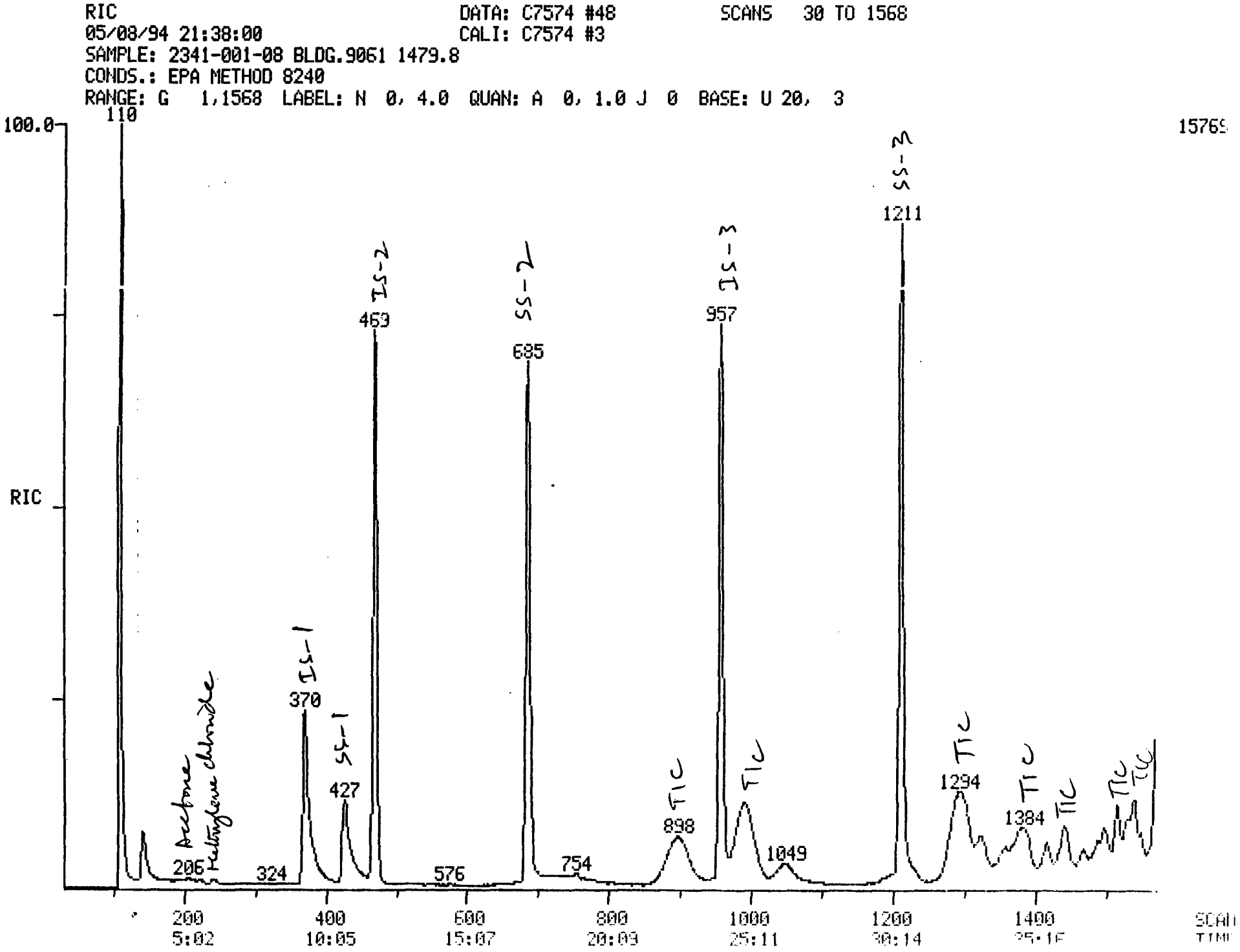
Report Date: 05/17/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters	*Sample I.D.:*	*Bldg. 9061 5/5/94 1479.8 Site H*
Chloromethane		<21
Bromomethane		<21
Vinyl chloride		<21
Chloroethane		<21
Methylene chloride		4.1 BJ
Acetone		20 B
Carbon disulfide		<11
1,1-Dichloroethene		<11
1,1-Dichloroethane		<11
1,2-Dichloroethene (Total)		<11
Chloroform		<11
1,2-Dichloroethane		<11
2-Butanone		<11
1,1,1-Trichloroethane		<11
Carbon tetrachloride		<11
Bromodichloromethane		<11
1,1,2,2-Tetrachloroethane		<11
1,2-Dichloropropane		<11
trans-1,3-Dichloropropene		<11
Trichloroethene		<11
Dibromochloromethane		<11
1,1,2-Trichloroethane		<11
Benzene		<11
cis-1,3-Dichloropropene		<11
Bromoform		<11
2-Hexanone		<11
4-Methyl-2-Pentanone		<11
Tetrachloroethene		<11
Toluene		<11
Chlorobenzene		<11
Ethylbenzene		<11
Styrene		<11
Total Xylenes		<11

RECOVERY DATA	QC LIMITS	
1,2-Dichloroethane-d4 (Surrogate)	70-121%	104
Toluene-d8 (Surrogate)	84-138%	104
4-Bromofluorobenzene (Surrogate)	59-113%	101

B = Compound Found In Blank


RIC
05/08/94 21:38:00
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
DATA: C7574 #48
CALI: C7574 #3
SCANS 30 TO 1568
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
110
206
Acetone
Methylene chloride
324
370
IS-1
427
SS-1
469
IS-2
576
685
SS-2
754
898
TIC
957
IS-3
1049
1211
SS-3
1294
TIC
1384
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
SCAN
TIME

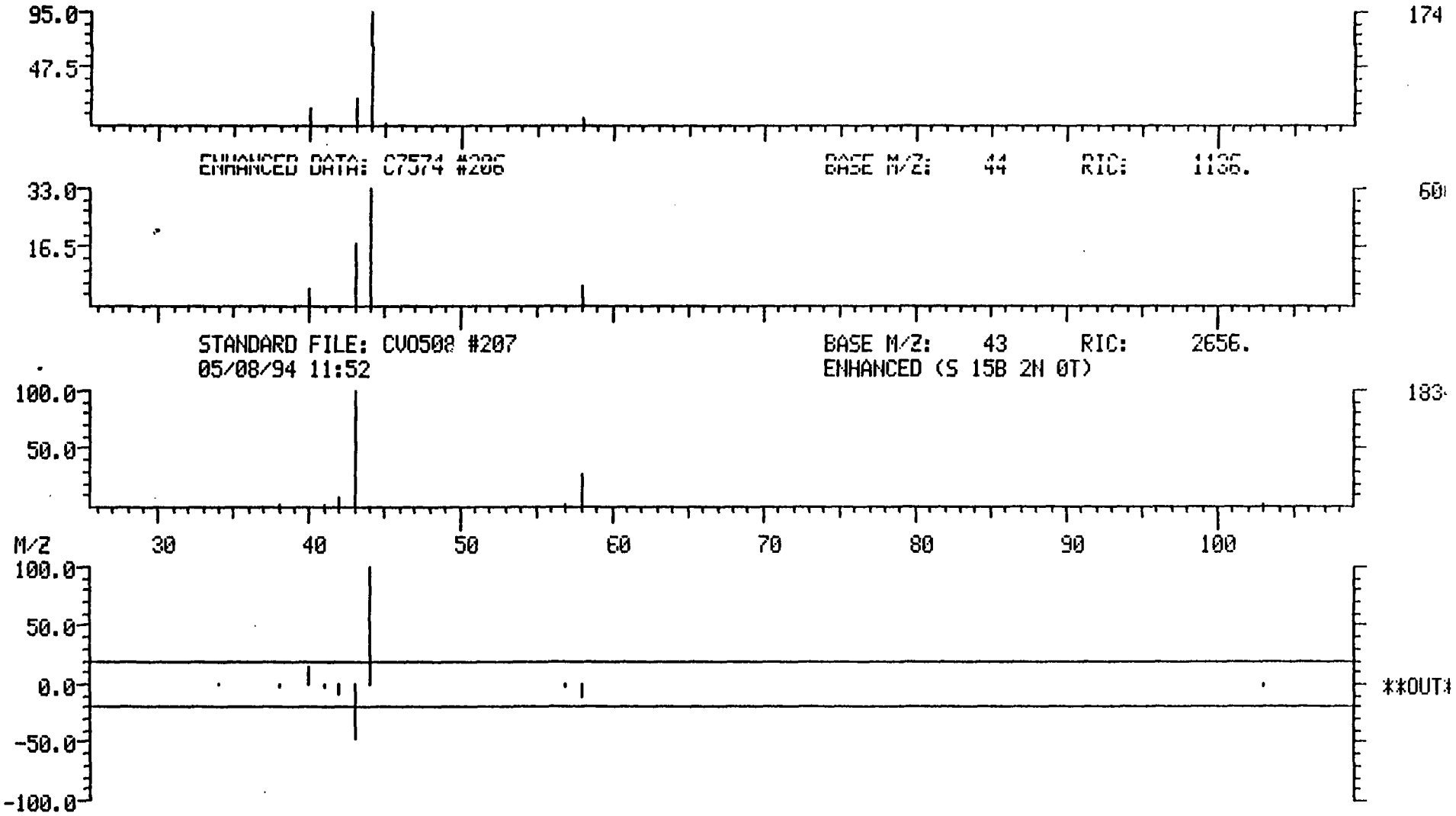
C7574

No	Name
48	C250 O-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	370	9:19	1	1.000	A BB	84919.	50.000 NG	15.82
2	114	469	11:49	2	1.000	A BB	275128.	50.000 NG	15.82
3	117	956	24:05	3	1.000	A BB	224179.	50.000 NG	15.82
4	65	426	10:44	1	1.151	A BB	53990.	52.018 NG	16.45
5	98	685	17:15	3	0.717	A BB	269124.	52.133 NG	16.49
6	95	1211	30:30	3	1.267	A BB	199172.	50.664 NG	16.03
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	241	6:04	1	0.651	A BB	3229.	1.935 NG	0.61
12	NOT FOUND								
13	43	206	5:11	1	0.557	A BB	3132.	9.311 NG	2.95
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	91	698	17:35	3	0.730	A BB	618.	0.111 NG	0.03
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

DATA FILE: C7574 #206 STANDARD FILE: CV0508 #207
TARGET COMPOUND COMPARISON CALI: C7574 #3
COMPOUND: C035 ACETONE

RAW DATA: C7574 #206 BASE M/Z: 44 RIC: 2588.
05/08/94 21:38



Quantitation Report File: C7574

Data: C7574.TI
05/08/94 21:38:00
Sample: 2341-001-08 BLDG.9061 1479.8
Mods.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	CAS #	Name
1	0-00-0	CI01 BROMOCHLOROMETHANE **INT.STD.**
2	0-00-0	CI10 1,4-DIFLUOROBENZENE **INT.STD.**
3	0-00-0	CI20 CHLOROBENZENE-D5 **INT.STD.**
4	0-00-0	UNKNOWN
5	275-51-4	AZULENE
6	4218-48-8	BENZENE, 1-ETHYL-4-(1-METHYLETHYL)-
7	1559-81-5	NAPHTHALENE, 1,2,3,4-TETRAHYDRO-1-METHYL-
8	4830-99-3	1H-INDENE, 1-ETHYL-2,3-DIHYDRO-

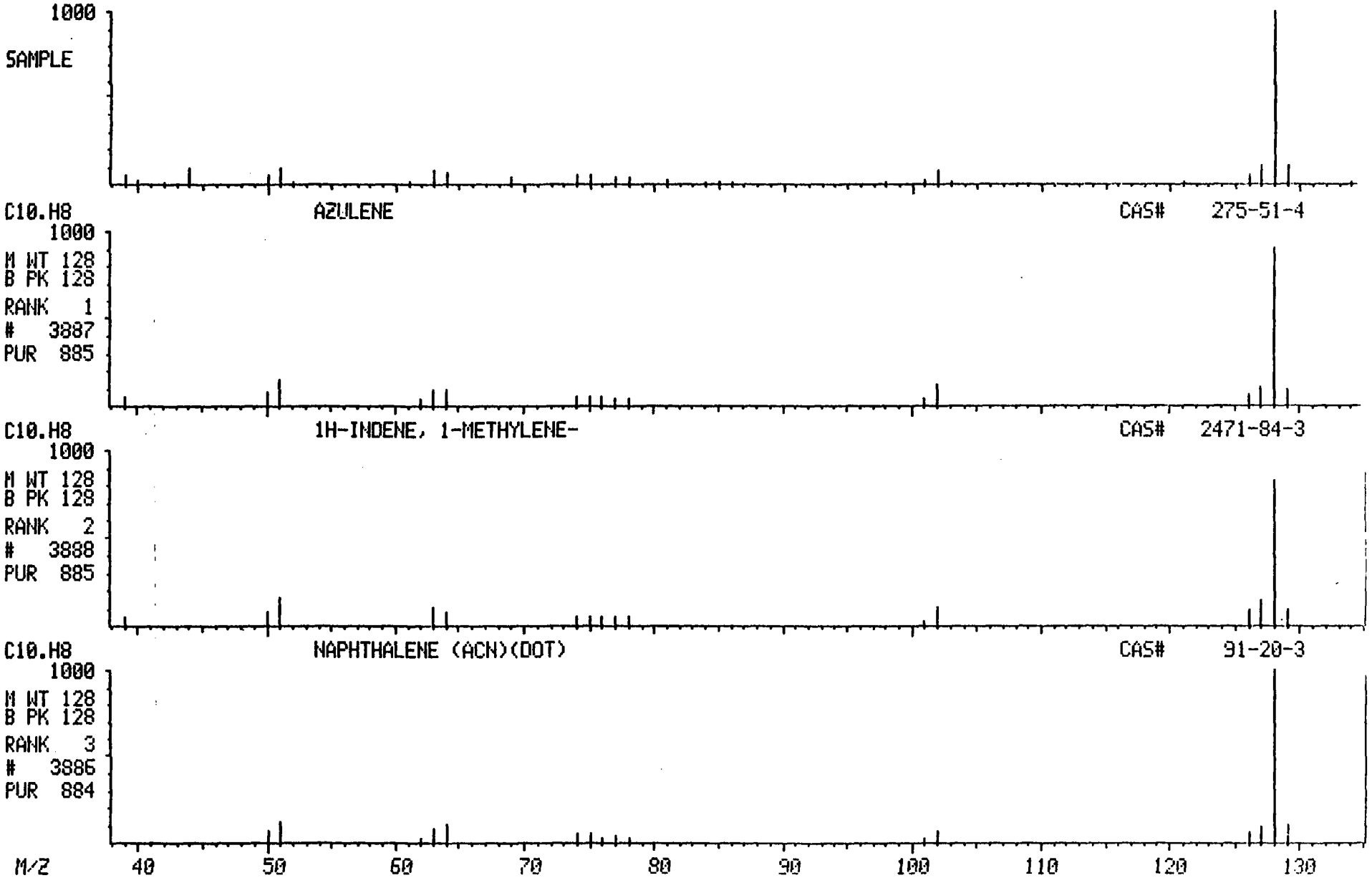
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	TOT	370	9:19	0	ISINV	A BB	248371.	****** UG/L	00.00
2	TOT	469	11:49	0	ISINV	A BB	578959.	****** UG/L	00.00
3	TOT	957	24:06	0	ISINV	A BB	562201.	****** UG/L	00.00
4	TOT	110	2:46	1	0.297	A BB	470980.	[illegible]	82.15
5	TOT	1440	36:16	3	1.505	A BB	80354.	7.146	6.19
6	TOT	1514	38:08	3	1.582	A BB	50600.	4.500	3.90
7	TOT	1527	38:28	3	1.596	A BV	[illegible]	[illegible] 10%.	3.10
8	TOT	1538	38:45	3	1.607	A VB	60461.	5.377	4.66

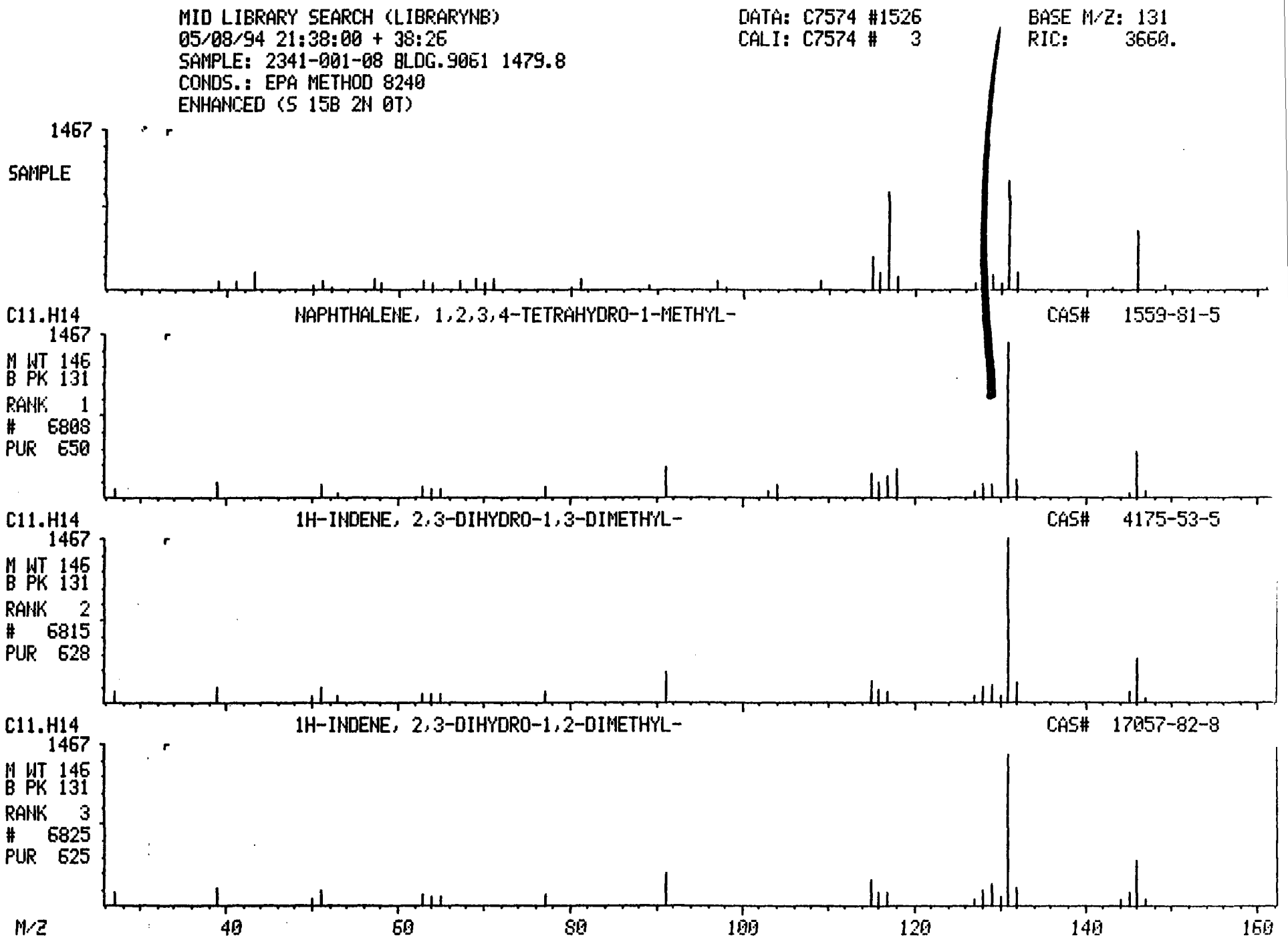
No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:13	1.01	1.000						
2	19:21	0.61	1.000						
3	23:54	1.01	1.000						
4					94.81	1.00	94.814	1.000	94.81
5					7.15	1.00	7.146	1.000	7.15
6					4.50	1.00	4.500	1.000	4.50
7					3.58	1.00	3.577	1.000	3.58
8					5.38	1.00	5.377	1.000	5.38

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 36:16
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

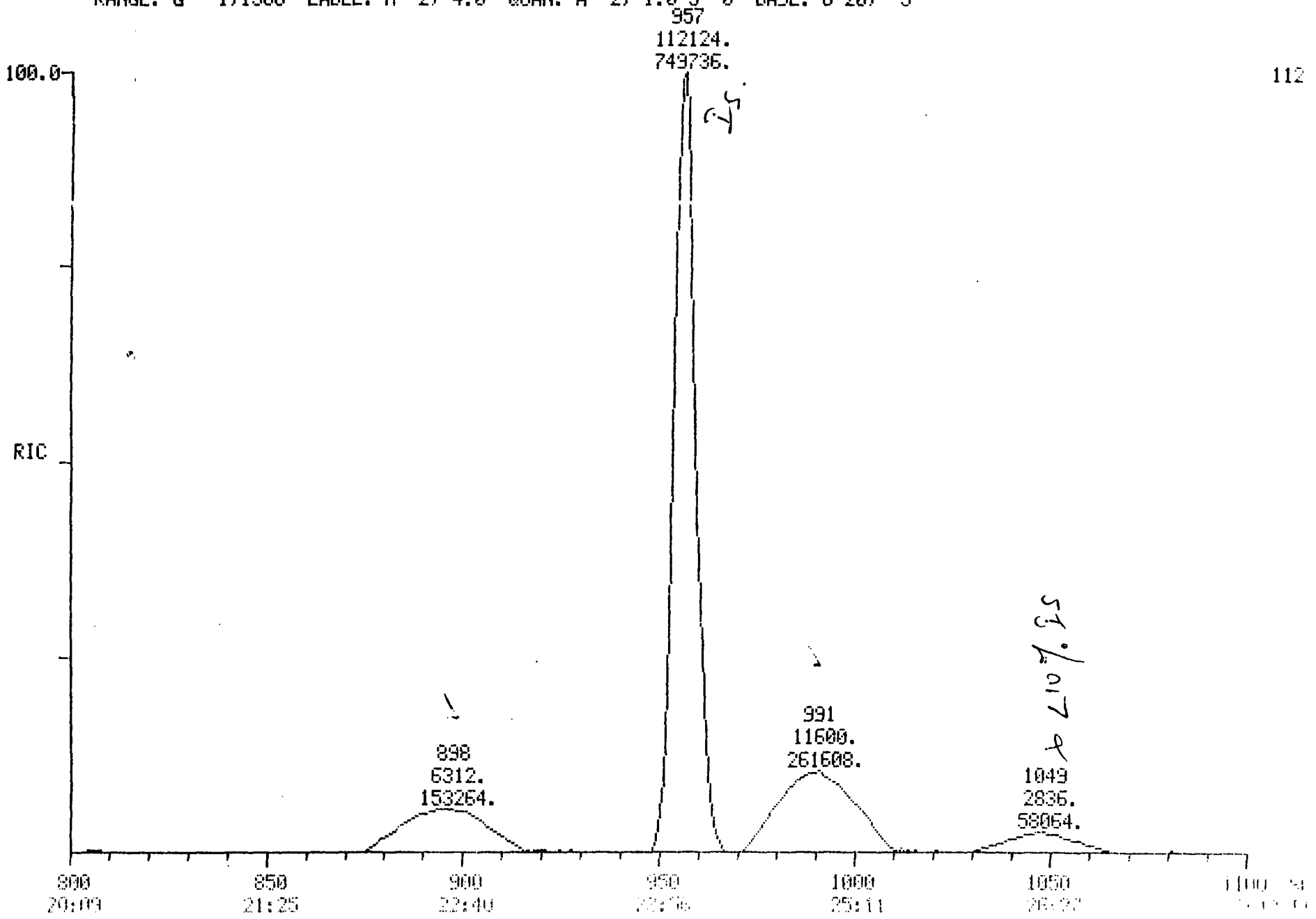
DATA: C7574 #1440
CALI: C7574 # 3

BASE M/Z: 128
RIC: 4456.




MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 38:26
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)
DATA: C7574 #1526
CALI: C7574 # 3
BASE M/Z: 131
RIC: 3660.
1467
SAMPLE
C11.H14
NAPHTHALENE, 1,2,3,4-TETRAHYDRO-1-METHYL-
CAS# 1559-81-5
M WT 146
B PK 131
RANK 1
6808
PUR 650
C11.H14
1H-INDENE, 2,3-DIHYDRO-1,3-DIMETHYL-
CAS# 4175-53-5
M WT 146
B PK 131
RANK 2
6815
PUR 628
C11.H14
1H-INDENE, 2,3-DIHYDRO-1,2-DIMETHYL-
CAS# 17057-82-8
M WT 146
B PK 131
RANK 3
6825
PUR 625
M/Z
40
60
80
100
120
140
160

RIC DATA: C7574 #1 SCANS 800 TO 1100
05/08/94 21:38:00 CALI: C7574 #3
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

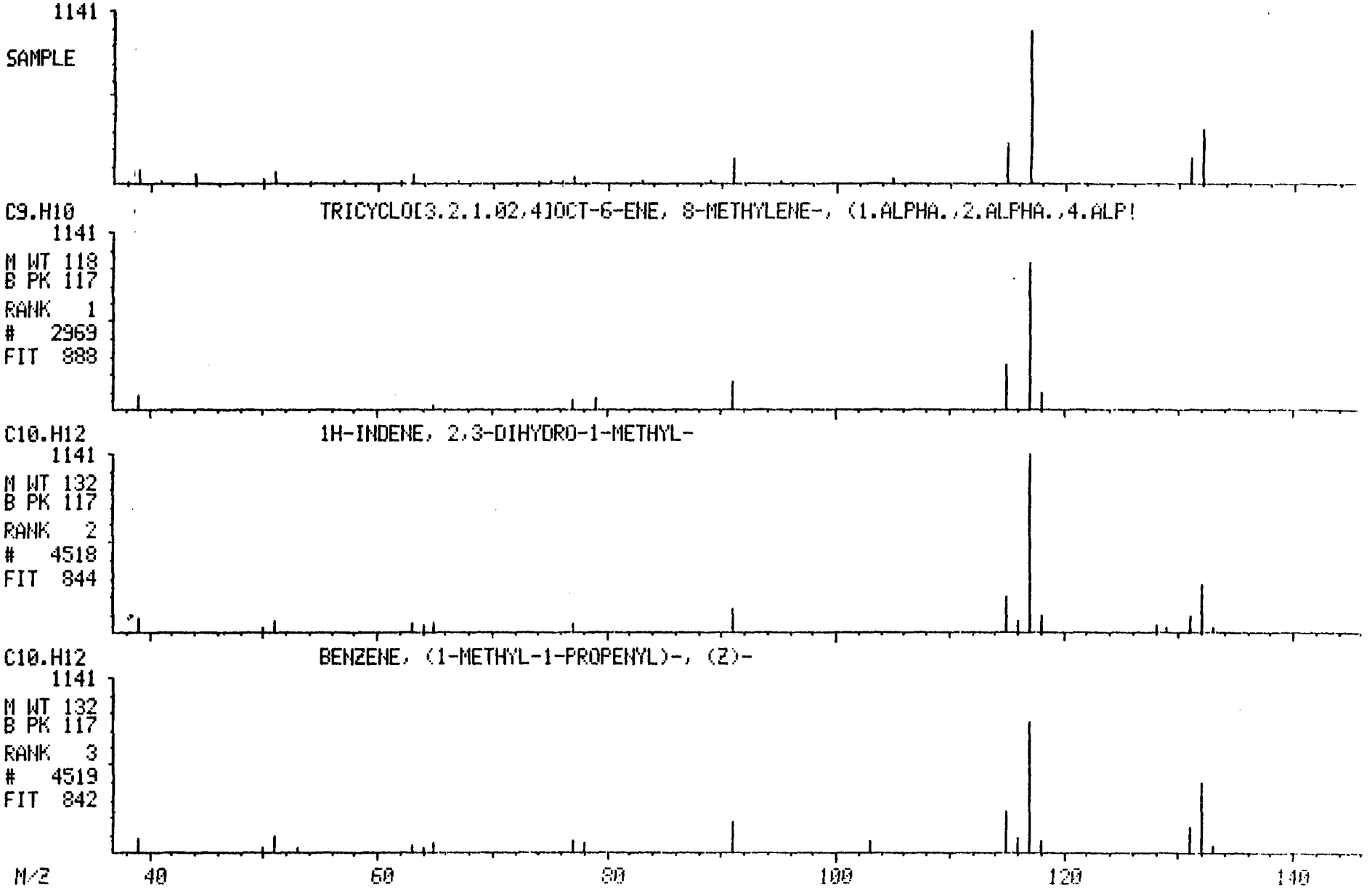


Library Search Data: C7574 # 898 Base m/z: 119
05/08/94 21:38:00 + 22:37 Cali: C7574 # 3 RIC: 11136.
Sample: 2341-001-08 BLDG.9061 1479.8
Conds.: EPA METHOD 8240

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 24:58
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7574 # 991
CALI: C7574 # 3

BASE M/Z: 117
RIC: 4928.



42223 spectra in LIBRARYNB searched for maximum FIT
273 matched at least 5 of the 16 largest peaks in the unknown

nk	In.	Name
-	2969	TRICYCLO[3.2.1.02,4]OCT-6-ENE, 8-METHYLENE-, (1.ALPHA.,2.ALPHA.,4.A*
2	4518	1H-INDENE, 2,3-DIHYDRO-1-METHYL-
3	4519	BENZENE, (1-METHYL-1-PROPENYL)-, (Z)-
4	4521	BENZENE, (2-METHYL-1-PROPENYL)-
5	16013	BENZENE, (2-BROMOCYCLOPROPYL)-

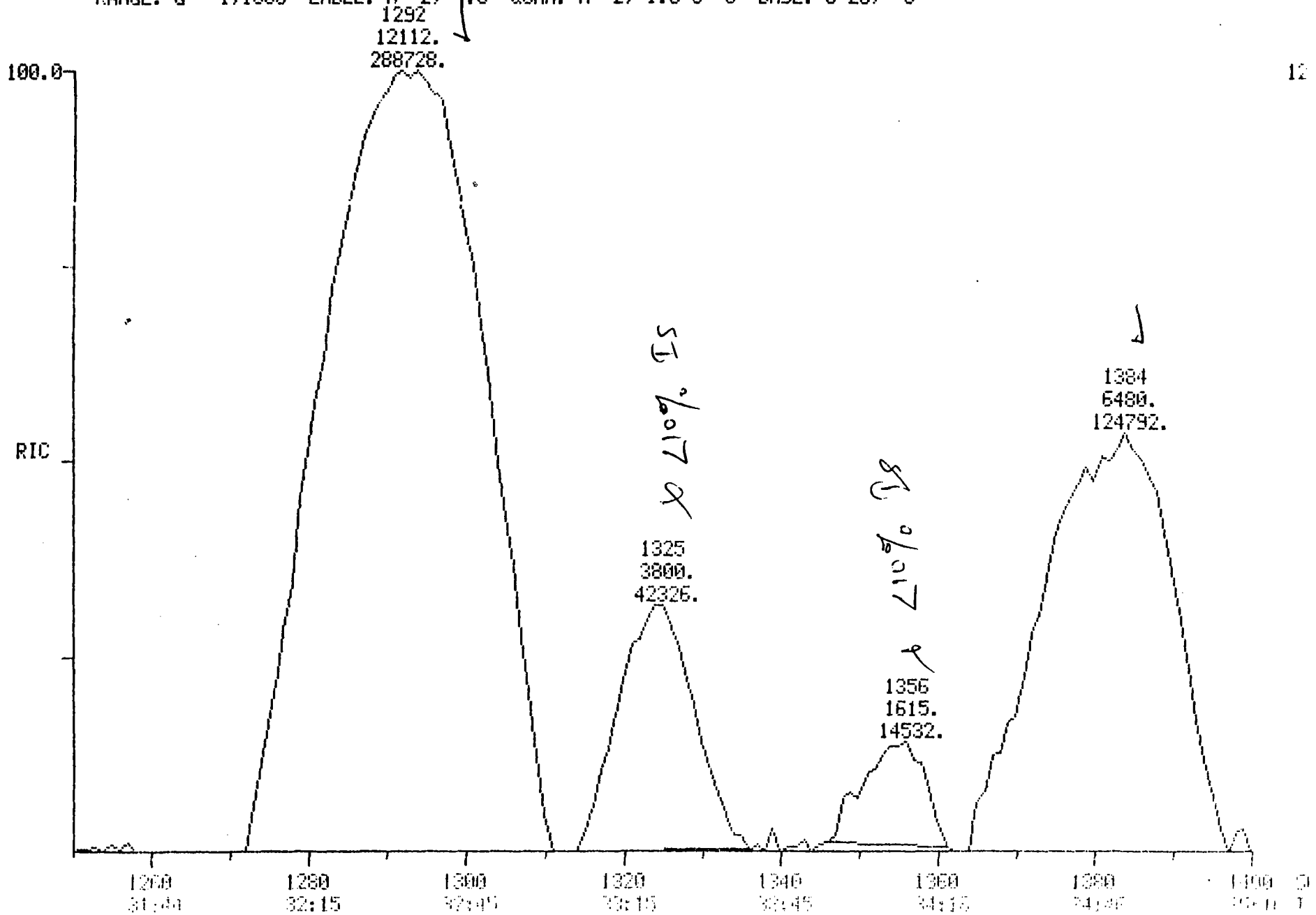
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C9.H10	118	117	567	888	637
2	C10.H12	132	117	793	844	932
3	C10.H12	132	117	791	842	932
4	C10.H12	132	117	800	834	936
5	C9.H9.BR	196	117	574	833	682

Library Search
05/08/94 21:38:00 + 26:25
Sample: 2341-001-08 BLDG. 9061 1479.8
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

Data: C7574 #1049
Cali: C7574 # 3

Base m/z: 119
RIC: 1588.

RIC: DATA: C7574 #1049 SCANS 1250 TO 1400
05/08/94 21:38:00 CALI: C7574 #3
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3

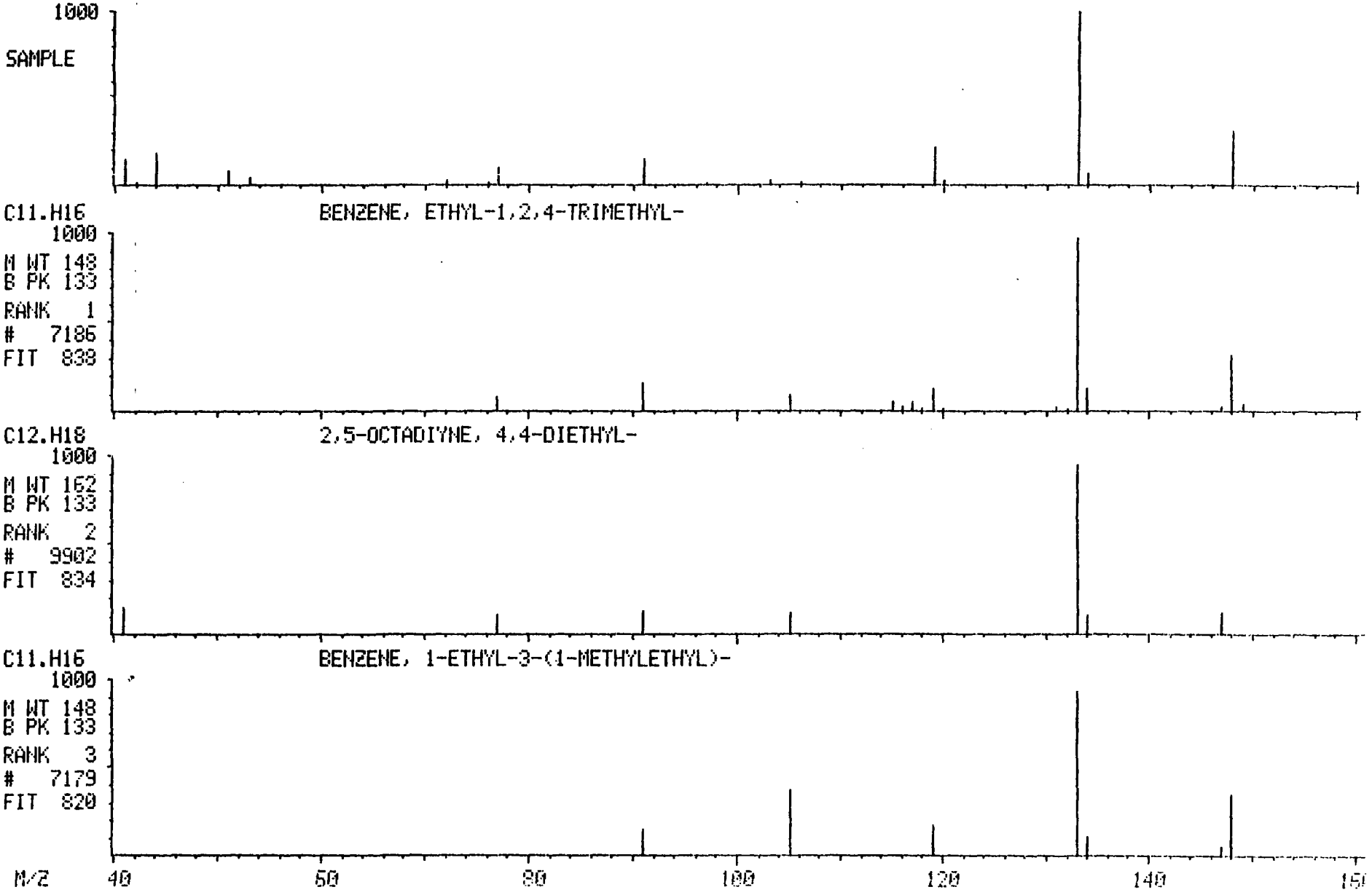


135

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 32:33
SAMPLE: 2341-001-08 BLDG.3061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7574 #1292
CALI: C7574 # 3

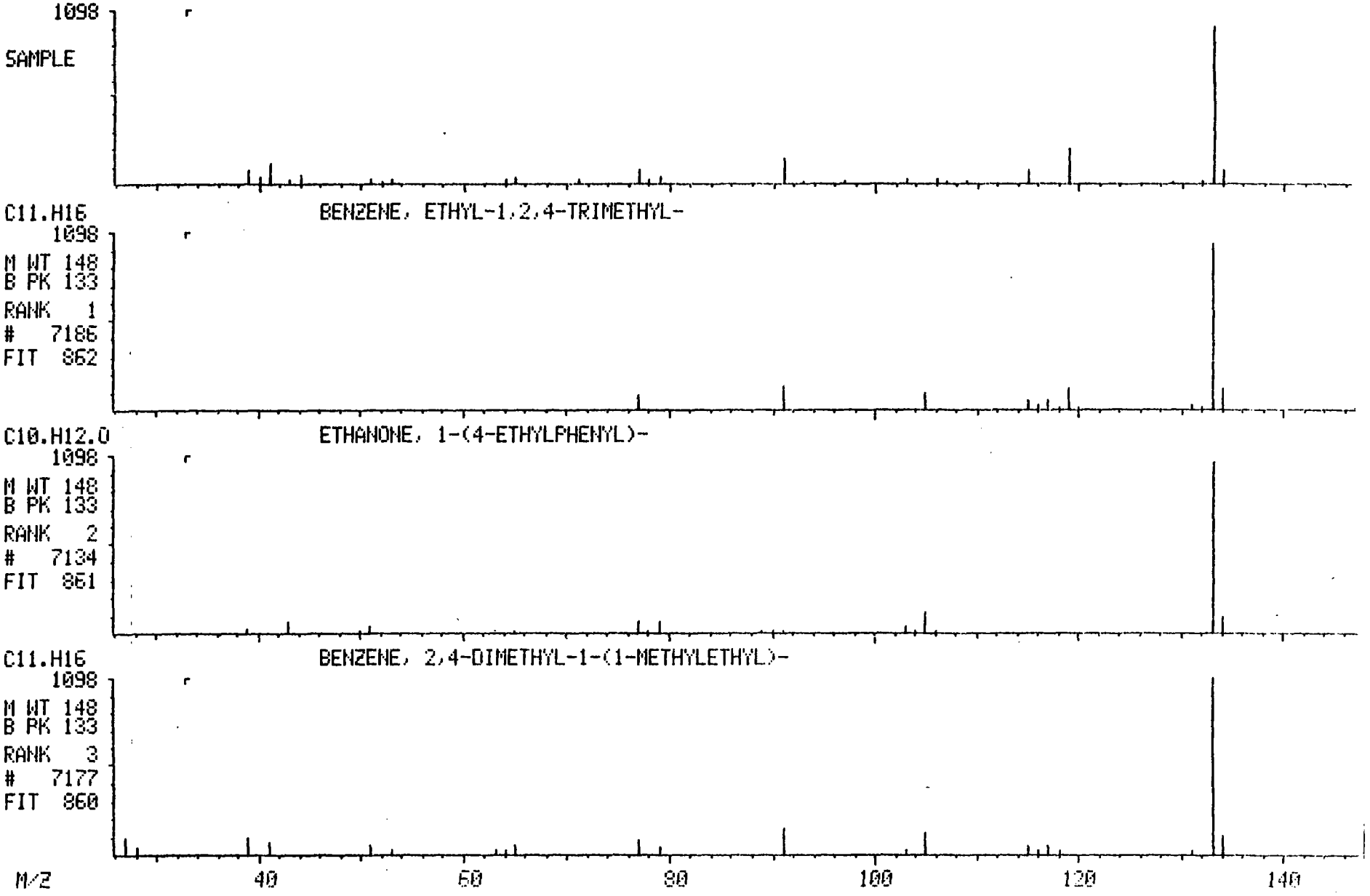
BASE M/Z: 133
RIC: 3468.



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 33:23
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7574 #1325
CALI: C7574 # 3

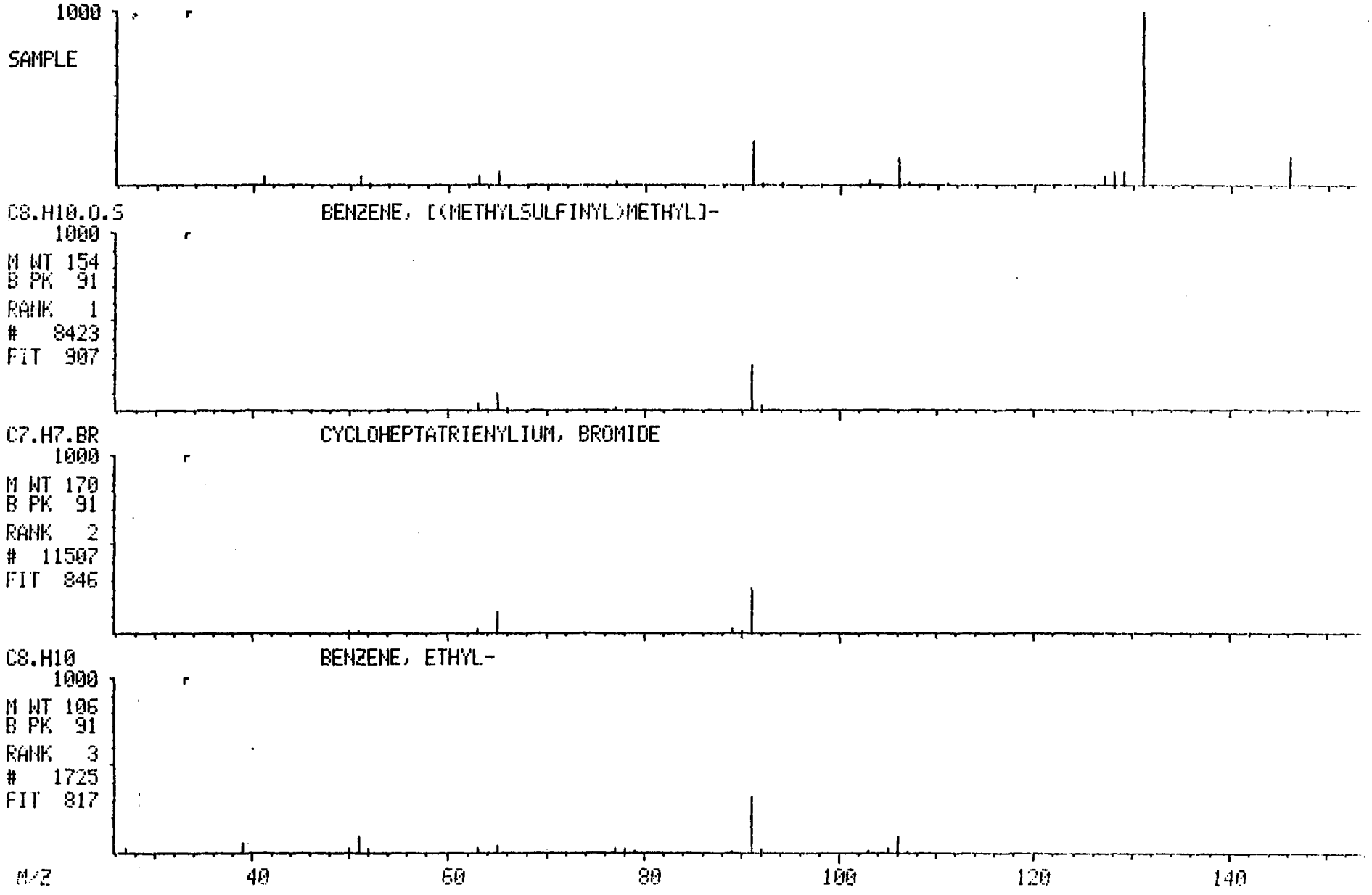
BASE M/Z: 133
RIC: 3816.

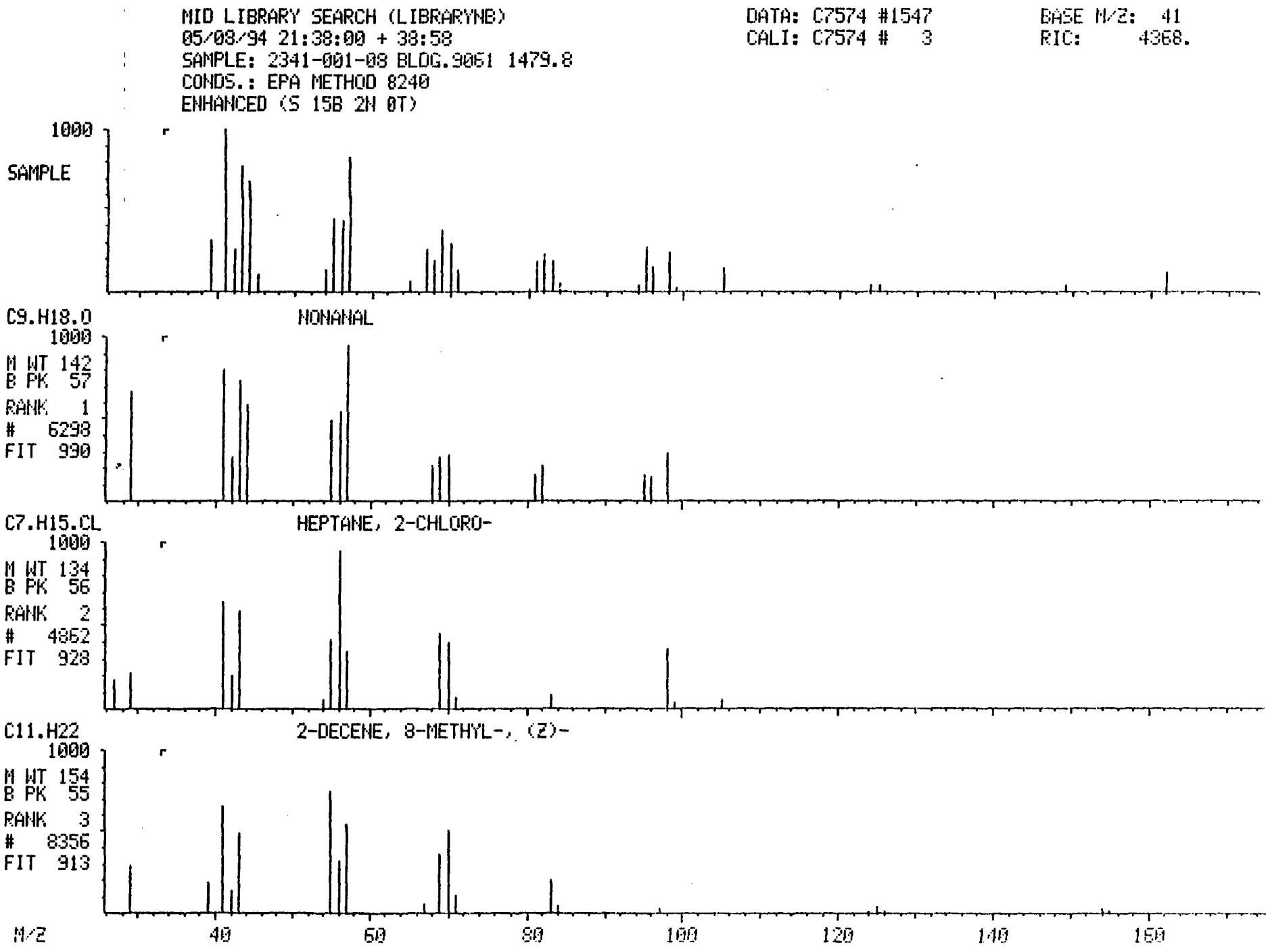


MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 34:09
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7574 #1356
CALI: C7574 # 3

BASE M/Z: 131
RIC: 1762.

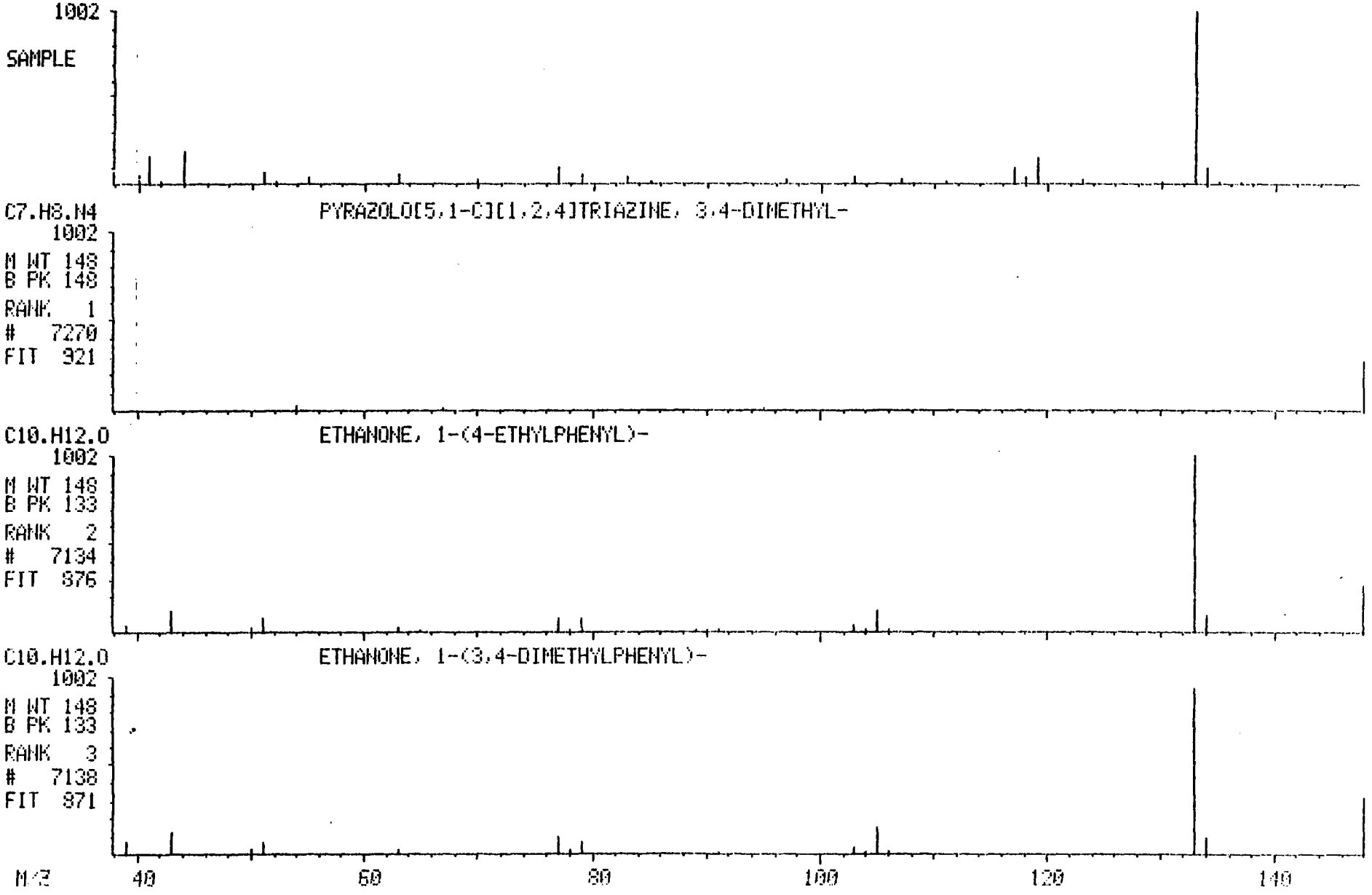



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 38:58
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)
DATA: C7574 #1547
CALI: C7574 # 3
BASE M/Z: 41
RIC: 4368.
1000
SAMPLE
C9.H18.O
NONANAL
1000
M WT 142
B PK 57
RANK 1
6298
FIT 990
C7.H15.CL
HEPTANE, 2-CHLORO-
1000
M WT 134
B PK 56
RANK 2
4862
FIT 928
C11.H22
2-DECENE, 8-METHYL-, (Z)-
1000
M WT 154
B PK 55
RANK 3
8356
FIT 913
M/Z
40
60
80
100
120
140
160

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 34:52
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7574 #1384
CALI: C7574 # 3

BASE M/Z: 132
RIC: 2988.



Library Search Data: C7574 #1415 Base m/z: 133
05/08/94 21:38:00 + 35:39 Cali: C7574 # 3 RIC: 3636.
Sample: 2341-001-08 BLDG.9061 1479.8
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum FIT
52 matched at least 7 of the 16 largest peaks in the unknown

Rank	In.	Name
1	9859	BENZENE, 2,4-DIMETHYL-1-(1-METHYLPROPYL)-
2	9878	BENZENE, 1-(1-ETHYLPROPYL)-4-METHYL-
3	4767	BENZENE, 1,2-DIETHYL-
4	4913	BENZALDEHYDE, 2,4-DIMETHYL-
5	9845	BICYCLO[3.2.2]NONA-6,8-DIEN-3-ONE, 6,8-DIMETHYL-

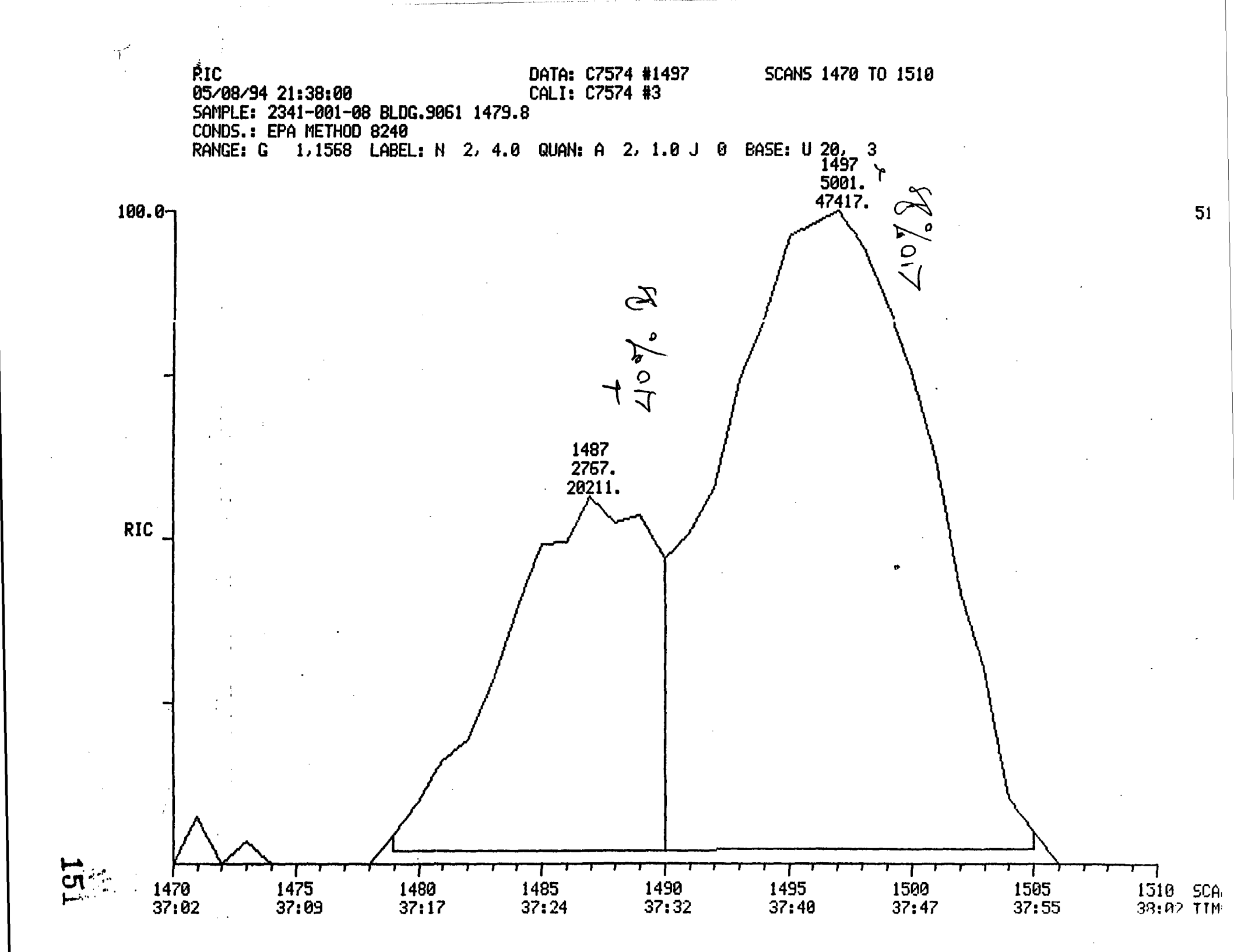
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C12.H18	162	133	733	921	766
2	C12.H18	162	133	662	917	699
3	C10.H14	134	105	355	903	375
4	C9.H10.O	134	133	500	895	521
5	C11.H14.O	162	119	337	890	359

Library Search Data: C7574 #1467 Base m/z: 119
05/08/94 21:38:00 + 36:57 Cali: C7574 # 3 RIC: 2636.
Sample: 2341-001-08 BLDG.9061 1479.8
Conds.: EPA METHOD 8240
Enhanced (S 15B 2N OT)

42223 spectra in LIBRARYNB searched for maximum FIT
134 matched at least 6 of the 16 largest peaks in the unknown

Rank	In.	Name
1	9844	BICYCLO[3.2.2]NONA-6,8-DIEN-3-ONE, 1,5-DIMETHYL-
2	9845	BICYCLO[3.2.2]NONA-6,8-DIEN-3-ONE, 6,8-DIMETHYL-
3	9842	BICYCLO[3.2.1]OCT-6-EN-3-ONE, 8-(1-METHYLETHYLIDENE)-
4	9838	2-CYCLOPENTEN-1-ONE, 3-METHYL-2-(1,3-PENTADIENYL)-, (E,Z)-
5	9861	BENZENE, (1,1-DIMETHYLBUTYL)-

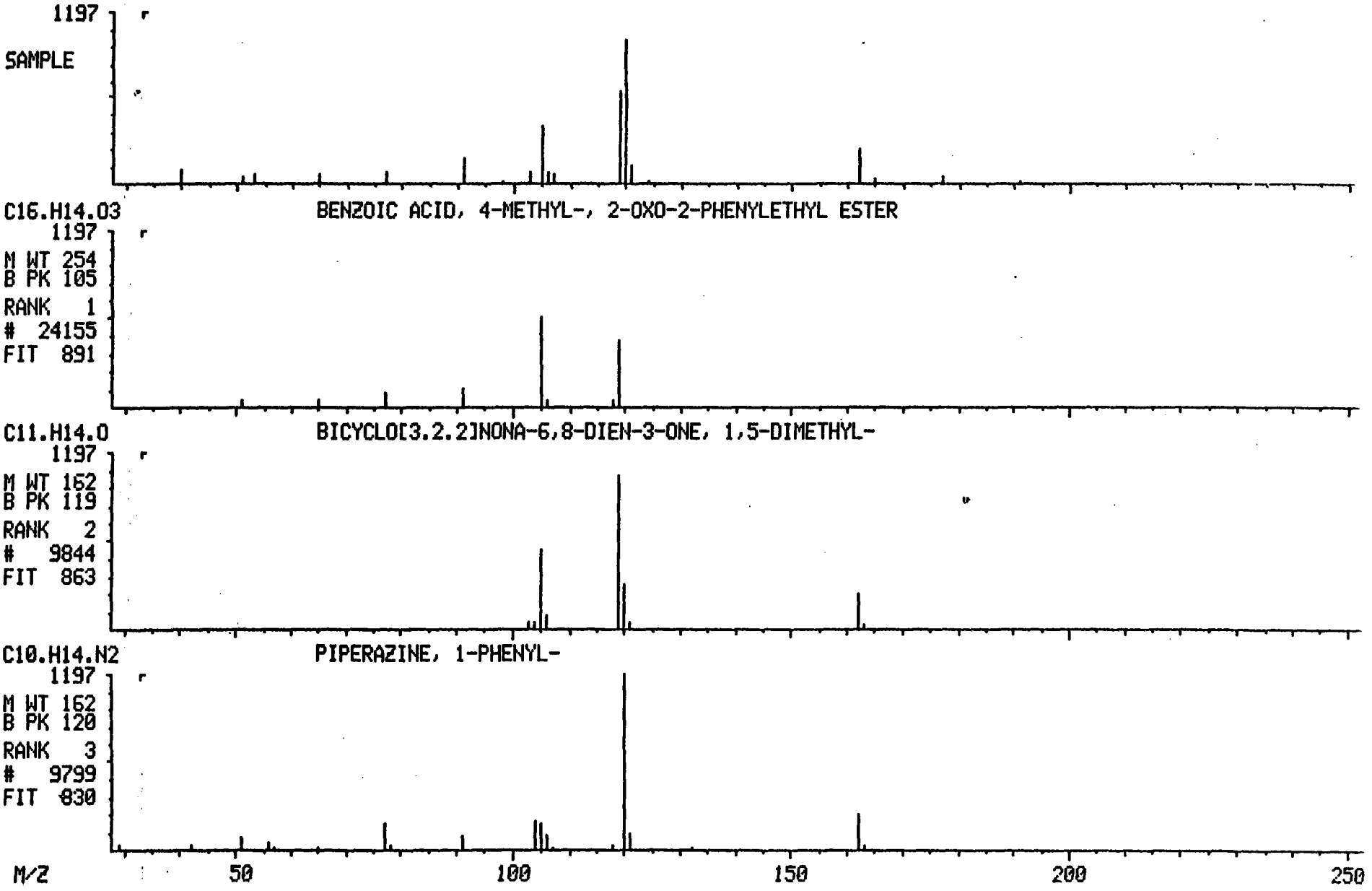
Rank	Formula	M.Wt	B.Pk	Purity	Fit	RFit
1	C11.H14.O	162	119	481	939	494
2	C11.H14.O	162	119	531	884	547
3	C11.H14.O	162	105	607	859	656
4	C11.H14.O	162	105	674	843	766
5	C12.H18	162	119	553	827	591


RIC
05/08/94 21:38:00
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3
DATA: C7574 #1497
CALI: C7574 #3
SCANS 1470 TO 1510
1497
5001.
47417.
1487
2767.
20211.
100.0
RIC
1470
37:02
1475
37:09
1480
37:17
1485
37:24
1490
37:32
1495
37:40
1500
37:47
1505
37:55
1510
38:02
SCA
TIM

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 37:27
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7574 #1487
CALI: C7574 # 3

BASE M/Z: 120
RIC: 1776.

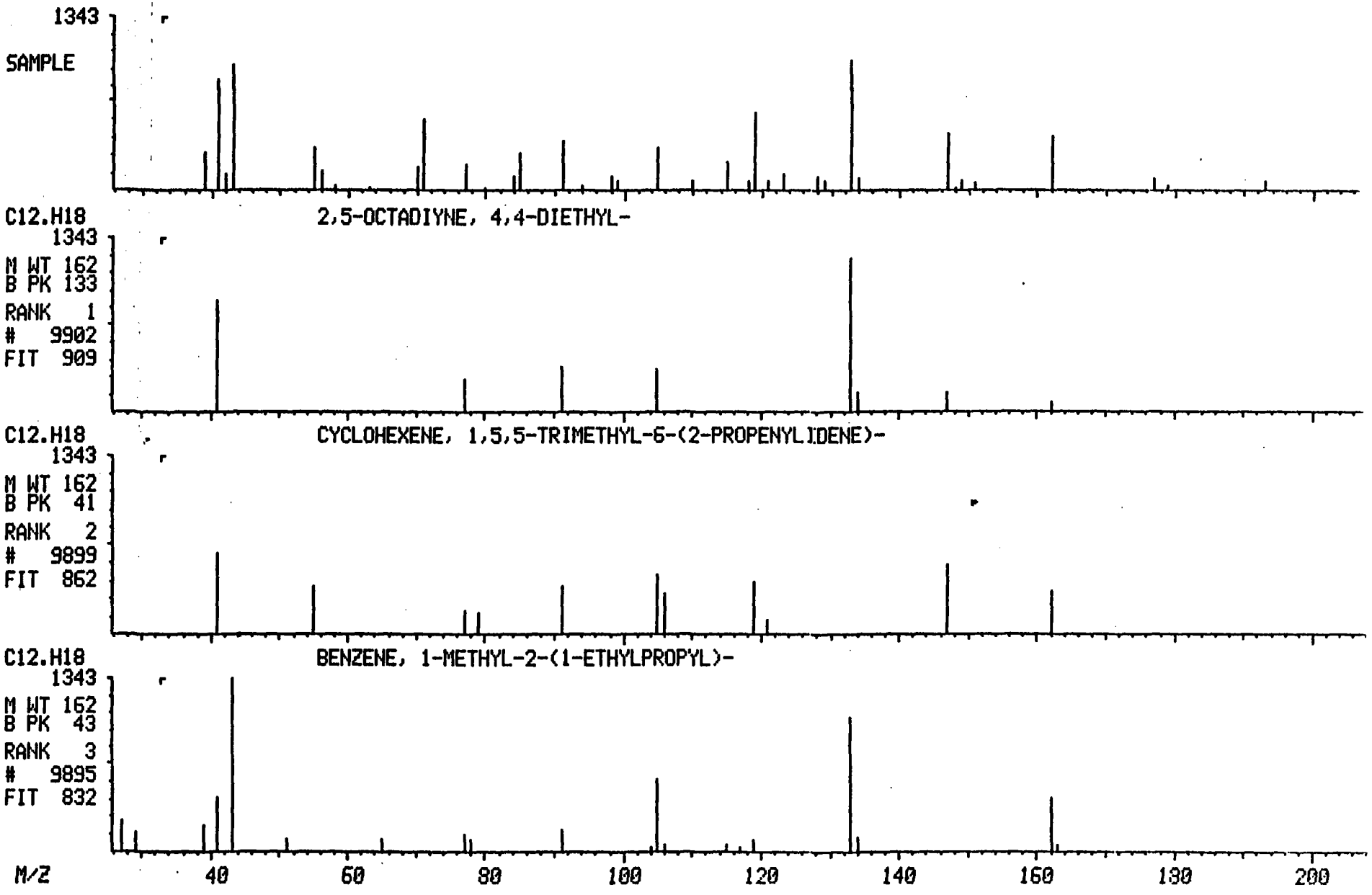


15

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 21:38:00 + 37:43
SAMPLE: 2341-001-08 BLDG.9061 1479.8
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7574 #1497
CALI: C7574 # 3

BASE M/Z: 133
RIC: 3732.



Princeton Testing Laboratory Inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-0347

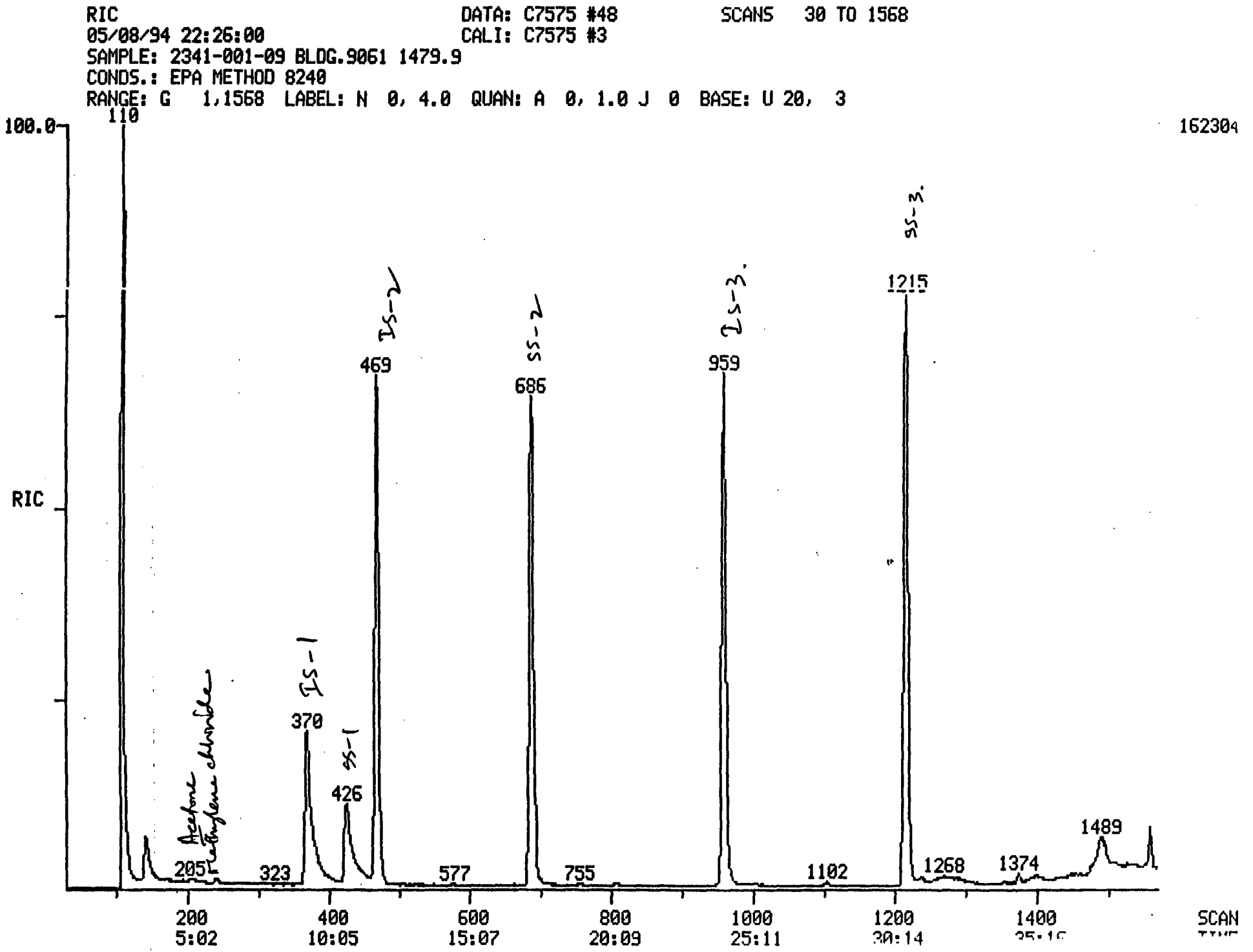
U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

Report Date: 05/17/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters	*Sample I.D.: Bldg. 9061 5/5/94 1479.9 Site I*
Chloromethane	<21
Bromomethane	<21
Vinyl chloride	<21
Chloroethane	<21
Methylene chloride	4.4 BJ
Acetone	9.1 BJ
Carbon disulfide	<11
1,1-Dichloroethene	<11
1,1-Dichloroethane	<11
1,2-Dichloroethene (Total)	<11
Chloroform	<11
1,2-Dichloroethane	<11
2-Butanone	<11
1,1,1-Trichloroethane	<11
Carbon tetrachloride	<11
Bromodichloromethane	<11
1,1,2,2-Tetrachloroethane	<11
1,2-Dichloropropane	<11
trans-1,3-Dichloropropene	<11
Trichloroethene	<11
Dibromochloromethane	<11
1,1,2-Trichloroethane	<11
Benzene	<11
cis-1,3-Dichloropropene	<11
Bromoform	<11
2-Hexanone	<11
4-Methyl-2-Pentanone	<11
Tetrachloroethene	<11
Toluene	<11
Chlorobenzene	<11
Ethylbenzene	<11
Styrene	<11
Total Xylenes	<11

RECOVERY DATA	QC LIMITS	
1,2-Dichloroethane-d4 (Surrogate)	70-121%	103
Toluene-d8 (Surrogate)	84-138%	104
4-Bromofluorobenzene (Surrogate)	59-113%	99


RIC
05/08/94 22:26:00
DATA: C7575 #48
CALI: C7575 #3
SCANS 30 TO 1568
SAMPLE: 2341-001-09 BLDG.9061 1479.9
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
162304
110
205
323
370
426
469
577
686
755
959
1102
1215
1268
1374
1489
IS-1
SS-1
IS-2
SS-2
IS-3.
SS-3.
Acetone
Methylene chloride
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
SCAN

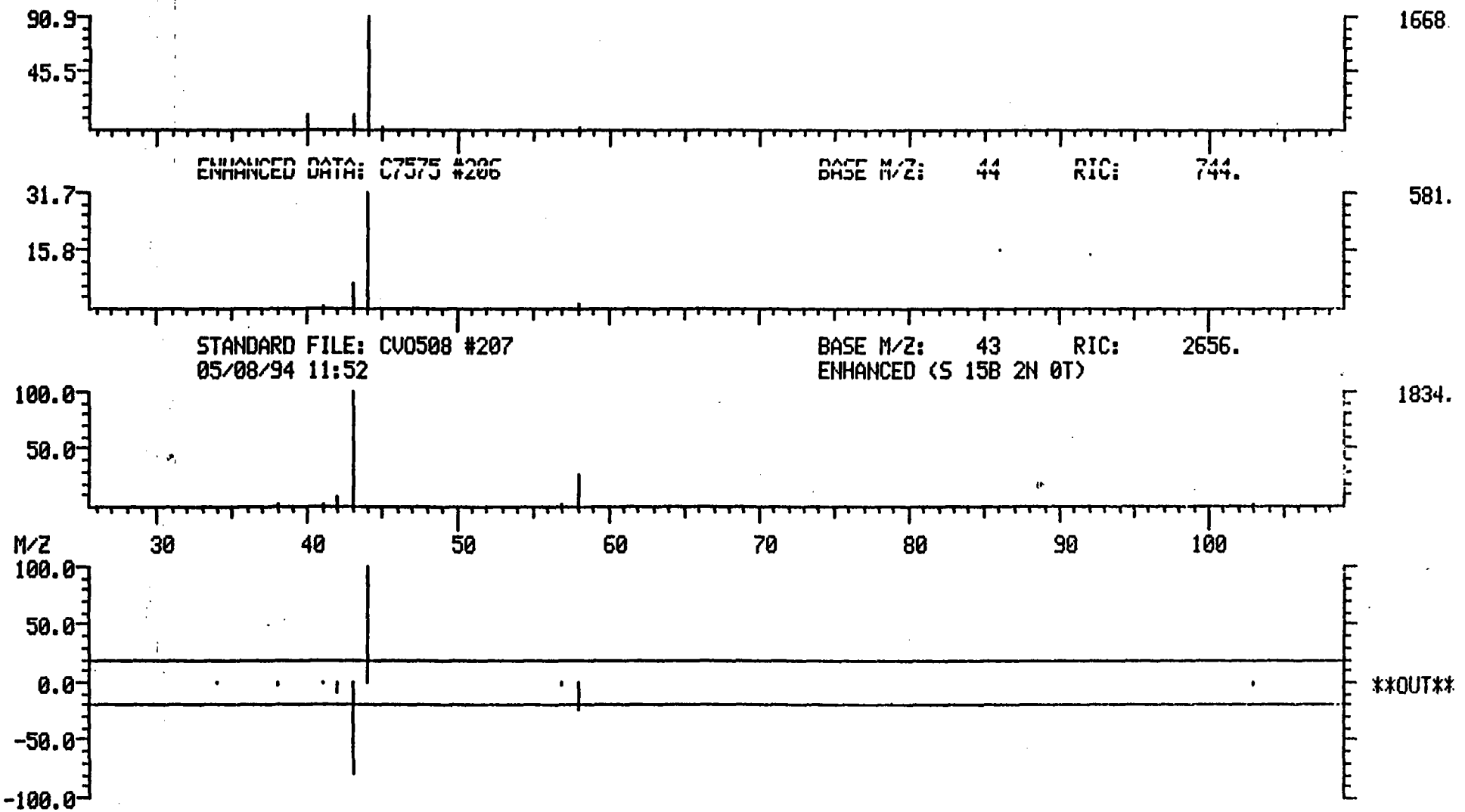
C7575

No	Name
48	C250 O-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	370	9:19	1	1.000	A BB	80537.	50.000 NG	16.15
2	114	469	11:49	2	1.000	A BB	264309.	50.000 NG	16.15
3	117	959	24:09	3	1.000	A BB	222625.	50.000 NG	16.15
4	65	426	10:44	1	1.151	A BB	50714.	51.520 NG	16.64
5	98	686	17:17	3	0.715	A BB	267539.	52.187 NG	16.85
6	95	1215	30:36	3	1.267	A BB	193734.	49.625 NG	16.03
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	241	6:04	1	0.651	A BB	3261.	2.060 NG	0.67
12	NOT FOUND								
13	43	205	5:10	1	0.554	A BB	1356.	4.250 NG	1.37
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	91	699	17:36	3	0.729	A BB	313.	0.056 NG	0.02
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

DATA FILE: C7575 #206 STANDARD FILE: CV0508 #207
TARGET COMPOUND COMPARISON CALI: C7575 #3
COMPOUND: C035 ACETONE

RAW DATA: C7575 #206 BASE M/Z: 44 RIC: 2168.
05/08/94 22:26



Quantitation Report File: C7575

Data: C7575.TI
05/08/94 22:26:00
Sample: 2341-001-09 BLDG.9061 1479.9
Conds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

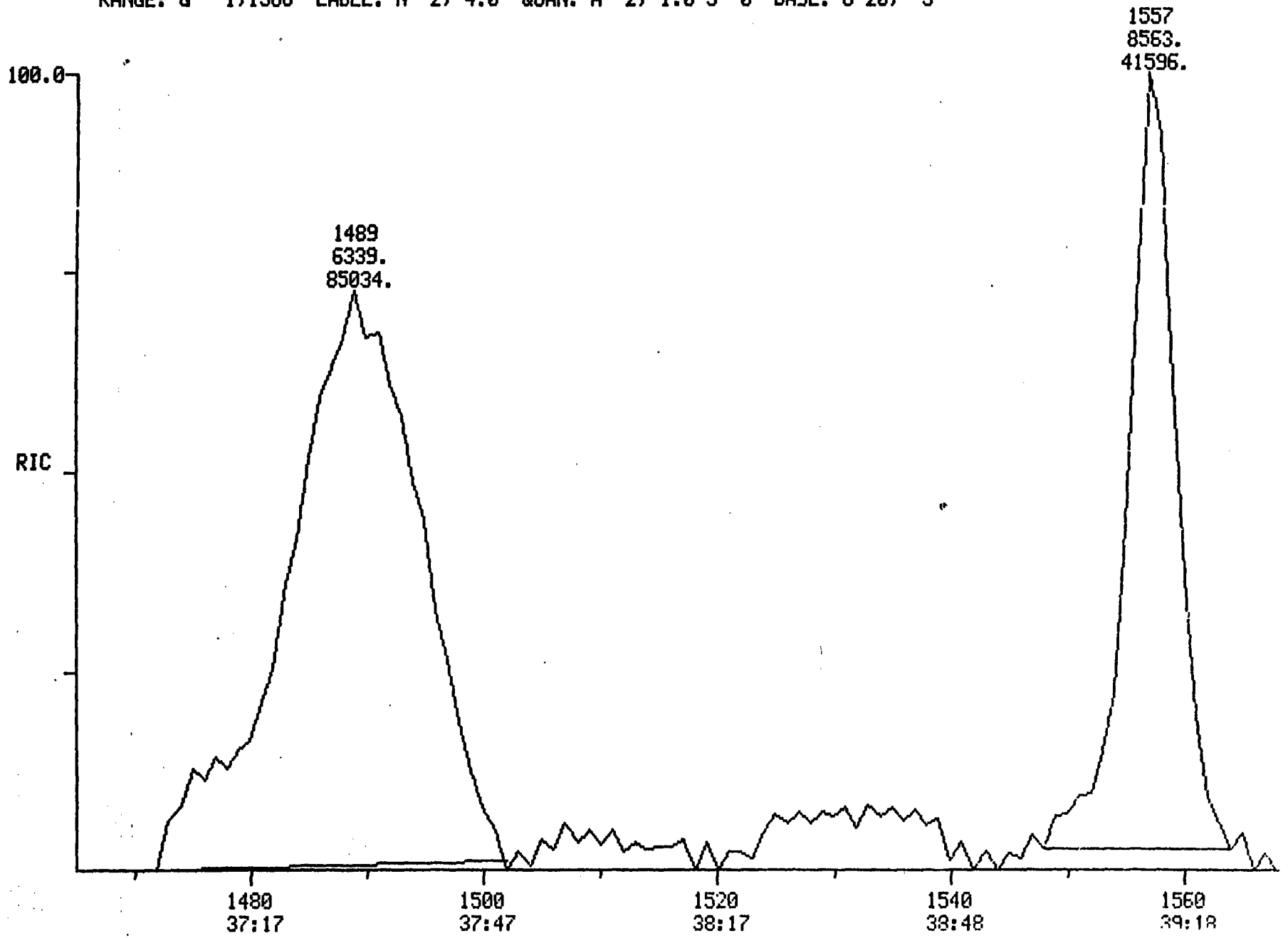
No	CAS #	Name
1	0-00-0	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	0-00-0	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	0-00-0	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	0-00-0	UNKNOWN
5	124-19-6	NONANAL

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	TOT	370	9:19	0	ISINV	A BB	232840.	******	UG/L	00.00
2	TOT	469	11:49	0	ISINV	A BB	555282.	******	UG/L	00.00
3	TOT	959	24:09	0	ISINV	A BB	546398.	******	UG/L	00.00
4	TOT	110	2:46	1	0.297	A BB	494953.	~~106.286~~		97.75
5	TOT	1557	39:13	3	1.624	A BB	26776.	2.450		2.25

210%

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:13	1.01	1.000						
2	19:21	0.61	1.000						
3	23:54	1.01	1.000						
4					106.29	1.00	106.286	1.000	106.29
5					2.45	1.00	2.450	1.000	2.45

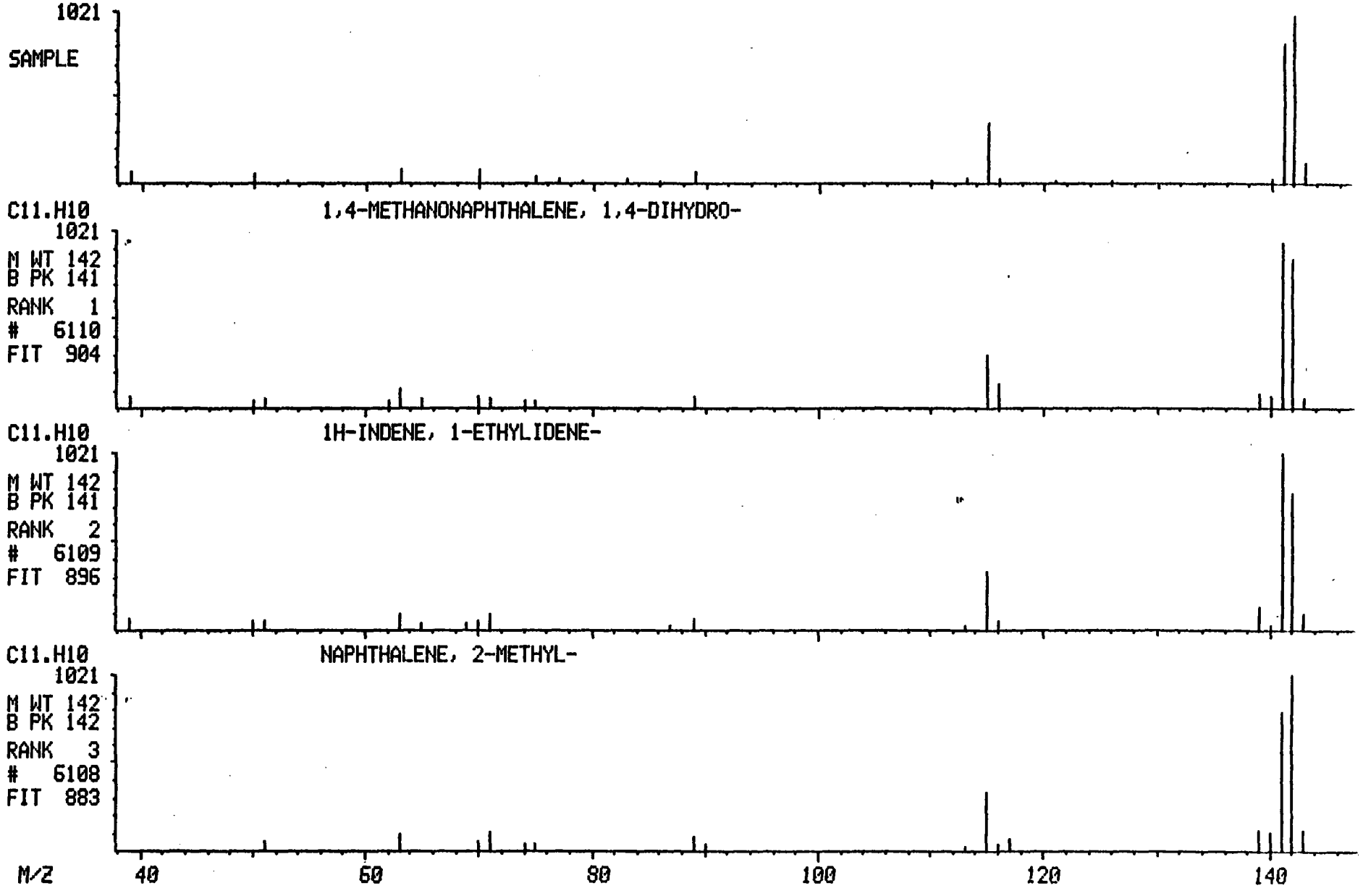
RIC DATA: C7575 #1 SCANS 1465 TO 1568
05/08/94 22:26:00 CALI: C7575 #3
SAMPLE: 2341-001-09 BLDG.9061 1479.9
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 2, 4.0 QUAN: A 2, 1.0 J 0 BASE: U 20, 3



MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 22:26:00 + 37:30
SAMPLE: 2341-001-09 BLDG.9061 1479.9
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7575 #1489
CALI: C7575 # 3

BASE M/Z: 142
RIC: 3532.



Princeton Testing Laboratory Inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-0347

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

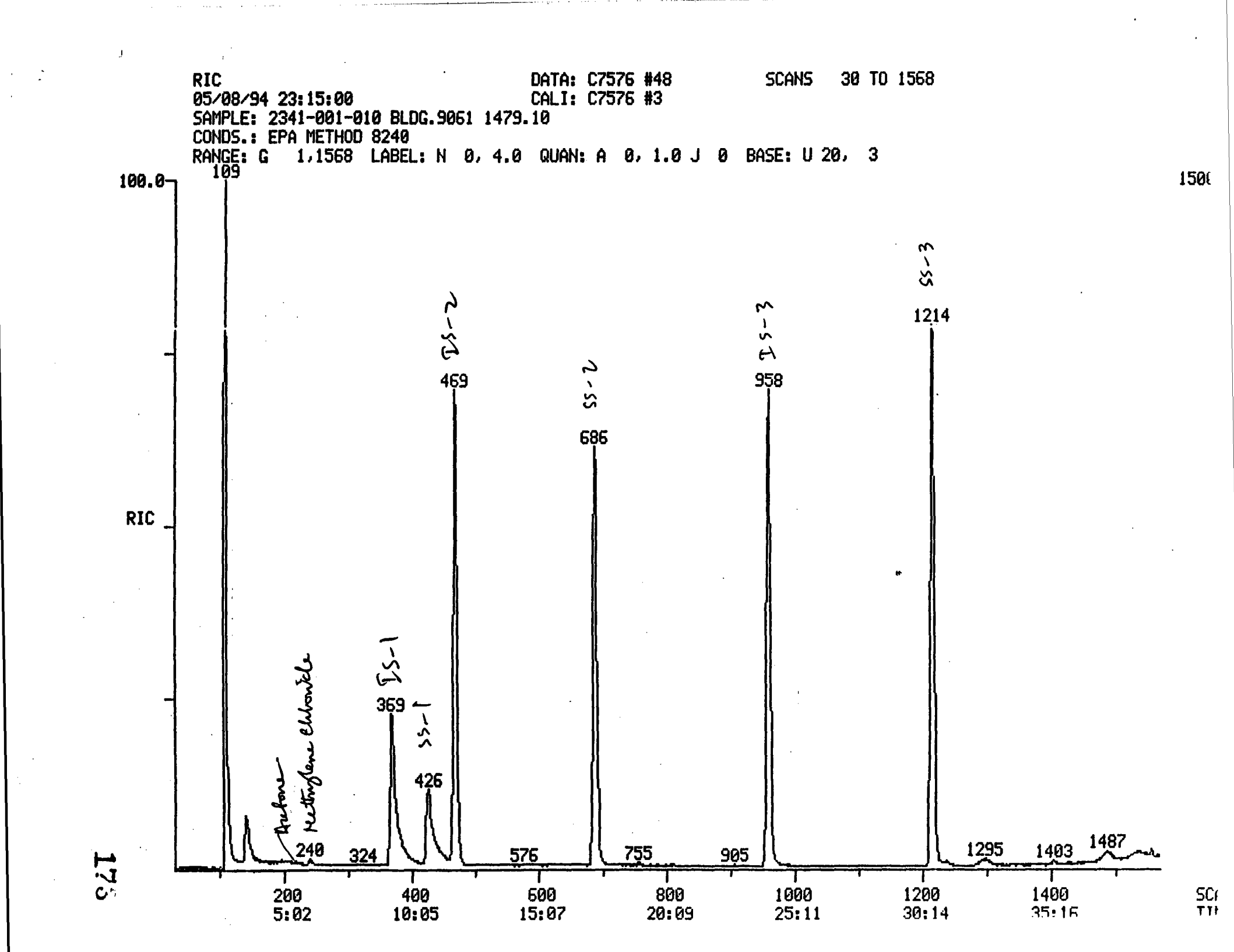
Report Date: 05/17/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896
Page: 1

Analysis: Volatile Organics, SW, SW-846 8240
Units: ug/kg

Parameters	*Sample I.D.: Bldg. 9061 5/5/94 1479.10 Site J*
Chloromethane	<22
Bromomethane	<22
Vinyl chloride	<22
Chloroethane	<22
Methylene chloride	4.2 BJ
Acetone	16 B
Carbon disulfide	<11
1,1-Dichloroethene	<11
1,1-Dichloroethane	<11
1,2-Dichloroethene (Total)	<11
Chloroform	<11
1,2-Dichloroethane	<11
2-Butanone	<11
1,1,1-Trichloroethane	<11
Carbon tetrachloride	<11
Bromodichloromethane	<11
1,1,2,2-Tetrachloroethane	<11
1,2-Dichloropropane	<11
trans-1,3-Dichloropropene	<11
Trichloroethene	<11
Dibromochloromethane	<11
1,1,2-Trichloroethane	<11
Benzene	<11
cis-1,3-Dichloropropene	<11
Bromoform	<11
2-Hexanone	<11
4-Methyl-2-Pentanone	<11
Tetrachloroethene	<11
Toluene	<11
Chlorobenzene	<11
Ethylbenzene	<11
Styrene	<11
Total Xylenes	<11

RECOVERY DATA	QC LIMITS	
1,2-Dichloroethane-d4 (Surrogate)	70-121%	109
Toluene-d8 (Surrogate)	84-138%	96
4-Bromofluorobenzene (Surrogate)	59-113%	100

B = Compound Found In Blank


RIC
05/08/94 23:15:00
SAMPLE: 2341-001-010 BLDG.9061 1479.10
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
DATA: C7576 #48
CALI: C7576 #3
SCANS 30 TO 1568
100.0
RIC
109
240
324
369
426
469
576
686
755
905
958
1214
1295
1403
1487
IS-1
SS-1
IS-2
SS-2
IS-3
SS-3
Acetone
Methylene chloride
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400

No	Name
48	C250 O-XYLENE

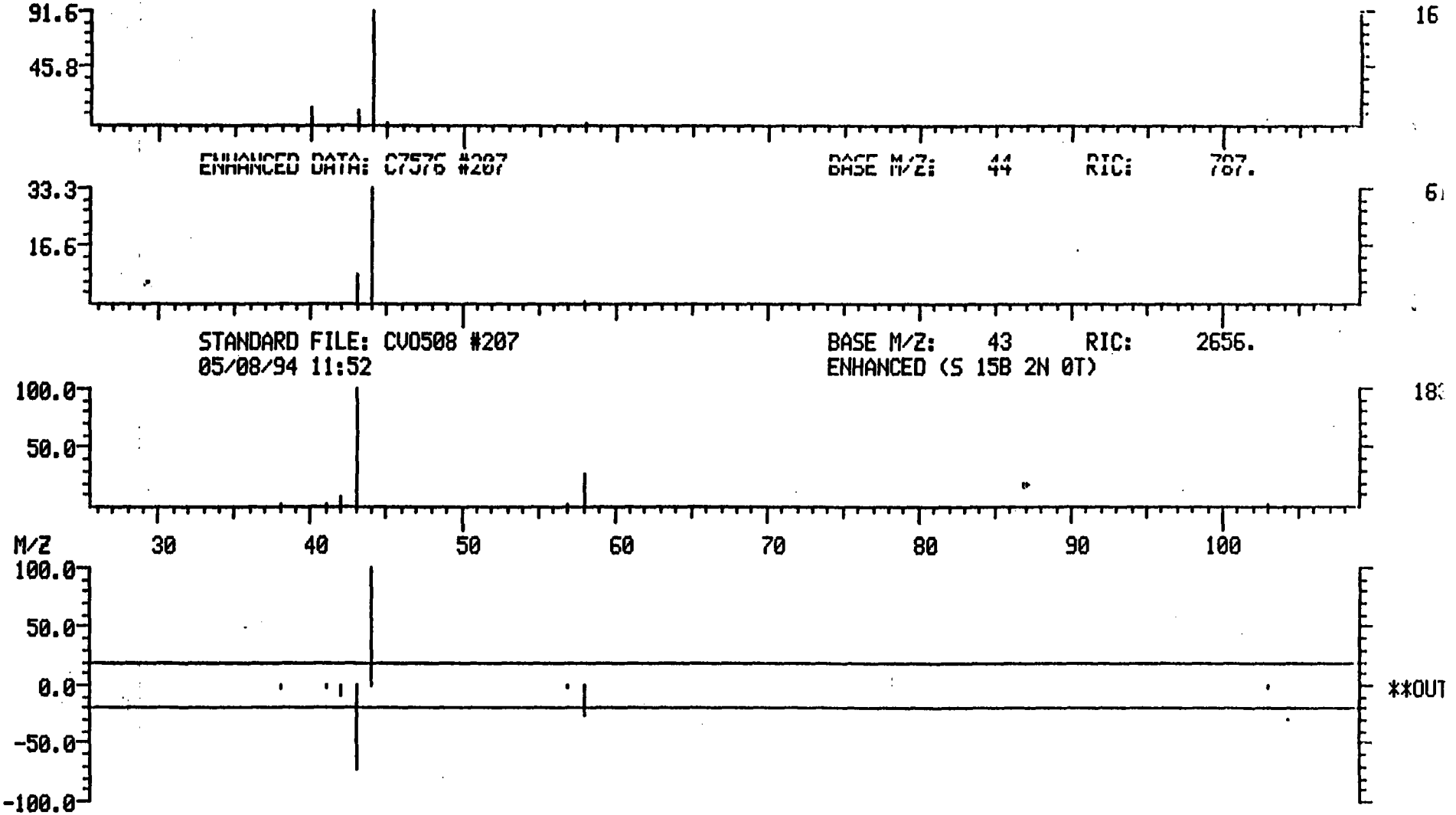
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	369	9:18	1	1.000	A BB	80873.	50.000 NG	16.04
2	114	469	11:49	2	1.000	A BB	253023.	50.000 NG	16.04
3	117	958	24:08	3	1.000	A BB	211204.	50.000 NG	16.04
4	65	426	10:44	1	1.154	A BB	53628.	54.254 NG	17.41
5	98	686	17:17	3	0.716	A BB	234262.	48.167 NG	15.46
6	95	1215	30:36	3	1.268	A BB	185112.	49.980 NG	16.04
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	240	6:03	1	0.650	A BB	3106.	1.954 NG	0.63
12	NOT FOUND								
13	43	205	5:10	1	0.556	A BV	2345.	7.320 NG	2.35
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

DATA FILE: C7576 #207
TARGET COMPOUND COMPARISON
COMPOUND: C035 ACETONE

STANDARD FILE: CV0508 #207
CALI: C7576 #3

RAW DATA: C7576 #207
05/08/94 23:15

BASE M/Z: 44 RIC: 2200.



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U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby

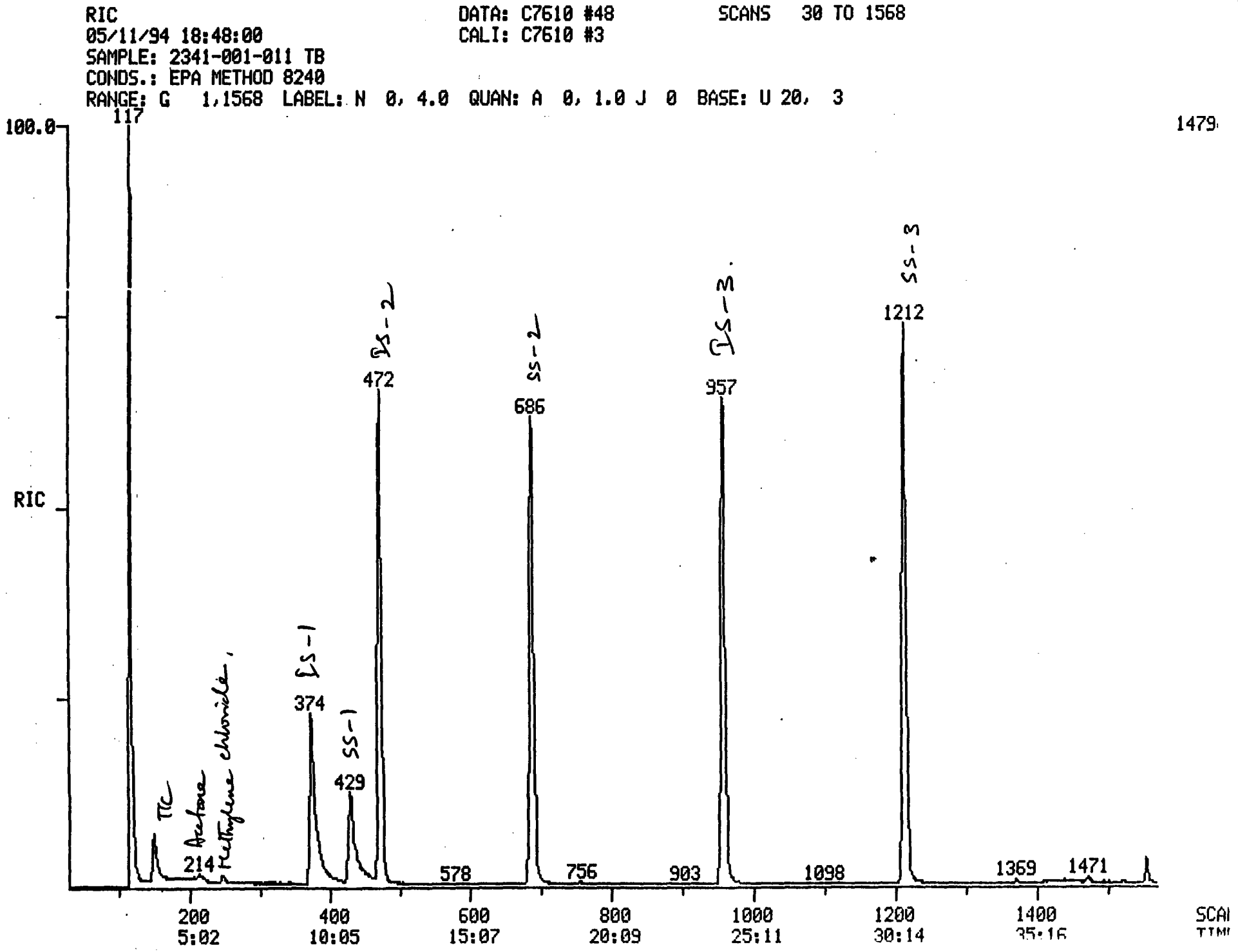
Report Date: 05/17/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896

Analysis: Volatile Organics, WW, SW-846 8240
Units: ug/liter

Parameters	*Sample I.D.:*	*Bldg. 9061 5/5/94 1479.11 TB*
Chloromethane		<10
Bromomethane		<10
Vinyl chloride		<10
Chloroethane		<10
Methylene chloride		2.7 BJ
Acetone		13 B
Carbon disulfide		<5.0
1,1-Dichloroethene		<5.0
1,1-Dichloroethane		<5.0
1,2-Dichloroethene (Total)		<5.0
Chloroform		<5.0
1,2-Dichloroethane		<5.0
2-Butanone		<5.0
1,1,1-Trichloroethane		<5.0
Carbon tetrachloride		<5.0
Bromodichloromethane		<5.0
1,1,2,2-Tetrachloroethane		<5.0
1,2-Dichloropropane		<5.0
trans-1,3-Dichloropropene		<5.0
Trichloroethene		<5.0
Dibromochloromethane		<5.0
1,1,2-Trichloroethane		<5.0
Benzene		<5.0
cis-1,3-Dichloropropene		<5.0
Bromoform		<5.0
2-Hexanone		<5.0
4-Methyl-2-Pentanone		<5.0
Tetrachloroethene		<5.0
Toluene		<5.0
Chlorobenzene		<5.0
Ethylbenzene		<5.0
Styrene		<5.0
Total Xylenes		<5.0

RECOVERY DATA	QC LIMITS	
1,2-Dichloroethane-d4 (Surrogate)	76-114%	111
Toluene-d8 (Surrogate)	88-110%	90
4-Bromofluorobenzene (Surrogate)	86-115%	94

B = Compound Found In Blank


RIC
05/11/94 18:48:00
SAMPLE: 2341-001-011 TB
CONDS.: EPA METHOD 8240
DATA: C7610 #48
CALI: C7610 #3
SCANS 30 TO 1568
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
117
214
374
429
472
578
686
756
903
957
1098
1212
1369
1471
1479
TIC
Acetone
Methylene chloride
IS-1
SS-1
IS-2
SS-2
IS-3
SS-3
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16
SCAN
TIME

No	Name
48	C250 O-XYLENE

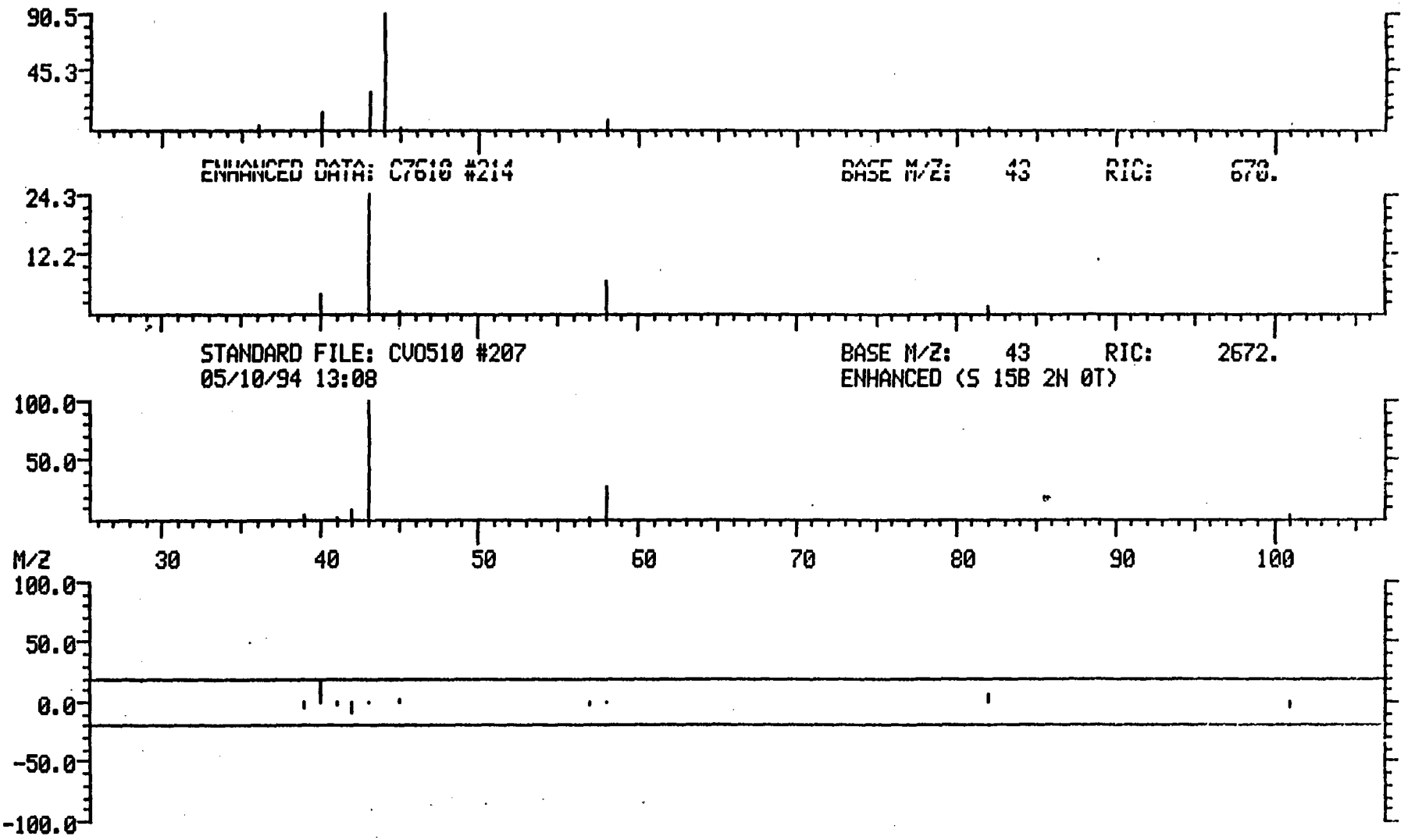
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	374	9:25	1	1.000	A BB	68586.	50.000 NG	15.97
2	114	472	11:53	2	1.000	A BB	239643.	50.000 NG	15.97
3	117	957	24:06	3	1.000	A BB	198801.	50.000 NG	15.97
4	65	429	10:48	1	1.147	A BB	50824.	55.488 NG	17.72
5	98	686	17:17	3	0.717	A BB	234172.	45.202 NG	14.44
6	95	1212	30:32	3	1.266	A BB	170337.	47.008 NG	15.01
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	248	6:15	1	0.663	A BB	3169.	2.701 NG	0.86
12	NOT FOUND								
13	43	214	5:23	1	0.572	A BB	3620.	12.755 NG	4.07
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

DATA FILE: C7610 #214
TARGET COMPOUND COMPARISON
COMPOUND: C035 ACETONE

STANDARD FILE: CV0510 #207
CALI: C7610 #3

RAW DATA: C7610 #214
05/11/94 18:48

BASE M/Z: 44 RIC: 2672.



Quantitation Report File: C7610

Data: C7610.TI
05/11/94 18:48:00
Sample: 2341-001-011 TB
Cmds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	CAS #	Name
1	0-00-0	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	0-00-0	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	0-00-0	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	0-00-0	UNKNOWN
5	0-00-0	UNKNOWN

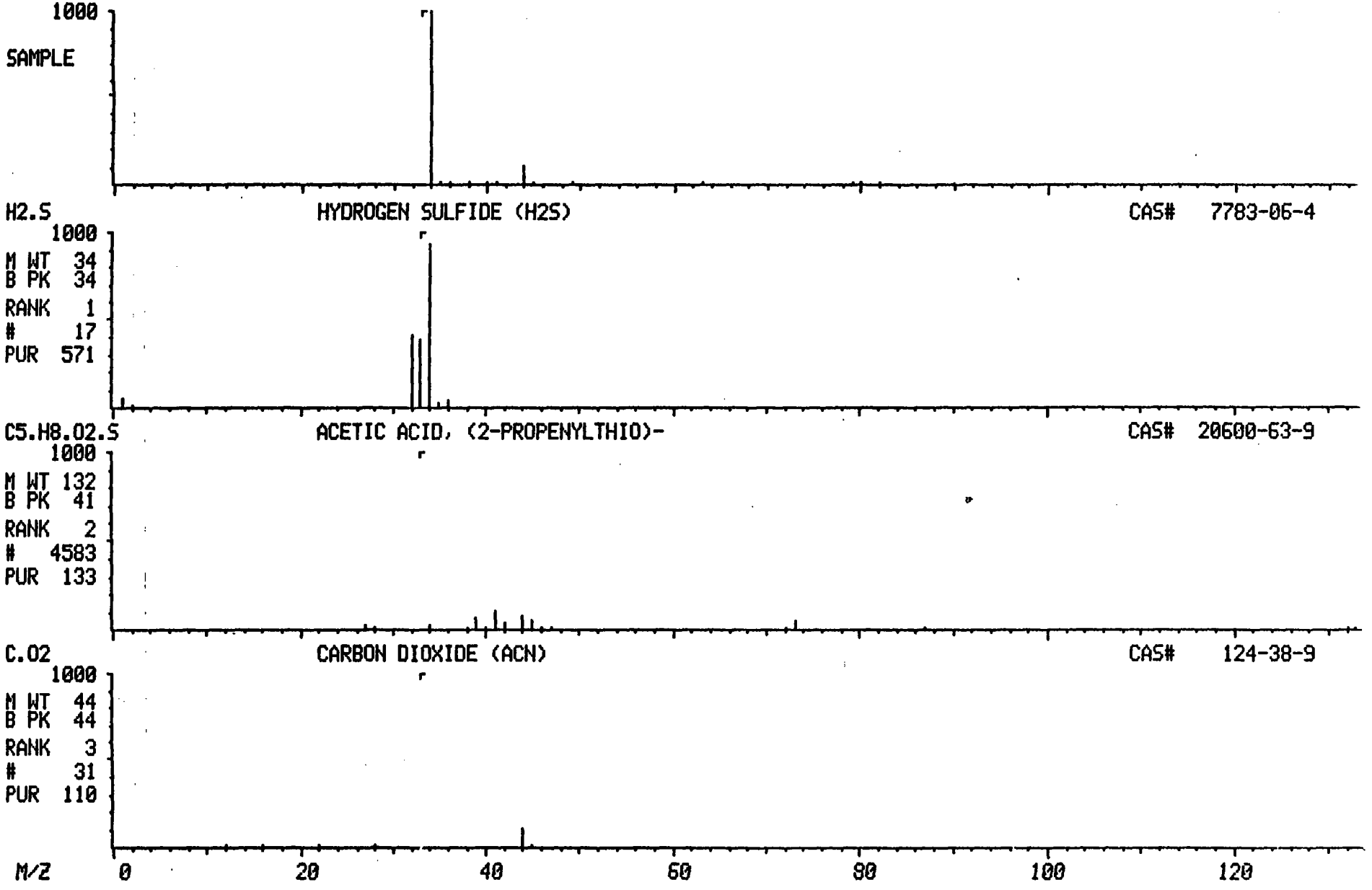
No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount		%Tot
1	TOT	374	9:25	0	ISINV	A BB	212381.	******	UG/L	00.00
2	TOT	472	11:53	0	ISINV	A BB	495730.	******	UG/L	00.00
3	TOT	957	24:06	0	ISINV	A BB	479105.	******	UG/L	00.00
4	TOT	117	2:57	1	0.313	A BB	403124.	~~94.906~~		88.59
5	TOT	150	3:47	1	0.401	A BB	51941.	12.228		11.41

No	Ret(L)	Ratio	RRT(L)	Ratio	Amnt	Amnt(L)	R.Fac	R.Fac(L)	Ratio
1	9:13	1.02	1.000						
2	19:21	0.61	1.000						
3	23:54	1.01	1.000						
4					94.91	1.00	94.906	1.000	94.91
5					12.23	1.00	12.228	1.000	12.23

MID LIBRARY SEARCH (LIBRARYNB)
05/11/94 18:48:00 + 3:48
SAMPLE: 2341-001-011 TB
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7610 # 151
CALI: C7610 # 3

BASE M/Z: 34
RIC: 8176.



SAMPLE NO.
1479.12 FB

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Princeton Testing Lab Contract: US ARMY FORT MONMOUTH

Lab Code: PTL Case No.: 2341 SAS No.: _____ SDG No.: _____

Matrix: (Soil/Water) SOIL _____ Lab Sample ID: 2341-012 _____

Sample wt/vol: 5.0 _____ (g/mL) mL Lab File ID: C7611 _____

Level: (low/med) LOW _____ Date Received: 5/6/94 _____

%Moisture: not dec. _____ Date Analyzed: 5/11/94 _____

GC Column: CAP _____ ID: 0.53 mm Dilution Factor: 1.0 _____

Soil Extract Vol: _____ ul Soil Aliquot Vol: _____ ul

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

#S	CAS NUMB	COMPOUND NAME	RT	EST. CONC.	SCAN

Quantitation Report File: C7611

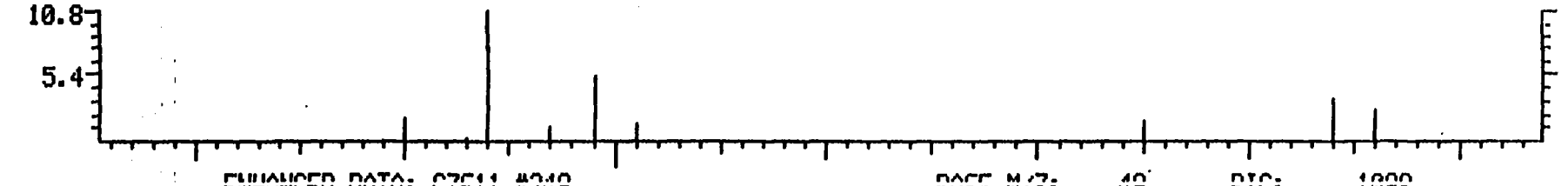
Data: C7611.TI
05/11/94 19:37:00
Sample: 2341-001-012 FB
Comds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

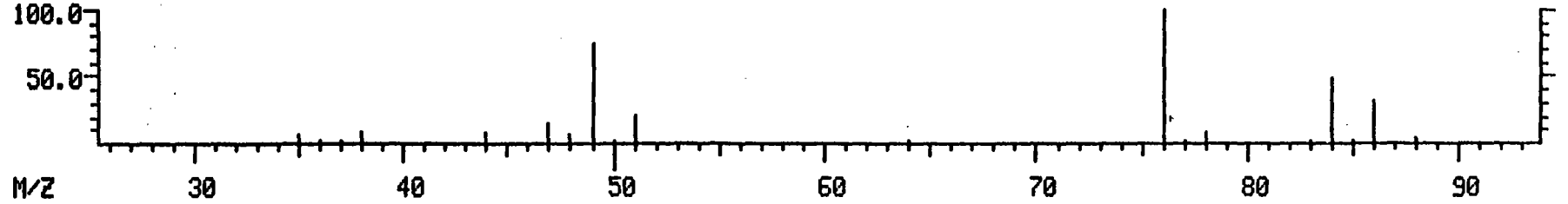
DATA FILE: C7611 #249 STANDARD FILE: CV0510 #241
TARGET COMPOUND COMPARISON CALI: C7611 #3
COMPOUND: C030 METHYLENE CHLORIDE

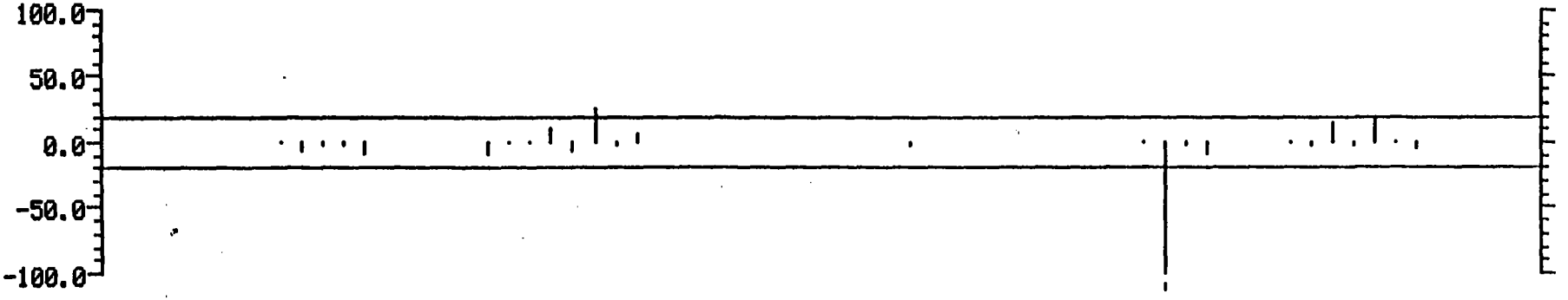
RAW DATA: C7611 #249 BASE M/Z: 44 RIC: 2540.
05/11/94 19:37



ENHANCED DATA: C7611 #249 BASE M/Z: 49 RIC: 1090.

STANDARD FILE: CV0510 #241 BASE M/Z: 76 RIC: 31936.
05/10/94 13:08 ENHANCED (S 15B 2N 0T)





PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 5/11/94 20:38:11

DATA FILE: C7611

FILTER SCAN PARAMETERS

MAX. NUMBER TICS:	15
11-TABLE ENTRIES:	528
SCAN TOLERANCE :	2
MIN. RIC HT. [%]:	10
FIRST SCAN :	1
LAST SCAN :	1600
TIC THRESHOLD :	600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLS
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LS
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
5	3	8

FILTER PROCESSING:

	<-----REJECT PEAKS----->						
TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
12	0	0	3	8	0	11	1

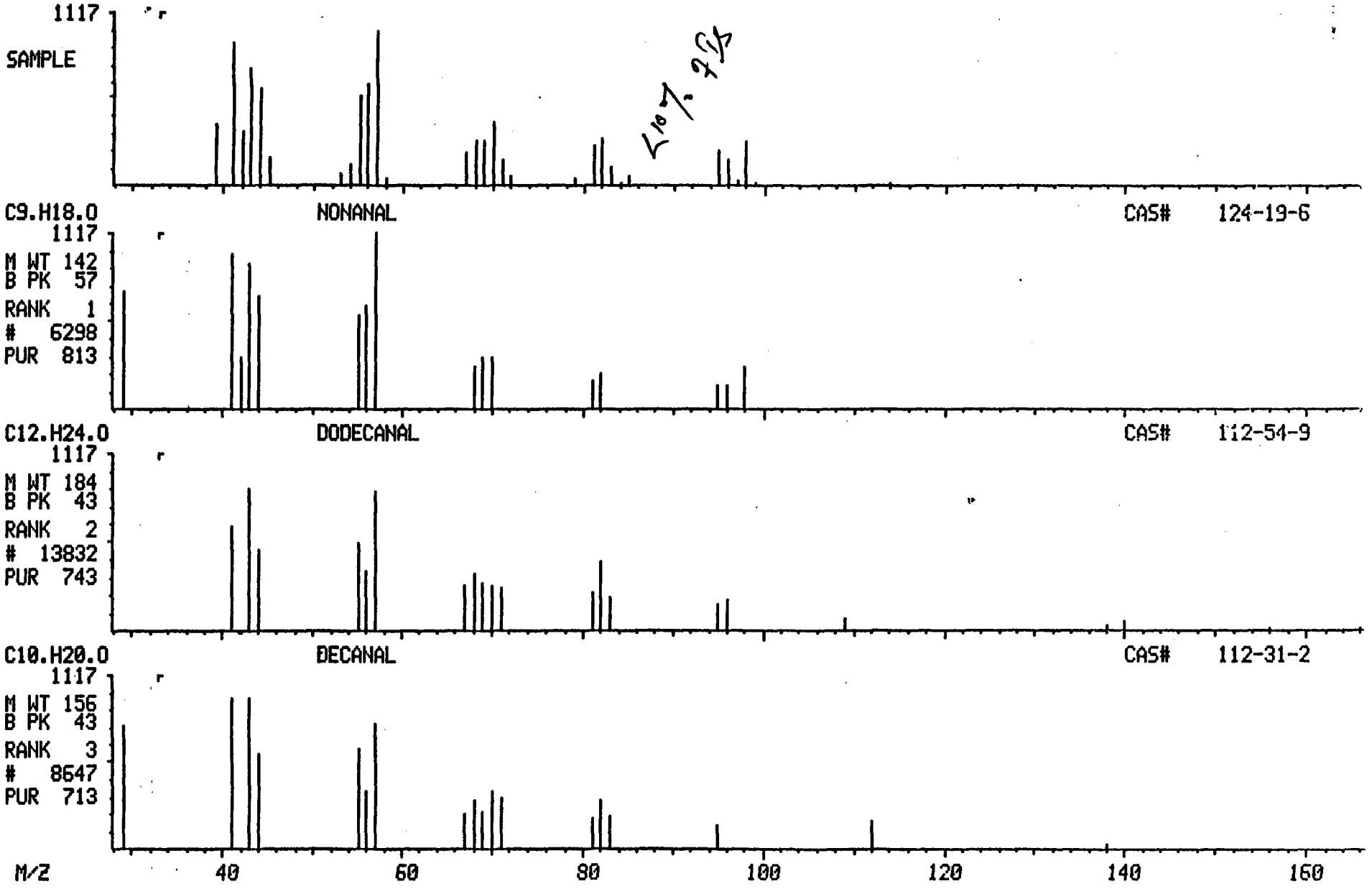
TIC PROCESSING:

NO.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	1551	813	993	142	NONANAL

MID LIBRARY SEARCH (LIBRARYNB)
05/11/94 19:37:00 + 39:04
SAMPLE: 2341-001-012 FB
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: C7611 #1551
CALI: C7611 # 3

BASE M/Z: 57
RIC: 8288.



Initial Calibration Data

Instrument Identifier: FINN
Calibration Date: 04/26/94 8240
35% RSD
:N RF FOR SPCC (**) = 0.30

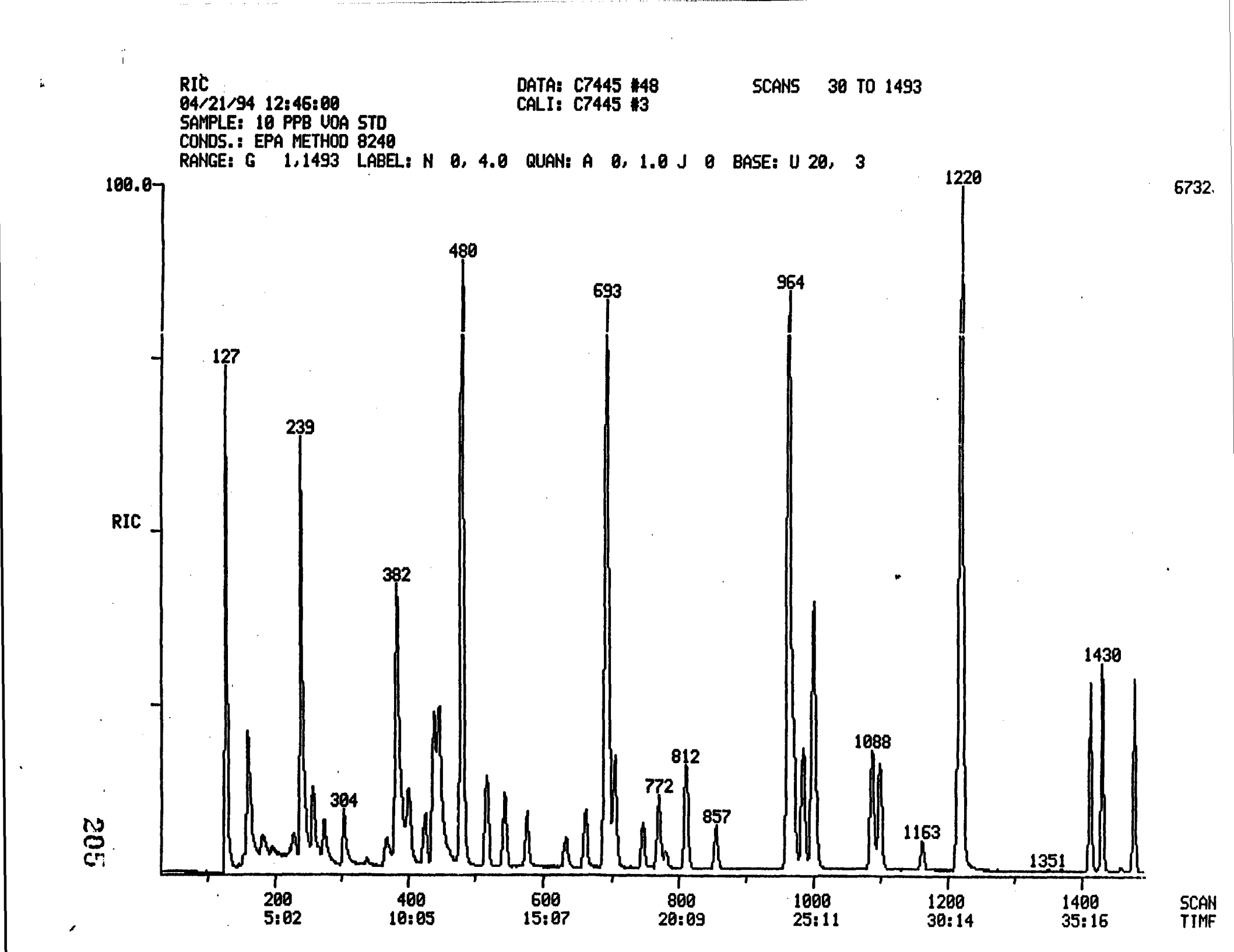
	Compound	RF 10 (C7445)	RF 20 (C7446)	RF 50 (C7446)	RF 100 (C7447)	RF 200 (C7448)	Mean RF	%RSD
C010	CHLOROMETHANE **	0.421	0.421	0.482	0.404	0.410	0.428	7.308
C015	BROMOMETHANE	0.500	0.501	0.577	0.493	0.455	0.505	8.769
C020	VINYL CHLORIDE *	0.416	0.439	0.393	0.291	0.278	0.364	20.294
C025	CHLOROETHANE	0.280	0.287	0.301	0.277	0.236	0.276	8.832
C030	METHYLENE CHLORIDE	1.025	1.061	0.969	0.866	0.831	0.950	10.447
C251	ACROLIN	0.050	0.059	0.067	0.072	0.076	0.065	16.456
C035	ACETONE	0.336	0.219	0.218	0.178	0.164	0.223	30.377
C252	ACRYLONITRILE	0.098	0.111	0.146	0.143	0.152	0.130	18.635
C040	CARBON DISULFIDE	0.941	0.873	1.210	1.137	1.195	1.071	14.408
C045	1,1-DICHLOROETHENE *	0.316	0.299	0.351	0.323	0.279	0.314	8.581
C050	1,1-DICHLOROETHANE **	0.755	0.732	0.762	0.739	0.673	0.732	4.805
C055	TRANS-1,2-DICHLOROETHEN	0.953	0.875	1.001	0.938	0.881	0.930	5.668
C000	TRICHLOROFLUOROMETHA	0.434	0.274	0.323	0.294	0.251	0.315	22.758
C060	CHLOROFORM *	0.966	0.972	0.988	1.002	0.924	0.970	3.051
C065	1,2-DICHLOROETHANE	0.974	0.933	0.949	0.926	0.895	0.935	3.105
C110	2-BUTANONE	0.110	0.106	0.113	0.107	0.113	0.110	2.901
C115	1,1,1-TRICHLOROETHANE	0.467	0.476	0.530	0.501	0.477	0.490	5.257
C120	CARBON TETRACHLORIDE	0.366	0.384	0.453	0.446	0.446	0.419	9.684
C125	VINYL ACETATE	0.573	0.606	0.711	0.710	0.766	0.673	11.984
C130	BROMO DICHLOROMETHANE	0.427	0.465	0.525	0.549	0.528	0.499	10.240
C140	1,2-DICHLOROPROPANE	0.339	0.330	0.344	0.351	0.388	0.350	6.411
145	TRANS-1,3 DICHLOROPROPE	0.368	0.395	0.465	0.485	0.550	0.452	16.029
C150	TRICHLOROETHENE	0.358	0.353	0.379	0.378	0.393	0.372	4.422
C155	DIBROMOCHLOROMETHANE	0.312	0.363	0.464	0.478	0.555	0.434	22.286
C160	1,1,2-TRICHLOROETHANE	0.297	0.305	0.326	0.318	0.338	0.317	5.131
C165	BENZENE	0.867	0.842	0.859	0.848	0.879	0.859	1.708
C143	CIS-1,3-DICHLOROPROPENE	0.275	0.312	0.384	0.411	0.476	0.372	21.538
C175	2-CHLOROETHYL VINYL ETH	0.079	0.083	0.091	0.092	0.098	0.089	8.624
C180	BROMOFORM **	0.194	0.228	0.286	0.357	0.425	0.298	31.611
C220	TETRACHLOROETHENE	0.531	0.522	0.575	0.529	0.517	0.535	4.359
C210	2-HEXANONE	0.417	0.547	0.563	0.642	0.439	0.522	17.826
C205	4-METHYL 2-PENTANONE	0.254	0.231	0.248	0.267	0.289	0.258	8.436
C225	1,1,2,2-TETRACHLOROETHA	0.598	0.585	0.580	0.657	0.698	0.624	8.297
C230	TOLUENE *	1.267	1.207	1.264	1.250	1.257	1.249	1.951
C235	CHLOROBENZENE **	0.918	0.934	0.953	0.943	0.949	0.939	1.479
C240	ETHYL BENZENE *	0.402	0.402	0.433	0.430	0.433	0.420	3.902
C245	STYRENE	0.872	0.878	0.930	0.979	1.002	0.932	6.266
C250	M+P-XYLENES	1.166	1.203	1.221	1.227	1.249	1.213	2.564
C253	1,3-DICHLOROBENZENE	0.921	0.880	0.931	0.978	1.021	0.946	5.762
C254	1,4-DICHLOROBENZENE	0.947	0.910	0.972	1.031	1.043	0.981	5.728
C255	1,2-DICHLOROBENZENE	0.876	0.829	0.871	0.309	0.924	0.762	33.517
C250	O-XYLENE	0.590	0.579	0.571	0.597	0.619	0.591	3.129

DATAFILE:CV0421Quantitation Report File: C7444

Data: C7444.TI
04/21/94 12:00:00
`ample: 50 PPB VOA STD
onds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: Analyst: UC Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE


RIC
04/21/94 12:46:00
SAMPLE: 10 PPB VOA STD
CONDS.: EPA METHOD 8240
DATA: C7445 #48
CALI: C7445 #3
SCANS 30 TO 1493
RANGE: G 1,1493 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
6732.
RIC
127
239
304
382
480
693
772
812
857
964
1088
1163
1220
1351
1430
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16
SCAN
TIME

C7445

No Name
48 C250 O-XYLENE

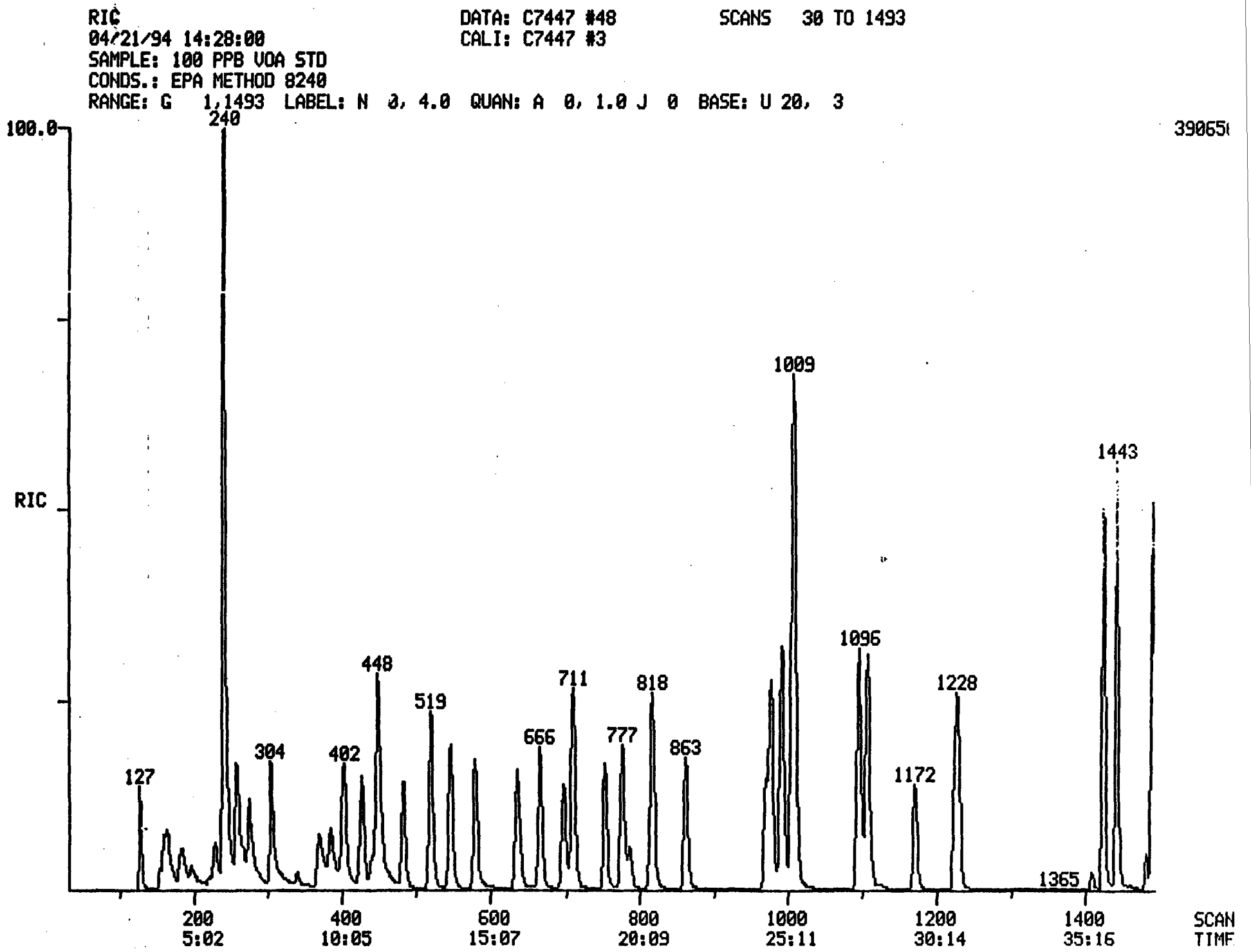
Io	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	382	9:37	1	1.000	A BB	51359.	50.000 NG	7.20
2	114	480	12:05	2	1.000	A BB	142133.	50.000 NG	7.20
3	117	964	24:17	3	1.000	A BB	115161.	50.000 NG	7.20
4	65	438	11:02	1	1.147	A BB	45265.	52.680 NG	7.59
5	98	693	17:27	3	0.719	A BB	142660.	51.617 NG	7.44
6	95	1220	30:44	3	1.266	A BB	102179.	49.154 NG	7.08
7	50	154	3:53	1	0.403	A BB	4320.	8.734 NG	1.26
8	94	181	4:34	1	0.474	M XX	5135.	8.672 NG	1.25
9	62	158	3:59	1	0.414	A BB	4266.	10.584 NG	1.52
10	64	184	4:38	1	0.482	A BB	2873.	9.315 NG	1.34
11	49	256	6:27	1	0.670	A BB	10518.	10.570 NG	1.52
12	56	219	5:31	1	0.573	A BB	506.	7.417 NG	1.07
13	43	223	5:37	1	0.584	A BB	3448.	15.432 NG	2.22
14	53	266	6:42	1	0.696	A BB	997.	6.652 NG	0.96
15	76	257	6:28	1	0.673	A BB	9660.	7.772 NG	1.12
16	96	228	5:45	1	0.597	A BB	3237.	8.994 NG	1.30
17	63	305	7:41	1	0.798	A BB	7746.	9.903 NG	1.43
18	61	274	6:54	1	0.717	A BB	9787.	9.528 NG	1.37
19	101	196	4:56	1	0.513	M XX	4455.	13.435 NG	1.94
20	83	367	9:15	1	0.961	A BB	9917.	9.774 NG	1.41
21	62	448	11:17	1	1.173	A BB	9997.	10.256 NG	1.48
22	43	338	8:31	2	0.704	A BB	3099.	9.714 NG	1.40
23	97	400	10:05	2	0.833	A BB	13253.	8.802 NG	1.27
24	117	425	10:42	2	0.885	A BB	10401.	8.087 NG	1.17
25	43	303	7:38	2	0.631	A BB	16264.	8.050 NG	1.16
26	83	576	14:31	2	1.200	A BB	12111.	8.120 NG	1.17
27	63	543	13:41	2	1.131	A BB	9625.	9.854 NG	1.42
28	75	662	16:41	2	1.379	A BB	10457.	7.923 NG	1.14
29	95	517	13:01	2	1.077	A BB	10173.	9.443 NG	1.36
30	129	857	21:35	2	1.785	A BB	8843.	6.712 NG	0.97
31	97	772	19:27	2	1.608	A BB	8423.	9.108 NG	1.31
32	78	446	11:14	2	0.929	A BB	24620.	10.085 NG	1.45
33	75	749	18:52	2	1.560	A BB	7794.	7.154 NG	1.03
34	63	706	17:47	2	1.471	A BB	2233.	8.676 NG	1.25
35	173	1163	29:18	2	2.423	A BB	5496.	6.763 NG	0.97
36	166	812	20:27	3	0.842	A BB	12230.	9.235 NG	1.33
37	43	633	15:57	3	0.657	A BB	9603.	7.408 NG	1.07
38	43	782	19:42	3	0.811	A BB	5831.	10.239 NG	1.48
39	83	1216	30:38	3	1.261	A BB	13754.	10.304 NG	1.48
40	91	706	17:47	3	0.732	A BB	29168.	10.019 NG	1.44
41	112	971	24:28	3	1.007	A BB	21132.	9.636 NG	1.39
42	106	985	24:49	3	1.022	A BB	9241.	9.281 NG	1.34
43	104	1100	27:43	3	1.141	A BB	20077.	9.381 NG	1.35
44	106	1001	25:13	3	1.038	A BB	26845.	9.551 NG	1.38
45	146	1413	35:36	3	1.466	A BB	21196.	9.889 NG	1.42
46	146	1430	36:01	3	1.483	A BB	21807.	9.747 NG	1.40
47	146	1478	37:14	3	1.533	A BB	20172.	10.065 NG	1.45
48	106	1088	27:24	3	1.129	A BB	13589.	10.350 NG	1.49

Quantitation Report File: C7446

Data: C7446.TI
04/21/94 13:42:00
Sample: 20 PPB VOA STD
Cmnds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: PTL Analyst: UC Acct. No.: 5-PT

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE


RIC
04/21/94 14:28:00
SAMPLE: 100 PPB VOA STD
CONDS.: EPA METHOD 8240
DATA: C7447 #48
CALI: C7447 #3
SCANS 30 TO 1493
RANGE: G 1,1493 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
240
1009
1443
448
519
711
818
1096
304
402
666
777
863
1228
127
1172
1365
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16
SCAN
TIME

c7447

No	Name
48	C250 O-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	384	9:40	1	1.000	A BB	47037.	50.000 NG	1.13
2	114	482	12:08	2	1.000	A BB	131679.	50.000 NG	1.13
3	117	971	24:28	3	1.000	A BB	111326.	50.000 NG	1.13
4	65	440	11:05	1	1.146	A BB	45199.	57.437 NG	1.30
5	98	698	17:35	3	0.719	A BB	135263.	50.626 NG	1.15
6	95	1230	30:59	3	1.267	A BB	120115.	59.773 NG	1.36
7	50	155	3:54	1	0.404	A BB	37949.	83.775 NG	1.90
8	94	181	4:34	1	0.471	A BB	46295.	85.366 NG	1.94
9	62	158	3:59	1	0.411	M XX	27370.	74.144 NG	1.68
10	64	184	4:38	1	0.479	A BB	25966.	91.926 NG	2.08
11	49	257	6:28	1	0.669	A BB	81466.	89.385 NG	2.03
12	56	220	5:33	1	0.573	A BB	6748.	107.995 NG	2.45
13	43	223	5:37	1	0.581	A BB	16675.	81.481 NG	1.85
14	53	267	6:44	1	0.695	A BB	13448.	97.970 NG	2.22
15	76	258	6:30	1	0.672	A BB	106871.	93.888 NG	2.13
16	96	228	5:45	1	0.594	A BB	30368.	92.118 NG	2.09
17	63	306	7:42	1	0.797	A BB	69512.	97.031 NG	2.20
18	61	274	6:54	1	0.714	A BB	88227.	93.777 NG	2.13
19	101	196	4:56	1	0.510	A BB	27620.	90.948 NG	2.06
20	83	368	9:16	1	0.958	A BB	94192.	101.369 NG	2.30
21	62	450	11:20	1	1.172	A BB	87023.	97.485 NG	2.21
22	43	339	8:32	2	0.703	A BB	28166.	95.299 NG	2.16
23	97	402	10:08	2	0.834	A BB	131893.	94.554 NG	2.14
24	117	426	10:44	2	0.884	A BB	117278.	98.421 NG	2.23
25	43	304	7:39	2	0.631	A BB	186846.	99.820 NG	2.26
26	83	579	14:35	2	1.201	A BB	144423.	104.517 NG	2.37
27	63	546	13:45	2	1.133	A BB	92185.	101.873 NG	2.31
28	75	666	16:47	2	1.382	A BB	127538.	104.312 NG	2.37
29	95	519	13:04	2	1.077	A BB	99309.	99.501 NG	2.26
30	129	863	21:44	2	1.790	A BB	125702.	102.978 NG	2.34
31	97	777	19:34	2	1.612	A BB	83689.	97.682 NG	2.22
32	78	447	11:16	2	0.927	A BB	223309.	98.732 NG	2.24
33	75	754	19:00	2	1.564	A BB	108120.	107.113 NG	2.43
34	63	711	17:55	2	1.475	M XX	24201.	101.495 NG	2.30
35	173	1172	29:31	2	2.432	A BB	94008.	124.864 NG	2.83
36	166	818	20:36	3	0.842	A BB	117649.	91.902 NG	2.08
37	43	636	16:01	3	0.655	A BB	142927.	114.062 NG	2.59
38	43	787	19:49	3	0.811	A BB	59370.	107.840 NG	2.45
39	83	1226	30:53	3	1.263	A BB	146267.	113.357 NG	2.57
40	91	711	17:55	3	0.732	A BB	278213.	98.858 NG	2.24
41	112	978	24:38	3	1.007	A BB	209920.	99.022 NG	2.25
42	106	993	25:01	3	1.023	A BB	95643.	99.370 NG	2.25
43	104	1108	27:55	3	1.141	A VB	217789.	105.271 NG	2.39
44	106	1009	25:25	3	1.039	A BB	273004.	100.475 NG	2.28
45	146	1425	35:54	3	1.468	A BB	217672.	105.057 NG	2.38
46	146	1443	36:21	3	1.486	M XX	229537.	106.128 NG	2.41
47	146	1491	37:33	3	1.536	M XX	68680.	35.449 NG	0.80
48	106	1096	27:36	3	1.129	A BB	132721.	104.564 NG	2.37

Quantitation Report File: C7448

Data: C7448.TI
04/21/94 15:16:00
Sample: 200 PPB VOA STD
Cmnds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: PTL Analyst: UC Acct. No.: 5-PT

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

EDATAFILE: CV0506 Calibration Check

Instrument Identifier: FINN
Calibration Date: 04/25/94
Standard File: CV0506
Date: 05/08/94 Time: 11:52:00
25% D
MIN RF FOR SPCC (**) = 0.300

	Compound	Mean RF(I)	RF(O)	% D
CS15	1,2-DICHLOROETHANE-D4 *	0.878	0.612	0.000
CS05	TOLUENE-D8 **S. STD.**	1.217	1.152	0.000
CS10	4-BROMOFLUOROBENZENE **	1.013	0.877	0.000
C010	CHLOROMETHANE **	0.428	0.553	29.232
C015	BROMOMETHANE	0.505	0.561	11.025
C020	VINYL CHLORIDE *	0.364	0.431	18.654
C025	CHLOROETHANE	0.276	0.323	16.954
C030	METHYLENE CHLORIDE	0.950	0.983	3.485
C251	ACROLIN	0.065	0.090	39.330
C035	ACETONE	0.223	0.199	10.983
C252	ACRYLONITRILE	0.130	0.180	38.660
C040	CARBON DISULFIDE	1.071	1.345	25.529
C045	1,1-DICHLOROETHENE *	0.314	0.338	7.884
C050	1,1-DICHLOROETHANE **	0.732	0.408	44.233
C055	TRANS-1,2-DICHLOROETHEN	0.930	0.893	3.962
C000	TRICHLOROFLUOROMETHA	0.315	0.231	26.554
C060	CHLOROFORM *	0.970	0.695	28.346
C065	1,2-DICHLOROETHANE	0.935	0.691	26.183
C110	2-BUTANONE	0.110	0.119	8.046
C115	1,1,1-TRICHLOROETHANE	0.490	0.556	13.344
C120	CARBON TETRACHLORIDE	0.419	0.480	14.567
C125	VINYL ACETATE	0.673	0.827	22.796
C130	BROMO DICHLOROMETHANE	0.499	0.513	2.796
C140	1,2-DICHLOROPROPANE	0.350	0.401	14.351
C145	TRANS-1,3 DICHLOROPROPE	0.452	0.536	18.442
C150	TRICHLOROETHENE	0.372	0.396	6.509
C155	DIBROMOCHLOROMETHANE	0.434	0.532	22.506
C160	1,1,2-TRICHLOROETHANE	0.317	0.335	5.722
C165	BENZENE	0.859	0.953	10.895
C143	CIS-1,3-DICHLOROPROPENE	0.372	0.458	23.262
C175	2-CHLOROETHYL VINYL ETH	0.089	0.095	6.906
C180	BROMOFORM **	0.298	0.359	20.460
C220	TETRACHLOROETHENE	0.535	0.537	0.305
C210	2-HEXANONE	0.522	0.708	35.663
C205	4-METHYL 2-PENTANONE	0.258	0.303	17.519
C225	1,1,2,2-TETRACHLOROETHA	0.624	0.625	0.284
C230	TOLUENE *	1.249	1.247	0.128
C235	CHLOROBENZENE **	0.939	0.970	3.233
C240	ETHYL BENZENE *	0.420	0.431	2.603
C245	STYRENE	0.932	0.952	2.106
C250	M+P-XYLENES	1.213	1.212	0.123
C253	1,3-DICHLOROBENZENE	0.946	0.924	2.362
C254	1,4-DICHLOROBENZENE	0.981	0.945	3.656
C255	1,2-DICHLOROBENZENE	0.762	0.867	13.775
C250	O-XYLENE	0.591	0.594	0.487

Quantitation Report File: CV0508

Data: CV0508.TI
05/08/94 11:52:00
Sample: 50 PPB VOA STD
Cmds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: PTL Analyst: UC Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

DATAFILE: CV0509 Calibration Check

Instrument Identifier: FINN
Calibration Date: 05/16/94
Standard File: CV0509
Date: 05/09/94 Time: 12:25:00
25% D
MIN RF FOR SPCC (**) = 0.300

	Compound	Mean RF(I)	RF(C)	% D
CS15	1,2-DICHLOROETHANE-D4 *	0.878	0.616	0.000
CS05	TOLUENE-D8 **S. STD. **	1.217	1.256	0.000
CS10	4-BROMOFLUOROBENZENE **	1.013	0.924	0.000
C010	CHLOROMETHANE **	0.428	0.582	36.067
C015	BROMOMETHANE	0.505	0.580	14.747
C020	VINYL CHLORIDE *	0.364	0.441	21.231
C025	CHLOROETHANE	0.276	0.344	24.545
C030	METHYLENE CHLORIDE	0.950	0.960	1.059
C031	ACROLIN	0.065	0.084	29.954
C035	ACETONE	0.223	0.193	13.378
C03E	ACRYLONITRILE	0.130	0.166	27.558
C040	CARBON DISULFIDE	1.071	1.268	18.424
C045	1,1-DICHLOROETHENE *	0.314	0.325	3.711
C050	1,1-DICHLOROETHANE **	0.732	0.400	45.429
C055	TRANS-1,2-DICHLOROETHEN	0.930	0.834	10.307
C060	TRICHLOROFLUOROMETHA	0.315	0.248	21.309
C060	CHLOROFORM *	0.970	0.600	38.202
C065	1,2-DICHLOROETHANE	0.935	0.672	28 127
C10	2-BUTANONE	0.110	0.096	12.762
C115	1,1,1-TRICHLOROETHANE	0.490	0.503	2.516
C120	CARBON TETRACHLORIDE	0.419	0.433	3.422
C125	VINYL ACETATE	0.673	0.709	5.233
C130	BROMO DICHLOROMETHANE	0.499	0.489	1.868
C140	1,2-DICHLOROPROPANE	0.350	0.377	7.550
C145	TRANS-1,3 DICHLOROPROPE	0.452	0.522	15.359
C150	TRICHLOROETHENE	0.372	0.379	1.782
C155	DIBROMOCHLOROMETHANE	0.434	0.497	14.542
C160	1,1,2-TRICHLOROETHANE	0.317	0.336	5.960
C165	BENZENE	0.859	0.879	2.275
C143	CIS-1,3-DICHLOROPROPENE	0.372	0.439	18.112
C175	2-CHLOROETHYL VINYL ETH	0.089	0.093	5.431
C180	BROMOFORM **	0.298	0.327	9.703
C220	TETRACHLOROETHENE	0.535	0.565	5.523
C210	2-HEXANONE	0.522	0.674	29.157
C205	4-METHYL 2-PENTANONE	0.258	0.296	14.751
C225	1,1,2,2-TETRACHLOROETHA	0.624	0.617	1.128
C230	TOLUENE *	1.249	1.282	2.617
C235	CHLOROBENZENE **	0.939	0.930	0.953
C240	ETHYL BENZENE *	0.420	0.406	3.190
C245	STYRENE	0.932	0.889	4.605
C250	M+P-XYLENES	1.213	1.145	5.604
C253	1,3-DICHLOROBENZENE	0.946	0.958	1.281
154	1,4-DICHLOROBENZENE	0.981	0.972	0.869
C255	1,2-DICHLOROBENZENE	0.762	0.887	16.442
C250	O-XYLENE	0.591	0.554	6.366

Quantitation Report File: CV0509

Data: CV0509.TI
1/09/94 12:25:00
Sample: 50 PPB VOA STD
Conds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: PTL Analyst: UC Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE

DATAFILE: CV0511 Calibration Check

Instrument Identifier: FINN
Calibration Date: 04/25/94
andard File: CV0511
Date: 05/11/94 Time: 17:09:00
25% D
MIN RF FOR SPCC (**) = 0.300

	Compound	Mean RF(I)	RF(O)	% D
CS15	1,2-DICHLOROETHANE-D4 *	0.878	0.668	0.000
CS05	TOLUENE-D8 **S. STD. **	1.217	1.303	0.000
CS10	4-BROMOFLUOROBENZENE **	1.013	0.912	0.000
C010	CHLOROMETHANE **	0.428	0.465	8.711
C015	BROMOMETHANE	0.505	0.511	1.030
C020	VINYL CHLORIDE *	0.364	0.390	7.389
C025	CHLOROETHANE	0.276	0.292	5.720
C030	METHYLENE CHLORIDE	0.950	0.856	9.945
C251	ACROLIN	0.065	0.076	17.667
C035	ACETONE	0.223	0.207	7.017
C252	ACRYLONITRILE	0.130	0.126	3.273
C040	CARBON DISULFIDE	1.071	1.006	6.052
C045	1,1-DICHLOROETHENE *	0.314	0.297	5.410
C050	1,1-DICHLOROETHANE **	0.732	0.379	48.256
C055	TRANS-1,2-DICHLOROETHEN	0.930	0.783	15.766
C000	TRICHLOROFLUOROMETHA	0.315	0.225	28.633
C060	CHLOROFORM *	0.970	0.561	42.231
C065	1,2-DICHLOROETHANE	0.935	0.695	25.672
C110	2-BUTANONE	0.110	0.072	34.239
C115	1,1,1-TRICHLOROETHANE	0.490	0.418	14.688
C120	CARBON TETRACHLORIDE	0.419	0.347	17.089
C125	VINYL ACETATE	0.673	0.498	25.983
C130	BROMO DICHLOROMETHANE	0.499	0.421	15.575
C140	1,2-DICHLOROPROPANE	0.350	0.292	16.745
C145	TRANS-1,3 DICHLOROPROPE	0.452	0.382	15.532
C150	TRICHLOROETHENE	0.372	0.303	18.532
C155	DIBROMOCHLOROMETHANE	0.434	0.344	20.843
C160	1,1,2-TRICHLOROETHANE	0.317	0.246	22.344
C165	BENZENE	0.859	0.704	18.017
C143	CIS-1,3-DICHLOROPROPENE	0.372	0.302	18.753
C175	2-CHLOROETHYL VINYL ETH	0.089	0.068	22.824
C180	BROMOFORM **	0.298	0.238	20.152
C220	TETRACHLOROETHENE	0.535	0.462	13.598
C210	2-HEXANONE	0.522	0.409	21.643
C205	4-METHYL 2-PENTANONE	0.258	0.193	25.206
C225	1,1,2,2-TETRACHLOROETHA	0.624	0.508	18.490
C230	TOLUENE *	1.249	1.108	11.254
C235	CHLOROBENZENE **	0.939	0.816	13.153
C240	ETHYL BENZENE *	0.420	0.364	13.392
C245	STYRENE	0.932	0.816	12.423
C250	M+P-XYLENES	1.213	1.053	13.173
C253	1,3-DICHLOROBENZENE	0.946	0.908	4.002
C254	1,4-DICHLOROBENZENE	0.981	0.943	3.880
C255	1,2-DICHLOROBENZENE	0.762	0.842	10.538
C250	O-XYLENE	0.591	0.529	10.582

Quantitation Report File: CV0511

Data: CV0511.TI
05/11/94 17:09:00
mple: 50 PPB VOA STD
.onds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: PTL Analyst: UC Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

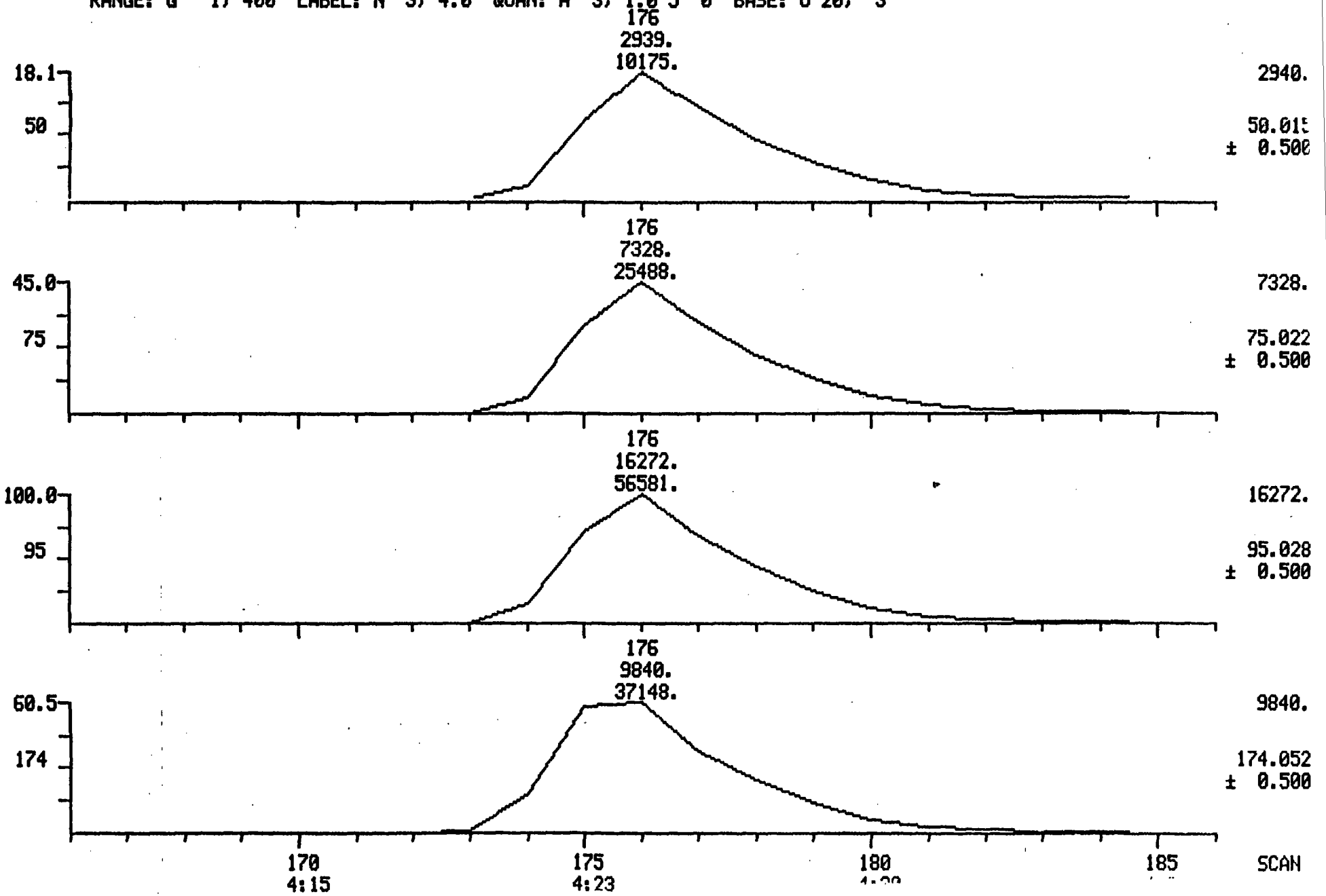
No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

RAW QC DATA

Mass List Data: BFB421 # 176 Base m/z: 95
04/21/94 10:01:00 + 4:04 Cali: CALTAB # 3 RIC: 166400.
Sample: 50NG BFB MASS SPECTROMETER TUNE CHECK
Conds.: EPA METHOD 624
#175 to #177 summed

34 0.00 0. Minima Min Inten: 0.
193 Maxima # 0

Mass	% RA	Inten.	Mass	% RA	Inten.
34?	1.18	463.	128	0.09	37.
36?	1.19	464.	141	0.64	250.
37?	6.13	2396.	143	0.67	263.
38?	4.94	1930.	174	65.63	25664.
39?	2.14	837.	175	4.58	1790.
40?	0.92	359.	176	63.18	24704.
41?	0.66	260.	177	4.03	1574.
43?	0.77	303.	193	0.27	107.
44?	5.24	2048.			
45?	0.97	378.			
47?	1.26	492.			
48?	0.49	190.			
49?	3.72	1456.			
50?	17.59	6880.			
51?	5.34	2088.			
55?	0.56	220.			
56?	1.35	526.			
57?	2.66	1042.			
60?	0.65	253.			
61?	3.91	1528.			
62?	3.52	1376.			
63?	2.56	1000.			
68?	8.23	3220.			
69	8.50	3324.			
70	1.03	402.			
72	0.23	91.			
73	3.53	1380.			
74	13.11	5128.			
75	44.44	17376.			
76	3.74	1464.			
77	0.60	234.			
78	0.05	21.			
79	1.92	751.			
80	0.32	125.			
81	2.04	798.			
82	0.36	141.			
87	3.53	1380.			
88	3.43	1342.			
89	0.04	16.			
91	0.17	66.			
92	2.06	806.			
93	3.20	1252.			
94	9.01	3524.			
95	100.00	39104.			
96	8.04	3144.			
97	0.22	85.			
104	0.05	20.			
117	0.27	107.			
118	0.07	26.			
119	0.04	16.			


MASS CHROMATOGRAMS
04/21/94 10:01:00
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 624
RANGE: G 1, 400 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3
DATA: BFB421 #175
CALI: CALTAB #3
SCANS 166 TO 186
176
2939.
10175.
18.1
50
2940.
50.015
± 0.500
176
7328.
25488.
45.0
75
7328.
75.022
± 0.500
176
16272.
56581.
100.0
95
16272.
95.028
± 0.500
176
9840.
37148.
60.5
174
9840.
174.052
± 0.500
170
4:15
175
4:23
180
185
SCAN

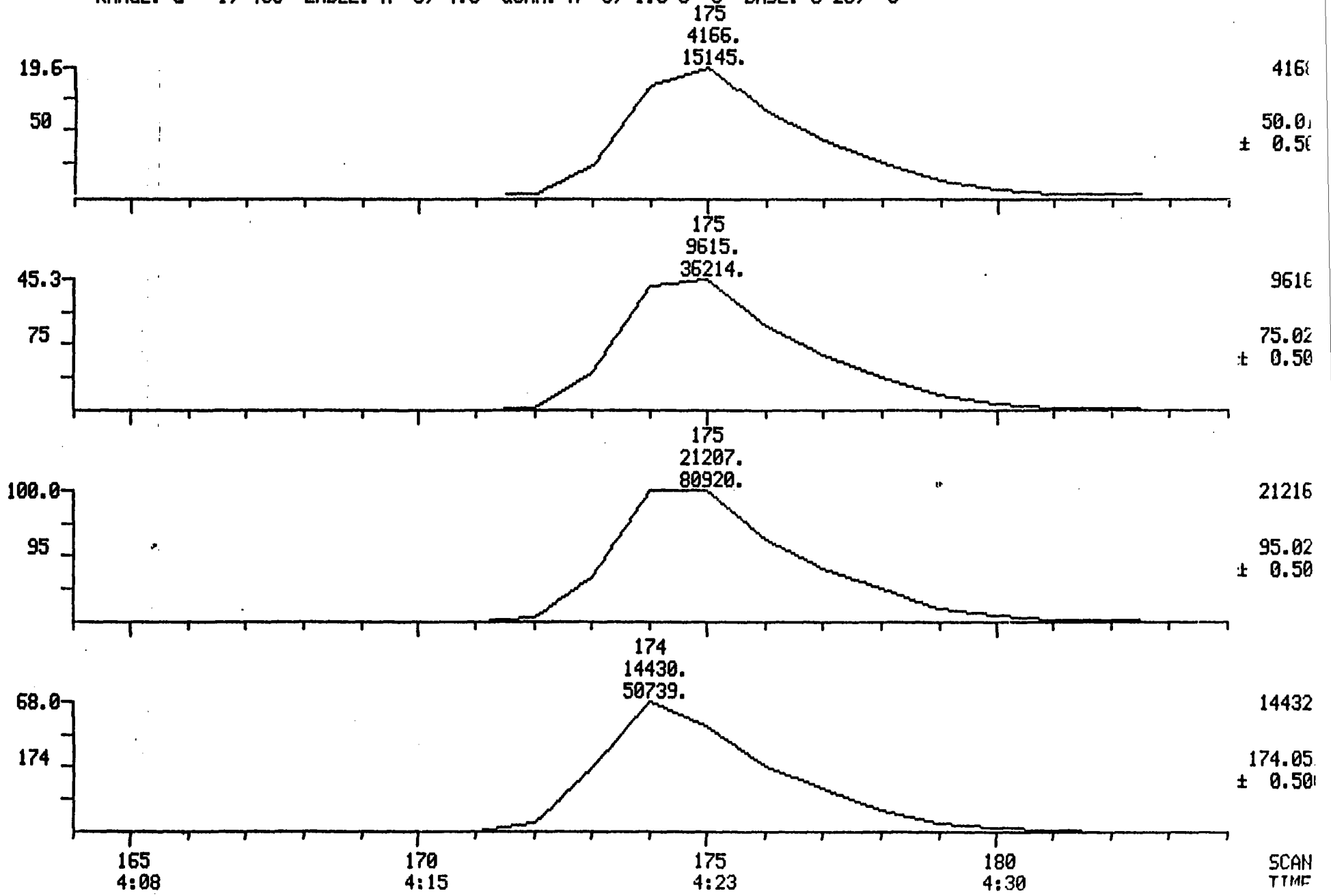
Mass List
05/08/94 11:38:00 + 4:21
Sample: 50NG BFB MASS SPECTROMETER TUNE CHECK
Conds.: EPA METHOD 8240
#173 to #175 summed

Data: BFB50B # 174
Cali: CALTAB # 3

Base m/z: 95
RIC: 229376.

34	0.00	0.	Minima	Min Inten:	0.
207			Maxima	# 0	
Mass	% RA	Inten.	Mass	% RA	Inten.
34?	1.50	755.	92	2.17	1092.
35?	0.05	23.	93	3.36	1686.
36?	1.28	641.	94	8.90	4472.
37?	5.99	3008.	95	100.00	50240.
38?	5.08	2552.	96	7.24	3636.
39?	2.75	1384.	97	1.09	547.
40?	1.14	573.	98	0.07	34.
41?	3.13	1572.	99	0.12	58.
42?	0.58	289.	104	0.17	87.
43?	3.10	1556.	105	0.48	240.
44?	5.06	2544.	106	0.22	110.
45?	1.20	603.	107	0.33	168.
47?	1.47	739.	109	0.49	244.
48?	0.60	301.	110	0.09	45.
49?	3.77	1896.	111	0.41	204.
50?	17.64	8864.	113	0.10	51.
51?	5.57	2796.	115	0.11	53.
52?	0.12	61.	116	0.10	49.
53?	0.22	109.	117	0.42	210.
55?	2.52	1264.	118	0.19	93.
56?	2.02	1015.	119	0.55	278.
57?	4.55	2288.	121	0.14	70.
58?	0.16	79.	123	0.27	137.
60?	0.68	341.	125	0.03	17.
61?	3.73	1872.	128	0.30	150.
62?	3.46	1738.	130	0.24	121.
63?	2.69	1350.	131	0.28	141.
64?	0.15	77.	133	0.08	38.
67?	0.99	498.	135	0.33	167.
68?	8.55	4296.	137	0.13	67.
69	9.54	4792.	141	0.83	415.
70	1.31	658.	143	0.85	427.
71	1.42	712.	145	0.04	22.
72	0.50	252.	147	0.06	30.
73	3.56	1790.	149	0.05	27.
74	12.61	6336.	155	0.03	17.
75	43.18	21696.	157	0.03	15.
76	3.65	1832.	159	0.04	18.
77	1.05	527.	161	0.06	31.
78	0.51	256.	163	0.06	28.
79	2.23	1122.	165	0.12	61.
80	0.56	283.	166	0.16	80.
81	2.68	1348.	173	0.21	108.
82	1.16	583.	174	66.37	33344.
83	1.20	601.	175	4.89	2456.
84	0.34	171.	176	65.10	32704.
85	0.86	430.	177	4.36	2188.
87	3.75	1886.	193	0.63	318.
88	3.51	1762.	207	0.35	177.
91	0.89	449.			

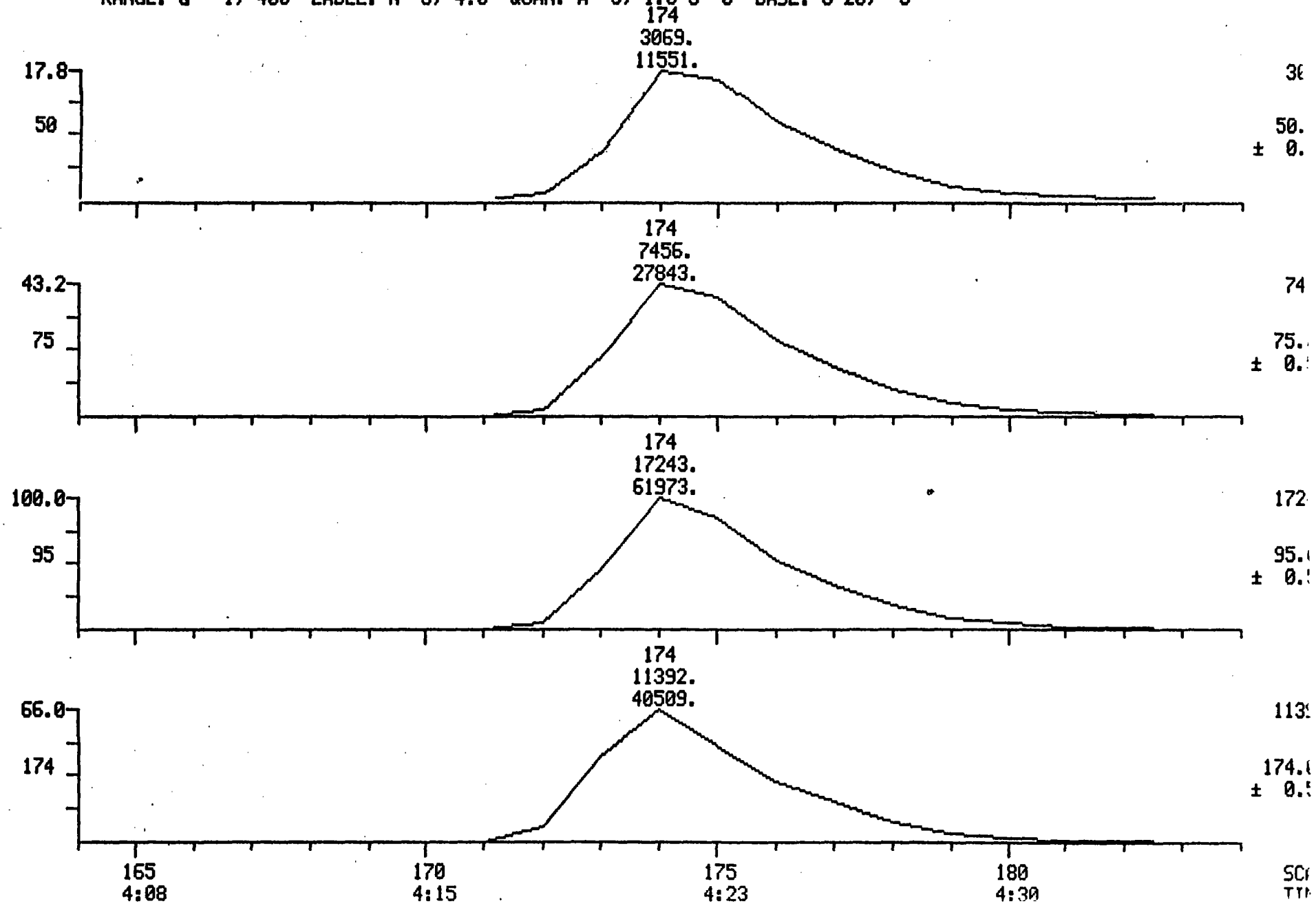
MASS CHROMATOGRAMS DATA: BFB508 #173 SCANS 164 TO 184
05/08/94 11:38:00 CALI: CALTAB #3
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 8240
RANGE: G 1, 400 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3



Mass List Data: BFB509 # 174 Base m/z: 95
05/09/94 12:04:00 + 4:21 Cali: CALTAB # 3 RIC: 178944.
Sample: 50NG BFB MASS SPECTROMETER TUNE CHECK
Conds.: EPA METHOD 8240
#173 to #175 summed

34	0.00	0.	Minima	Min Inten:	0.
219			Maxima	# 0	
Mass	% RA	Inten.	Mass	% RA	Inten.
34?	1.44	576.	95	100.00	40064.
35?	0.04	15.	96	7.53	3016.
36?	1.46	586.	97	0.60	240.
37?	6.39	2560.	104	0.11	43.
38?	5.24	2100.	105	0.11	45.
39?	2.46	985.	106	0.23	93.
40?	1.03	413.	107	0.04	16.
41?	1.37	547.	111	0.05	21.
42?	0.06	26.	116	0.09	38.
43?	1.37	549.	117	0.49	195.
44?	6.69	2680.	119	0.48	191.
45?	1.16	465.	128	0.18	72.
47?	1.55	622.	130	0.30	119.
48?	0.58	233.	135	0.04	18.
49?	3.96	1586.	137	0.04	15.
50?	17.81	7136.	141	0.74	296.
51?	5.70	2284.	143	0.77	309.
52?	0.06	23.	155	0.08	34.
55?	1.24	498.	173	0.15	61.
56?	1.53	611.	174	67.97	27232.
57?	3.35	1342.	175	4.88	1956.
60?	0.84	338.	176	65.42	26208.
61?	3.93	1576.	177	4.40	1762.
62?	3.78	1516.	193	0.55	221.
63?	2.78	1112.	207	0.17	70.
64?	0.04	16.	219	0.08	31.
67?	0.56	226.			
68?	8.42	3372.			
69	9.03	3616.			
70	1.17	468.			
71	0.51	204.			
72	0.42	167.			
73	3.80	1524.			
74	12.78	5120.			
75	43.69	17504.			
76	3.88	1554.			
77	0.83	333.			
78	0.39	158.			
79	2.14	856.			
80	0.59	235.			
81	2.22	889.			
82	0.57	228.			
83	0.45	181.			
85	0.24	97.			
87	3.75	1502.			
88	3.80	1524.			
91	1.12	447.			
92	2.73	1094.			
93	3.39	1360.			
94	8.97	3592.			

MASS CHROMATOGRAMS DATA: BFB509 #173 SCANS 164 TO 184
05/09/94 12:04:00 CALI: CALTAB #3
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 8240
RANGE: G 1, 400 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3

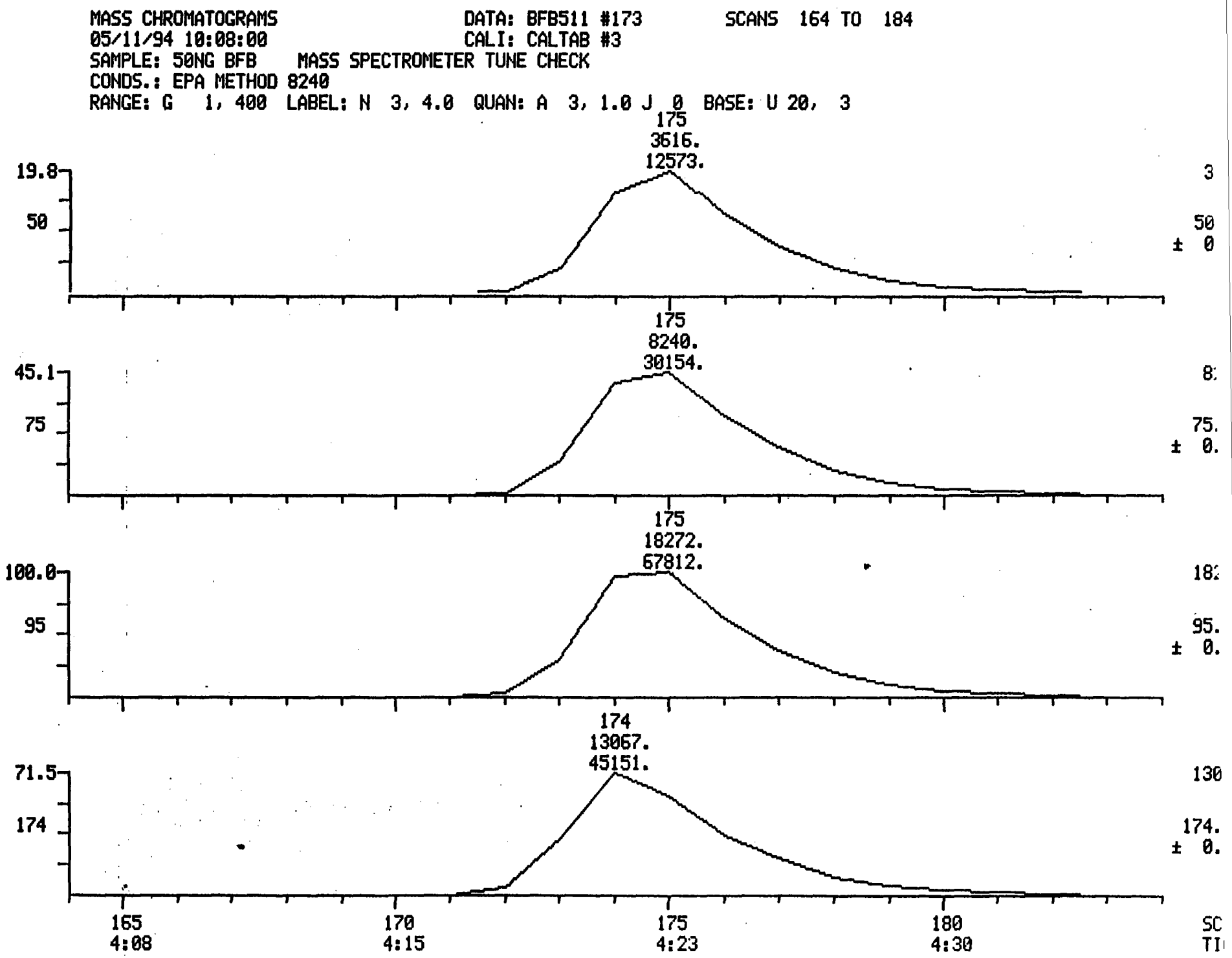


Mass List
05/11/94 10:08:00 + 4:21
Sample: 50NG BFB MASS SPECTROMETER TUNE CHECK
Conds.: EPA METHOD 8240
#173 to #175 summed

Data: BFB511 # 174
Cali: CALTAB # 3

Base m/z: 95
RIC: 220416.

34	0.00	0.	Minima	Min Inten:	124.
207			Maxima	# 0	
Mass	% RA	Inten.	Mass	% RA	Inten.
34?	2.70	1166.	95	100.00	43136.
36?	1.36	587.	96	8.33	3592.
37?	6.08	2624.	97	1.85	796.
38?	4.90	2112.	104	0.36	157.
39?	3.45	1490.	105	1.34	578.
40?	1.26	544.	106	0.67	289.
41?	5.03	2168.	107	1.55	668.
42?	0.70	303.	108	0.66	285.
43?	3.11	1342.	109	2.23	960.
44?	5.72	2468.	110	0.67	290.
45?	1.19	513.	111	0.95	411.
47?	1.42	613.	115	0.63	270.
48?	0.66	284.	116	0.33	141.
49?	3.77	1628.	117	0.96	414.
50?	17.32	7472.	118	0.51	218.
51?	5.69	2456.	119	1.38	594.
53?	0.92	399.	120	0.41	175.
55?	4.13	1782.	121	1.27	546.
56?	2.07	892.	122	0.57	248.
57?	4.68	2020.	123	1.54	666.
60?	0.79	340.	124	0.48	208.
61?	3.78	1630.	125	0.31	132.
62?	3.57	1538.	128	0.68	292.
63?	2.79	1202.	129	0.48	206.
65?	0.54	235.	130	0.31	134.
67?	2.20	951.	131	0.80	344.
68?	8.44	3640.	133	0.88	381.
69	10.70	4616.	134	0.43	185.
70	1.78	768.	135	1.11	479.
71	1.52	656.	137	0.94	405.
72	0.52	226.	141	1.12	481.
73	3.65	1576.	143	1.04	450.
74	12.35	5328.	145	0.58	252.
75	42.21	18208.	147	0.59	254.
76	3.79	1634.	148	0.42	180.
77	1.75	756.	149	0.75	325.
78	0.79	341.	151	0.29	125.
79	3.20	1380.	159	0.50	214.
80	0.96	415.	161	0.45	194.
81	4.32	1864.	163	0.64	276.
82	1.48	637.	173	0.64	277.
83	1.91	825.	174	69.73	30080.
84	0.57	247.	175	5.20	2244.
85	0.83	357.	176	67.58	29152.
87	3.66	1580.	177	5.17	2232.
88	3.83	1652.	189	0.41	179.
91	2.12	915.	191	0.80	346.
92	2.42	1044.	193	1.21	520.
93	4.40	1898.	205	0.32	140.
94	9.31	4016.	207	0.62	266.


MASS CHROMATOGRAMS
DATA: BFB511 #173
SCANS 164 TO 184
05/11/94 10:08:00
CALI: CALTAB #3
SAMPLE: 50NG BFB MASS SPECTROMETER TUNE CHECK
CONDS.: EPA METHOD 8240
RANGE: G 1, 400 LABEL: N 3, 4.0 QUAN: A 3, 1.0 J 0 BASE: U 20, 3
175
3616.
12573.
19.8
50
175
8240.
30154.
45.1
75
175
18272.
67812.
100.0
95
174
13067.
45151.
71.5
174
165
4:08
170
4:15
175
4:23
180
4:30

SAMPLE NO.
M.BLK5/8/94

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Princeton Testing Lab Contract: US ARMY FORT MONMOUTH

Lab Code: PTL Case No.: 2341 SAS No.: _____ SDG No.: _____

Matrix: (Soil/Water) SOIL _____ Lab Sample ID: M.BLANK _____

Sample wt/vol: 5.0 _____ (g/mL) g Lab File ID: CBLK508 _____

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

%Moisture: not dec. _____ Date Analyzed: 5/8/94 _____

GC Column: CAP _____ ID: 0.53 mm Dilution Factor: 1 _____

Soil Extract Vol: _____ ul Soil Aliquot Vol: _____ ul

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

#S	CAS NUMB	COMPOUND NAME	RT	EST. CONC.	SCAN

Quantitation Report File: CBLK508

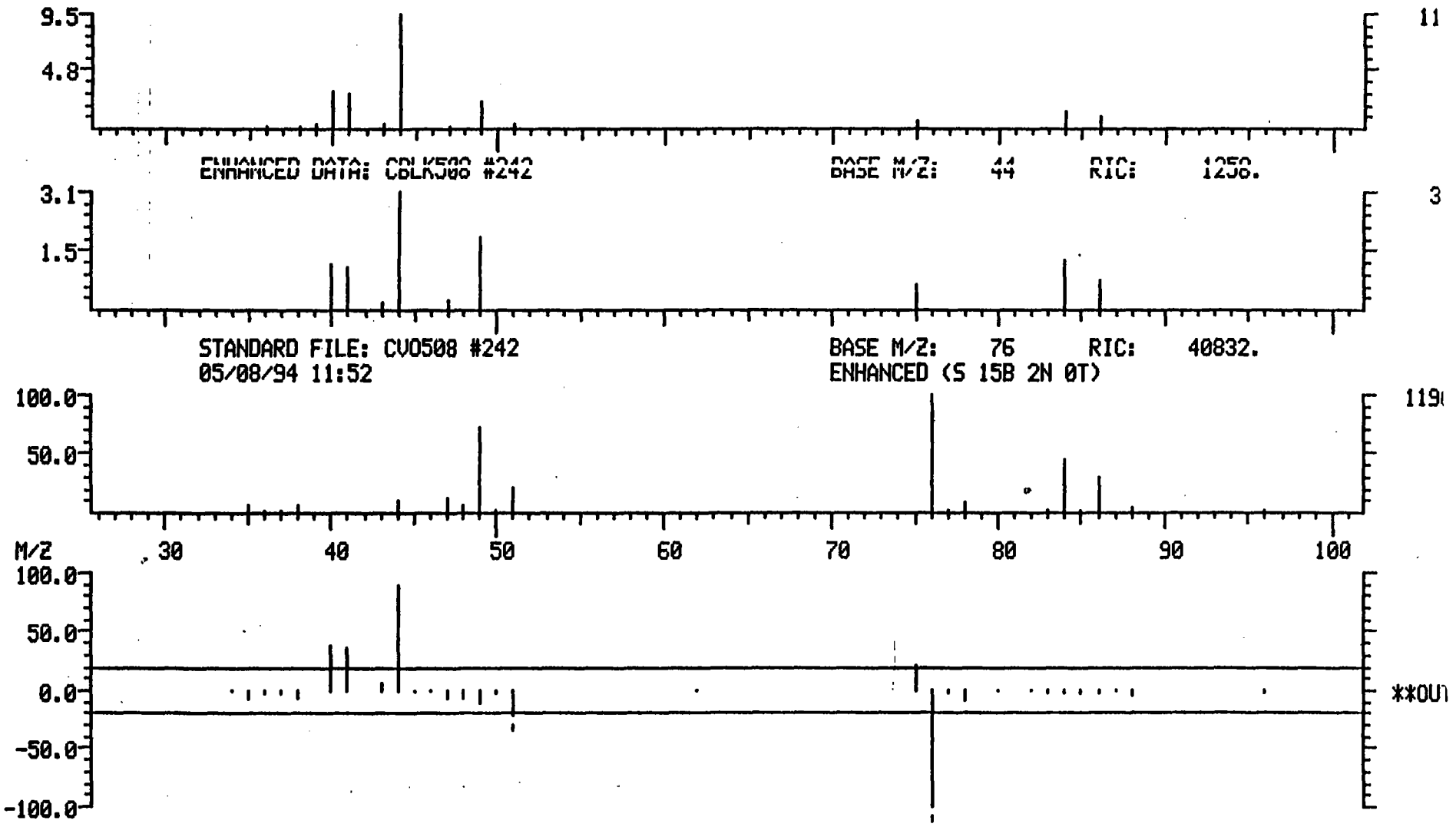
Data: CBLK508.TI
05/08/94 13:21:00
Sample: M.BLK
Cmnds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: PTL Analyst: UC Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

DATA FILE: CBLK508 #242 STANDARD FILE: CV0508 #242
TARGET COMPOUND COMPARISON CALI: CBLK508 #3
COMPOUND: C030 METHYLENE CHLORIDE

RAW DATA: CBLK508 #242 BASE M/Z: 44 RIC: 2724.
05/08/94 13:21



PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 5/08/94 14:23:44

DATA FILE: CBLK508

FILTER SCAN PARAMETERS

MAX. NUMBER TICS:	15
11-TABLE ENTRIES:	528
SCAN TOLERANCE :	2
MIN. RIC HT. [%]:	10
FIRST SCAN :	1
LAST SCAN :	1600
TIC THRESHOLD :	600

METHOD LIBRARY & LISTS

TIC I.S. LIBRARY:	LIBRARYLS
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LS
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
6	3	9

FILTER PROCESSING:

	<----------REJECT PEAKS---------->						
TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
9	0	0	2	6	0	8	1

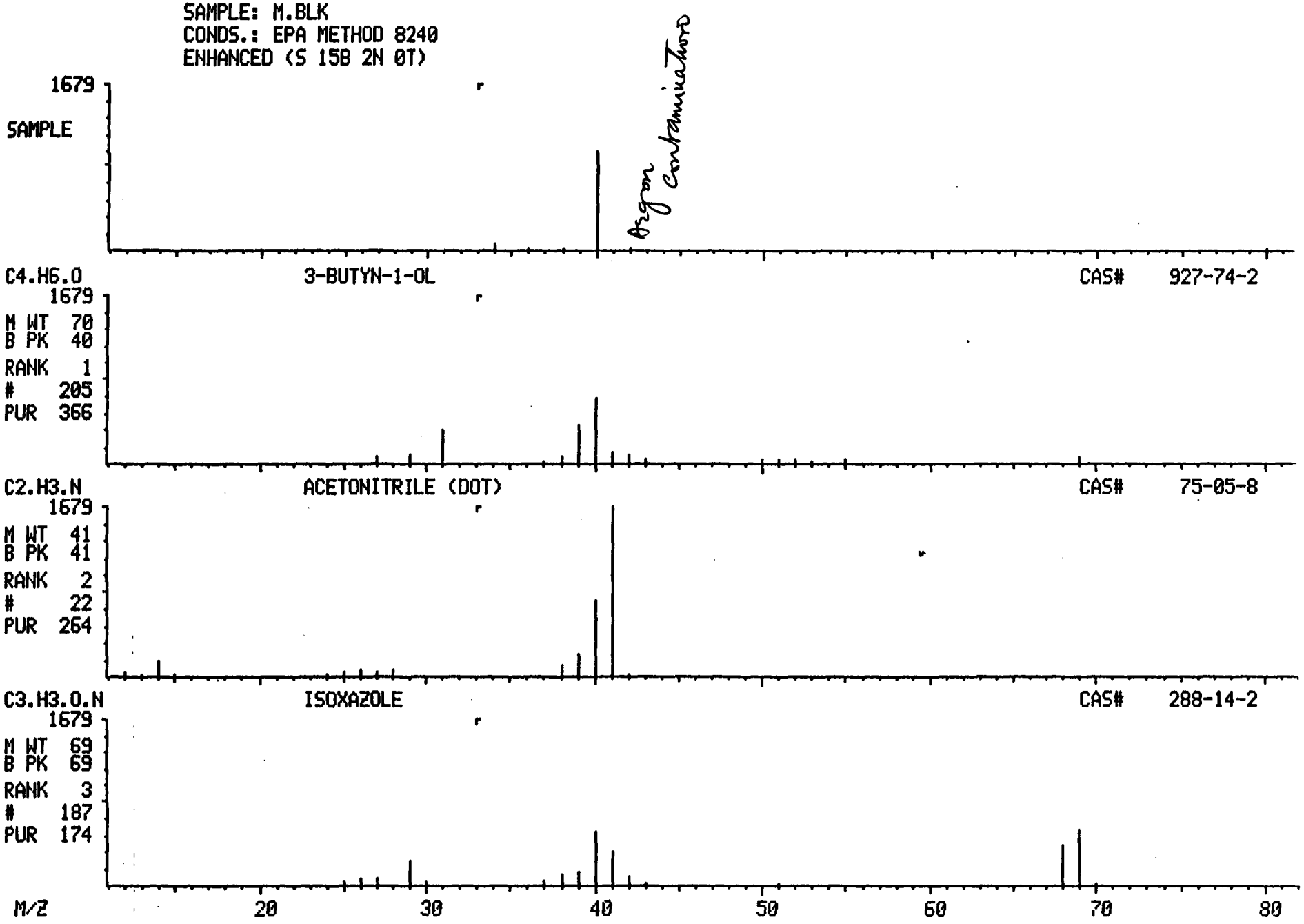
TIC PROCESSING:

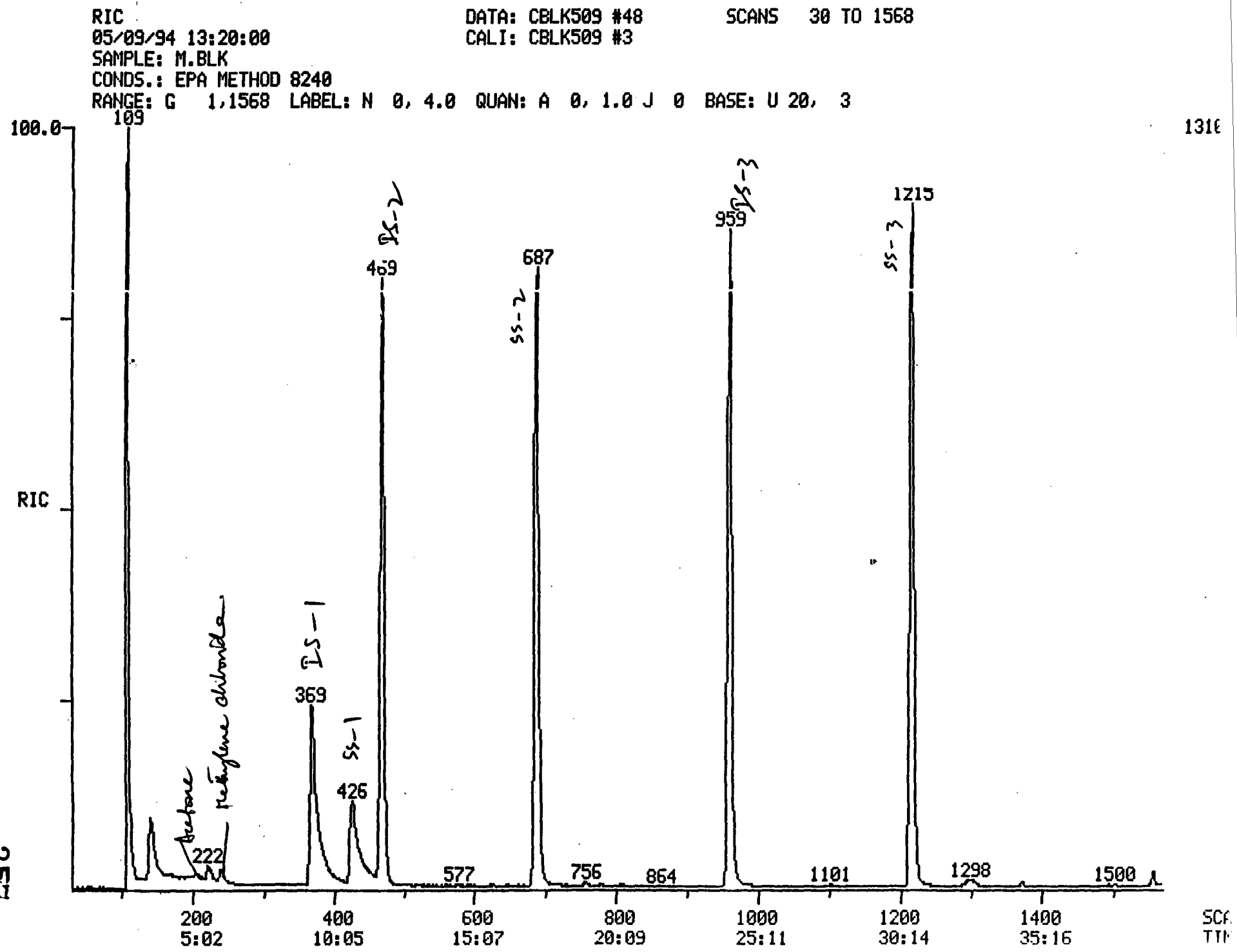
NO.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	109	366	386	70	3-BUTYN-1-OL

MID LIBRARY SEARCH (LIBRARYNB)
05/08/94 13:21:00 + 2:45
SAMPLE: M.BLK
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: CBLK508 # 109
CALI: CBLK508 # 3

BASE M/Z: 40
RIC: 114176.



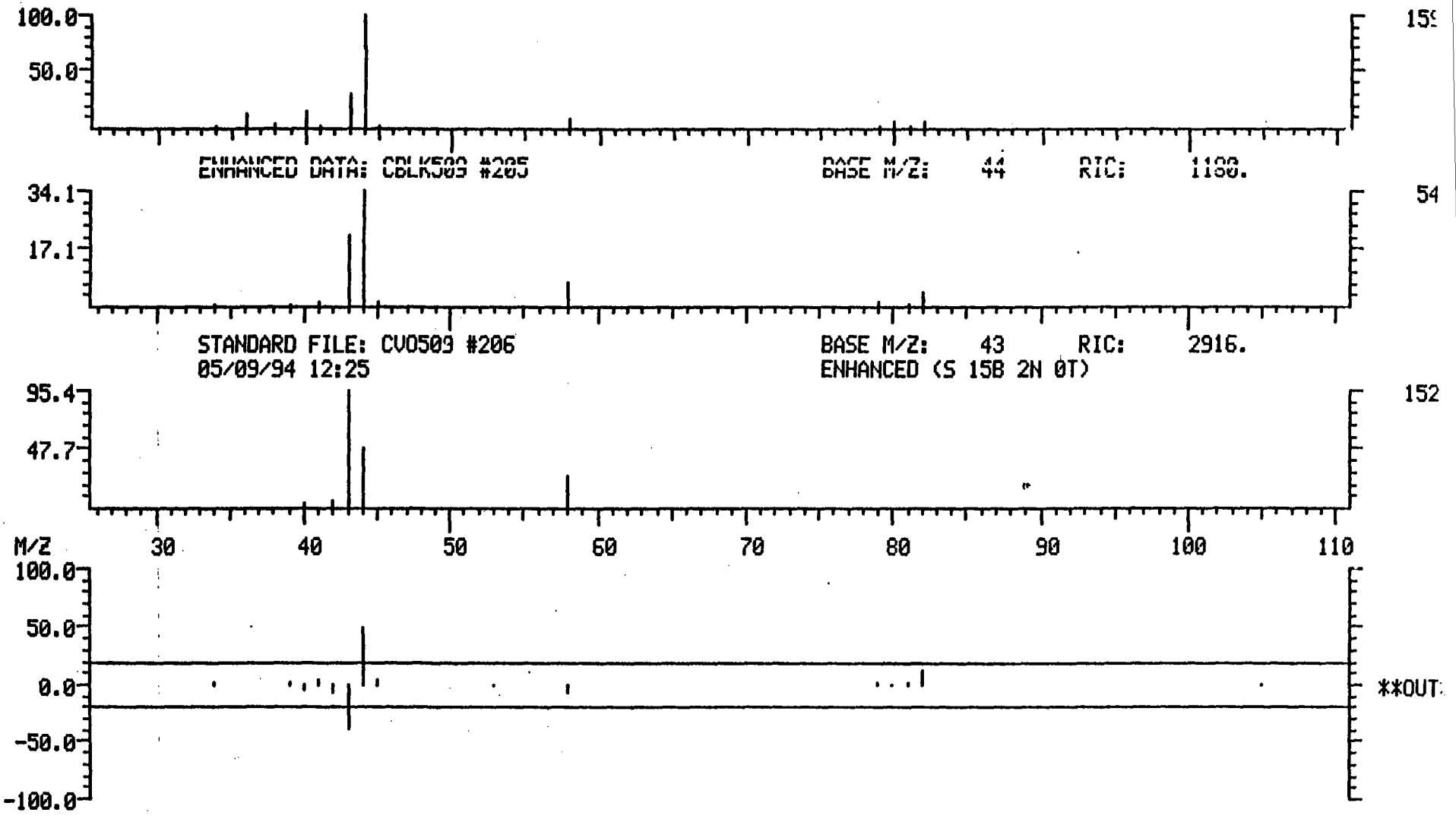

RIC
05/09/94 13:20:00
SAMPLE: M.BLK
CONDS.: EPA METHOD 8240
DATA: CBLK509 #48
CALI: CBLK509 #3
SCANS 30 TO 1568
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
109
222
acetone
methylene chloride
369
IS-1
426
SS-1
469
IS-2
577
687
SS-2
756
864
959
SS-3
1101
1215
SS-3
1298
1500
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16

No	Name
48	C250 O-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	369	9:18	1	1.000	A BB	74400.	50.000 NG	16.43
2	114	469	11:49	2	1.000	A BB	250010.	50.000 NG	16.43
3	117	959	24:09	3	1.000	A BB	230151.	50.000 NG	16.43
4	65	426	10:44	1	1.154	A BB	45484.	49.673 NG	16.32
5	98	687	17:18	3	0.716	A BB	272574.	47.158 NG	15.49
6	95	1215	30:36	3	1.267	A BB	178316.	41.937 NG	13.78
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	240	6:03	1	0.650	A BB	6055.	4.239 NG	1.39
12	NOT FOUND								
13	43	205	5:10	1	0.556	A BB	3273.	11.415 NG	3.75
14	NOT FOUND								
15	NOT FOUND								
16	NOT FOUND								
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	NOT FOUND								
30	NOT FOUND								
31	NOT FOUND								
32	NOT FOUND								
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	NOT FOUND								
41	NOT FOUND								
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

DATA FILE: CBLK509 #205 STANDARD FILE: CV0509 #206
TARGET COMPOUND COMPARISON CALI: CBLK509 #3
COMPOUND: C035 ACETONE

RAW DATA: CBLK509 #205 BASE M/Z: 44 RIC: 3060.
05/09/94 13:20



SAMPLE NO.
M.BLK5/11/94

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: Princeton Testing Lab Contract: US ARMY FORT MONMOUTH

Lab Code: PTL Case No.: 2341 SAS No.: _____ SDG No.: _____

Matrix: (Soil/Water) WATER

Lab Sample ID: M.BLANK

Sample wt/vol: 5.0 (g/mL) mL

Lab File ID: CBLK511A

Level: (low/med) LOW

Date Received: _____

%Moisture: not dec. _____

Date Analyzed: 5/11/94

GC Column: CAP ID: 0.53 mm

Dilution Factor: 1

Soil Extract Vol: _____ ul

Soil Aliquot Vol: _____ ul

Number TICs found: 0

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

#S	CAS NUMB	COMPOUND NAME	RT	EST. CONC.	SCAN

Quantitation Report File: CBLK511A

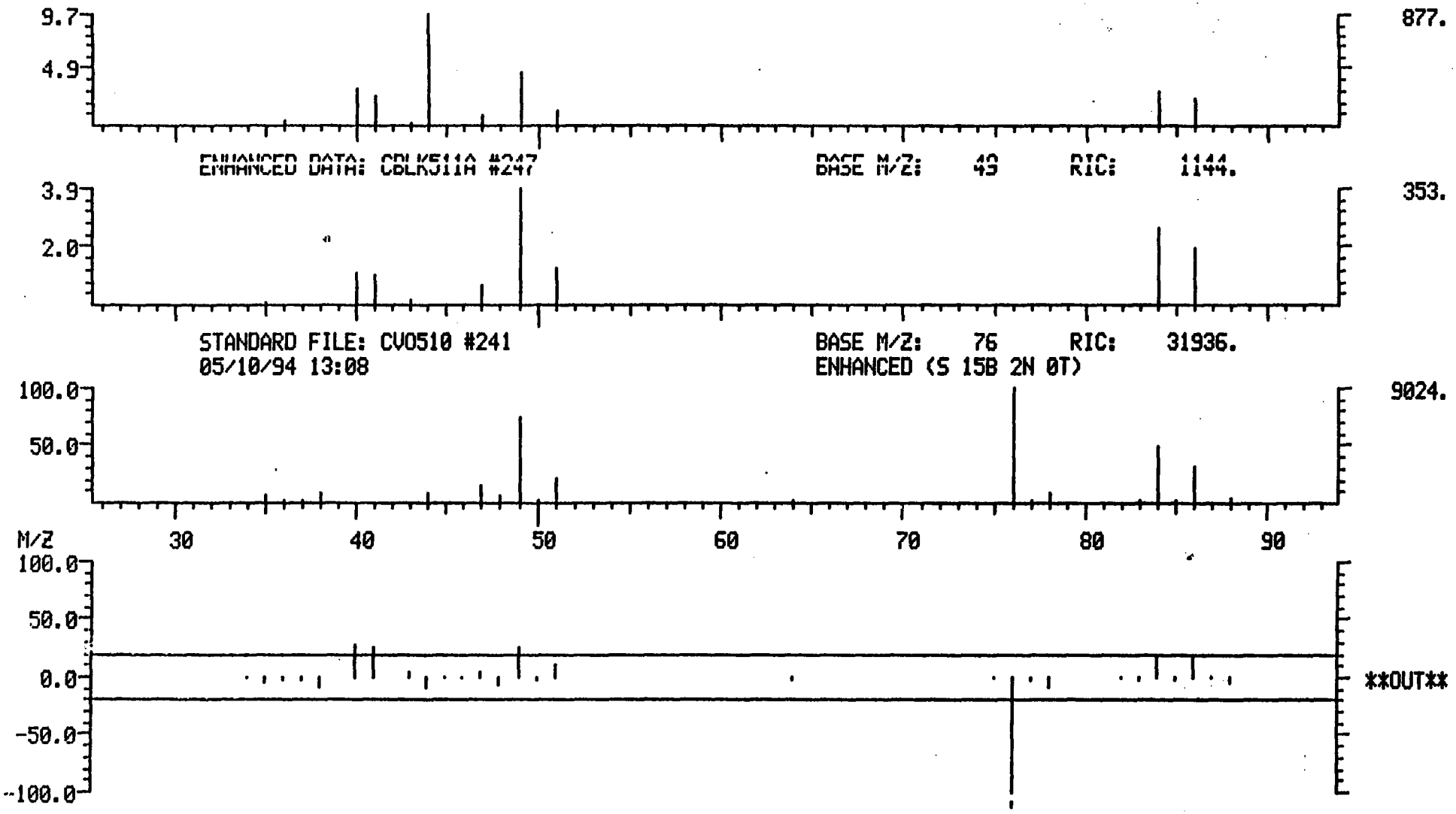
Data: CBLK511A.TI
05/11/94 17:59:00
Sample: M.BLK
Mnds.: EPA METHOD 8240
Formula: 5ML Instrument: FINN Weight: 0.000
Submitted by: PTL Analyst: UC Acct. No.:

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

DATA FILE: CBLK511A #247 STANDARD FILE: CV0510 #241
TARGET COMPOUND COMPARISON CALI: CBLK511A #3
COMPOUND: C030 METHYLENE CHLORIDE

RAW DATA: CBLK511A #247 BASE M/Z: 44 RIC: 2476.
05/11/94 17:59



PROCEDURE: FILTER/TIC DIAGNOSTIC REPORT 5/11/94 19:00:44

DATA FILE: CBLK511A

FILTER SCAN PARAMETERS	
MAX. NUMBER TICS:	15
11-TABLE ENTRIES:	528
SCAN TOLERANCE :	2
MIN. RIC HT. [%]:	10
FIRST SCAN :	1
LAST SCAN :	1600
TIC THRESHOLD :	600

METHOD LIBRARY & LISTS	
TIC I.S. LIBRARY:	LIBRARYLS
NBS SEARCH PROC :	SERLIB
PEAK FINDER PROC:	VOME
TCA I.S. LL :	LS
FILE NAME LIST :	TCAREF2

TARGET COMPOUND ANALYSIS:

TARGETS (QUAN LIST)	IS PEAKS	TOTAL TARGET PEAKS
5	3	8

FILTER PROCESSING:

	<----------REJECT PEAKS---------->						
TOTAL PEAKS	< 1ST SCAN	> LAST SCAN	< MIN RIC HT	< SCAN TOL	> MAX # PEAKS	TOTAL REJECTS	TOTAL TICS
11	0	0	2	7	0	9	2

IC PROCESSING:

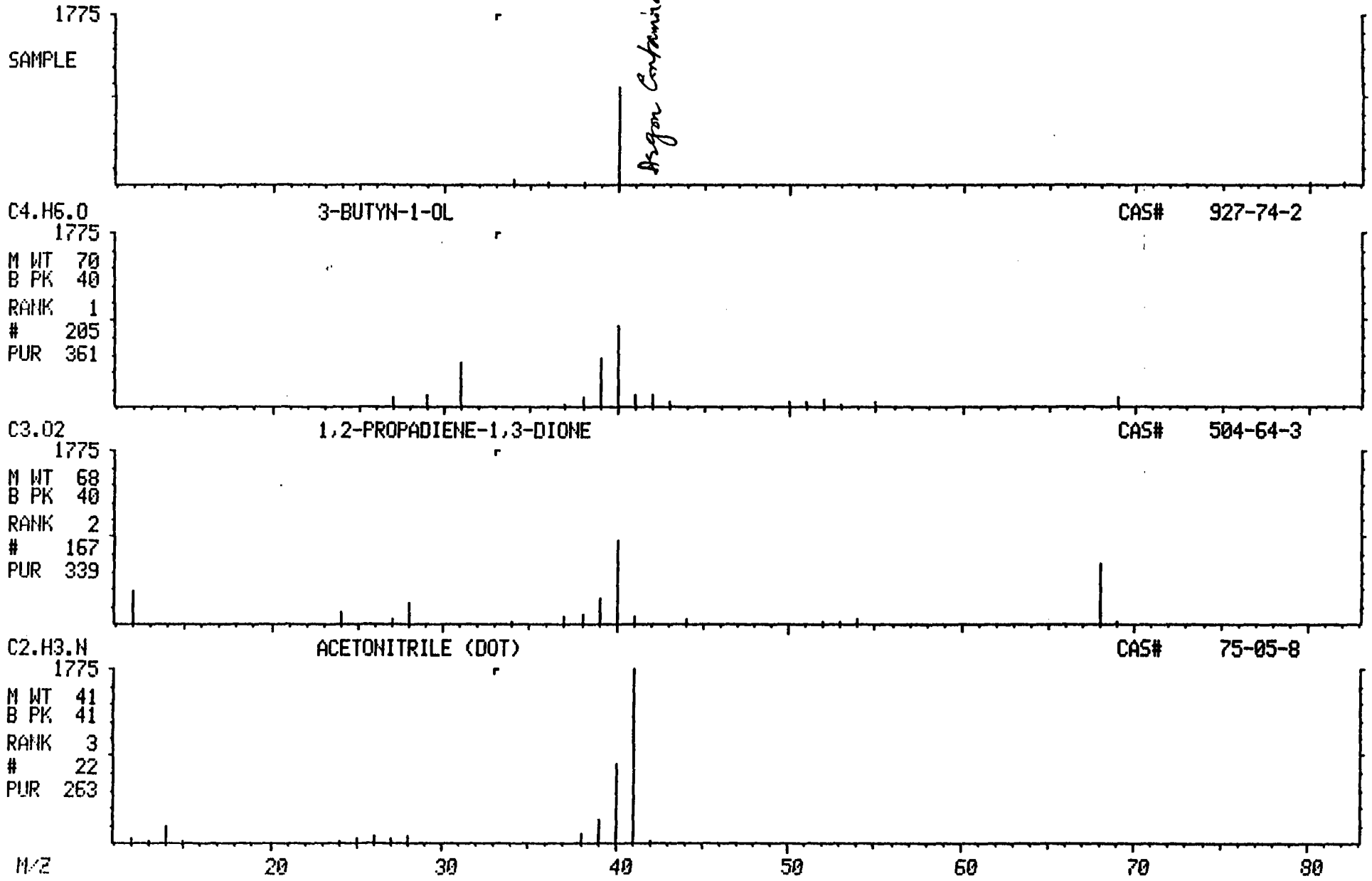
NO.	SCAN#	PURITY	FIT	MW	COMPOUND NAME [BEFORE TIC THRESHOLD]
1	117	361	381	70	3-BUTYN-1-OL
2	151	121	132	132	ACETIC ACID, (2-PROPENYLTHIO)-

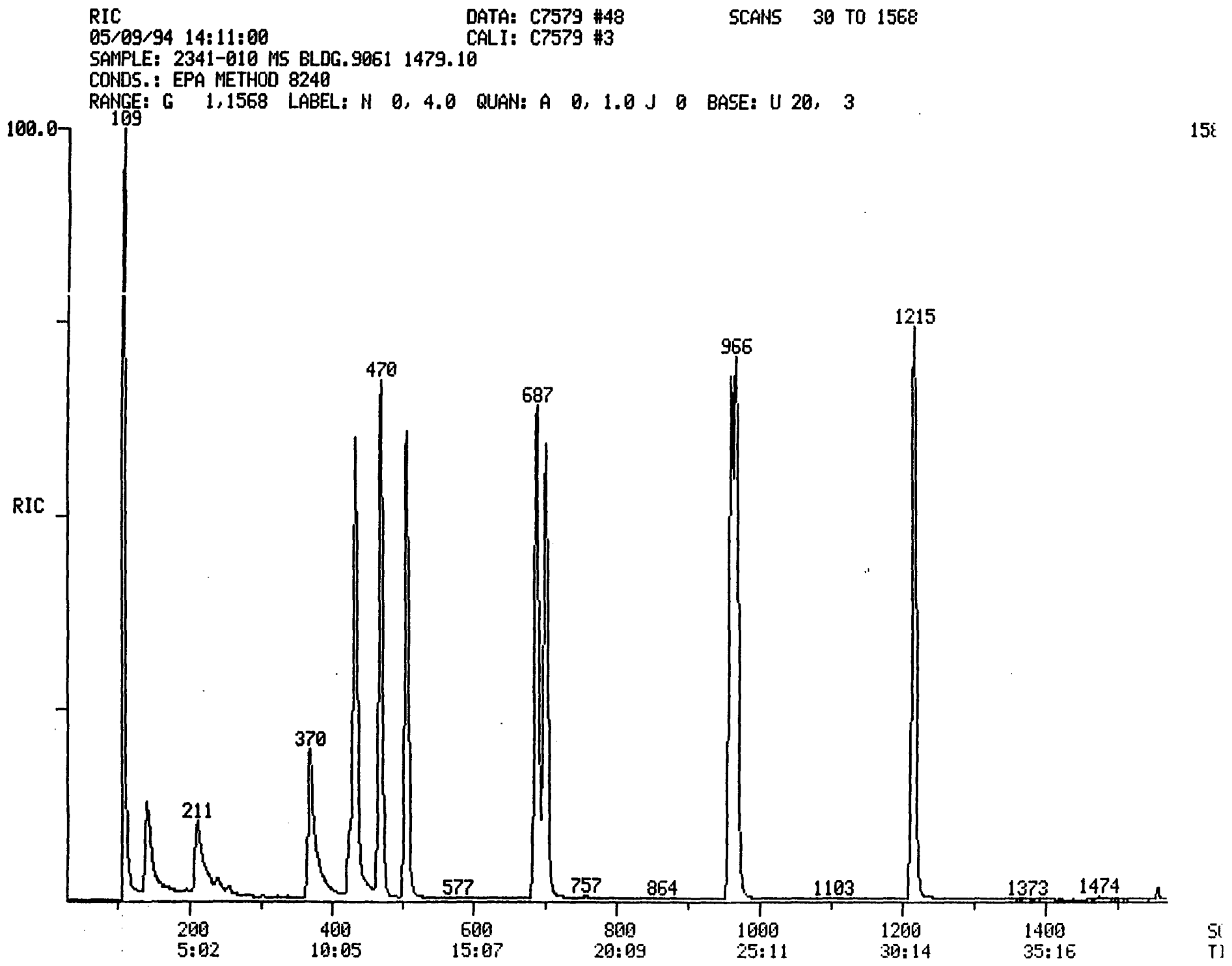
MID LIBRARY SEARCH (LIBRARYNB)
05/11/94 17:59:00 + 2:57
SAMPLE: M.BLK
CONDS.: EPA METHOD 8240
ENHANCED (S 15B 2N 0T)

DATA: CBLK511A # 117
CALI: CBLK511A # 3

BASE M/Z: 40
RIC: 93184.

27j




RIC
05/09/94 14:11:00
DATA: C7579 #48
CALI: C7579 #3
SCANS 30 TO 1568
SAMPLE: 2341-010 MS BLDG.9061 1479.10
CONDS.: EPA METHOD 8240
RANGE: G 1,1568 LABEL: N 0, 4.0 QUAN: A 0, 1.0 J 0 BASE: U 20, 3
100.0
RIC
109
211
370
470
577
687
757
864
966
1103
1215
1373
1474
200
5:02
400
10:05
600
15:07
800
20:09
1000
25:11
1200
30:14
1400
35:16

C7579

No	Name
48	C250 O-XYLENE

No	m/z	Scan	Time	Ref	RRT	Meth	Area(Hght)	Amount	%Tot
1	49	370	9:19	1	1.000	A BB	73146.	50.000 NG	8.90
2	114	470	11:50	2	1.000	A BB	262698.	50.000 NG	8.90
3	117	959	24:09	3	1.000	A BB	215763.	50.000 NG	8.90
4	65	427	10:45	1	1.154	A BB	46639.	51.808 NG	9.22
5	98	687	17:18	3	0.716	A BB	260213.	48.022 NG	8.55
6	95	1216	30:38	3	1.268	A BB	182551.	45.796 NG	8.15
7	NOT FOUND								
8	NOT FOUND								
9	NOT FOUND								
10	NOT FOUND								
11	49	240	6:03	1	0.649	A BB	6080.	4.330 NG	0.77
12	NOT FOUND								
13	43	205	5:10	1	0.554	A BB	1778.	6.307 NG	1.12
14	NOT FOUND								
15	NOT FOUND								
16	96	211	5:19	1	0.570	A BB	25882.	54.485 NG	9.70
17	NOT FOUND								
18	NOT FOUND								
19	NOT FOUND								
20	NOT FOUND								
21	NOT FOUND								
22	NOT FOUND								
23	NOT FOUND								
24	NOT FOUND								
25	NOT FOUND								
26	NOT FOUND								
27	NOT FOUND								
28	NOT FOUND								
29	95	507	12:46	2	1.079	A BB	104168.	52.402 NG	9.33
30	NOT FOUND								
31	NOT FOUND								
32	78	434	10:56	2	0.923	A BB	227040.	49.202 NG	8.76
33	NOT FOUND								
34	NOT FOUND								
35	NOT FOUND								
36	NOT FOUND								
37	NOT FOUND								
38	NOT FOUND								
39	NOT FOUND								
40	91	699	17:36	3	0.729	A BB	257999.	46.664 NG	8.31
41	112	966	24:20	3	1.007	A BB	211224.	52.638 NG	9.37
42	NOT FOUND								
43	NOT FOUND								
44	NOT FOUND								
45	NOT FOUND								
46	NOT FOUND								
47	NOT FOUND								
48	NOT FOUND								

Quantitation Report File: C7580

Data: C7580.TI
05/09/94 15:00:00
Sample: 2341-010 MSD BLDG.9061 1479.10
Cmnds.: EPA METHOD 8240
Formula: 2.5G/5ML Instrument: FINN Weight: 0.000
Submitted by: USARMY Analyst: UC Acct. No.: 2341-001

AMOUNT=AREA * REF AMNT/(REF AREA * RESP FACT)
Resp. fac. from Library Entry

No	Name
1	CI01 BROMOCHLOROMETHANE **INT. STD. **
2	CI10 1,4-DIFLUOROBENZENE **INT. STD. **
3	CI20 CHLOROBENZENE-D5 **INT. STD. **
4	CS15 1,2-DICHLOROETHANE-D4 **S. STD. **
5	CS05 TOLUENE-D8 **S. STD. **
6	CS10 4-BROMOFLUOROBENZENE **S. STD. **
7	C010 CHLOROMETHANE **
8	C015 BROMOMETHANE
9	C020 VINYL CHLORIDE *
10	C025 CHLOROETHANE
11	C030 METHYLENE CHLORIDE
12	C251 ACROLIN
13	C035 ACETONE
14	C252 ACRYLONITRILE
15	C040 CARBON DISULFIDE
16	C045 1,1-DICHLOROETHENE *
17	C050 1,1-DICHLOROETHANE **
18	C055 TRANS-1,2-DICHLOROETHENE
19	C000 TRICHLOROFLUOROMETHANE
20	C060 CHLOROFORM *
21	C065 1,2-DICHLOROETHANE
22	C110 2-BUTANONE
23	C115 1,1,1-TRICHLOROETHANE
24	C120 CARBON TETRACHLORIDE
25	C125 VINYL ACETATE
26	C130 BROMO DICHLOROMETHANE
27	C140 1,2-DICHLOROPROPANE *
28	C145 TRANS-1,3 DICHLOROPROPENE
29	C150 TRICHLOROETHENE
30	C155 DIBROMOCHLOROMETHANE
31	C160 1,1,2-TRICHLOROETHANE
32	C165 BENZENE
33	C143 CIS-1,3-DICHLOROPROPENE
34	C175 2-CHLOROETHYL VINYL ETHER
35	C180 BROMOFORM **
36	C220 TETRACHLOROETHENE
37	C210 2-HEXANONE
38	C205 4-METHYL 2-PENTANONE
39	C225 1,1,2,2-TETRACHLOROETHANE **
40	C230 TOLUENE *
41	C235 CHLOROBENZENE **
42	C240 ETHYL BENZENE *
43	C245 STYRENE
44	C250 M+P-XYLENES
45	C253 1,3-DICHLOROBENZENE
46	C254 1,4-DICHLOROBENZENE
47	C255 1,2-DICHLOROBENZENE

INORGANICS

		Page Nos.		(Please Check:)	
		From	To	Lab	Region
23.	Cyanide Raw Data	___	___	___	___
24.	Preparation Logs Raw Data	___	___	___	___
25.	Percent Solids Determination Log	___	___	___	___
26.	Traffic Report	___	___	___	___
27.	EPA Shipping/Receiving Documents				
	Airbill (No. of Shipments ____)	___	___	___	___
	Chain-of-Custody Records	___	___	___	___
	Sample Tags	___	___	___	___
	Sample Log-In Sheet (Lab & DCl)	___	___	___	___
	SDG Cover Sheet	___	___	___	___
28.	Misc. Shipping/Receiving Records (list all individual records)				
	Telephone Logs	___	___	___	___
	_____	___	___	___	___
	_____	___	___	___	___
29.	Internal Lab Sample Transfer Records & Tracking Sheets (describe or list)	___	___	___	___
	_____	___	___	___	___
	_____	___	___	___	___
30.	Internal Original Sample Prep & Analysis Records (describe or list)				
	Prep Records _____	___	___	___	___
	Analysis Records _____	___	___	___	___
	Description _____	___	___	___	___
31.	Other Records (describe or list)				
	Telephone Communication Log	___	___	___	___
	_____	___	___	___	___
	_____	___	___	___	___

32. Comments:

_____

_____

Completed by (CLP Lab):

_____ W.A. Volk QA/QC Coordinator 6/7/94

(Signature) (Print Name & Title) (Date)

Audited by (EPA):

_____ _____ _____

(Signature) (Print Name & Title) (Date)

Princeton Testing Laboratory Inc.

P.O. Box 3108
3490 U.S. Route 1
Princeton, NJ 08543-3108
(609) 452-9050
(FAX) (609) 452-0347

U.S. Army, Fort Monmouth N.J.
ATTN: SELFM-PW
Building 167
Fort Monmouth, New Jersey 07703-5108
Attention: Charles Appleby
Project Name: UST #0090029-36

Report Date: 06/06/94
Job Number: 9402341-001
Date Received: 05/06/94
Client Job No.: C-93-3896
Page: 1

Analysis	Sample I.D.:	Bldg. 9061 5/5/94 1479.1 Site A	Bldg. 9061 5/5/94 1479.2 Site B	Bldg. 9061 5/5/94 1479.3 Site C
Lead by GFAA, mg/kg (dry wt)	SW-846 7421	3.08	2.48	1.57

Analysis	Sample I.D.:	Bldg. 9061 5/5/94 1479.4 Site D	Bldg. 9061 5/5/94 1479.5 Site E	Bldg. 9061 5/5/94 1479.6 Site F
Lead by GFAA, mg/kg (dry wt)	SW-846 7421	1.20	1.38	1.32

Analysis	Sample I.D.:	Bldg. 9061 5/5/94 1479.7 Site G	Bldg. 9061 5/5/94 1479.8 Site H	Bldg. 9061 5/5/94 1479.9 Site I
Lead by GFAA, mg/kg (dry wt)	SW-846 7421	2.47	1.46	1.98

Analyses	Sample I.D.:	Bldg. 9061 5/5/94 1479.10 Site J	Bldg. 9061 5/5/94 1479.12 FB
Lead by GFAA, mg/kg (dry wt)	SW-846 7421	2.05	N/R
Lead by GFAA, mg/l	EPA 239.2	N/R	0.00683

N/R - Not Requested

Laura Stewart
Laura Stewart, Supervisor
Metals Laboratory

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Bldg. 9001
1479.1S,6A

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234-001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Soil Lab Sample ID: 2340-001

Level (low/med): Low Date Received: 5/6/94

% Solids: 95.28

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	3.08		*	F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
_____	Cyanide				
_____	_____				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Bldg. 9041
1479.3 Sit C

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Soil Lab Sample ID: 2341-001

Level (low/med): Low Date Received: 5/6/94

% Solids: 94.1

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1.57		*	F
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Bldg. 9061
1479.5 Site E

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Soil Lab Sample ID: 2341-005

Level (low/med): Low Date Received: 5/6/94

% Solids: 95.0

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1.38		*	E
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Bldg. 9061
1479.7 Site G

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Soil Lab Sample ID: 2341-007

Level (low/med): Low Date Received: 5/6/94

% Solids: 93.6

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	2.47		*	E
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Bldg 906/ 1479.9 Site I

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234/001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Soil Lab Sample ID: 2341-009

Level (low/med): Low Date Received: 5/6/94

% Solids: 93.3

Concentration Units (ug/L or mg/kg dry weight): mg/kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	1.98		*	E
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
	Cyanide				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

Bldg. 9061
1479.12 FB

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Water Lab Sample ID: 2341-012

Level (low/med): Low Date Received: 5/6/94

% Solids: _____

Concentration Units (ug/L or mg/kg dry weight): ug/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				
7440-36-0	Antimony				
7440-38-2	Arsenic				
7440-39-3	Barium				
7440-41-7	Beryllium				
7440-43-9	Cadmium				
7440-70-2	Calcium				
7440-47-3	Chromium				
7440-48-4	Cobalt				
7440-50-8	Copper				
7439-89-6	Iron				
7439-92-1	Lead	6.8		← 4S	E
7439-95-4	Magnesium				
7439-96-5	Manganese				
7439-97-6	Mercury				
7440-02-0	Nickel				
7440-09-7	Potassium				
7782-49-2	Selenium				
7440-22-4	Silver				
7440-23-5	Sodium				
7440-28-0	Thallium				
7440-62-2	Vanadium				
7440-66-6	Zinc				
_____	Cyanide				
_____	_____				

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

U.S. EPA - CLP

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

Initial Calibration Source: _____

Continuing Calibration Source: _____

Concentration Units: ug/L

Analyte	Initial Calibration True	Found	%R(1)	Continuing Calibration True	Found	%R(1)	Found	%R(1)	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead				50.0	50.3	101.	50.5	101.	F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

(1) Control Limits: Mercury 80-120; Other Metals 90-110; Cyanide 85-115

U.S. EPA - CLP

2B
CRDL STANDARD FOR AA AND ICP

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

AA CRDL Standard Source: _____

ICP CRDL Standard Source: _____

Concentration Units: ug/L

	CRDL Standard for AA			CRDL Standard for ICP				
					Initial			Final
Analyte	True	Found	%R	True	Found	%R	Found	%R
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	3.0	2.96	95.3					
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								

3
BLANKS

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

Preparation Blank Matrix (soil/water): Soil

Preparation Blank Concentration Units (ug/L or mg/kg): mg/kg

Analyte	Initial Calib. Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 4	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											
Antimony											
Arsenic											
Barium											
Beryllium											
Cadmium											
Calcium											
Chromium											
Cobalt											
Copper											
Iron											
Lead			0.51	U							F
Magnesium											
Manganese											
Mercury											
Nickel											
Potassium											
Selenium											
Silver											
Sodium											
Thallium											
Vanadium											
Zinc											
Cyanide											

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.
Bldg. 9061
1479.3 Site C

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Soil Level (low/med): Low

% Solids for Sample: 94.1

Concentration Units (ug/L or mg/kg dry weight): mg/kg.

Analyte	Control Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	75-125	5.70		1.57		4.25	97.3		F
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

Comments:

DUPLICATES

EPA SAMPLE NO.

Bldg. 9061 515/94
1479.3 Site C

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 9402341-001 SAS No.: _____ SDG No.: _____

Matrix (soil/water): Soil Level (low/med): Low

% Solids for Sample: 94.1 % Solids for Duplicate: _____

Concentration Units (ug/L or mg/kg dry weight): mg/kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								
Antimony								
Arsenic								
Barium								
Beryllium								
Cadmium								
Calcium								
Chromium								
Cobalt								
Copper								
Iron								
Lead	0.32	1.57		2.04		26%	*	E
Magnesium								
Manganese								
Mercury								
Nickel								
Potassium								
Selenium								
Silver								
Sodium								
Thallium								
Vanadium								
Zinc								
Cyanide								

7

LABORATORY CONTROL SAMPLE

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: Q40234I-001 SAS No.: _____ SDG No.: _____

Solid LCS Source: —

Aqueous LCS Source: Baker LCS I

Analyte	Aqueous (ug/L) True	Found	%R	Solid (mg/kg) True	Found	C	Limits		%R
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Iron									
Lead	40.0	37.3	93.2						
Magnesium									
Manganese									
Mercury									
Nickel									
Potassium									
Selenium									
Silver									
Sodium									
Thallium									
Vanadium									
Zinc									
Cyanide									

10
INSTRUMENT DETECTION LIMITS (QUARTERLY)

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234I-a) SAS No.: _____ SDG No.: _____

ICP ID Number: _____ Date: 5/15/94

Flame AA ID Number: _____

Furnace AA ID Number: PE5100

Analyte	Wavelength (nm)	Background	CRDL (ug/L)	IDL (ug/L)	M
Aluminum			200		
Antimony			60		
Arsenic			10		
Barium			200		
Beryllium			5		
Cadmium			5		
Calcium			5000		
Chromium			10		
Cobalt			50		
Copper			25		
Iron			100		
Lead	283.3	BZ	3	0.51	F
Magnesium			5000		
Manganese			15		
Mercury			0.2		
Nickel			40		
Potassium			5000		
Selenium			5		
Silver			10		
Sodium			5000		
Thallium			10		
Vanadium			50		
Zinc			20		

Comments:

U.S. EPA - CLP

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ANALYSIS RUN LOG

Lab Name: Princeton Testing Lab Contract: _____

Lab Code: _____ Case No.: 940234L-001 SAS No.: _____ SDG No.: _____

Instrument ID Number: PE5100 Method: E

Start Date: 5/15/94 End Date: 5/15/94

EPA Sample No.	D/F	Time	% R	Analytes																										
				AL	SB	AS	BA	BE	CD	CA	CR	CO	CU	FE	PB	MG	MN	HG	NI	K	SE	AG	NA	TL	V	ZN	CN
SO	1	14:13																												
SO	1	14:23													X															
S3	1	14:29													X															
S25	1	14:36													X															
S50	1	14:42													X															
S75	1	14:49													X															
S100	1	14:55													X															
ICV	1	15:06													X															
ICB	1	15:12													X															
ICB A	1	15:18	95.4																											
CCV	1	15:25													X															
CCB	1	15:31													X															
CRA	1	15:39													X															
PBW	1	15:45													X															
PBW A	1	15:52	97.0																											
LBSW	1	15:59													X															
LCSW A	1	(89) 16:05	100.5																											
2341-3	1	16:12													X															
2341-3A	1	16:19	93.5																											
2341-3D	1	16:25													X															
2341-3DA	1	16:32	97.0																											
2341-3S	1	16:39													X															
CCV	1	16:46													X															
CCB	1	16:52													X															
2341-1	1	16:59													X															
2341-1A	1	17:05	97.2																											
2341-2	1	17:12													X															
2341-2A	1	17:19	96.2																											
2341-4	1	17:25													X															
2341-4A	1	17:32	92.8																											
2341-5	1	17:38													X															
2341-5A	1	17:45	92.6																											
2341-6	1	17:52													X															

FORM XIV - IN ILM02.0

JOB #	Dish	client - ID	Dish weight	Dish + sample weight	SAMPLE weight	TS	TVS	
2292	1	PASSAIC - soil	1.1129	9.1702	10.0140	804603		
2123	2	CAMden - #1	1.1405	10.2596	10.0395	908322		
	3	#2	1.1196	10.5157	10.1267	927854		
	4	#3	1.1030	10.9214	10.1154	970638		
	5	#4	1.0945	10.7333	10.1673	948019		
	6	#5	1.1142	11.2285	10.1147	999160		
	7	#6	1.1005	10.6489	10.3166	925537		
2341	1	FORT MONMOUTH-001	1.1260	11.3702	10.7604	952027		
	2	002	1.1150	10.9989	10.7597	918417		
	3	003	1.1186	11.1186	10.6237	941291		
	4	004	1.1420	10.0585	10.4855	850364		
	5	005	1.1095	10.8077	10.2006	950747		
	6	006	1.1023	11.4452	10.8590	952472		
	7	007	1.1083	11.1300	10.6973	936843		
	8	008	1.1111	10.7820	10.2600	942582		
	9	009	1.1087	10.5508	10.1150	933475		
	10	010	1.1431	11.1717	10.7766	930590		
1355	11	FORT DIX - RAD	58.2590	58.2869	~~10.0000~~ 50 ML	558	58.2756	J
11	12	FORT DIX - ACT	47.6944	47.7452	50 ML	1016	47.7245	J
11	13	FORT DIX - STAB	50.1229	50.1546	50 ML	634	50.1419	J
377	14	Lubelle, Eric	1.1166	9.5169	10.0630	834770		
	15	" Dup	1.1035	9.7411	10.3360	835681		
1320	1	Hi-Temp.	1.1060	4.0476	10.3703	283656		
1387	2	All-Service	1.1135	3.5725	10.3017	238698		
1387	X	All-service	59.2385	59.2510	50 ML	12250		
391	3	North Hunterdon	50.1252	50.3144	50 ML	3784		
425	4	CARTER WALLACE-soil	1.1084	5.7995	10.1540	46995		
	5	CARTER WALLACE-liq	47.6965	48.1635	50 ML	9340		
441	6	OCEAN COUNTY-Sludge	1.1414	1.0654	10.3470	27235		

Background Pk Area (A-s): 0.101 Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.003

Mean Pk Area (A-s): 0.003 SD: 0.0003 RSD(%): 9.47

Auto-zero performed. 2

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Pb ID: Standard 1 Seq. No.: 00011 A/S Pos.: 30 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 30
Replicate 1 Time: 14:29 53
Peak Area (A-s): 0.026 Peak Height (A): 0.043

Background Pk Area (A-s): 0.109 Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.023

uL dispensed: 4 from 0, 5 from 35, 20 from 30
Replicate 2 Time: 14:33
Peak Area (A-s): 0.027 Peak Height (A): 0.045
Background Pk Area (A-s): 0.117 Background Pk Height (A): 0.046
Blank Corrected Pk Area (A-s): 0.024

Mean Pk Area (A-s): 0.024 SD: 0.0002 RSD(%): 1.04

Standard number 1 applied. [3.00]
Correlation coefficient: 1.00000 Slope: 0.0078

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Pb ID: Standard 2 Seq. No.: 00012 A/S Pos.: 31 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 31 525
Replicate 1 Time: 14:36
Peak Area (A-s): 0.185 Peak Height (A): 0.306
Background Pk Area (A-s): 0.161 Background Pk Height (A): 0.093
Blank Corrected Pk Area (A-s): 0.182
Concentration (ug/L): 23.28

uL dispensed: 4 from 0, 5 from 35, 20 from 31
Replicate 2 Time: 14:39
Peak Area (A-s): 0.186 Peak Height (A): 0.292
Background Pk Area (A-s): 0.159 Background Pk Height (A): 0.091
Blank Corrected Pk Area (A-s): 0.183
Concentration (ug/L): 23.29

Mean Conc (ug/L): 23.29 SD: 0.011 RSD(%): 0.05

Standard number 2 applied. [25.00]
Correlation coefficient: 1.00000 Slope: 0.0079

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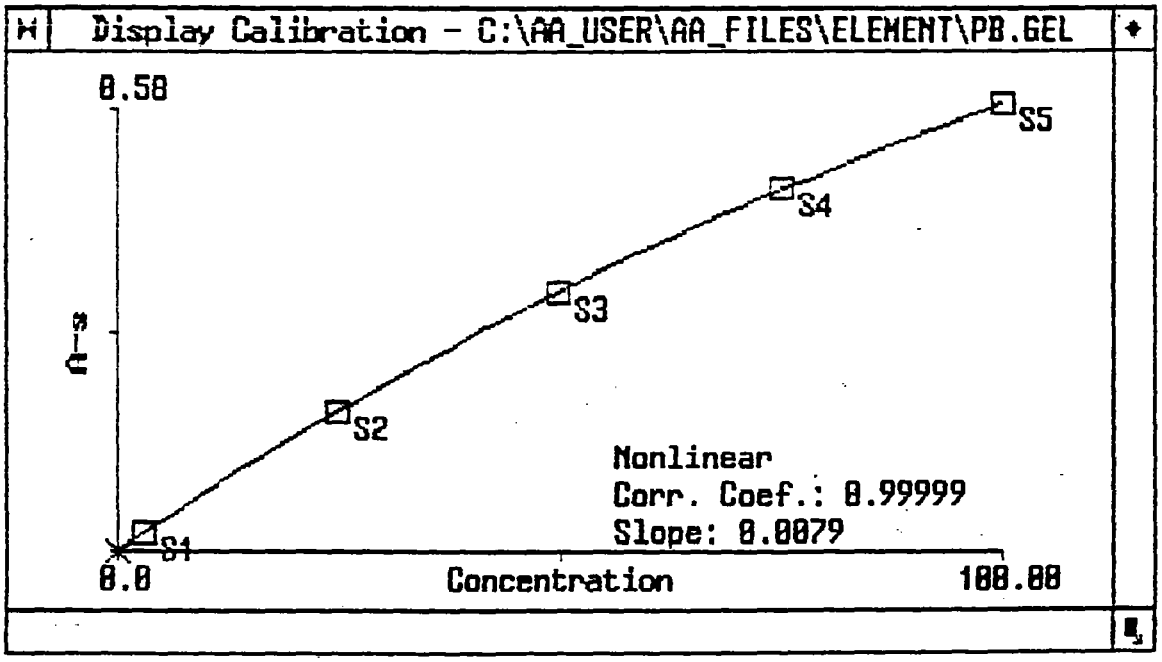
Pb ID: Standard 3 Seq. No.: 00013 A/S Pos.: 32 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 32 550
Replicate 1 Time: 14:42
Peak Area (A-s): 0.342 Peak Height (A): 0.543
Background Pk Area (A-s): 0.197 Background Pk Height (A): 0.173
Blank Corrected Pk Area (A-s): 0.339

Concentration (ug/L): 50.04

uL dispensed: 4 from 0, 5 from 35, 20 from 0
~~~~~~



Pb ID: ICV IV 15 PPB Seq. No.: 00016 A/S Pos.: 1 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 1
Replicate 1 Time: 15:06
Peak Area (A-s): 0.113 Peak Height (A): 0.170
Background Pk Area (A-s): 0.131 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.110
Concentration (ug/L): 14.61 Corrected Conc (ug/L): 14.61

uL dispensed: 4 from 0, 5 from 35, 20 from 1
Replicate 2 Time: 15:09
Peak Area (A-s): 0.114 Peak Height (A): 0.176
Background Pk Area (A-s): 0.134 Background Pk Height (A): 0.057
Blank Corrected Pk Area (A-s): 0.111
Concentration (ug/L): 14.70 Corrected Conc (ug/L): 14.70

Mean Conc (ug/L): 14.66 SD: [illegible] RSD (%): [illegible]
Corrected Conc (ug/L): 14.66

Blank Corrected Pk Area (A-s): 0.347
Concentration (ug/L): 51.42 Corrected Conc (ug/L): 51.42

Mean Conc (ug/L): 51.46 SD: 0.060 RSD(%): 0.12
Corrected Conc (ug/L): 51.46

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Pb ID: CCB Seq. No.: 00020 A/S Pos.: 4 Date: 05/15/94

6

uL dispensed: 4 from 0, 5 from 35, 20 from 4
Replicate 1 Time: 15:31
Peak Area (A-s): 0.002 Peak Height (A): 0.005
Background Pk Area (A-s): 0.110 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.11 Corrected Conc (ug/L): -0.11

uL dispensed: 4 from 0, 5 from 35, 20 from 4
Replicate 2 Time: 15:35
Peak Area (A-s): 0.001 Peak Height (A): 0.005
Background Pk Area (A-s): 0.116 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.22 Corrected Conc (ug/L): -0.22

Mean Conc (ug/L): -0.16 SD: 0.082 RSD(%): 49.48
Corrected Conc (ug/L): -0.16

~~~~~~

Pb ID: LOW CHECK 3 PPB Seq. No.: 00021 A/S Pos.: 5 Date: 05/15/94

CRDL

uL dispensed: 4 from 0, 5 from 35, 20 from 5
Replicate 1 Time: 15:39
Peak Area (A-s): 0.026 Peak Height (A): 0.044
Background Pk Area (A-s): 0.118 Background Pk Height (A): 0.047
Blank Corrected Pk Area (A-s): 0.023
Concentration (ug/L): 2.95 Corrected Conc (ug/L): 2.95

uL dispensed: 4 from 0, 5 from 35, 20 from 5
Replicate 2 Time: 15:42
Peak Area (A-s): 0.025 Peak Height (A): 0.044
Background Pk Area (A-s): 0.124 Background Pk Height (A): 0.049
Blank Corrected Pk Area (A-s): 0.022
Concentration (ug/L): 2.78 Corrected Conc (ug/L): 2.78

Mean Conc (ug/L): 2.86 SD: 0.117 RSD(%): 4.07
Corrected Conc (ug/L): 2.86

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Pb ID: PREP BL 130594 PBW Seq. No.: 00022 A/S Pos.: 6 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 6
Replicate 1 Time: 15:45
Peak Area (A-s): 0.008 Peak Height (A): 0.015
Background Pk Area (A-s): 0.107 Background Pk Height (A): 0.044
Blank Corrected Pk Area (A-s): 0.005
Concentration (ug/L): 0.68 Corrected Conc (ug/L): 0.68

uL dispensed: 4 from 0, 5 from 35, 20 from 6
Replicate 2 Time: 15:49
Peak Area (A-s): 0.006 Peak Height (A): 0.014
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Replicate 2 Time: 16:09
Peak Area (A-s): 0.380 Peak Height (A): 0.584
Background Pk Area (A-s): 0.195 Background Pk Height (A): 0.184
Blank Corrected Pk Area (A-s): 0.377
Concentration (ug/L): 56.78 Corrected Conc (ug/L): 56.78

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Mean Conc (ug/L): 57.38 SD: 0.844 RSD(%): 1.47
Corrected Conc (ug/L): 57.38

Recovery is 100.5%

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Pb ID: 2341 -3 Bldg. 9061 1479.3 Site C Seq. No.: 00026 A/S Pos.: 8 Date: 05/15/94
uL dispensed: 4 from 0, 5 from 35, 20 from 8
Replicate 1 Time: 16:12

Peak Area (A-s): 0.115 Peak Height (A): 0.171
Background Pk Area (A-s): 0.434 Background Pk Height (A): 0.146
Blank Corrected Pk Area (A-s): 0.112
Concentration (ug/L): 14.82 Corrected Conc (ug/L): 1482.

uL dispensed: 4 from 0, 5 from 35, 20 from 8
Replicate 2 Time: 16:15
Peak Area (A-s): 0.114 Peak Height (A): 0.166
Background Pk Area (A-s): 0.428 Background Pk Height (A): 0.145
Blank Corrected Pk Area (A-s): 0.111
Concentration (ug/L): 14.74 Corrected Conc (ug/L): 1474.

Mean Conc (ug/L): 14.78 SD: 0.052 RSD(%): 0.35
Corrected Conc (ug/L): 1478.

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Pb ID: 2341 -3 Bldg 9061 1479.3 Site C Analytical Spike Seq. No.: 00027 A/S Pos.: 8 Date: 05/15/94
uL dispensed: 5 from 35, 4 from 34, 20 from 8
Replicate 1 Time: 16:19
Peak Area (A-s): 0.244 Peak Height (A): 0.339
Background Pk Area (A-s): 0.435 Background Pk Height (A): 0.137
Blank Corrected Pk Area (A-s): 0.241
Concentration (ug/L): 33.80 Corrected Conc (ug/L): 3380.

uL dispensed: 5 from 35, 4 from 34, 20 from 8
Replicate 2 Time: 16:22
Peak Area (A-s): 0.240 Peak Height (A): 0.329
Background Pk Area (A-s): 0.420 Background Pk Height (A): 0.134
Blank Corrected Pk Area (A-s): 0.237
Concentration (ug/L): 33.17 Corrected Conc (ug/L): 3317.

Mean Conc (ug/L): 33.48 SD: 0.445 RSD(%): 1.33
Corrected Conc (ug/L): 3348.

Recovery is 93.5%

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Pb ID: 2341 -3 DUP Seq. No.: 00028 A/S Pos.: 9 Date: 05/15/94
uL dispensed: 4 from 0, 5 from 35, 20 from 9
Bldg. 9061 1479.3 Site C Duplicate
Replicate 1 Time: 16:25
Peak Area (A-s): 0.145 Peak Height (A): ...
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Replicate 1 Time: 16:46
Peak Area (A-s): 0.345 Peak Height (A): 0.494
Background Pk Area (A-s): 0.216 Background Pk Height (A): 0.152
Blank Corrected Pk Area (A-s): 0.342
Concentration (ug/L): 50.45 Corrected Conc (ug/L): 50.45 (b

uL dispensed: 4 from 0, 5 from 35, 20 from 3
Replicate 2 Time: 16:49
Peak Area (A-s): 0.347 Peak Height (A): 0.502
Background Pk Area (A-s): 0.221 Background Pk Height (A): 0.158
Blank Corrected Pk Area (A-s): 0.344
Concentration (ug/L): 50.85 Corrected Conc (ug/L): 50.85

Mean Conc (ug/L): 50.65 SD: 0.284 RSD(%): 0.56
Corrected Conc (ug/L): 50.65

Check sample is within range 44.75 - 55.25

~~~~~~

Pb ID: BLANK (CCB) RE Seq. No.: 00032 A/S Pos.: 0 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 0
Replicate 1 Time: 16:52
Peak Area (A-s): 0.002 Peak Height (A): 0.004
Background Pk Area (A-s): 0.119 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): -0.001
Concentration (ug/L): -0.13 Corrected Conc (ug/L): -0.13

uL dispensed: 4 from 0, 5 from 35, 20 from 0
Replicate 2 Time: 16:55
Peak Area (A-s): -0.002 Peak Height (A): 0.003
Background Pk Area (A-s): 0.115 Background Pk Height (A): 0.048
Blank Corrected Pk Area (A-s): -0.004
Concentration (ug/L): -0.56 Corrected Conc (ug/L): -0.56

Mean Conc (ug/L): -0.34 SD: 0.305 RSD(%): 88.50
Corrected Conc (ug/L): -0.34

Check sample is within range -3 - 3

~~~~~~

Pb ID: 2341 -1 Bldg 9061 1479.1 Stb A Seq. No.: 00033 A/S Pos.: 11 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 11
Replicate 1 Time: 16:59
Peak Area (A-s): 0.214 Peak Height (A): 0.282
Background Pk Area (A-s): 0.517 Background Pk Height (A): 0.168
Blank Corrected Pk Area (A-s): 0.211
Concentration (ug/L): 29.20 Corrected Conc (ug/L): 2920.

uL dispensed: 4 from 0, 5 from 35, 20 from 11
Replicate 2 Time: 17:02
Peak Area (A-s): 0.215 Peak Height (A): 0.270
Background Pk Area (A-s): 0.496 Background Pk Height (A): 0.162
Blank Corrected Pk Area (A-s): 0.212
Concentration (ug/L): 29.33 Corrected Conc (ug/L): 2933.

Mean Conc (ug/L): 29.26 SD: 0.091 RSD(%): 0.31
Corrected Conc (ug/L): 2926.

Mean Conc (ug/L): 42.04 SD: 0.362 RSD(%): 0.86
Corrected Conc (ug/L): 4209.

12

Recovery is 96.2%

Pb ID: 2341 -4 Bldg. 9061 1479.4 Site D Seq. No.: 00037 A/S Pos.: 13 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 13
Replicate 1 Time: 17:25
Peak Area (A-s): 0.081 Peak Height (A): 0.119
Background Pk Area (A-s): 0.481 Background Pk Height (A): 0.159
Blank Corrected Pk Area (A-s): 0.078
Concentration (ug/L): 10.15 Corrected Conc (ug/L): 1015.

uL dispensed: 4 from 0, 5 from 35, 20 from 13
Replicate 2 Time: 17:29
Peak Area (A-s): 0.082 Peak Height (A): 0.132
Background Pk Area (A-s): 0.484 Background Pk Height (A): 0.160
Blank Corrected Pk Area (A-s): 0.079
Concentration (ug/L): 10.29 Corrected Conc (ug/L): 1029.

Mean Conc (ug/L): 10.22 SD: 0.098 RSD(%): 0.96
Corrected Conc (ug/L): 1022.

Pb ID: 2341 -4 Bldg. 9061 1479.4 Site D Analytical Spike Seq. No.: 00038 A/S Pos.: 13 Date: 05/15/94

uL dispensed: 5 from 35, 4 from 34, 20 from 13
Replicate 1 Time: 17:32
Peak Area (A-s): 0.208 Peak Height (A): 0.188
Background Pk Area (A-s): 0.501 Background Pk Height (A): 0.164
Blank Corrected Pk Area (A-s): 0.205
Concentration (ug/L): 28.29 Corrected Conc (ug/L): 2829.

uL dispensed: 5 from 35, 4 from 34, 20 from 13
Replicate 2 Time: 17:35
Peak Area (A-s): 0.214 Peak Height (A): 0.224
Background Pk Area (A-s): 0.513 Background Pk Height (A): 0.164
Blank Corrected Pk Area (A-s): 0.211
Concentration (ug/L): 29.26 Corrected Conc (ug/L): 2926.

Mean Conc (ug/L): 28.78 SD: 0.688 RSD(%): 2.39
Corrected Conc (ug/L): 2878.

Recovery is 92.8%

Pb ID: 2341 -5 Bldg. 9061 1479.5 Site E Seq. No.: 00039 A/S Pos.: 14 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 14
Replicate 1 Time: 17:38
Peak Area (A-s): 0.102 Peak Height (A): 0.138
Background Pk Area (A-s): 0.429 Background Pk Height (A): 0.145
Blank Corrected Pk Area (A-s): 0.099
Concentration (ug/L): 13.10 Corrected Conc (ug/L): 1310.

uL dispensed: 4 from 0, 5 from 35, 20 from 4

Concentration (ug/L): 30.16 Corrected Conc (ug/L): 3016.

uL dispensed: 5 from 35, 4 from 34, 20 from 15
Replicate 2 Time: 18:01
Peak Area (A-s): 0.220 Peak Height (A): 0.232
Background Pk Area (A-s): 0.590 Background Pk Height (A): 0.185
Blank Corrected Pk Area (A-s): 0.217
Concentration (ug/L): 30.08 Corrected Conc (ug/L): 3008.

Mean Conc (ug/L): 30.12 SD: 0.055 RSD(%): 0.18
Corrected Conc (ug/L): 3012.

Recovery is 87.5%

14

Pb ID: CCV SPX19 50PPB Seq. No.: 00043 A/S Pos.: 3 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 3
Replicate 1 Time: 18:05
Peak Area (A-s): 0.343 Peak Height (A): 0.485
Background Pk Area (A-s): 0.221 Background Pk Height (A): 0.150
Blank Corrected Pk Area (A-s): 0.340
Concentration (ug/L): 50.24 Corrected Conc (ug/L): 50.24

uL dispensed: 4 from 0, 5 from 35, 20 from 3
Replicate 2 Time: 18:08
Peak Area (A-s): 0.344 Peak Height (A): 0.503
Background Pk Area (A-s): 0.221 Background Pk Height (A): 0.156
Blank Corrected Pk Area (A-s): 0.341
Concentration (ug/L): 50.37 Corrected Conc (ug/L): 50.37

Mean Conc (ug/L): 50.30 SD: 0.087 RSD(%): 0.17
Corrected Conc (ug/L): 50.30

Check sample is within range 44.75 - 55.25

Pb ID: CCB Seq. No.: 00044 A/S Pos.: 0. Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 0
Replicate 1 Time: 18:11
Peak Area (A-s): 0.001 Peak Height (A): 0.003
Background Pk Area (A-s): 0.099 Background Pk Height (A): 0.043
Blank Corrected Pk Area (A-s): -0.002
Concentration (ug/L): -0.30 Corrected Conc (ug/L): -0.30

uL dispensed: 4 from 0, 5 from 35, 20 from 0
Replicate 2 Time: 18:14
Peak Area (A-s): 0.003 Peak Height (A): 0.003
Background Pk Area (A-s): 0.128 Background Pk Height (A): 0.051
Blank Corrected Pk Area (A-s): 0.000
Concentration (ug/L): 0.06 Corrected Conc (ug/L): 0.06

Mean Conc (ug/L): -0.12 SD: 0.252 RSD(%): 214.01
Corrected Conc (ug/L): -0.12

Check sample is within range -3 - 3

327

Pb ID: 2341 -7 Bldg 7061 1439.7 Std G Seq No.: 00045 A/S Pos.: 16 Date: 05/15/94

Pb ID: 2341 -8 Bldg. 9061 1479.8 Site H Seq. No.: 00048 A/S Pos.: 17 Date: 05/15/94 Analytical Spike

uL dispensed: 5 from 35, 4 from 34, 20 from 17
Replicate 1 Time: 18:37
Peak Area (A-s): 0.231 Peak Height (A): 0.270
Background Pk Area (A-s): 0.535 Background Pk Height (A): 0.168
Blank Corrected Pk Area (A-s): 0.228
Concentration (ug/L): 31.92 Corrected Conc (ug/L): 3182.

uL dispensed: 5 from 35, 4 from 34, 20 from 17
Replicate 2 Time: 18:40
Peak Area (A-s): 0.234 Peak Height (A): 0.286
Background Pk Area (A-s): 0.551 Background Pk Height (A): 0.169
Blank Corrected Pk Area (A-s): 0.232

Concentration (ug/L): 32.35 Corrected Conc (ug/L): 3235.

Mean Conc (ug/L): 32.08 SD: 0.369 RSD(%): 1.15
Corrected Conc (ug/L): 3208.

Recovery is 91.6%

Pb ID: 2341 -9 Bldg. 9061 1479.9 Site I Seq. No.: 00049 A/S Pos.: 18 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 18
Replicate 1 Time: 18:43
Peak Area (A-s): 0.142 Peak Height (A): 0.190
Background Pk Area (A-s): 0.454 Background Pk Height (A): 0.148
Blank Corrected Pk Area (A-s): 0.139
Concentration (ug/L): 18.60 Corrected Conc (ug/L): 1860.

uL dispensed: 4 from 0, 5 from 35, 20 from 18
Replicate 2 Time: 18:47
Peak Area (A-s): 0.141 Peak Height (A): 0.198
Background Pk Area (A-s): 0.461 Background Pk Height (A): 0.149
Blank Corrected Pk Area (A-s): 0.138
Concentration (ug/L): 18.48 Corrected Conc (ug/L): 1848.

Mean Conc (ug/L): 18.54 SD: 0.081 RSD(%): 0.44
Corrected Conc (ug/L): 1854.

Pb ID: 2341 -9 Bldg. 9061 1479.9 Site I Seq. No.: 00050 A/S Pos.: 18 Date: 05/15/94 Analytical Spike

uL dispensed: 5 from 35, 4 from 34, 20 from 18
Replicate 1 Time: 18:50
Peak Area (A-s): 0.266 Peak Height (A): 0.367
Background Pk Area (A-s): 0.442 Background Pk Height (A): 0.138
Blank Corrected Pk Area (A-s): 0.263
Concentration (ug/L): 37.30 Corrected Conc (ug/L): 3730.

uL dispensed: 5 from 35, 4 from 34, 20 from 18
Replicate 2 Time: 18:53
Peak Area (A-s): 0.270 Peak Height (A): 0.366
Background Pk Area (A-s): 0.467 Background Pk Height (A): 0.143
Blank Corrected Pk Area (A-s): 0.267
Concentration (ug/L): 37.99 Corrected Conc (ug/L): 3799.

Replicate 2 Time: 19:12
Peak Area (A-s): 0.013 Peak Height (A): 0.022
Background Pk Area (A-s): 0.142 Background Pk Height (A): 0.055
Blank Corrected Pk Area (A-s): 0.010
Concentration (ug/L): 1.28 Corrected Conc (ug/L): 1.28 18

Mean Conc (ug/L): 1.18 SD: 0.136 RSD(%): 11.51
Corrected Conc (ug/L): 1.18

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Pb ID: PREP BL 130594 Seq. No.: 00054 A/S Pos.: 20 Date: 05/15/94
PBWA

uL dispensed: 5 from 35, 4 from 34, 20 from 20
Replicate 1 Time: 19:15
Peak Area (A-s): 0.153 Peak Height (A): 0.259
Background Pk Area (A-s): 0.132 Background Pk Height (A): 0.077
Blank Corrected Pk Area (A-s): 0.150
Concentration (ug/L): 20.22 Corrected Conc (ug/L): 20.22

uL dispensed: 5 from 35, 4 from 34, 20 from 20
Replicate 2 Time: 19:18
Peak Area (A-s): 0.155 Peak Height (A): 0.261
Background Pk Area (A-s): 0.135 Background Pk Height (A): 0.077
Blank Corrected Pk Area (A-s): 0.152
Concentration (ug/L): 20.48 Corrected Conc (ug/L): 20.48

Mean Conc (ug/L): 20.35 SD: 0.181 RSD(%): 0.89
Corrected Conc (ug/L): 20.35

Recovery is 95.8%

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Pb ID: CCV SPX19 50PPB Seq. No.: 00055 A/S Pos.: 3 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 3
Replicate 1 Time: 19:22
Peak Area (A-s): 0.344 Peak Height (A): 0.509
Background Pk Area (A-s): 0.232 Background Pk Height (A): 0.157
Blank Corrected Pk Area (A-s): 0.341
Concentration (ug/L): 50.42 Corrected Conc (ug/L): 50.42

uL dispensed: 4 from 0, 5 from 35, 20 from 3
Replicate 2 Time: 19:25
Peak Area (A-s): 0.345 Peak Height (A); 0.505
Background Pk Area (A-s): 0.228 Background Pk Height (A): 0.158
Blank Corrected Pk Area (A-s): 0.342
Concentration (ug/L): 50.58 Corrected Conc (ug/L): 50.58

Mean Conc (ug/L): 50.50 SD: 0.117 RSD(%): 0.23
Corrected Conc (ug/L): 50.50

Check sample is within range 44.75 - 55.25

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Pb ID: CCB Seq. No.: 00056 A/S Pos.: 0 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 0
Replicate 1 Time: 19:28
Peak Area (A-s): 0.000 Peak Height (A): 0.00[illegible]
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Mean Conc (ug/L): 602.51 SD: 139.710 RSD(%): 22.85
Corrected Conc (ug/L): 602.51

Recovery is -90.4%

20

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Pb ID: LCS 1:10 LCSW Seq. No.: 00059 A/S Pos.: 22 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 22
Replicate 1 Time: 19:47
Peak Area (A-s): 0.283 Peak Height (A): 0.451
Background Pk Area (A-s): 0.207 Background Pk Height (A): 0.138
Blank Corrected Pk Area (A-s): 0.281
Concentration (ug/L): 40.14 Corrected Conc (ug/L): 40.14

uL dispensed: 4 from 0, 5 from 35, 20 from 22

Replicate 2 Time: 19:51
Peak Area (A-s): 0.282 Peak Height (A): 0.440
Background Pk Area (A-s): 0.209 Background Pk Height (A): 0.136
Blank Corrected Pk Area (A-s): 0.279
Concentration (ug/L): 39.93 Corrected Conc (ug/L): 39.93

Mean Conc (ug/L): 40.03 SD: 0.150 RSD(%): 0.37
Corrected Conc (ug/L): 40.03

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Pb ID: LCS 1:10 LCSWA Seq. No.: 00060 A/S Pos.: 22 Date: 05/15/94

uL dispensed: 5 from 35, 4 from 34, 20 from 22
Replicate 1 Time: 19:54
Peak Area (A-s): 0.399 Peak Height (A): 0.577
Background Pk Area (A-s): 0.216 Background Pk Height (A): 0.181
Blank Corrected Pk Area (A-s): 0.396
Concentration (ug/L): 60.21 Corrected Conc (ug/L): 60.21

uL dispensed: 5 from 35, 4 from 34, 20 from 22
Replicate 2 Time: 19:57
Peak Area (A-s): 0.404 Peak Height (A): 0.539
Background Pk Area (A-s): 0.215 Background Pk Height (A): 0.164
Blank Corrected Pk Area (A-s): 0.401
Concentration (ug/L): 61.25 Corrected Conc (ug/L): 61.25

Mean Conc (ug/L): 60.73 SD: 0.732 RSD(%): 1.20
Corrected Conc (ug/L): 60.73

Recovery is 103.5%

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Pb ID: 2341-12 Blk 9061 Seq. No.: 00061 A/S Pos.: 23 Date: 05/15/94
1479.12 FB

uL dispensed: 4 from 0, 5 from 35, 20 from 23
Replicate 1 Time: 20:00
Peak Area (A-s): 0.056 Peak Height (A): 0.093
Background Pk Area (A-s): 0.174 Background Pk Height (A): 0.062
Blank Corrected Pk Area (A-s): 0.053
Concentration (ug/L): 6.88 Corrected Conc (ug/L): 6.99

uL dispensed: 4 from 0, 5 from 35, 20 from 23
Replicate 2 Time: 20:04
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uL dispensed: 5 from 35, 4 from 34, 20 from 24
Replicate 2 Time: 20:23
Peak Area (A-s): 0.213 Peak Height (A): 0.335
Background Pk Area (A-s): 0.174 Background Pk Height (A): 0.108
Blank Corrected Pk Area (A-s): 0.210
Concentration (ug/L): 29.01 Corrected Conc (ug/L): 29.01

Mean Conc (ug/L): 29.01 SD: 0.007 RSD(%): 0.02
Corrected Conc (ug/L): 29.01

Recovery is 96.8% --

22

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Pb ID: 2341 -12 MS Seq. No.: 00065 A/S Pos.: 25 Date: 05/15/94

Bldg. 9061 1479.12 FB MATRIX spike

uL dispensed: 4 from 0, 5 from 35, 20 from 25
Replicate 1 Time: 20:27
Peak Area (A-s): 0.197 Peak Height (A): 0.310
Background Pk Area (A-s): 0.215 Background Pk Height (A): 0.108
Blank Corrected Pk Area (A-s): 0.194
Concentration (ug/L): 26.65 Corrected Conc (ug/L): 26.65

uL dispensed: 4 from 0, 5 from 35, 20 from 25
Replicate 2 Time: 20:30
Peak Area (A-s): 0.198 Peak Height (A): 0.305
Background Pk Area (A-s): 0.211 Background Pk Height (A): 0.105
Blank Corrected Pk Area (A-s): 0.195
Concentration (ug/L): 26.74 Corrected Conc (ug/L): 26.74

Mean Conc (ug/L): 26.70 SD: 0.070 RSD(%): 0.26
Corrected Conc (ug/L): 26.70

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Pb ID: CCV SPX19 50PPB Seq. No.: 00066 A/S Pos.: 3 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 3
Replicate 1 Time: 20:33
Peak Area (A-s): 0.341 Peak Height (A): 0.477
Background Pk Area (A-s): 0.228 Background Pk Height (A): 0.153
Blank Corrected Pk Area (A-s): 0.338
Concentration (ug/L): 49.80 Corrected Conc (ug/L): 49.80

uL dispensed: 4 from 0, 5 from 35, 20 from 3
Replicate 2 Time: 20:37
Peak Area (A-s): 0.341 Peak Height (A): 0.489
Background Pk Area (A-s): 0.230 Background Pk Height (A): 0.156
Blank Corrected Pk Area (A-s): 0.338
Concentration (ug/L): 49.85 Corrected Conc (ug/L): 49.85

Mean Conc (ug/L): 49.82 SD: 0.036 RSD(%): 0.07
Corrected Conc (ug/L): 49.82

Check sample is within range 44.75 - 55.25

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Pb ID: CCB Seq. No.: 00067 A/S Pos.: 9 Date: 05/15/94

uL dispensed: 4 from 0, 5 from 35, 20 from 9
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GFAA

princeton testing laboratory inc. [redacted]

METALS PREPARATION (DIGESTION) BENCHSHEET

Prepared by: C. STACHACE Date: 5/13/94

Matrix: ~~AQUEOUS~~ SOLID QC Lot #: 130594

	Sample ID		Initial Weight	Final Volume	Spike Amount	Comments
1.		RB	1 ml	100 ml		
2.		LCS			1 ml	
3.	2341-	3	1.00 g			Pb
4.	DUP	3				
5.	MS	3			1 ml	
6.		1				
7.		2				
8.		4				
9.		5				
10.		6				
11.		7				
12.		8				
13.		9				
14.	✓	10	✓	✓		
15.						
16.						
17.						
18.						
19.						
20.						

Relinquished By (Name)	Received By (Name)	Date	Time	Reason for Transfer
	C. S.	5/13/94	1000	metals
C. S.	Robert Klein	5/13/94	16:00	GFAA analysis

REF #5 MS - 73.115.14

LCS - 73.115.15