

United States Army

Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 689A
Main Post***

**NJDEP UST Registration No. 081533-108
NJDEP Closure Approval No. C-93-3887**

May 2000

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EXECUTIVE SUMMARY

UST Closure

On November 9, 1993, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) Closure Approval No. C-93-3887 at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 081533-108, was located immediately adjacent to Building 689A in the Main Post area of U.S. Army, Fort Monmouth. UST No. 081533-108 was a 550-gallon No. 2 fuel oil tank. The UST fill port was located directly above the tank. The tank closure was performed by Cleaning Up the Environment Inc.

Site Assessment - Soil

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. Several holes were noted in the UST and evidence of potentially contaminated soils was observed surrounding the tank.

On November 10, 1993, following removal of approximately 5 cubic yards of potentially contaminated soil, post-excavation soil samples A, B, C, and D were collected from four (4) locations along the sidewalls of the UST excavation, immediately above groundwater. The samples were collected at a depth of 8.5 feet below ground surface (bgs). Groundwater was present at approximately 9.0 feet bgs. The samples were analyzed for total petroleum hydrocarbons (TPHC). Soil samples were not collected along the piping trench due to its length being less than 15 feet.

Findings - Soil

Post-excavation soil samples collected from the UST excavation at Building 689A contained TPHC concentrations below the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 milligrams per kilogram (mg/kg) (N.J.A.C. 7:26D and revisions dated February 3, 1994). Samples A, B, and C, collected on November 10, 1993, contained TPHC concentrations of 7.71 mg/kg to 784.0 mg/kg. Sample D contained a TPHC concentration of 4,030.0 mg/kg.

Due to elevated TPHC results from the south sidewall of the UST excavation, the area surrounding sample location D was resampled on November 15, 1993. The sample was analyzed for volatile organic compounds plus 15 tentatively identified compounds (VOCs). The sample contained methylene chloride at 0.18 mg/kg (a known laboratory contaminant), and lead at

9.33 mg/kg. Both of the detected compounds were below the most stringent NJDEP soil cleanup criteria.

Based on an inspection of the UST, and field screening of subsurface soils the Directorate of Public Works (DPW) concluded that an historical discharge was associated with the UST. On November 10, 1993, a spill was reported to the NJDEP "Hotline" for UST No. 081533-108 and was assigned Spill Case No. 93-11-10-758-23.

Site Restoration

Following receipt of all post-excavation soil sampling results, the excavation was backfilled to grade with a combination of uncontaminated excavated soil and certified clean fill. The excavation site was then restored to its original condition.

Site Assessment Quality Assurance

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

Site Assessment - Groundwater

In response to the observation of potentially contaminated soil near the shallow water table, one shallow overburden monitoring well (MW-2) was installed at the Building 689A area on September 15, 1994. It was installed approximately 20 feet west of Building 689A in the downgradient direction. It was screened in the 2- to 12.5-foot depth interval, across the water table, which is approximately 4.5 feet below ground surface.

On November 9, 1994 and December 1, 1994, MW-2 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

Findings - Groundwater

All groundwater analytical results were either below the detection limit or in compliance with the New Jersey Ground Water Quality Standards (GWQS). No product or sheen was observed in MW-2 on either of the sampling dates.

The depth to the water table was 7.10 feet below grade on November 9, 1994, and 7.46 feet below grade on December 1, 1994.

Discrepancies

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

Conclusions and Recommendations

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

Based on the analytical results of the groundwater samples collected on November 9, 1994 and December 1, 1994, groundwater quality at the Building 689A UST closure site complies with the New Jersey Groundwater Quality Criteria for VOCs and SVOCs.

No further action is proposed in regard to the closure and site assessment of UST No. 081533-108 at Building 689A.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 081533-108, was closed at Building 689A at U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on November 9, 1993. Refer to site location map on Figure 1. This report presents the results of the DPW's implementation of the UST Decommissioning/Closure Plan submitted to the NJDEP on July 22, 1993. The plan was approved on September 7, 1993 and assigned TMS No. C-93-3887. The UST was a steel 550-gallon tank containing No. 2 fuel oil.

Decommissioning activities for UST No. 081533-108 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to: N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. CUTE Inc., the contractor that conducted the decommissioning activities, is registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 081533-108 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST closure approval and signed certifications for UST No. 081533-108 are included in Appendices A and B, respectively.

Based on an inspection of the UST, and field screening of subsurface soils the DPW has concluded that an historical discharge was associated with the UST. On November 10, 1993, a spill was reported to the NJDEP "Hotline" for UST No. 081533-108 and was assigned Spill Case No. 93-11-10-758-23.

This UST Closure and Site Investigation Report has been prepared by Smith Technology Corporation, to assist the United States Army Directorate of Public Works (DPW) in complying with the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST) regulations. The applicable NJDEP-BUST regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N.J.A.C. 7:14B-1 et seq. September 1990 and revisions dated November 1, 1991).

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

1.2 SITE DESCRIPTION

Building 689A is located in the central portion of the Main Post area of Fort Monmouth, as shown on Figure 1. UST No. 081533-108 was located east of Building 689A and appurtenant piping ran less than 15 feet west from the excavation to Building 689A. The fill port area was located directly above the tank. A site map is provided on Figure 2.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the area surrounding Building 689A. Included is a description of the regional geology of the area surrounding Fort Monmouth as well as descriptions of the local geology and hydrogeology of the Main Post area.

Regional Geology

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

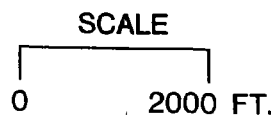
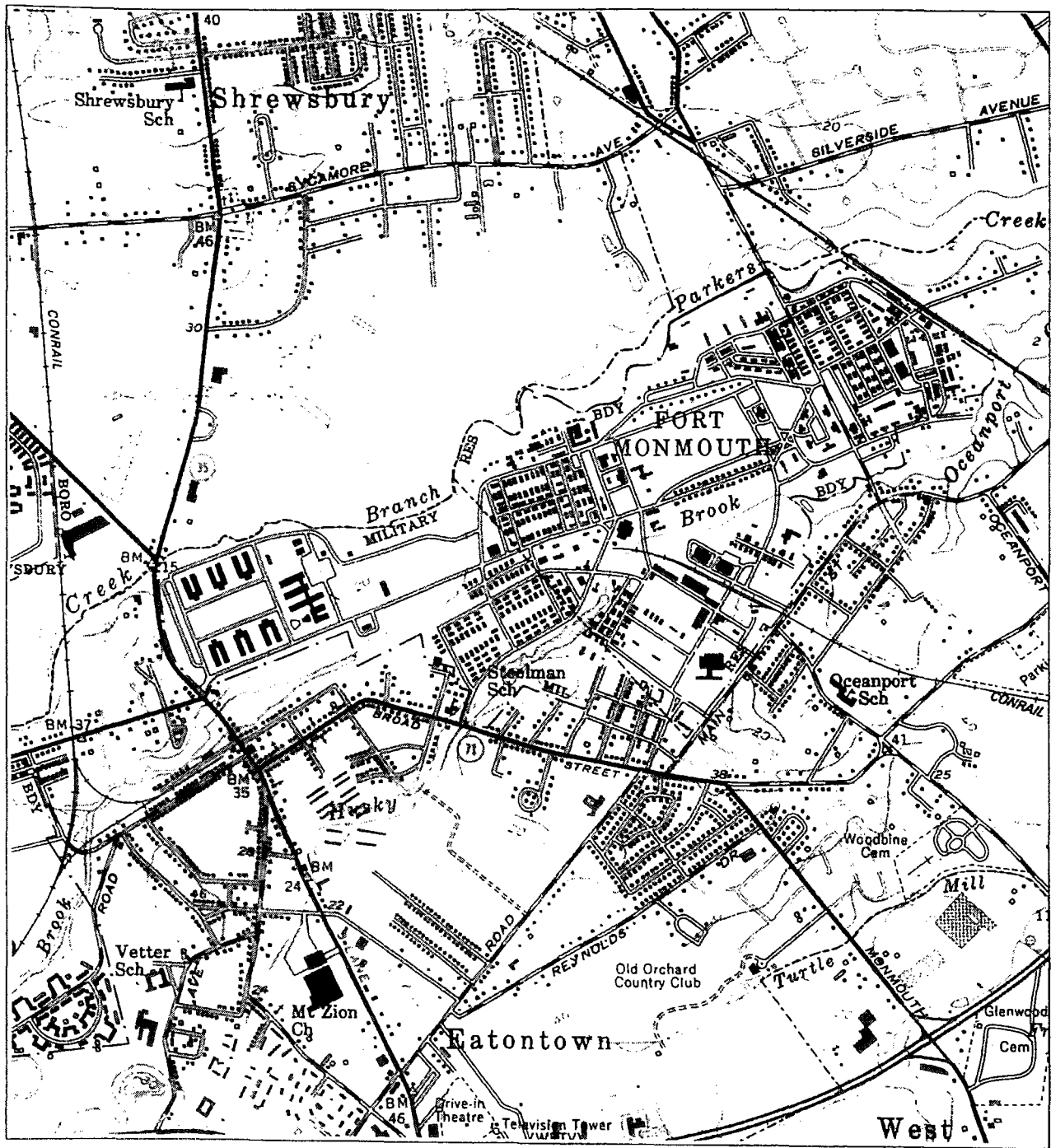
In general, New Jersey Coastal Plain formations consist of a seaward-dipping wedge of unconsolidated deposits of clay, silt, and gravel. These formations typically strike northeast-southwest with a dip ranging from 10 to 60 feet per mile and were deposited on Precambrian and lower Paleozoic rocks (Zapeczka,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

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

Local Geology

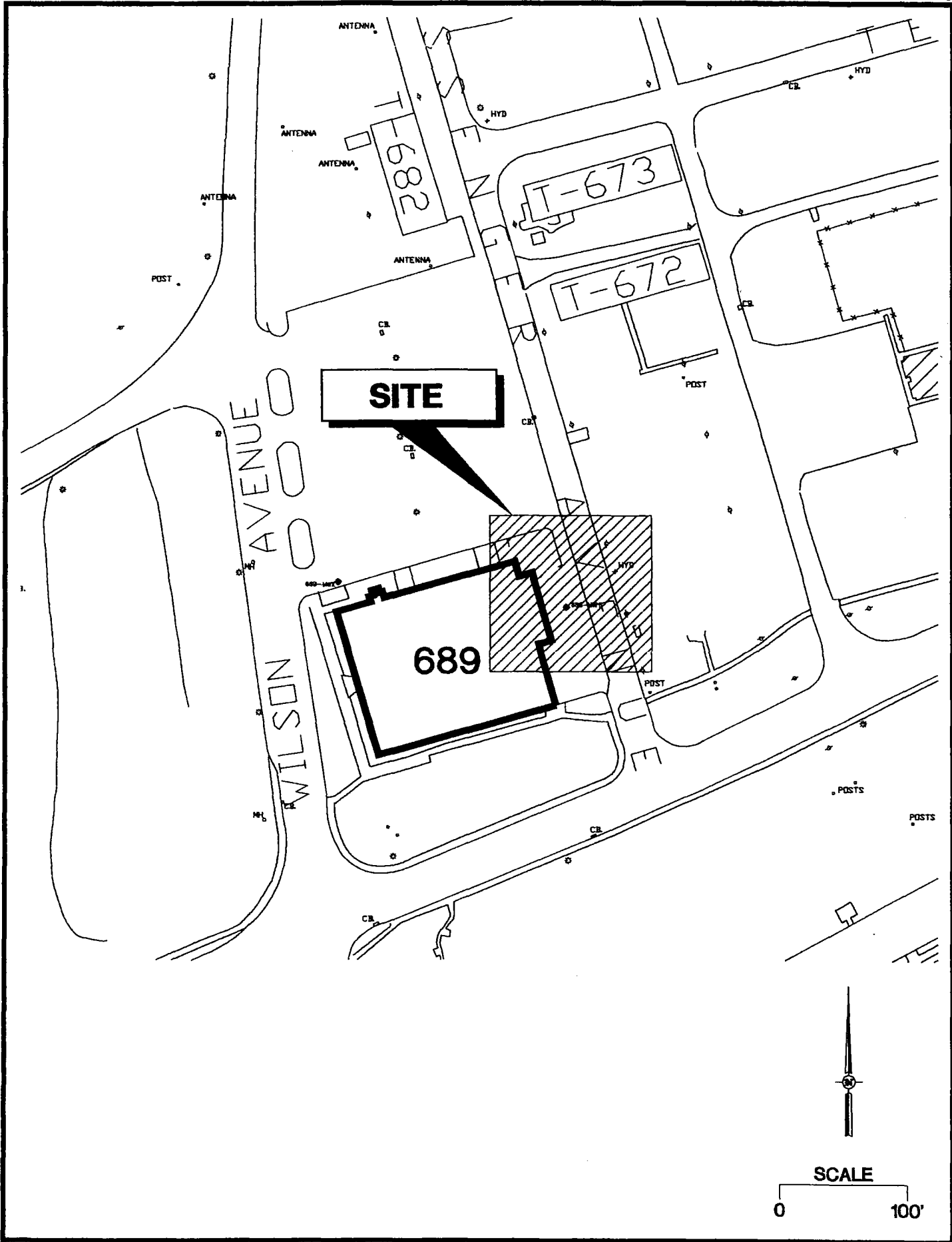
Based on the regional geologic map (Jablonski, 1968), the Cretaceous age Red Bank and Tinton Sands outcrop at the Main Post area. The Red Bank sand conformably overlies the Navesink Formation and dips to the southeast at 35 feet per mile. The upper member (Shrewsbury) of the Red Bank sand is a yellowish-gray to reddish brown clayey, medium-to-

Source: Long Branch, New Jersey Quadrangle



QUADRANGLE LOCATION

Source: Smith Technology Corporation (166)



Project No. 09-5004-12

Figure 2
Building 689A
Site Map

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

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

1.4.2 Underground Storage Tank Excavation and Cleaning

Prior to UST decommissioning activities, surficial soil was removed to expose the UST and associated piping. All free product present in the piping was drained into the UST, and the UST was purged to remove vapors prior to cutting and removal of the piping. After removal of the associated piping, a manway was made in the UST to allow for proper cleaning. The UST was completely emptied of all liquids prior to removal from the ground. Approximately 60 gallons of liquid were transported by Freehold Cartage Inc. to Lionetti Oil Recovery Co. Inc., a NJDEP-approved petroleum recycling and disposal company located in Tinton Falls, New Jersey. Refer to Appendix C for the waste manifest (NJA-1603208).

The UST was cleaned prior to removal from the excavation in accordance with the NJDEP-BUST regulations. After the UST was removed from the excavation, it was staged on polyethylene sheeting and examined for holes. Several holes were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST were screened visually and with an OVA for evidence of contamination. Evidence of contamination was observed.

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

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

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

The removal contractor labeled the UST prior to transport with the following information:

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on visual observations, approximately 5 cubic yards of potentially contaminated soils were excavated from the UST excavation. Potentially contaminated soils were stockpiled separately from other excavated material and were placed on and covered with polyethylene sheets. Potentially contaminated soils were transported to T-80 on Main Post for storage prior to ultimate disposal at Soil Remediation of Philadelphia. Soils that did not exhibit signs of contamination were used as backfill following removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S. Army DPW personnel. All TPHC analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory. All VOC and SVOC analyses were performed and reported by 21st Century Environmental. Both laboratories 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* (1992). Sampling frequency and parameters analyzed complied with the NJDEP-BUST document *Interim Closure Requirements for Underground Storage Tank Systems* (September 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities.

- Closure Contractor: Cleaning Up the Environment Inc.
Closure Supervisor: John Lonergan
Phone Number: (201)427-2881
NJDEP Certification No. 3248
- Subsurface Evaluator: Charles M. Appleby
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-6224
NJDEP Certification No.: 2056
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Brian K. McKee
Phone Number: (908)532-4359
NJDEP Certification No.: 13461
- Analytical Laboratory: Twenty First Century Environmental Laboratory
Contact Person: Richard W. Lynch
Phone Number: (609)467-9521
NJDEP Certification No.: 08031
- Hazardous Waste Hauler: Freehold Cartage Inc.
Contact Person: Barry Olsen
Phone Number: (908)721-0900
NJDEP Hazardous Waste Hauler No.: 2265

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Additional soils were removed from the excavation surrounding UST No. 081533-108 until no evidence of contamination remained.

2.3 SOIL SAMPLING

On November 10, 1993, post-excavation soil samples A, B, C, and D were collected from four (4) locations along the sidewalls of the UST excavation, at a depth of 8.5-9.0 feet below ground surface (bgs). The samples were analyzed for TPHC. Soil samples were not collected along the piping trench due to its length being less than 15 feet.

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements* and the NJDEP *Field Sampling Procedures Manual*. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using polystyrene scoops. Actual soil TPHC values may be higher than reported, due to sample utensil absorbency. If absorbency resulted in reducing the actual soil TPHC concentration by 50 %, the highest soil contaminant would have been 1,568 mg/kg, still below the applicable NJDEP soil cleanup standard for total organic contaminants of 10,000 mg/kg. Following soil sampling activities, the samples analyzed for TPHC were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis. The soil sample analyzed for VOCs and SVOCs were chilled and delivered to Twenty First Century Environmental located in Bridgeport, New Jersey, for analysis.

2.4 GROUNDWATER SAMPLING

2.4.1 Monitoring Well Installation

In response to the observation of potentially contaminated soil near the shallow water table, one shallow monitoring well (MW-2) was installed at the Building 689A area on September 4, 1994. It was installed approximately 10 feet west of the UST excavation in the downgradient direction. It was screened in the 2- to 12.5 foot interval, across the water table, which is approximately 4.5 feet below grade surface.

The well was constructed in accordance with the NJDEP's well construction protocols outlined in its May 1992 *Field Sampling Procedures Manual*. The NJDEP well drilling permit and a well construction log is presented in Appendix E.

The well was constructed with 4-inch (ID) PVC riser and 0.020 slotted PVC well screen. A silica sand pack was installed in the annulus between the borehole wall and the screen. The sand pack

TABLE 1
SUMMARY OF SAMPLING ACTIVITIES
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Date of Collection	Matrix	Sample Type	Analytical Parameters (and USEPA Methods) *	Sampling Method
A	11/10/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
B	11/10/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
C	11/10/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D	11/10/93	Soil	Post-Excavation	TPHC	Polystyrene Scoop
D-2	11/15/93	Soil	Post-Excavation	VOCs, Pb	Polystyrene Scoop
MW-2	11/9/94	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Fill Bailer
MW-2	12/1/94	Aqueous	Groundwater	VOCs, SVOCs	Teflon Bottom Fill Bailer

* NOTES:

TPHC: Total Petroleum Hydrocarbons (Method 418.1 / soil and aqueous)
VOCs: Volatile Organic Compounds plus 15 tentatively identified compounds (Method 624 / soil and aqueous)
SVOCs: Semivolatile organic compounds plus 15 tentatively identified compounds (Method 625 / aqueous)
Pb: Lead (Method SW-846 / soil and aqueous)

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

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was extended approximately 2 feet above the top of the screen. The sand pack above the well screen was graded down to a fine sand to minimize grout intrusion.

The borehole was tremie-grouted with bentonite-cement grout from the top of the sand pack to 0.5 inches bgs. The well was secured with a water-tight, flush-mounted locking road box. The road box was set in place with concrete, which was placed in the remaining open borehole. The elevation of the well riser was surveyed to the nearest 0.01 feet by a New Jersey-licensed surveyor. The well permit number was marked on the well casing as required.

The monitoring well was developed using a peristaltic surface pump. The well was pumped for 1 hour or until silt free. All residual soils and liquids generated during monitoring well installation and development program were collected in New Jersey Department of Transportation-approved 55-gallon drums. The drums were placed in a designated secure location for waste characterization and offsite disposal.

2.4.2 Monitoring Well Sampling

On November 9, 1994 and December 1, 1994, MW-2 was sampled for volatile organic compounds calibrated for xylene plus 15 tentatively identified compounds (VOCs), methyl tertiary butyl ether, tertiary butyl alcohol, and semivolatile organic compounds plus 15 tentatively identified compounds (SVOCs). Sampling and analysis were performed in accordance with the NJDEP *Field Sampling Procedures Manual* and the *Technical Requirements For Site Remediation*.

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

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

To evaluate soil conditions following removal of the UST and associated piping, post-excavation soil samples were collected from four (4) locations on November 10, 1993. All samples were analyzed for TPHC. Soil samples were not collected along the piping trench due to its length being less than 15 feet. The post-excavation soil sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and Table 3 and the soil sampling results are shown on Figure 3. The analytical data package is provided in Appendix E.

All post-excavation soil samples collected on November 10, 1993 from the UST excavation contained concentrations of TPHC below the NJDEP soil cleanup criteria. Post-excavation soil samples A, B, and C, collected on November 10, 1993 contained TPHC concentrations ranging from 7.71 mg/kg to 784.0 mg/kg. Sample D contained a TPHC concentration of 4,030.0 mg/kg.

Due to the elevated TPHC result from sample D, soils surrounding the former sample location were resampled on November 15, 1993. The sample was analyzed for VOCs and SVOCs. The sample contained methylene chloride at a concentration of 0.18 mg/kg (a known laboratory contaminant), and lead at 9.33 mg/kg. Both of the detected compounds were below the most stringent NJDEP soil cleanup criteria. No other compounds were detected.

3.2 GROUNDWATER SAMPLING RESULTS

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

The sample collected from MW-2 on November 9, 1994, contained methylene chloride at 4.0 ug/l which exceeded the criteria of 2.0 ug/l. This compound, however, was also found in the sample trip blank and field blank at concentrations of 3 ug/l and of 6.0 ug/l, respectively. The field blank also contained dimethylphthalate at 2 ug/l. No other compounds were detected. The sample collected from MW-2 on December 1, 1994, contained non-detectable concentrations of contaminants.

No product or sheen was observed in MW-2 on either of the sampling dates. The depth to the water table was 7.10 feet below grade surface on November 9, 1994 and 7.46 feet below grade surface on December 1, 1994.

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

TABLE 2
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Laboratory ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	NJDEP Soil Cleanup Criteria * (mg/kg)	Exceeds Cleanup Criteria
A/8.5-9.0'	1324.1	11/10/93	11/12/93	Total % Solid	--	--	86 %	--	--
				TPHC	3.3	yes	7.71	10,000	--
B/8.5-9.0'	1324.2	11/10/93	11/12/93	Total % Solid	--	--	88 %	--	--
				TPHC	23	yes	784	10,000	--
C/8.5-9.0'	1324.3	11/10/93	11/12/93	Total % Solid	--	--	83 %	--	--
				TPHC	9.9	yes	60.1	10,000	--
D/8.5-9.0'	1324.4	11/10/93	11/12/93	Total % Solid	--	--	88 %	--	--
				TPHC	69	yes	4,030	10,000	--

NOTES:

--: Not applicable / does not exceed criteria

*: Cleanup criteria for total organics

ND: Indicates compound not detected

Actual soil TPHC values may be higher than reported due to absorbancy by polystyrene scoops. If absorbancy resulted in reducing the actual soil TPHC concentration by 50%, the highest soil contaminant would be 8,060 mg/kg.

Source: Smith Technology Corporation (Smith Project No. 09-5004-12)

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TABLE 3
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	Soil Cleanup Criteria* (mg/kg)	Exceeds Criteria
D-2/8.5-9.0'	11/15/93	11/19/93	Lead	5.0	--	9.33	400	--
			VOLATILE ORGANICS:					
			Acrolein	7.4	--	ND	--	--
			Acrylonitrile	7.4	--	ND	1/1	--
			Chloromethane	1.5	--	ND	520/10	--
			Bromomethane	1.5	--	ND	79/1	--
			Vinyl Chloride	1.5	--	ND	2/10	--
			Chloroethane	1.5	--	ND	--	--
			Acetone	1.5	--	ND B	1,000/100	--
			1,1-Dichloroethene	0.74	--	ND	8/10	--
			Carbon Disulfide	1.5	--	ND	--	--
			Methylene Chloride	0.74	--	0.18 J	49/1	--
			1,2-Dichloroethene(trans)	0.74	--	ND	1,000/50	--
			1,1-Dichloroethane	0.74	--	ND	570/10	--
			Vinyl Acetate	0.74	--	ND	--	--
			2-Butanone	1.5	--	ND	1,000/50	--
			Chloroform	0.74	--	ND	19/1	--
			1,1,1-Trichloroethane	0.74	--	ND	210/50	--
			Carbon Tetrachloride	0.74	--	ND	2/1	--
			1,2-Dichloroethane	0.74	--	ND	6/1	--
			Benzene	0.74	--	ND	3/1	--
			Trichloroethene	0.74	--	ND	23/1	--
			1,2-Dichloropropane	0.74	--	ND	10/--	--
			Bromodichloromethane	0.74	--	ND	11/1	--
			2-Chloroethylvinylether	1.5	--	ND	--	--
			2-Hexanone	1.5	--	ND	--	--
			trans-1,3-Dichloropropene	0.74	--	ND	4/1	--
			Toluene	0.74	--	ND	1,000/500	--

TABLE 3
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	Soil Cleanup Criteria* (mg/kg)	Exceeds Criteria
D-2/8.5-9.0'	11/15/93	11/19/93	VOLATILE ORGANICS CONTINUED:					
			cis-1,3-Dichloropropene	0.74	--	ND	4/1	--
			1,1,2,2-Tetrachloroethane	0.74	--	ND	34/1	--
			1,1,2-Trichloroethane	0.74	--	ND	22/1	--
			4-Methyl-2-Pentanone	1.5	--	ND	1,000/50	--
			Tetrachloroethene	0.74	--	ND	4/1	--
			Dibromochloromethane	0.74	--	ND	110/1	--
			Chlorobenzene	0.74	--	ND	37/1	--
			Ethylbenzene	0.74	--	ND	1,000/100	--
			Total Xylenes	0.74	--	ND	410/10	--
			Styrene	0.74	--	ND	23/100	--
			Bromoform	0.74	--	ND	86/1	--
			m-Dichlorobenzene	0.74	--	ND	--	--
			p-Dichlorobenzene	0.74	--	ND	--	--
			o-Dichlorobenzene	0.74	--	ND	--	--
			methyl tertiary butyl ether	1.5	--	ND	70	--
			tertiary butyl alcohol	7.4	--	ND	500	--

TABLE 3
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID/Depth	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (mg/kg)	Compound of Concern	Result (mg/kg)	Soil Cleanup Criteria* (mg/kg)	Exceeds Criteria
D-2/8.5-9.0'	11/15/93	11/19/93	VOLATILE TICS:					
			Naphthalene,2-methyl-	--	--	9.3 J	--	--
			Nonane	--	--	1.4 J	--	--
			Naphthalene,1,2,3,4-tetrahydro-	--	--	1.4 J	--	--
			Benzene,1-methyl-3-propyl-	--	--	2.3 J	--	--
			Benzene,1-ethyl-2,3-dimethyl-	--	--	2.0 J	--	--
			Undecane	--	--	2.6 J	--	--
			Benzene,1-methyl-4-propyl-	--	--	1.5 J	--	--
			Benzene,1-methyl-3-(1-methylethy	--	--	1.4 J	--	--
			Benzene,2-ethyl-1,3-dimethyl-	--	--	2.5 J	--	--
			Benzene,(1ethylpropyl)-	--	--	5.3 J	--	--
			Benzene,1-methyl-2-(1-methylethy	--	--	3.3 J	--	--
			Benzene,1,2,3,4-tetramethyl-	--	--	2.3 J	--	--
			Naphthalene,decahydro-2-methyl-	--	--	4.3 J	--	--
			Benzaldehyde	--	--	2.4 J	--	--
			Ethanone,1-(2,4-dimethylphenyl)-	--	--	0.75 J	--	--
			Benzene,(1,1-dimethylpropyl)-	--	--	3.3 J	--	--
			Benzene,methyl(1-methylethyl)-	--	--	6.0 J	--	--
			TOTAL TICS:	--	--	52.05	--	--

TABLE 3
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result ug/l)	GWQC (ug/l)	Exceeds Criteria
Field Blank	11/15/93	11/19/93	VOLATILES :					
			Acrolein	50	--	ND	10	--
			Acylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	30	--
			Bromomethane	10	--	ND	10	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	5	--	17	700	--
			1,1-Dichloroethene	10	--	ND	2	--
			Carbon Disulfide	5	--	ND	800	--
			Methylene Chloride	5	--	4.2	2	yes
			1,2-Dichloroethene(trans)	5	--	ND	100	--
			1,1-Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	10	--	ND	7,000	--
			2-Butanone	5	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	--	ND	1	--
			Trichloroethene	5	--	ND	1	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	10	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	5	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	--	ND	1,000	--

TABLE 3
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
Field Blank	11/15/93	11/19/93	VOLATILE ORGANICS CONTINUED:					
			cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-Pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	--	ND	700	--
			Total Xylenes	5	--	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
Trip Blank	11/15/93	11/19/93	VOLATILE ORGANICS:					
			Acrolein	50	--	ND	10	--
			Acrylonitrile	50	--	ND	50	--
			Chloromethane	10	--	ND	30	--
			Bromomethane	10	--	ND	10	--
			Vinyl Chloride	10	--	ND	5	--
			Chloroethane	10	--	ND	--	--
			Acetone	10	--	12	700	--
			1,1-Dichloroethene	50	--	ND	2	--
			Carbon Disulfide	10	--	ND	800	--
			Methylene Chloride	5	--	2.5	2	yes
			1,2-Dichloroethene(trans)	5	--	ND	100	--
			1,1-Dichloroethane	5	--	ND	70	--
			Vinyl Acetate	5	--	ND	7,000	--
			2-Butanone	10	--	ND	--	--
			Chloroform	5	--	ND	6	--
			1,1,1-Trichloroethane	5	--	ND	30	--
			Carbon Tetrachloride	5	--	ND	2	--
			1,2-Dichloroethane	5	--	ND	2	--
			Benzene	5	--	ND	1	--
			Trichloroethene	5	--	ND	1	--
			1,2-Dichloropropane	5	--	ND	1	--
			Bromodichloromethane	5	--	ND	1	--
			2-Chloroethylvinylether	10	--	ND	--	--
			2-Hexanone	10	--	ND	--	--
			trans-1,3-Dichloropropene	5	--	ND	NA	--
			Toluene	5	--	ND	1,000	--

TABLE 3
POST-EXCAVATION SOIL SAMPLING RESULTS
BUILDING 689A, MAIN POST
FORT MONMOUTH, NEW JERSEY

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQC (ug/l)	Exceeds Criteria
Trip Blank	11/15/93	11/19/93	VOLATILE ORGANICS CONTINUED:					
			cis-1,3-Dichloropropene	5	--	ND	NA	--
			1,1,2,2-Tetrachloroethane	5	--	ND	2	--
			1,1,2-Trichloroethane	5	--	ND	3	--
			4-Methyl-2-Pentanone	10	--	ND	400	--
			Tetrachloroethene	5	--	ND	1	--
			Dibromochloromethane	5	--	ND	10	--
			Chlorobenzene	5	--	ND	4	--
			Ethylbenzene	5	--	ND	700	--
			Total Xylenes	5	--	ND	40	--
			Styrene	5	--	ND	100	--
			Bromoform	5	--	ND	4	--
			m-Dichlorobenzene	5	--	ND	--	--
			p-Dichlorobenzene	5	--	ND	--	--
			o-Dichlorobenzene	5	--	ND	--	--
			methyl tertiary butyl ether	10	--	ND	70	--
			tertiary butyl alcohol	20	--	ND	500	--
			VOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 3

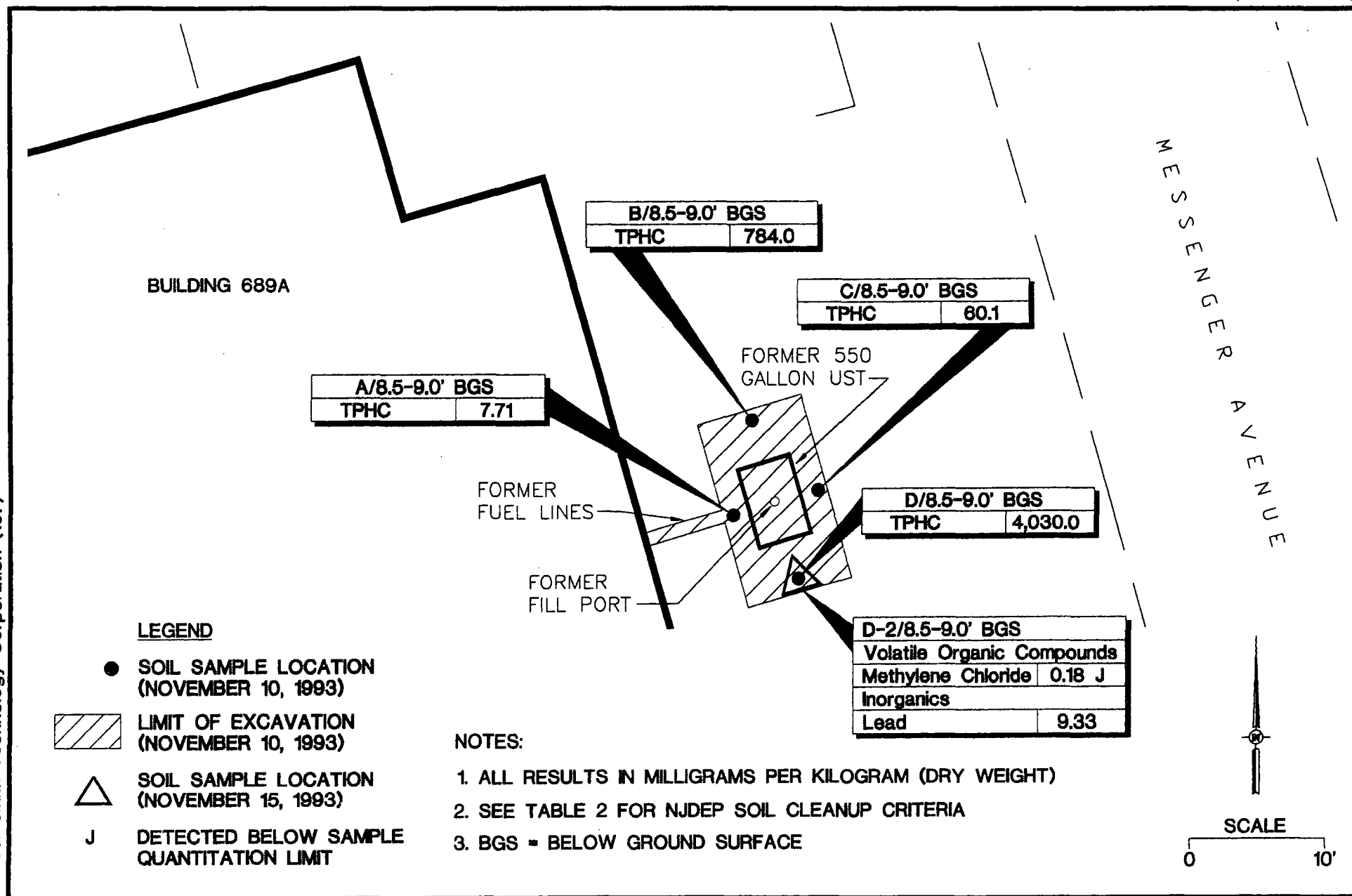
DATA ANALYSIS QUALIFIER DEFINITIONS
GROUNDWATER SAMPLING
FORT MONMOUTH, NEW JERSEY

--:	Not applicable / does not exceed criteria
(J):	Indicates detected below sample quantitation limit
(B):	Indicates also present in blank
(ND):	Indicates compound not detected
(NA):	Not available for this constituent
GWQS:	Groundwater Quality Standards

SMITH

U.S. Army
Department of Public Works
Fort Monmouth, New Jersey

Source: Smith Technology Corporation (167)



Project No. 09-5004-12

Figure 3
Building 689A
Soil Sampling Results

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-2	11/9/94	12/6/94	Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.05	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	0.05	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	1	--	ND	50	--
			SEMIVOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-2	11/9/94	11/16/94	Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	4	--	ND	2	yes
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-2	11/9/94	11/16/94	Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
			VOLATILE TICS:					
			Unknown Ketone	--	--	6 J	--	--
			Unknown Siloxane	--	--	5 J	--	--
			Unknown Siloxane	--	--	16 J	--	--
			Unknown Siloxane	--	--	6 J	--	--
			TOTAL TICS:	--	--	33	--	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	11/9/94	11/15/94	Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	3	2	yes
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	11/9/94	12/3/94	Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
VOLATILE TICS:								
NONE FOUND			--	--	--	--	--	

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/L)	Compound of Concern	Result (ug/L)	GWQS (ug/L)	Exceeds Criteria
Field Blank	11/9/94	12/3/94	bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	1	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	1	--	ND	600	--
			2,2'-oxybis(1-Chloropropane)	1	--	ND	--	--
			N-Nitroso-Di-N-propylamine	1	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	1	--	ND	10	--
			Isophorone	1	--	ND	100	--
			1,2,4-Trichlorobenzene	1	--	ND	9	--
			Naphthalene	1	--	ND	300	--
			Hexachlorobutadiene	1	--	ND	1	--
			bis(2-Chloroethoxy)methane	1	--	ND	--	--
			Hexachlorocyclopentadiene	1	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	2	--	2	--	--
			Acenaphthylene	1	--	ND	NA	--
			2,6-Dinitrotoluene	1	--	ND	NA	--
			Acenaphthene	1	--	ND	400	--
			2,4-Dinitrotoluene	1	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			4-Chlorophenyl-phenylether	1	--	ND	--	--
			Fluorene	1	--	ND	300	--
			n-Nitrosodiphenylamine	1	--	ND	20	--
			4-Bromophenyl-phenylether	1	--	ND	--	--
			Hexachlorobenzene	1	--	ND	10	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	11/9/94	12/3/94	Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.05	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	0.05	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	1	--	ND	50	--
			SEMIVOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	11/9/94	11/15/94	Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	6	--	6	2	yes
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	11/9/94	11/15/94	Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
VOLATILE TICS:								
NONE FOUND			--	--	--	--	--	

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-2	12/1/94	12/29/94	bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	1	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	1	--	ND	600	--
			2,2'-oxybis(1-Chloropropane)	1	--	ND	--	--
			N-Nitroso-Di-N-propylamine	1	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	1	--	ND	10	--
			Isophorone	1	--	ND	100	--
			1,2,4-Trichlorobenzene	1	--	ND	9	--
			Naphthalene	1	--	ND	300	--
			Hexachlorobutadiene	1	--	ND	1	--
			bis(2-Chloroethoxy)methane	1	--	ND	--	--
			Hexachlorocyclopentadiene	1	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	1	--	ND	NA	--
			2,6-Dinitrotoluene	1	--	ND	NA	--
			Acenaphthene	1	--	ND	400	--
			2,4-Dinitrotoluene	1	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			4-Chlorophenyl-phenylether	1	--	ND	--	--
			Fluorene	1	--	ND	300	--
			n-Nitrosodiphenylamine	1	--	ND	20	--
			4-Bromophenyl-phenylether	1	--	ND	--	--
			Hexachlorobenzene	1	--	ND	10	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-2	12/1/94	12/29/94	Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.5	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	0.05	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	100	--	ND	50	--
			SEMIVOLATILE TICS:					
			NONE FOUND	--	--	--	--	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-2	12/1/94	12/5/94	Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	ND	2	--
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, MW-2
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
MW-2	12/1/94	12/5/94	Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
VOLATILE TICS:								
NONE FOUND			--	--	--	--	--	

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	12/1/94	12/5/94	Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	ND	2	--
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, TRIP BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Trip Blank	12/1/94	12/5/94	Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
VOLATILE TICS:								
NONE FOUND			--	--	--	--	--	

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK (RE)
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank (RE)	12/1/94	1/9/95	bis(2-Chloroethyl)Ether	1	--	ND	10	--
			1,3-Dichlorobenzene	1	--	ND	600	--
			1,4-Dichlorobenzene	1	--	ND	75	--
			1,2-Dichlorobenzene	1	--	ND	600	--
			2,2'-oxybis(1-Chloropropane)	1	--	ND	--	--
			N-Nitroso-Di-N-propylamine	1	--	ND	20	--
			Hexachloroethane	1	--	ND	10	--
			Nitrobenzene	1	--	ND	10	--
			Isophorone	1	--	ND	100	--
			1,2,4-Trichlorobenzene	1	--	ND	9	--
			Naphthalene	1	--	ND	300	--
			Hexachlorobutadiene	1	--	ND	1	--
			bis(2-Chloroethoxy)methane	1	--	ND	--	--
			Hexachlorocyclopentadiene	1	--	ND	50	--
			2-Chloronaphthalate	1	--	ND	--	--
			Dimethylphthalate	1	--	ND	--	--
			Acenaphthylene	1	--	ND	NA	--
			2,6-Dinitrotoluene	1	--	ND	NA	--
			Acenaphthene	1	--	ND	400	--
			2,4-Dinitrotoluene	1	--	ND	10	--
			Diethylphthalate	1	--	ND	5,000	--
			4-Chlorophenyl-phenylether	1	--	ND	--	--
			Fluorene	1	--	ND	300	--
			n-Nitrosodiphenylamine	1	--	ND	20	--
			4-Bromophenyl-phenylether	1	--	ND	--	--
			Hexachlorobenzene	1	--	ND	10	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK (RE)
FORT MONMOUTH, NEW JERSEY
SEMIVOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank (RE)	12/1/94	1/9/95	Phenanthrene	1	--	ND	NA	--
			Anthracene	1	--	ND	2,000	--
			Di-n-butylphthalate	1	--	ND	900	--
			Fluoranthene	1	--	ND	300	--
			Pyrene	1	--	ND	200	--
			Butylbenzylphthalate	1	--	ND	100	--
			3,3'-Dichlorobenzidine	1	--	ND	60	--
			Benzo(a)anthracene	1	--	ND	0.05	--
			Chrysene	1	--	ND	5	--
			bis(2-Ethylhexyl)phthalate	1	--	ND	30	--
			Di-n-octylphthalate	1	--	ND	100	--
			Benzo(b)fluoranthene	1	--	ND	0.05	--
			Benzo(k)fluoranthene	1	--	ND	0.5	--
			Benzo(a)pyrene	1	--	ND	0.005	--
			Indeno(1,2,3-cd)pyrene	1	--	ND	0.05	--
			Dibenz(a,h)anthracene	1	--	ND	0.005	--
			Benzo(g,h,i)perylene	1	--	ND	NA	--
			N-nitrosodimethylamine	1	--	ND	20	--
			Benzidine	100	--	ND	50	--
			SEMIVOLATILE TICS:					
			Unknown	--	--	2 J	--	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	12/1/94	12/5/94	Chloromethane	2	--	ND	30	--
			Bromomethane	1	--	ND	10	--
			Vinyl Chloride	1	--	ND	5	--
			Chloroethane	1	--	ND	--	--
			Methylene Chloride	3	--	ND	2	--
			1,1-Dichloroethene	2	--	ND	2	--
			1,1-Dichloroethane	1	--	ND	70	--
			Chloroform	1	--	ND	6	--
			1,2-Dichloroethane	1	--	ND	2	--
			1,1,1-Trichloroethane	1	--	ND	30	--
			Carbon Tetrachloride	2	--	ND	2	--
			Bromodichloromethane	1	--	ND	1	--
			1,2-Dichloropropane	1	--	ND	1	--
			cis-1,3-Dichloropropene	1	--	ND	NA	--
			Trichloroethene	2	--	ND	1	--
			Dibromochloromethane	1	--	ND	10	--
			1,1,2-Trichloroethane	1	--	ND	3	--
			Benzene	1	--	ND	1	--
			trans-1,3-Dichloropropene	1	--	ND	NA	--
			Bromoform	1	--	ND	4	--
			Tetrachloroethene	3	--	ND	1	--
			1,1,2,2-Tetrachloroethane	2	--	ND	2	--
			Toluene	2	--	ND	1,000	--
			Chlorobenzene	2	--	ND	4	--
			Ethylbenzene	2	--	ND	700	--
			Xylene (total)	6	--	ND	40	--

TABLE 4
GROUNDWATER SAMPLING RESULTS
BUILDING 689A, MAIN POST, FIELD BLANK
FORT MONMOUTH, NEW JERSEY
VOLATILES (continued)

Sample ID	Sample Date	Analysis Date	Compound Name	Sample Quantitation Limit (ug/l)	Compound of Concern	Result (ug/l)	GWQS (ug/l)	Exceeds Criteria
Field Blank	12/1/94	12/5/94	Trichlorofluoromethane	2	--	ND	--	--
			Acrolein	20	--	ND	10	--
			Acrylonitrile	2	--	ND	50	--
			Tertiary Butyl Alcohol	100	--	ND	500	--
			Methyl Tertiary Butyl Ether	1	--	ND	70	--
			1,3-Dichlorobenzene	2	--	ND	600	--
			1,4-Dichlorobenzene	2	--	ND	75	--
			1,2-Dichlorobenzene	2	--	ND	600	--
			2-Chloroethylvinylether	4	--	ND	--	--
			trans,1,2-Dichloroethene	1	--	ND	100	--
VOLATILE TICS:								
NONE FOUND			--	--	--	--	--	

TABLE 4

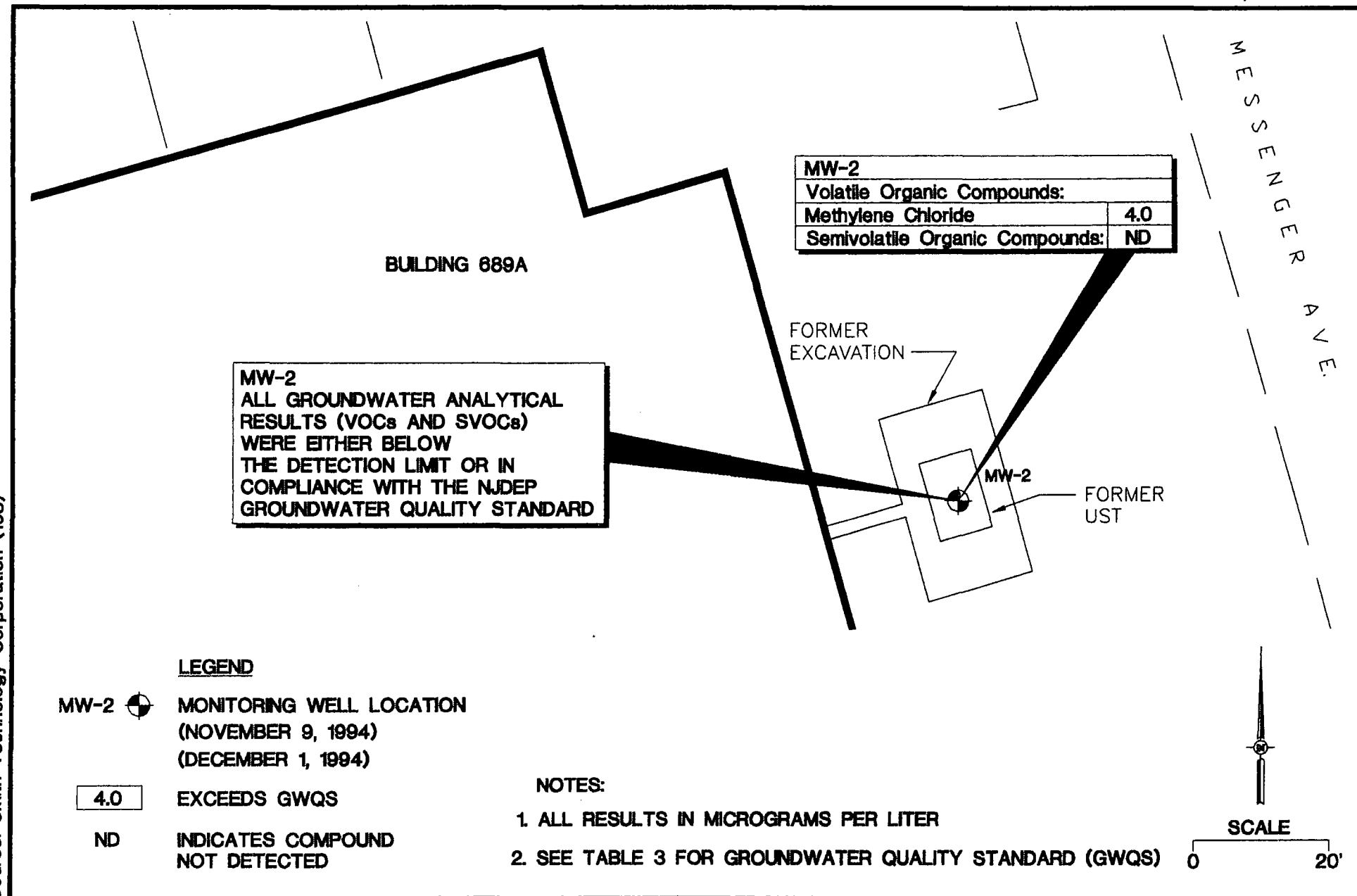
DATA ANALYSIS QUALIFIER DEFINITIONS
GROUNDWATER SAMPLING
FORT MONMOUTH, NEW JERSEY

--:	Not applicable / does not exceed criteria
(J):	Indicates detected below sample quantitation limit
(B):	Indicates also present in blank
(ND):	Indicates compound not detected
(NA):	Not available for this constituent
GWQS:	Groundwater Quality Standards

SMITH

U.S. Army
Department of Public Works
Fort Monmouth, New Jersey

Source: Smith Technology Corporation (168)



Project No. 09-5004-12

Figure 4
Building 689A
Groundwater Sampling Results

3.3 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 689A were below the NJDEP soil cleanup criteria for total organic contaminants.

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

Based on the analytical results of the groundwater samples collected on November 9, 1994 and December 1, 1994, groundwater quality at the Building 689A UST closure site complies with the New Jersey Groundwater Quality Standard for VOCs and SVOCs.

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

No further action is proposed in regard to the closure and site assessment of UST No. 081533-108 at Building 689A.

APPENDIX A

NJDEP BUST CLOSURE APPROVAL

UNDERGROUND STORAGE TANK SYSTEM CLOSURE APPROVAL

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL
PROTECTION AND ENERGY

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

TMS #

UST #

C-93-3887

0081533

US Army
BLDG. 689A
Ft. Monmouth, NJ

Monmouth

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

Removal of: one 550 gallon #2 diesel UST(s) and appurtenant
piping.

SITE ASSESSMENT: Soil samples will be taken every five (5) feet
along the center line of each tank and one (1) soil sample for
every 15 feet along all associated piping. Two (2) additional
samples will be taken from around the tank and biased to the areas
of highest field screened readings. Samples will be analyzed for
TPHC. If sample results are greater than 1,000ppm than 25% of the
samples will be analyzed for VO+10.

ON-SITE MANAGER: C. Appleby

908-532-1475
TELEPHONE:

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

APPENDIX B

CERTIFICATIONS

**UNDERGROUND STORAGE TANK (UST)
CLOSURE CERTIFICATION**

BUILDING NO. 689A

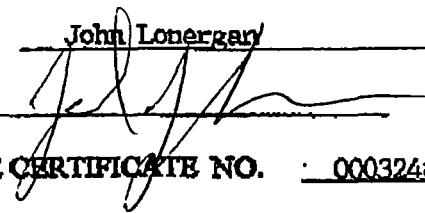
NJDEP UST REGISTRATION NO. 81533-108

DATE TANK REMOVED Nov. 9, 1993

UO / CONTRACT NUMBER 93-1017

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

APPENDIX C

WASTE MANIFEST



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

689A

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.	Manifest Document No.	2. Page 1 of 1	Information in the shaded areas is not required by Federal law.
3. Generator's Name and Mailing Address US Army Communications Electronics Command, c/o James Shirghio, Bldg 2504, ATTN: SELFM-DL-EM-MS Fort Monmouth, NJ 07703		5. US EPA ID Number NJ1JID101514112	6. US EPA ID Number NJ1JID101514112	A. State Manifest Document Number NJ 16032085	B. State Generator's ID MAIN POST BLDG# 689-A-B
4. Generator's Phone 908-532-6224	7. Transporter 1 Company Name Freehold Cartage, Inc.	8. US EPA ID Number NJ1JID101514112	9. US EPA ID Number NJ1JID101514112	C. State Transporter's ID NJ1JID101514112	D. Transporter's Phone 908-462-1000
9. Designated Facility Name and Site Address Lionetti Oil Recovery Co., Inc. Runyon & Cheesequake Rds. Old Bridge, NJ 08857		10. US EPA ID Number NJ1JID101514112	11. US EPA ID Number NJ1JID101514112	E. State Trans. ID NJ1JID101514112	F. Transporter's Phone 908-721-0900
12. DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)					
X Petroleum Oil NOS Class 3 (Petroleum Oil) Combustible Liquid UN 1270 PG III					
PETROLEUM OIL, N.O.S. CLASS 3 (PETROLEUM) X COMBUSTIBLE LIQUID, UN 1270 PG III					
13. Additional Descriptions for Materials Listed Above					
T, L Petroleum Oil 40% Water 60%					
14. Special Handling Instructions and Additional Information					
Not EPA regulated. Regulated as hazardous waste in NJ 24 Hour Emergency Response# 201-427-2881 NJ Decal# 55429 ERG# 27					
15. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are truly 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 placed 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 Name Charles M. Appleby - DPW		Signature 		Month Day Year 11/17/93	
Printed Name ANTONIO TRESCUOTO		Signature 		Month Day Year 11/17/93	

#629-A-B

A - UST # 81533-108

B - UST # 81533-109

GENERATOR CERTIFICATION

I hereby certify that the waste described on Hazardous Waste Manifest No. NTA-1603208 dated 11/11/93 is generated by one or more of the following processes and does not contain more than 2 ppm polychlorinated biphenyls (P.C.B.'s) and does not display any characteristic or contain any hazardous constituents other than for which waste oils are listed in New Jersey.

X721: Waste automotive crankcase and lubricating oils from automotive service and gasoline stations, truck terminals, and garages.

X722: Waste oil and bottom sludge generated from tank cleanouts from residential/commercial fuel oil tanks.

X723: Waste oil and bottom sludge generated by gasoline stations when gasoline and oil tanks are tested, cleaned or replaced.

X724: Waste petroleum oil generated when tank trucks or other vehicles or mobile vessels are cleaned, including, but not limited to, oil ballast water from product transport units of boats, barges, ships or other vessels.

X725: Oil spill cleanup residue which: A. is contaminated beyond saturation; or B. the generator fails to demonstrate that the spill material was not one of the listed hazardous waste oils.

X726: The following used and unused waste oils: metal working oils; turbine lubricating oils; diesel lubricating oils; and quenching oils.

X728: Bottom sludge generated from the processing, blending, and treatment of waste oil in waste oil processing facilities.

I am duly authorized to sign said certification.

Generator US ARMY COMMUNICATIONS ELECTRONICS COMMAND SHIR

Generator's EPA ID No. NT321002057

Address FORT MONMOUTH, NJ. BLDG 2504, MAIN POST BLDG #680

Print Name Charles M. Appleby Signature Ch Appleby

Title Enviro. Protection SPEC. - DPLW

Date Nov. 17 1993



FREE HAZARDOUS WASTE

P.O. BOX 30107
FREEHOLD, NJ 07728-0107
PHONE (800) 468-1001
FAX (800) 308-0820

175 BARTON FREEHOLD AIRPORT
BARTON FREEHOLD
PHONE (813) 533-8500
FAX (813) 533-8113

108 MONMOUTH AVENUE
DUNMORE, PA 15112
PHONE (717) 962-2222
FAX (717) 962-2222

MANIFEST NO. 1603358
G1745

STATE MANIFEST NO. 1603358

(X) HM	PROPER U.S. DOT SHIPPING NAME	U.S. DOT HAZARDOUS CLASS	PACKING GROUP	NAUN NO.	FORM	NET QTY	UNIT MEASURE
X 1	PETROLEUM OIL - N.O.S. (PET. OIL)	COMBUSTIBLE LIQUID	III	1270	L	543	G.
2							
3							

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

NTDEPS #- 2265-55429

GENERATOR NAME/ADDRESS U.S. ARMY COMMUNICATIONS ELECTRONICS COMMAND FORT MONMOUTH, N.J. MAIN POST		PHONE 908 (AREA CODE) 533-6224	GENERATOR EPA ID NO. NJ1361100010SP17	
TRACTOR N38		TRAILER NA	TIME AT GENERATOR (MILITARY TIME ONLY) 0700 ARRIVAL TIME DEPARTURE TIME	
FCI REP. LOADING (PRINT) ALFONSO TROCCATO	PROCEDURE VAC	BOX SPOTTED NA	BOX REMOVED NA	EQUIPMENT USED 1-VACUUM TRUCK
COMMENTS OR DELAYS AT GENERATOR #208-11/9/93 #209-11/8/93 #210-556205 #207-396 11/16/93 684-A-3 8406-A 600 3406 #296 81533-69 10 GAL A-6013-132 196 GAL 11/5/93				

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

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

GENERATOR'S SIGNATURE X	PLEASE PRINT NAME/TITLE	DATE LOADED 11/17/93 MO. DAY YR.
----------------------------	-------------------------	--

TSDF NAME/ADDRESS LIONETTI OIL RECOVERY RUNYON + CHESTER OLD BRIDGE, N.J.		PHONE 908 (AREA CODE) 731-0900	TSDF EPA ID NO. NJ100410141006	
TRACTOR 438		TRAILER NA	TIME AT TSDF (MILITARY TIME ONLY) ARRIVAL TIME DEPARTURE TIME	
FCI REP. UNLOADING (PRINT)	PROCEDURE NA	BOX SPOTTED NA	BOX REMOVED NA	EQUIPMENT USED
COMMENTS OR DELAYS AT TSDF				
TSDF SIGNATURE X		PLEASE PRINT NAME/TITLE		DATE UNLOADED 11/17/93 MO. DAY YR.

AR H-0257
PC 944
CT CT-HW-307
DE DE-HW-203
DE-SW-203
IL SWH-1540

ME ME-HWT-47
ME-WOT-47
MD HWH-167
91-OP-1765
MA MA-294
MN 61572

MO H-1490
ND WH-429
NH TNH-0047
NJ S-2265
15939
NY JA-113

NOVA SCOTIA, CANADA NSC 000 147
OH 333-HW-
OK 3358
ONTARIO, CANADA A 840843
PA PA-AH-0067

QUEBEC, CANADA QC-SML-047
RI RI-535
TX 40705
WI 11602

Original - FCI Office Copy
Yellow - FCI Office Copy
Blue - FCI Office Copy/Customs
Green - Retained by TSDF

G1745

INVOICE

INVOICE DATE	INVOICE NO.	P/
4/15/94	94042	1

Diversified Contracting
131 Racquet Rd.
Wall, NJ 07719

SOLD TO Directorate of Public Works
ATTN: SELFM-PW-CF (Mr. R. Sears)
Bldg 167
Fort Monmouth, NJ 07703-4132

SHIP TO Bldgs 689 and 2700
Fort Monmouth, NJ

PURCHASE ORDER NO.	SHIP VIA	SHIP DATE	TERMS
IJO 93-1017			Net 30

Replacement of asphalt over tank 689A excavation

4" thick stabilized base
36 sqyd @ \$30/sqyd

\$1,080.00

2" thick top FABC
36 sqyd @ \$13/sqyd

468.00

Removal of tank at Meyers Center UST 0081533-61
Total gallonage for contract = 10,100 gallons
at lump sum \$15,150, or \$1.50/gal
1,000 gal @ \$1.50/gal

1,500.00

Removal and disposal of #2 fuel
40 gal @ \$0.80/gal

32.00

Clean backfill

7.5 tons included for tank void
4 tons additional clean backfill @ \$11.70/ton

46.80/ton

Transporting of excavated contaminated soil
to Fort Monmouth storage areas
4 tons @ \$9/ton

36.00

Containerizing and relocating of hazardous
waste to Fort Monmouth storage areas
1 ct @ \$70/ct

70.00

OK to Big Well Pct 4/24/94

SALE AMOUNT	\$3,232.80
MISC. CHARGES SALES TAX FREIGHT	
TOTAL	\$3,232.80

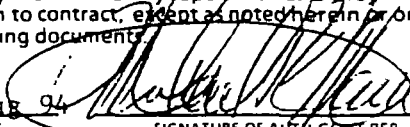
INVOICE FORM FOR UNDERGROUND STORAGE TANK REMOVAL (UST)
Individual Job Order (IJO) Numbers 98-1016, 93-1017, 93-1018,
and 93-1019

1. Lump Sum Tank Removal Price \$ 1,500.00
2. Asphalt prices:
- 3/4" dirty blend
stone _____ tons @ _____ /ton \$ N/A
- 4" thick stabilized
base 36 sqyd @ 30.00 /sqyd \$ 1,080.00 OK
- 2" thick top FABC 36 sqyd @ 13.00 /sqyd \$ 468.00 OK
3. Removal and proper disposal of
contaminated fuels:
- #2 fuel 40 gal @ 0.80 /gal \$ 32.00
- Gasoline _____ gal @ _____ /gal \$ N/A
- Clean backfill
materials 4 tons @ 11.70 /ton \$ 46.80 OK
- Top soil _____ tons @ _____ /ton \$ N/A
- 3/4" Clean Stone _____ tons @ _____ /ton \$ N/A
- Concrete/Black Top
Removal _____ tons @ _____ /ton \$ N/A
- Transporting of excavated
contaminated soil to Fort Monmouth
storage areas 4 tons @ 9 /ton \$ 36.00 OK
- Containerizing and relocating
of hazardous waste to Fort Monmouth
storage areas 1 ct @ 70.00 /ct \$ 70.00
- Tarpaulins _____ sqyd @ _____ sqyd \$ N/A
- 6 mil plastic _____ rolls @ _____ roll \$ N/A
4. Demolition and disposal
of fuel dispensers
(IJO 93-1019) _____ @ _____ /each \$ N/A

TOTAL

\$ 3,232.80

Total ⇒ \$1548.00
(689)

MATERIAL INSPECTION AND RECEIVING REPORT		1 PROC INSTRUMENT IDEN (CONTRACT)		1 ORDER NO	6 INVOICE	17 PAGE 1 OF 1
		DAAB08-92-A-0958 3272-E302				8 ACCEPTANCE POINT
2 SHIPMENT NO	3 DATE SHIPPED	4 B/L TCN		5 DISCOUNT TERMS		
9 PRIME CONTRACTOR DIVERSIFIED CONTRACTING 131 Racquet Rd Wall, N. J. 07719		10 ADMINISTERED BY DIR OF PUBLIC WORKS Building 167 Fort Monmouth, N. J. 07703-5000				
11 SHIPPED FROM (if other than 9)		12 PAYMENT WILL BE MADE BY		FINANCE & ACCOUNTING OFFICER Fort Monmouth, N. J. 07703-5000		
13 SHIPPED TO		14 MARKED FOR				
15 ITEM NO.	16 STOCK/PART NO. (Indicate number of shipping containers - type of container - container number)	DESCRIPTION	17 QUANTITY SHIP/REC'D	18 UNIT	19 UNIT PRICE	20 AMOUNT
		Remove underground fuel storage tanks, Bldgs 209,210,689,2700, DO 1-93AA (3rd Partial)				\$3,232.80
21 PROCUREMENT QUALITY ASSURANCE				22 RECEIVER'S USE		
A. ORIGIN ☐ PQA ☐ ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.		B. DESTINATION ☐ PQA ☒ ACCEPTANCE of listed items has been made by me or under my supervision and they conform to contract, except as noted herein or on supporting documents.		Quantities shown in column 17 were received in apparent good condition except as noted.		
DATE _____ SIGNATURE OF AUTH GOVT REP _____		DATE 19 Aug 94 SIGNATURE OF AUTH GOVT REP 		DATE RECEIVED _____ SIGNATURE OF AUTH GOVT REP _____		
TYPED NAME AND OFFICE _____		TYPED NAME AND TITLE MICHAEL R. MAIER COR		TYPED NAME AND OFFICE _____		
23. CONTRACTOR USE ONLY						

* If quantity received by the Government is the same as quantity shipped, indicate by (✓) mark, if different, enter actual quantity received below quantity shipped and encircle.

INVOICE

INVOICE DATE	INVOICE NO.
4/15/94	94042

Diversified Contracting
131 Racquet Rd.
Wall, NJ 07719

SOLD TO Directorate of Public Works
ATTN: SELFM-PW-CF (Mr. R. Sears)
Bldg 167
Fort Monmouth, NJ 07703-4132

SHIP TO Bldgs 689 and 2700
Fort Monmouth, NJ

PURCHASE ORDER NO.	SHIP VIA	SHIP DATE	TERMS
IJO 93-1017			Net 30

Replacement of asphalt over tank 689A excavation

4" thick stabilized base
36 sqyd @ \$30/sqyd \$1,080.00

2" thick top FABC
36 sqyd @ \$13/sqyd 468.00

Removal of tank at Meyers Center UST 0081533-61
Total gallonage for contract = 10,100 gallons
at lump sum \$15,150, or \$1.50/gal
1,000 gal @ \$1.50/gal 1,500.00

Removal and disposal of #2 fuel
40 gal @ \$0.80/gal 32.00

Clean backfill
7.5 tons included for tank void
4 tons additional clean backfill @ \$11.70/ton 46.80/ton

Transporting of excavated contaminated soil
to Fort Monmouth storage areas
4 tons @ \$9/ton 36.00

Containerizing and relocating of hazardous
waste to Fort Monmouth storage areas
1 ct @ \$70/ct 70.00

*SL for Report - Ch. G. 8-19-84,
11 1 UPR 8/19/94*

SALE AMOUNT	\$3,232.80
MISC. CHARGES	
SALES TAX	
FREIGHT	

INVOICE FORM FOR UNDERGROUND STORAGE TANK REMOVAL (UST)
Individual Job Order (IJO) Numbers 93-1016, 93-1017, 93-1018,
and 93-1019

1. Lump Sum Tank Removal Price		\$ <u>1,500.00</u>
2. Asphalt prices:		
3/4" dirty blend stone	<u> </u> tons @ <u> </u> /ton	\$ <u>N/A</u>
4" thick stabilized base	<u>36</u> sqyd @ <u>30.00</u> /sqyd	\$ <u>1,080.00</u>
2" thick top FABC	<u>36</u> sqyd @ <u>13.00</u> /sqyd	\$ <u>468.00</u>
3. Removal and proper disposal of contaminated fuels:		
#2 fuel	<u>40</u> gal @ <u>0.80</u> /gal	\$ <u>32.00</u>
Gasoline	<u> </u> gal @ <u> </u> /gal	\$ <u>N/A</u>
Clean backfill materials	<u>4</u> tons @ <u>11.70</u> /ton	\$ <u>46.80</u>
Top soil	<u> </u> tons @ <u> </u> /ton	\$ <u>N/A</u>
3/4" Clean Stone	<u> </u> tons @ <u> </u> /ton	\$ <u>N/A</u>
Concrete/Black Top Removal	<u> </u> tons @ <u> </u> /ton	\$ <u>N/A</u>
Transporting of excavated contaminated soil to Fort Monmouth storage areas	<u>4</u> tons @ <u>9</u> /ton	\$ <u>36.00</u>
Containerizing and relocating of hazardous waste to Fort Monmouth storage areas	<u>1</u> ct @ <u>70.00</u> /ct	\$ <u>70.00</u>
Tarpaulins	<u> </u> sqyd @ <u> </u> sqyd	\$ <u>N/A</u>
6 mil plastic	<u> </u> rolls @ <u> </u> roll	\$ <u>N/A</u>
4. Demolition and disposal of fuel dispensers (IJO 93-1019)		
	<u> </u> @ <u> </u> /each	\$ <u>N/A</u>
TOTAL		\$ <u>3,232.80</u>

ATTACHMENTS TO INVOICE 94042
MANIFEST NJA 1603175 (116. only - 40 gals)
MAZZA + SONS TICKET DATED Apr 6 1994 for Steel Scrap
BIG A FILL Ticket 18623 using 11.5 of 22.10 TONS
SAFE WORK PERMIT 4-5-94



State of New Jersey
Department of Environmental Protection and Energy
Hazardous Waste Regulation Program
Manifest Section
CN 928, Trenton, NJ 08625-0028

Please type or print in block letters. (Form designed for use on file (12-inch) typewriter.)

Form Approved. OMB No. 2000-0008. Expires 9-30-94

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NJ12121101012101718		Manifest Document No.		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.	
3. Generator's Name and Mailing Address Charles Wood Area, c/o James Shinghio, Bldg 2504 ATTN: SELEN-DL-KM-MS, Fort Monmouth, NJ 07703				4. Generator's Phone (908) 532-6223		5. State Hazardous Waste Document Number NJ12121101012101718		6. State Generator's ID NJ12121101012101718	
7. Transporter 1 Company Name Freshhold Cartage Inc				8. US EPA ID Number IL11111111111111111111		9. State Transporter's ID IL11111111111111111111		10. State Facility's ID IL11111111111111111111	
11. Designated Facility Name and Site Address Lionetti Oil Recovery Co., Inc. Runyon & Cheesequake Rds. Old Bridge, NJ 08857				12. US EPA ID Number NJ12121101012101718		13. State Facility's Phone (908) 721-0900		14. State Facility's ID NJ12121101012101718	
15. US DOT Description (including Proper Shipping Name, Hazard Class, and ID Number)				16. Containers		17. Total Quantity		18. Waste No.	
a. X Petroleum Oil, N.O.S. Class 3 (Petroleum Oil) Extremely Combustible Liquid UN 1270 PG III				No. Type		Total Quantity		Waste No.	
b. X PETROLEUM OIL, N.O.S. CLASS (3) PETROUUM OIL, COMBUSTIBLE LIQUID UN 1270 PG III				No. Type		Total Quantity		Waste No.	
c. Additional Descriptions for Materials Listed Above Petroleum Oil Water				No. Type		Total Quantity		Waste No.	
19. Special Handling Instructions and Additional Information NOT EPA REGULATED. REGULATED AS HAZARDOUS WASTE IN NJ. 11a. HHS #27 24 HOUR EMERGENCY PHONE: 201-427-2881 NJ DECAL# 2265-55364				12. Containers		17. Total Quantity		18. Waste No.	
20. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this certification 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. 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 am allowed.				Signature Charles M. Appleby		Month Day Year 10/10/94			
21. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name ALONSO TROCCATO				Signature ALONSO TROCCATO		Month Day Year 04/04/94			
22. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name				Signature		Month Day Year			
23. Discrepancy Indication Space									
24. 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 1000-22 (Rev. 9/82) Previous editions are obsolete.

1 - TSD MAIL TO - TSD'S STATE

SIGNATURE AND INFORMATION MUST BE LEGIBLE ON ALL COPIES

NJ12121101012101718

APPENDIX D

UST DISPOSAL CERTIFICATE

MAZZA & SONS, INC.

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

NO. _____

DATE 9 Nov 73

Customer's Name _____

Clayton Ford

Address _____

Make of
Autos

42340 LB 6

39240 LB 6

3100

Tires

Tank

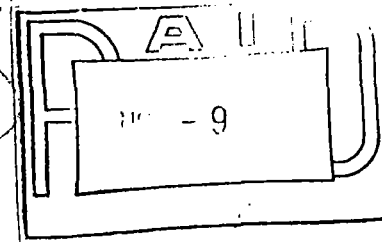
Bldg 600

Price:

689A

UST # 0081533-212-Bldg. 600

UST # 0081533-108-Bldg. 689A



Weight

Price

Cast Iron

Steel

Lt. Iron

Copper #1

Copper #2

Lt. Copper

Brass

Alum Clean

Lead

Stainless

Radiators

Battery

46.50

TOTAL AMOUNT:

Weigher _____

Customer

Dan Ellis

APPENDIX E

MONITORING WELL PERMIT AND CONSTRUCTION LOG

607 SERIAL # 37091
DWR-133M (7/92)

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

Mail to

Water Allocation
CN 029
Trenton, N.J. 08625

MONITORING WELL PERMIT

Permit No. 2913656

689A/B MW-1

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

COORD #

Owner US ARMY FORT MONMOUTH
Address Fort Monmouth, NJ 07703
Name of Facility GENERAL SITE (MAIN BAST)
Address Fort Monmouth, NJ 07703

Driller Tree Organization, LTD
Address 1350 RT 130 S
Burlington, NJ 08016

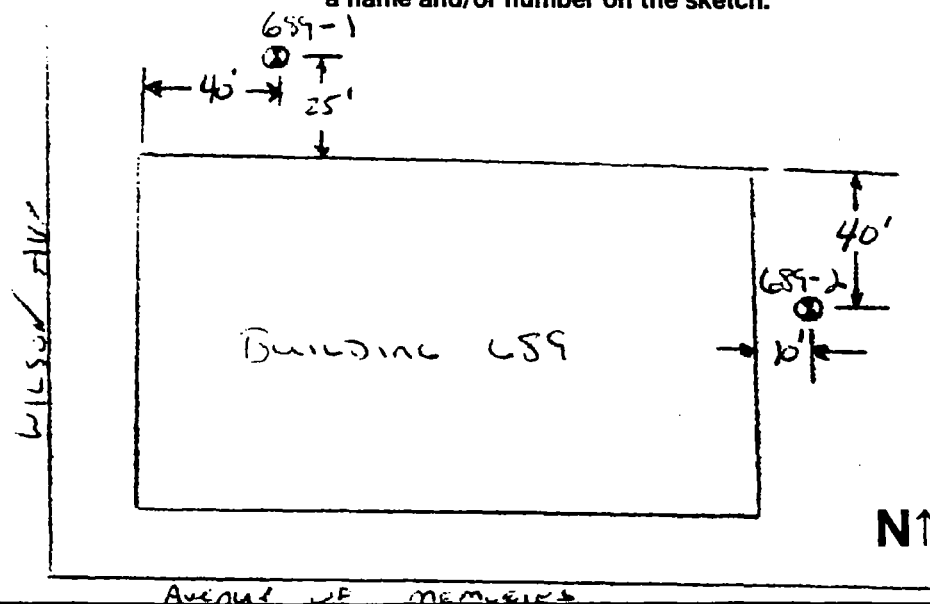
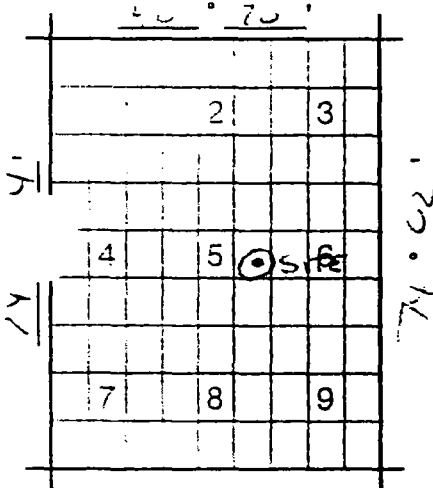
Diameter of Well(s)	4	Inches	Proposed Depth of Well(s)	15	Feet
# of Wells Applied for (max. 10)	2		Will pumping equipment be installed? YES ☐ NO ☒		
Type of Well (see reverse)	Monitoring / 1350 RT		If Yes, give pump capacity		GPM

LOCATION OF WELL(S)

Lot #	Block #	Municipality	County
		Fort Monmouth	Monmouth

State Atlas Map No. 57

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 Fund Case
- ☐ ECRA Case
- ☐ CERCLA (Superfund) Site
- ☐ RCRA Site
- ☒ Underground Storage Tank
- ☐ NJPDES Municipal Discharge Permit
- ☐ NJPDES Industrial Discharge Permit
- ☐ Water and Hazardous Waste Enforcement Case
- ☐ Water Supply Aquifer Test Observation Well
- ☐ Other (explain)

Case I.D. Number

① 93-11-17-1759-33
② 93-11-10-758-23

This Space for Approval Stamp

WELL PERMIT APPROVED
Dept. of Environmental Protection
Water Resources/Water Allocation

APR 5 1994

FOR
D.E.P.E.
SE

- ☐ 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.

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 4-5-1994

Signature of Driller

License # 1421

Signature of Owner

SELM-PW-2

Health Dept. - Yellow

Owner - Blue

Driller - White



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

LOG OF BORING 689A + B-MW2

(Page 1 of 1)

Produced for Charles Appleby

Project Name : BLDG. 689
NJDEP Case # : 93-11-17-1759-33
Logged By : TYREE INC.
Start Date : 7/15/94

Completion Date : 7/15/94
Northing : N 539324.255
Easting : E 2172033.213
Driller : M. Beck

Depth in Feet	29-30967 ELEV: 14.23	DESCRIPTION	GRAPHIC	USCS	Samples	Blows/Ft	Well Construction Information
0		Asphalt				14	Well Construction Date Completed : 7/15/94 Hole Diameter : 8 in Drill Method : HSA Company Rep : M. Beck Well Casing Material : PVC Diameter : 4 in Joints : Threaded Well Screen Material : PVC Diameter : 4 in Joints : Threaded Opening : 20 Slot Sand Pack : # 2 Morie Sand Annulus Seal : Bentonite/Portland Tremmie Well Screen Material : PVC Diameter : 4 in Cap : NOTES Well #1 is 689A + B MW2
1		Brown sand and clay		SC			
2		Green clay and coarse sand		SC			
4		Hard brown clay and silt		CL			
6							
8							
10							
12							
12.5							
14							

MONITORING WELL CERTIFICATION-POEM B-LOCATION CERTIFICATION

Name of Permittee: U.S. ARMY
Name of Facility: FORT MONMOUTH
Location: MONMOUTH COUNTY, NJ
Case NJPDES Number: 93-11-1759-33

689A/B MW-2

LAND SURVEYOR'S CERTIFICATION

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

99-30967-

Longitude (to nearest second):

West 74° 02' 59.29"

Latitude (to nearest second):

North 40° 18' 44.49"

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

14.23

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

14.86

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

Source: FM-3

☒ 1927 ☐ 1983

Elev.: 17.57

Owners Well Number (As shown on
application or plans):

BLOG 689 A/B MW-2

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

AUTHENTICATION

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

Wayne W. Burgett
PROFESSIONAL LAND SURVEYOR'S SIGNATURE

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

SEAL

31654
PROFESSIONAL LAND SURVEYOR'S LICENSE #

MONITORING WELL RECORD

Well Permit No. 29 - 30967
Atlas Sheet Coordinates 29 : 13 : 656OWNER IDENTIFICATION - Owner U S ARMY FORT MONMOUTHAddress _____
City FORT MONMOUTH State NJ Zip Code _____

WELL LOCATION - If not the same as owner please give address.

Owner's Well No. Blk 1081A-B MW-2County MONMOUTH Municipality OCEANPORT BORO Lot No. N/A Block No. N/A

Address _____

TYPE OF WELL (as per Well Permit Categories) MONITORINGDate well completed 7/14/94Regulatory Program Requiring Well DETCase I.D. # 93-11-17-175933

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

WELL CONSTRUCTION

Total depth drilled 12 1/2 ft.Well finished to 12 1/2 ft.

Borehole diameter:

Top 8 in.Bottom 8 in.Well was finished: ☐ above grade
☒ flush mountedWell finished above grade, casing
height (stick up) above land
surface _____ ft.

Was steel protective casing installed?

☐ Yes ☒ NoStatic water level after drilling 4 1/2 ft.Water level was measured using TAPEWell was developed for 1 hours at 10 gpmMethod of development PUMPWas permanent pumping equipment installed? ☐ Yes ☒ No

Pump capacity _____ gpm

Pump type: _____

Drilling Method AUGERDrilling Fluid _____ Type of Rig B-80Name of Driller Michael E BeckHealth and Safety Plan submitted? ☒ Yes ☐ NoLevel of Protection used on site (circle one) None D C B AN.J. License No. 1421

Name of Drilling Company _____

	Depth to Top (ft.) [From land surface]	Depth to Bottom (ft.)	Diameter (inches)	Type and Material
Inner Casing	6"	2'	4"	PUC
Outer Casing (Not Protective Casing)				
Screen (Note slot size)	2'	12 1/2'	4"	205167 PUC
Tail Piece				
Gravel Pack	1'	12 1/2'		#2
Annular Seal/Grout	0	1'		benonite
Method of Grouting	<u>Pour</u>			

GEOLOGIC LOG

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

C-4" ASPHALT
4"-5' brown Sand
+ Clay
5'-8' Green Clay + Sand
8'-12 1/2' coarse
hard brown clay
AND SILT

I certify that I have drilled the above-referenced well in accordance with all well permit requirements and all applicable
state rules and regulations.Driller's Signature Michael E BeckDate 7-18-94

APPENDIX F

SOIL ANALYTICAL DATA PACKAGE

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

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

Lab. ID #: 1324.1-4
Sample Rec'd: 11/10/93
Analysis Start: 11/12/93
Analysis Comp: 11/12/93

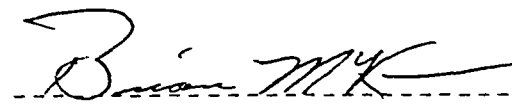
Analysis: 418.1 (TPH)
Matrix: Soil
Analyst: S. Hubbard
Ext. Method: SONC.

NJDEPE UST Reg. #:	81533-108
Closure #:	C-93-3887
DICAR #:	93-11-10-758-23
Location #:	Bldg. # 689A

Lab ID.	Description	%Solid	Result (mg/Kg)	MDL
1324.1	Site A, 8.5 - 9' hNu = 2.	86	7.71	3.3
1324.2	Site B, 8.5- 9' hNu = ND	88	784.	23.
1324.3	Site C, 8.5 - 9' hNu = 10.	83	60.1	9.9
1324.4	Site D, 8.5 - 9' hNu = 11.	88	4030.	69.
M. BL.	Method Blank	100	ND	3.3

Notes: ND = Not Detected, MDL = Method Detection Limit
* = Silica Gel Added

1324.3 Dup. = 82% 1324.3 Spike = 90% 1324.3 Spike Dup. = 88% RPD: 97%



Brian K. McKee
Laboratory Director

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.

☒ ☐

5. Extraction holding time met. (If not met, list number of days exceeded for each sample)

☐ ☒

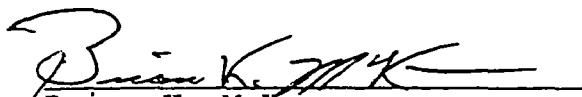
6. Analysis holding time met. (If not met, list number of days exceeded for each sample)

☐ ☒

Comments:

Laboratory Authentication Statement

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


Brian K. McKee
Laboratory Manager

Nov. 12, 1993 Sarah Hubbard

1324.1 6 MV

1324.1 Dup
7 MV

1324.2 Spk 96 MV

1324.1 Spk Dup
94 MV

1324.2 70 MV (dil 7)

1324.3 13 MV

1324.4 119 MV (dil 7)

1325.1 201 MV (dil 13)

1325.2 277 MV

1325.3 114 MV (dil 7)

1325.4 177 (dil 7)

1325.5 106 (dil 7)

1325.6 309 MV (dil 7)

1326.1 13 MV

1326.2 8 MV

1326.3 6 MV

PRINTED IN U.S.A.

105-6370-100

195-6970-00

PRINTED IN U.S.A.

November 12, 1993

1200
John J. Hubbard

Blank 0 MV

33.75 80 MV

67.5 159 MV

R. 9999

135 313 MV

1322.1 253 MV

1322.2 37 MV

1322.3 57 (207)

1322.4 112 MV

1322.5 191 MV

1323.1 125 MV

1323.2 278 MV

1323.3 ND

1323.4 207 MV

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

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

Lab. ID #: 1324.1-.4
Sample Rec'd: 11/10/93
Analysis Start: 11/11/93
Analysis Comp: 11/11/93

Analysis: Munsel

Lab ID#	Soil Color
1324.1	5Y 4/2 Olive Gray
1324.2	5Y 4/2 Olive Gray
1324.3	5Y 5/2 Olive Gray
1324.4	5Y 4/3 Olive

Brian K. McKee
Laboratory Director

11/15/93 11:14 AM



Bldg. 689A
clear

Autone Lab
Continuity

12/7/93

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

E-SYSTEMS, INC.

PROJECT: U.S. ARMY-FORT MONMOUTH, NJ BLDG 689A

ANALYSIS NO:

CLIENT ID:

A 5368

1331.1

A 5369

1331.2

A 5370

1331.3

DATE RECEIVED: NOVEMBER 17, 1993

TWENTY FIRST CENTURY
ENVIRONMENTAL, INC.

RICHARD W. LYNCH
LABORATORY MANAGER

LICENSED ANALYTICAL LABORATORY #08031

CERTIFICATE OF ANALYSISU.S. ARMY-FORT MONMOUTH, NJ BLDG 689ALEADANALYSIS NO:CLIENT ID:MDL (mg/Kg)RESULT (mg/Kg)

A 5368

1331.1

5.00

9.33

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	<u>Soil</u>
SAMPLE NUMBER	<u>85368</u>	DILUTION FACTOR	<u>125.00</u>
CLIENT ID	<u>55122-BLOS 689A 1331.1</u>	QA BATCH	
DATA FILE	<u>064684</u>	DATE ANALYZED	<u>11/19/93</u>

COMPOUND	UG/KG	MDL	COMPOUND	UG/KG	MDL
Acrolein	ND	7400	Bromodichloromethane	ND	740
Acrylonitrile	ND	7400	2-Chloroethylvinylether	ND	1500
Chloromethane	ND	1500	2-Hexanone	ND	1500
Bromomethane	ND	1500	trans-1,3-Dichloropropene	ND	740
Vinyl Chloride	ND	1500	Toluene	ND	740
Chloroethene	ND	1500	cis-1,3-Dichloropropene	ND	740
Acetone	ND B	1500	1,1,2,2-Tetrachloroethane	ND	740
1,1-Dichloroethene	ND	740	1,1,2-Trichloroethane	ND	740
Carbon Disulfide	ND	1500	4-Methyl-2-pentanone	ND	1500
Methylene Chloride	100 J	740	Tetrachloroethene	ND	740
1,2-Dichloroethene(trans)	ND	740	Dibromochloromethane	ND	740
1,1-Dichloroethane	ND	740	Chlorobenzene	ND	740
Vinyl Acetate	ND	740	Ethylbenzene	ND	740
2-Butanone	ND	1500	m,p-Xylenes	ND	740
Chloroform	ND	740	o-Xylene	ND	740
1,1,1-Trichloroethane	ND	740	Styrene	ND	740
Carbon Tetrachloride	ND	740	Bromoform	ND	740
1,2-Dichloroethane	ND	740	m-Dichlorobenzene	ND	740
Benzene	ND	740	p-Dichlorobenzene	ND	740
Trichloroethene	ND	740	o-Dichlorobenzene	ND	740
1,2-Dichloropropene	ND	740			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	95.5	70 - 121	OK
Toluene-d8	105	81 - 117	OK
Bromofluorobenzene	110	74 - 121	OK

Percent Solid of 85.0 is used for all Target compounds.

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

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	05369	DILUTION FACTOR	1.00
CLIENT ID	1331.2 BLDG 689A	QA BATCH	
DATA FILE	>04474	DATE ANALYZED	11/18/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloroethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	17	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	4.2 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethene(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethene	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m,p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropane	ND	5			

SURROGATE COMPOUNDS	% RECOVERY	LIMITS	STATUS
1,2-Dichloroethane-d4	105	76 - 114	OK
Toluene-d8	99.8	88 - 110	OK
Bromofluorobenzene	102	86 - 115	OK

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

21st Century Environmental Inc.
VOLATILE ORGANIC ANALYSIS DATA

JOB NUMBER		MATRIX	Water
SAMPLE NUMBER	65370	DILUTION FACTOR	1.00
CLIENT ID	1331.3 BLDG 689A	QA BATCH	
DATA FILE	784475	DATE ANALYZED	11/18/93

COMPOUND	UG/L	MDL	COMPOUND	UG/L	MDL
Acrolein	ND	50	Bromodichloromethane	ND	5
Acrylonitrile	ND	50	2-Chloroethylvinylether	ND	10
Chloromethane	ND	10	2-Hexanone	ND	10
Bromomethane	ND	10	trans-1,3-Dichloropropene	ND	5
Vinyl Chloride	ND	10	Toluene	ND	5
Chloroethane	ND	10	cis-1,3-Dichloropropene	ND	5
Acetone	12	10	1,1,2,2-Tetrachloroethane	ND	5
1,1-Dichloroethene	ND	5	1,1,2-Trichloroethane	ND	5
Carbon Disulfide	ND	10	4-Methyl-2-pentanone	ND	10
Methylene Chloride	2.5 J	5	Tetrachloroethene	ND	5
1,2-Dichloroethane(trans)	ND	5	Dibromochloromethane	ND	5
1,1-Dichloroethane	ND	5	Chlorobenzene	ND	5
Vinyl Acetate	ND	5	Ethylbenzene	ND	5
2-Butanone	ND	10	m,p-Xylenes	ND	5
Chloroform	ND	5	o-Xylene	ND	5
1,1,1-Trichloroethane	ND	5	Styrene	ND	5
Carbon Tetrachloride	ND	5	Bromoform	ND	5
1,2-Dichloroethane	ND	5	m-Dichlorobenzene	ND	5
Benzene	ND	5	p-Dichlorobenzene	ND	5
Trichloroethene	ND	5	o-Dichlorobenzene	ND	5
1,2-Dichloropropene	ND	5			

<u>SURROGATE COMPOUNDS</u>	<u>% RECOVERY</u>	<u>LIMITS</u>	<u>STATUS</u>
1,2-Dichloroethane-d4	105	76 - 114	OK
Toluene-d8	100	88 - 110	OK
Bromofluorobenzene	98.9	86 - 115	OK

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

APPENDIX G

GROUNDWATER ANALYTICAL DATA PACKAGE

APPENDIX G

GROUNDWATER ANALYTICAL DATA PACKAGE



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc

Project No.: 9421415

Log in No.: 22521P

P.O. No.: Pending

Date: 2/20/95

SDG No.: Army 2

NJDEPE Case #: 93-11-10-758-23

ANALYTICAL DATA REPORT

PACKAGE FOR

Aguilar Associates

30 Freneau Avenue

Matawan, NJ 07747

ATTN: Darryl Schmitt

REF: US Army Fort Monmouth, Well# and NJDEPE Reg# 1- 2930966

Sample Location Bldg. 689A

LABORATORY
NUMBER

SAMPLE
IDENTIFICATION

TYPE OF
SAMPLE

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

NYS Lab ID. #10195

NJ Cert. #73469

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

REMO GIGANTE
EXEC. VICE PRESIDENT

Report on sample(s) furnished by client applies to sample(s) Report on sample(s) obtained by us applies only to lot sampled Information contained herein is not to be used for reproduction except by special permission Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense

NYTEST ENVIRONMENTAL Inc.

LABORATORY NUMBER	SAMPLE IDENTIFICATION	WELL #	TYPE OF SAMPLE
2252109	689A-1	1-2930966	Water
2252101	814-FB	-	Water
2252102	814-TB	-	Water

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B. NEi Sample/Analysis Discrepancy Forms	NA
C. Laboratory Deliverable Checklists	5 - 7
D. Laboratory Chronicle.	8
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F. Methodology Summary	13 - 14
G. Data Reporting Qualifiers	15
II. GC/MS Data.	16
A. Volatile Data.	17 - 46
B. Semivolatile Data.	47 - 73

BLDG.#: 689A MW#: 1 NJDEPE WELL ID # 2930966

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

DATE: 1/3/94

IJO#94-0843 B

SAMPLING CONTRACTOR: Aguilar Associates Inc.

LABORATORY: NYTEST Environmental Inc. CERT #:73469

SAMPLERS NAMES: D. Schmitt, T. DeMichele, C. Aguilar, S. Panizzi, W. Rillwitz

WEATHER CONDITIONS: 65°F Sunny

ELEVATION OF CASING SURVEY MARK: 15.63

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 12.58 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: 2.0 FT

LENGTH OF SCREENED SECTION: 10.5 FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 7.23 FT

ELEVATION OF GW PRIOR TO PURGING: 8.40 FT

THICKNESS OF LNAPL PRIOR TO PURGING: - FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS
REMOVED: 0.5 PPM

pH: 5.01 TEMP: 20 C, SPECIFIC CONDUCTIVITY: 490 μ S

DEPTH OF WELL: 12.58 FT

D.O. - 4.8

HEIGHT OF WATER: 5.35 FT

EVACUATED GAL. H2O: 10 GAL (5.35 X .65 X 3 = 10.43)

PURGING START TIME: 3:01 END TIME: 3:13

PURGE METHOD: REDI-FLOW 2 INCH SUBMERSIBLE PUMP VARIABLE

FLOW RATE OF <0.5 GPM TO >5.0 GPM

PURGE RATE (<0.5 GPM): < 1 GPM

TOTAL VOLUME PURGED: 10 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.77 FT

DISSOLVED OXYGEN: 4.9 pH: 4.77 TEMP: 20 °C

SPECIFIC CONDUCTIVITY: 480 μ S

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

START TIME OF SAMPLING: 3:20 END TIME: 3:25

DISSOLVED OXYGEN: 6.1 pH: 4.25 TEMP: 19 °C

SPECIFIC CONDUCTIVITY: 720 μ S

COMMENTS: _____

U.S. ARMY FORT MONMOUTH

P.O. #: Aguiar / 94-0843

Chain of Custody

Project #: <u>93-11-10-758-23</u>		Sampler: <u>D. Schmitt</u>		Date / Time <u>11/9/94</u> <u>1600</u>		Analysis Parameters		Start:	
Customer: <u>C. Appleby</u>		Site Name: <u>Bldg 689A</u> <u>DECLAR # - 93-11-10 758-23</u>						Finish:	
Phone: <u>(908) 532-6124</u>		MW Sampling						Preservation Method	
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Analysis Parameters				Remarks
<u>1719.1</u>	<u>11/4/94</u> <u>1520</u>	<u>MW-1, 2130966</u>	<u>AQ</u>	<u>4</u>	<u>2</u>	<u>2</u>		<u>05</u>	<u>Sample kept 49°C</u>
<u>1716.1</u>	<u>11/4/94</u> <u>0815</u>	<u>Field Blank</u>	<u>AQ</u>	<u>4</u>	<u>2</u>	<u>2</u>			
<u>.2</u>	<u>1</u>	<u>Trip Blank</u>	<u>1</u>	<u>2</u>	<u>2</u>				<u>Hum SA/SCI487</u>
<u>.3</u>	<u>0845</u>	<u>Duplicate</u>	<u>1</u>	<u>4</u>	<u>2</u>	<u>2</u>			<u>Hum = 6.5</u> <u>calibrated 11/4/94</u>
Relinquished By (signature) <u>Daniel W. Schmitt</u>		Date / Time <u>11-9-94</u> <u>1620</u>		Received By (signature) <u>B. MK</u>		Shipped By:			
Relinquished By (signature) <u>B. MK</u>		Date / Time <u>11/10/94</u> <u>1530</u>		Received for Lab by (signature): <u>by C. J. E</u>		Date / Time <u>11/10/94</u> <u>1530</u>			
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody.									



(516) 625-5500

FAX: (516) 625-1274

page # : 7 of 1

[illegible]



(516) 625-5500 FAX: (516) 625-1274

page # : 1 of 1

Analysis Requested									
No. of Containers	604+N, xy/enos, TBA MTBE	Base Neutrals							
Bin #'s In / Out (For Lab Use Only)									

Login #: _____
 Ship to:
 Nytest Environmental Inc.
 60 Seaview Blvd
 Port Washington N.Y. 11050
 Attn.: Sample Control
 Date Shipped: _____
 Carrier: _____
 Air Bill #: _____
 Cooler #: _____
 C of C #: _____
 SDG #: _____
 NEI QT #: _____

[illegible]

Lab Use Only

Chemistry Book:	Index	Review	Absent
Sample Rec'd in Good Condition? :		Y	N
Sample Temperature: <u>4</u>		Degrees Celsius	
INSPECTED BY: <u>PC</u>			
COMMENTS: _____ _____ _____ _____ _____ _____			

CLIENT RETAINS YELLOW COPY ONLY

INTERNAL CHAIN OF CUSTODY

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample			NAME: <u>P. R.</u>	TITLE: <u>SLC</u>
Client: <u>Agvilar</u>	Date Broken: <u>11/10/94</u>	Military Time Seal Broken: <u>2000</u>		
Login #: <u>22521</u>	Analytical Parameter/Fraction: <u>8080 PEST HERB TBN625+15</u> <u>P 624+15 P/B</u>			

SAMPLE NO.	ALIQUT/EXTRACT NO.	SAMPLE NO.	ALIQUT/EXTRACT NO.
22521 - 01	814-FB	13	1076-1
" - 02	814 TB	14	1076-2
" - 03	814-DUP	15	1073
" - 04	814-1	16	1076 3MS
" - 05	287-1	17	1076 3MSD
" - 06	288B-1	18	689B-2
" - 07	282-1	19	2044-1
" - 08	207B-1	20	2044-2
" - 09	689A-1	21	2044-3
" - 10	600-1	22	2044-FB
" - 11	2700-4-1	23	2044 DUP
" - 12	1220-1	24	2044 TB

DATE	TIME	RELINQUISHED BY	RECIEVED BY	PURPOSE OF CHANGE OF CUS.
11/1/94	1600	PRINTED NAME <u>M. LANI</u> SIGNATURE <u>M. Lan</u>	PRINTED NAME <u>C Voss</u> SIGNATURE <u>C Voss</u>	8080 PEST HERB, TBN625+15
11/4/94	0800	PRINTED NAME <u>M. LANI</u> SIGNATURE <u>M. Lan</u>	PRINTED NAME <u>S Carver</u> SIGNATURE <u>S Carver</u>	P624+15
11/16/94	1330	PRINTED NAME <u>C Voss</u> SIGNATURE <u>C Voss</u>	PRINTED NAME <u>R Fietky</u> SIGNATURE <u>R Fietky</u>	Storage
11/22/94	1600	PRINTED NAME <u>M. LANI</u> SIGNATURE <u>M. Lan</u>	PRINTED NAME <u>H. Trejillo</u> SIGNATURE <u>H. Trejillo</u>	Metals
11/30/94	1500	PRINTED NAME <u>H. Trejillo</u> SIGNATURE <u>H. Trejillo</u>	PRINTED NAME <u>M. LANI</u> SIGNATURE <u>M. Lan</u>	Storage
12/4/94	0815	PRINTED NAME <u>S Carver</u> SIGNATURE <u>S Carver</u>	PRINTED NAME <u>M. LANI</u> SIGNATURE <u>M. Lan</u>	Storage
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	000004

LABORATORY DELIVERABLES

Check if
Complete

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

Jon Bay
Laboratory Manager or Environmental
Consultant's Signature

2/21/95
Date

000005

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

- | | <u>No</u> | <u>Yes</u> |
|--|-----------|------------|
| 1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks) | — | ✓ |
| 2. GC/MS Tune Specifications | | |
| a. BFB Meet Criteria | — | ✓ |
| b. DFTPP Meet Criteria | — | ✓ |
| 3. GC/MS Tune Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series. | — | ✓ |
| 4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series | — | ✓ |
| 5. GC/MS Calibration Requirements | | |
| a. Calibration Check Compounds | — | ✓ |
| b. System Performance Check Compounds | — | ✓ |
| 6. Blank Contamination - If yes, list compounds and concentrations in each blank: | | |

a. VOA fraction

b. B/N Fraction

c. Acid Fraction

7. Surrogate Recoveries Meet Criteria

If not met, list those compounds and their recoveries which fall outside the acceptable range:

a. VOA Fraction

b. B/N Fraction

c. Acid Fraction

If not met, were the calculations checked and the results qualified as estimated?

NA

8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list these compounds and their recoveries which fall outside the acceptable range)

a. VOA Fraction

b. B/N Fraction

c. Acid Fraction

9. Internal Standard Area/Retention Time Shift Meet Criteria

NA

000006

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

	<u>No</u>	<u>Yes</u>
10. Extraction Holding Time Met	<u> </u>	<u> ✓ </u>

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

11. Analysis Holding Time Met	<u> </u>	<u> ✓ </u>
-------------------------------	---------------	--------------

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

Addition... Comments: _____

Laboratory Manager: Don Bay Date 2/21/95

000007

Laboratory Chronicle

Client Name: Aguilar Associates

Log In No.: 22521P

Date(s) of Sample Collection: 11/9/94

Date Received: 11/10/94

Sample ID: As per chain of custody

Organics Extraction:

1. Acids _____
11/13/94
2. Base/Neutrals _____
3. Pesticides/PCBs _____
4. Herbicides _____

Analysis:

1. Volatiles _____
11/14/94 11/15/94
2. Acids _____
12/03/94
3. Base/Neutrals _____
4. Pesticides/PCBs _____
5. Herbicides _____

Section Supervisor

Review & Approval

Jon Berg

Inorganics:

1. Metals _____
2. Cyanides _____
3. Phenols _____

Other Analysis:

Section Supervisor

Review & Approval

Quality Control Supervisor

Review & Approval

Dates are included for re-extractions and reanalysis.

000008

**NARRATIVE DISCUSSION
VOLATILES - 22521F**

Bldg:689A

INTRODUCTION

This narrative covers the analysis of three (3) samples in accordance with NEI SOP #703 based on USEPA Method 624.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QC CHECK SAMPLE

Three (3) out of thirty-one (31) recoveries in QC check N0198 were outside QC limits.

METHOD BLANKS

The method blanks associated with these samples did not contain any target compounds at or above QC limits.

SURROGATES

Surrogate recoveries met QC criteria with the exception of samples 689A-1. No further action was taken due to error by lab.

MATRIX SPIKES

As requested sample 1076-3 was utilized for the MS and MSD analyses. The 1,1-Dichloroethane, Chloroform, and 1,2-Dichloroethane recoveries in the MS and MSD were above advisory QC limits.

INTERNAL STANDARDS

Area response and retention time summaries are not required.

000009

VOLATILES - 22521F

SAMPLE COMMENTS

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

No further analytical problems were encountered.

000010

**NARRATIVE DISCUSSION
SEMIVOLATILES - 22521F
Bldg:689A**

INTRODUCTION

This narrative covers the analysis of two (2) samples in accordance with NEI SOP #501 based on USEPA Method 625.

HOLDING TIMES

The extraction and analytical holding times for this analysis were met.

CALIBRATIONS

Required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QMETHOD BLANKS

The method blank associated with these samples did not contain any target compounds at or above QC limits.

SURROGATES

All samples met surrogate QC criteria.

MATRIX SPIKES

As requested sample 1076-3 was utilized for the MS and MSD analyses. The Phenanthrene recoveries in the MS and MSD were above advisory QC limits. The form 3 was included in this report.

INTERNAL STANDARDS

Area response and retention time summaries are not required.

SAMPLE COMMENTS

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

No analytical problems were encountered.

000011

nytest environmental inc

I certify that this data package has been reviewed for the quality control and quality assurance measures for all analyzed methodologies.


Remo Gigante
Exec. Vice President

000012

METHODOLOGY SUMMARY

AQUEOUS METHODOLOGIES:	REF 1	REF 2	REF 3	REF 5
BNA, Pesticides/PCB's Extraction		3510/3520		
AA/ICP Sample Preparation	200.7			
Furnace Sample Preparation	200.0			
Mercury Sample Preparation	245.1			
Hexavalent Chromium Sample Preparation	218.5			
Clean-Up		3610/3620/3630/ 3640/3660		
Organochlorine Pesticide and PCB's by Gas Chromatography			608	505
Herbicides by Gas Chromatography			362	515.1
Purgeable Organics by GC/MS			624	524.2
Base/Neutral, Acids by GC/MS			625	525
2,3,7,8-TCDD by GC/MS			613/625	
BTEX			602	502.2
EDB/DBCP by Microextraction				504.1

NON-AQUEOUS METHODOLOGIES:

BNA, Pesticides/PCB's Extraction	3550
AA/ICP Sample Preparation	3050
Furnace Sample Preparation	3020/3030/3050
Mercury Sample Preparation	7471
Clean-Up	3610/3620/3630/ 3640/3660

GC, Gas Chromatography/Mass Spectrometry:

Purgeable Organics	8240/8021
Base/Neutral and Acid Extractables	8270
Organophosphorus Pesticides	8140
Organochlorine Pesticide and PCB's by Gas Chromatography	8080
BTEX	8020
Halogenated Purgeable Organics	8010

000013

METHODOLOGY SUMMARY

REFERENCES:

- (1) USEPA-600/4-79-020, Methods for Chemical Analysis of Water and Waste
- (2) USEPA SW 846, Test Methods for Evaluating Solid Waste, Third Edition
- (3) Federal Register 40 CFR Part 136, Vol.49, No.209 Test Parameters for the Analysis of Pollutants
- (4) Federal Register Vol.51, No.216 Friday, 11/7/86, pp.40643-40652
- (5) Method for the Determination of Organic Compounds in Drinking Water, EPA 500/4-88/039, Dec. 1988
- (6) Standard Method for Examination of Water and Wastewater, 15 Edition 1980

000014

Method Qualifiers for Organic Non-CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U -** Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.
- J -** Indicates an estimated volume. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N -** Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- B -** This flag is used when the analyte is found in the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E -** This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D -** This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A -** This flag indicates that a TIC is a suspected aldol condensation product.

GC/MS Data

000016

Volatile Data

000017

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252101

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0223.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3-----	Chloromethane	2	U
74-83-9-----	Bromomethane	1	U
75-01-4-----	Vinyl Chloride	1	U
75-00-3-----	Chloroethane	1	U
75-09-2-----	Methylene Chloride	6	
75-35-4-----	1,1-Dichloroethene	2	U
75-34-3-----	1,1-Dichloroethane	1	U
67-66-3-----	Chloroform	1	U
107-06-2-----	1,2-Dichloroethane	1	U
71-55-6-----	1,1,1-Trichloroethane	1	U
56-23-5-----	Carbon Tetrachloride	2	U
75-27-4-----	Bromodichloromethane	1	U
78-87-5-----	1,2-Dichloropropane	1	U
10061-01-5-----	cis-1,3-Dichloropropene	1	U
79-01-6-----	Trichloroethene	2	U
124-48-1-----	Dibromochloromethane	1	U
79-00-5-----	1,1,2-Trichloroethane	1	U
71-43-2-----	Benzene	1	U
10061-02-6-----	trans-1,3-Dichloropropene	1	U
75-25-2-----	Bromoform	1	U
127-18-4-----	Tetrachloroethene	3	U
79-34-5-----	1,1,2,2-Tetrachloroethane	2	U
108-88-3-----	Toluene	2	U
108-90-7-----	Chlorobenzene	2	U
100-41-4-----	Ethylbenzene	2	U
1330-20-7-----	Xylene (total)	6	U
75-69-4-----	Trichloromonofluoromethane	2	U
107-02-8-----	Acrolein	20	U
107-13-1-----	Acrylonitrile	2	U
75-65-0-----	Tertiary Butyl Alcohol	100	U
1634-34-4-----	Methyl Tertiary Butyl Ether	1	U
541-73-1-----	1,3-Dichlorobenzene	2	U
106-46-7-----	1,4-Dichlorobenzene	2	U
95-50-1-----	1,2-Dichlorobenzene	2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NC

814-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252101

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0223.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

110-75-8-----	2-Chloroethylvinyl Ether	4	U
156-60-5-----	Trans, 1,2-Dichloroethene	1	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252101

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: N0223.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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28.				
29.				
30.				

000020

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0223.D

Acq Time : 15 Nov 94 00:47 am

Sample : 2252101,814-FB,

Misc : 1,1,,,5,5,P624,R11-10-94

Quant Time: Dec 30 13:49 1994

Operator: LDS

Inst : HPN

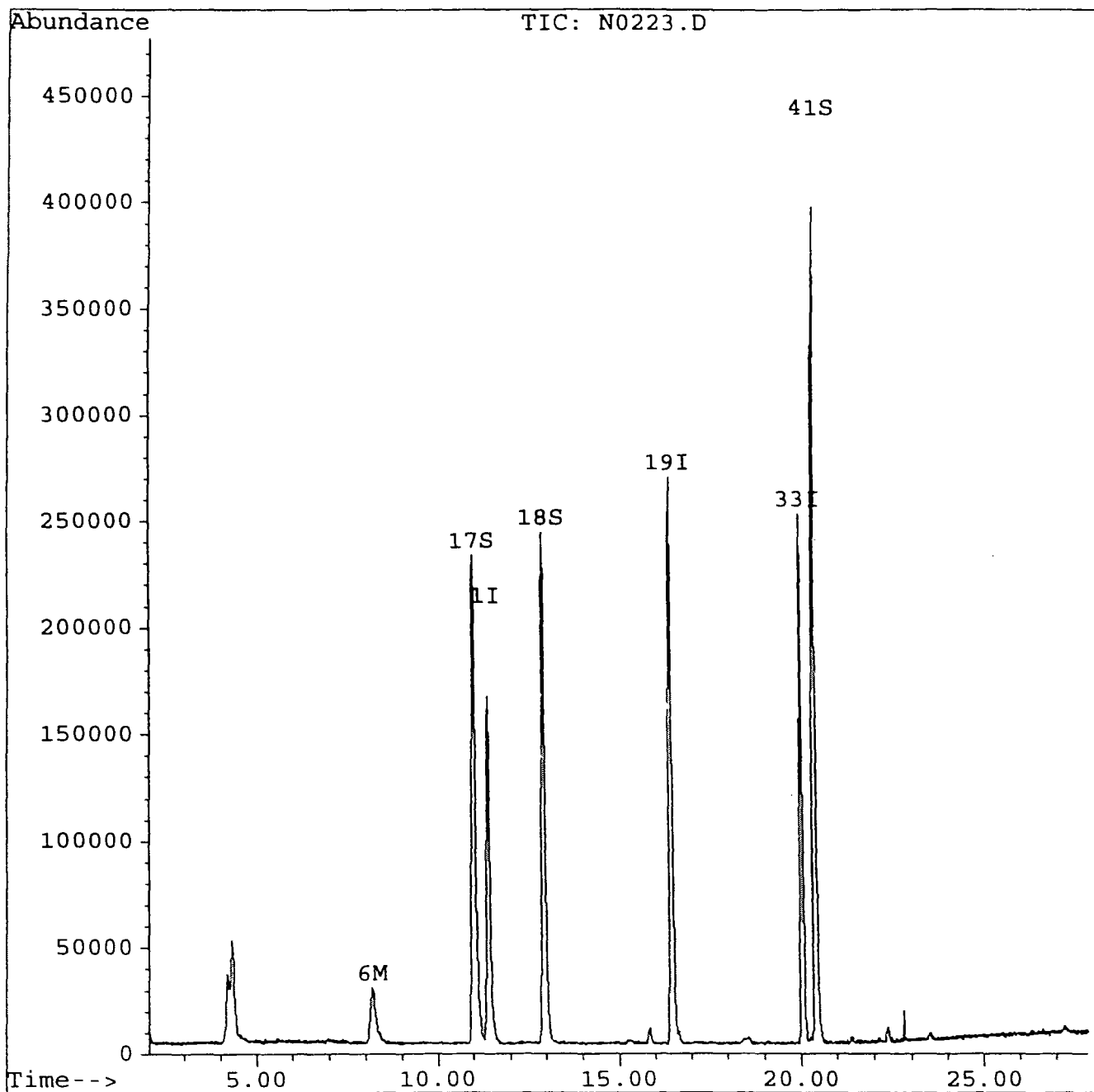
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M

Title : VOA Standards for 5 point calibration

Last Update : Fri Dec 23 10:39:23 1994

Response via : Multiple Level Calibration



000021

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0223.D

Acq Time : 15 Nov 94 00:47 am

Sample : 2252101,814-FB,

Misc : 1,1,,,5,5,P624,R11-10-94

Quant Time: Dec 30 13:49 1994

Operator: LDS

Inst : HPN

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M

Title : VOA Standards for 5 point calibration

Last Update : Fri Dec 23 10:39:23 1994

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) CI01 Bromochloromethane	11.40	128	146555	30.00	ug/l	0.06
19) 2-BROMO-1-CHLOROPROPANE	16.46	77	566776	30.00	ug/l	0.04
33) 1,4-DICHLOROBUTANE	20.03	55	482362	30.00	ug/l	0.02
System Monitoring Compounds						%Recovery
17) PENTAFLUOROBENZENE	11.01	168	642342	21.03	ug/l	70.08%
18) FLUOROBENZENE	12.94	96	772863	21.62	ug/l	72.06%
41) CS10 4-Bromofluorobenzene	20.40	95	480777	19.44	ug/l	64.81%
Target Compounds						Qvalue
6) C030 Methylene Chloride	8.19	84	75784	5.52	ug/l m	38

000022

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

N0223.D H2O1130.M

Fri Dec 30 13:50:46 1994

HPN

Page 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252102

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0224.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CONCENTRATION UNITS:
CAS NO. COMPOUND (ug/L or ug/Kg) UG/L Q

74-87-3-----	Chloromethane	2	U
74-83-9-----	Bromomethane	1	U
75-01-4-----	Vinyl Chloride	1	U
75-00-3-----	Chloroethane	1	U
75-09-2-----	Methylene Chloride	3	
75-35-4-----	1,1-Dichloroethene	2	U
75-34-3-----	1,1-Dichloroethane	1	U
67-66-3-----	Chloroform	1	U
107-06-2-----	1,2-Dichloroethane	1	U
71-55-6-----	1,1,1-Trichloroethane	1	U
56-23-5-----	Carbon Tetrachloride	2	U
75-27-4-----	Bromodichloromethane	1	U
78-87-5-----	1,2-Dichloropropane	1	U
10061-01-5-----	cis-1,3-Dichloropropene	1	U
79-01-6-----	Trichloroethene	2	U
124-48-1-----	Dibromochloromethane	1	U
79-00-5-----	1,1,2-Trichloroethane	1	U
71-43-2-----	Benzene	1	U
10061-02-6-----	trans-1,3-Dichloropropene	1	U
75-25-2-----	Bromoform	1	U
127-18-4-----	Tetrachloroethene	3	U
79-34-5-----	1,1,2,2-Tetrachloroethane	2	U
108-88-3-----	Toluene	2	U
108-90-7-----	Chlorobenzene	2	U
100-41-4-----	Ethylbenzene	2	U
1330-20-7-----	Xylene (total)	6	U
75-69-4-----	Trichloromonofluoromethane	2	U
107-02-8-----	Acrolein	20	U
107-13-1-----	Acrylonitrile	2	U
75-65-0-----	Tertiary Butyl Alcohol	100	U
1634-34-4-----	Methyl Tertiary Butyl Ether	1	U
541-73-1-----	1,3-Dichlorobenzene	2	U
106-46-7-----	1,4-Dichlorobenzene	2	U
95-50-1-----	1,2-Dichlorobenzene	2	U

000023

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252102

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0224.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
110-75-8-----	2-Chloroethylvinyl Ether	4	U
156-60-5-----	Trans, 1,2-Dichloroethene	1	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

814-TB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252102

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: N0224.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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000025

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0224.D

Acq Time : 15 Nov 94 1:20 am

Sample : 2252102,814-TB,

Misc : 1,1,,,5,5,P624,R11-10-94

Quant Time: Dec 23 11:21 1994

Operator: LDS

Inst : HPN

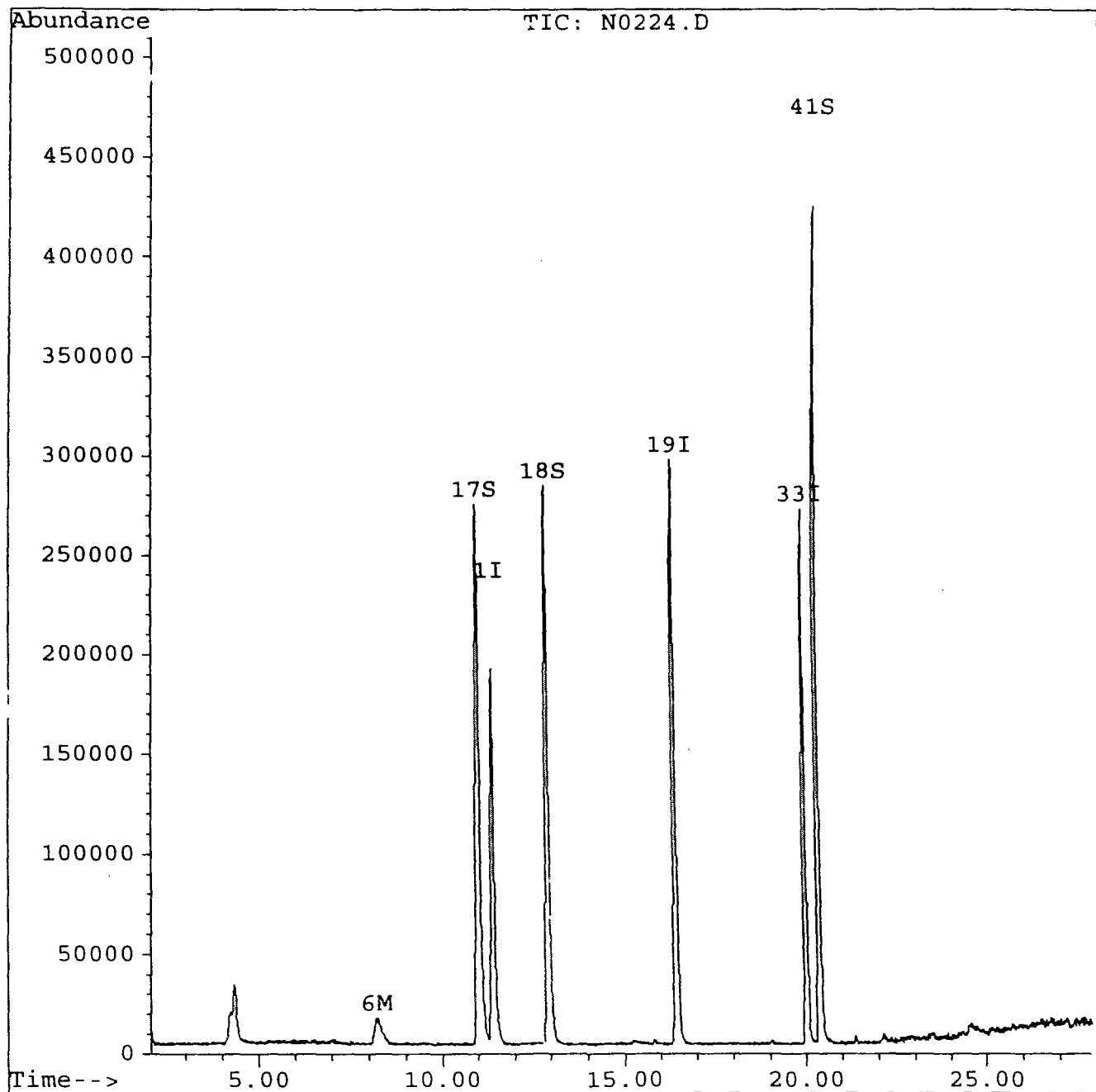
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M

Title : VOA Standards for 5 point calibration

Last Update : Fri Dec 23 10:39:23 1994

Response via : Multiple Level Calibration



000026

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0224.D

Acq Time : 15 Nov 94 1:20 am

Sample : 2252102,814-TB,

Misc : 1,1,,,5,5,P624,R11-10-94

Quant Time: Dec 23 11:21 1994

Operator: LDS

Inst : HPN

Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M

Title : VOA Standards for 5 point calibration

Last Update : Fri Dec 23 10:39:23 1994

Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) CI01 Bromochloromethane	11.40	128	167328	30.00	ug/l	0.06
19) 2-BROMO-1-CHLOROPROPANE	16.45	77	623815	30.00	ug/l	0.03
33) 1,4-DICHLOROBUTANE	20.02	55	527478	30.00	ug/l	0.00

System Monitoring Compounds

	R.T.	QIon	Response	Conc	Units	%Recovery
17) PENTAFLUOROBENZENE	11.00	168	760652	21.81	ug/l	72.69%
18) FLUOROBENZENE	12.93	96	905565	22.19	ug/l	73.95%
41) CS10 4-Bromofluorobenzene	20.39	95	510540	18.88	ug/l	62.94%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
6) C030 Methylene Chloride	8.20	84	47422	3.02	ug/l	89

000027

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

N0224.D P624.M

Fri Dec 23 12:51:49 1994

HPN

Page 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252109

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0231.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	2	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl Chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene Chloride	3	U
75-35-4	-----1,1-Dichloroethene	2	U
75-34-3	-----1,1-Dichloroethane	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon Tetrachloride	2	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	2	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
127-18-4	-----Tetrachloroethene	3	U
79-34-5	-----1,1,2,2-Tetrachloroethane	2	U
108-88-3	-----Toluene	2	U
108-90-7	-----Chlorobenzene	2	U
100-41-4	-----Ethylbenzene	2	U
1330-20-7	-----Xylene (total)	6	U
75-69-4	-----Trichloromonofluoromethane	2	U
107-02-8	-----Acrolein	20	U
107-13-1	-----Acrylonitrile	2	U
75-65-0	-----Tertiary Butyl Alcohol	100	U
1634-34-4	-----Methyl Tertiary Butyl Ether	1	U
541-73-1	-----1,3-Dichlorobenzene	2	U
106-46-7	-----1,4-Dichlorobenzene	2	U
95-50-1	-----1,2-Dichlorobenzene	2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252109

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0231.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) UG/L	Q
110-75-8-----	2-Chloroethylvinyl Ether_____	4	U
156-60-5-----	Trans, 1,2-Dichloroethene_____	1	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252109

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0231.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. _____

Date Analyzed: 11/15/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 2

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

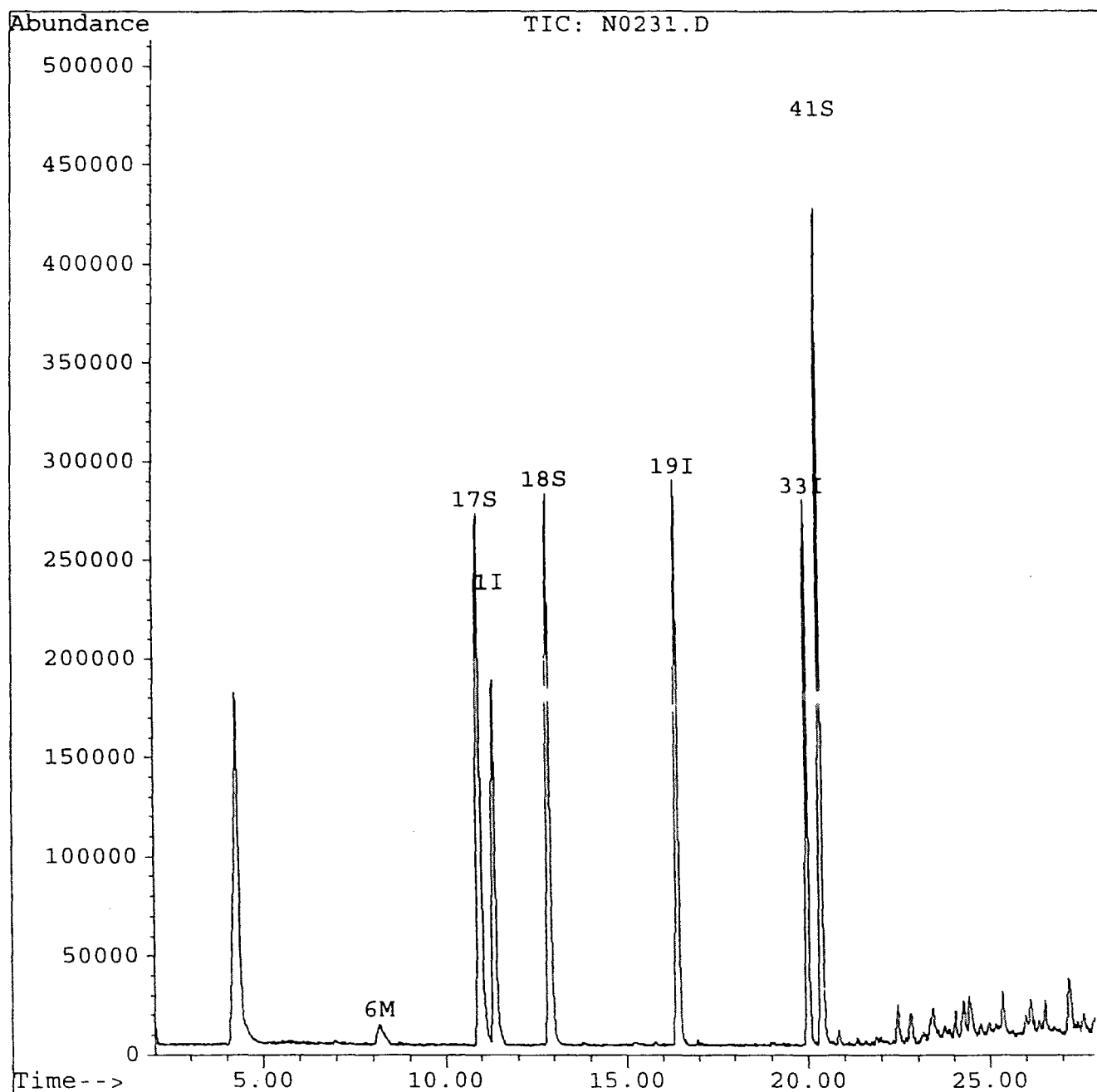
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	TETRAMETHYL BENZENE ISOMER	24.412	6	J
2.	NAPHTHALENE ISOMER	27.181	7	J
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0231.D
Acq Time : 15 Nov 94 5:18 am
Sample : 2252109,689A-1,
Misc : 1,1,,,5,5,P624,R11-10-94
Quant Time: Dec 23 11:53 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Multiple Level Calibration



000031

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0231.D
Acq Time : 15 Nov 94 5:18 am
Sample : 2252109,689A-1,
Misc : 1,1,,,5,5,P624,R11-10-94
Quant Time: Dec 23 11:53 1994

Operator: LDS
Inst : HPN
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Fri Dec 23 10:39:23 1994
Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	11.36	128	165143	30.00	ug/l	0.02
19) 2-BROMO-1-CHLOROPROPANE	16.43	77	621596	30.00	ug/l	0.01
33) 1,4-DICHLOROBUTANE	20.00	55	533146	30.00	ug/l	-0.01

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) PENTAFLUOROBENZENE	10.97	168	758105	22.02	ug/l	73.41%
18) FLUOROBENZENE	12.90	96	908599	22.56	ug/l	75.18%
41) CS10 4-Bromofluorobenzene	20.37	95	514605	18.83	ug/l	62.1%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
6) C030 Methylene Chloride	8.17	84	34140	2.21	ug/l	# 78

000032

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

N0231.D P624.M Fri Dec 23 13:00:24 1994 HPN

Page 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBKKN04

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: VBKKN04

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0199.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	-----Chloromethane	2	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl Chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene Chloride	3	U
75-35-4	-----1,1-Dichloroethene	2	U
75-34-3	-----1,1-Dichloroethane	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
71-55-6	-----1,1,1-Trichloroethane	1	U
56-23-5	-----Carbon Tetrachloride	2	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	2	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
127-18-4	-----Tetrachloroethene	3	U
79-34-5	-----1,1,2,2-Tetrachloroethane	2	U
108-88-3	-----Toluene	2	U
108-90-7	-----Chlorobenzene	2	U
100-41-4	-----Ethylbenzene	2	U
1330-20-7	-----Xylene (total)	6	U
75-69-4	-----Trichloromonofluoromethane	2	U
107-02-8	-----Acrolein	20	U
107-13-1	-----Acrylonitrile	2	U
75-65-0	-----Tertiary Butyl Alcohol	100	U
1634-34-4	-----Methyl Tertiary Butyl Ether	1	U
541-73-1	-----1,3-Dichlorobenzene	2	U
106-46-7	-----1,4-Dichlorobenzene	2	U
95-50-1	-----1,2-Dichlorobenzene	2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBKKN04

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: VBKKN04

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: N0199.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 11/14/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

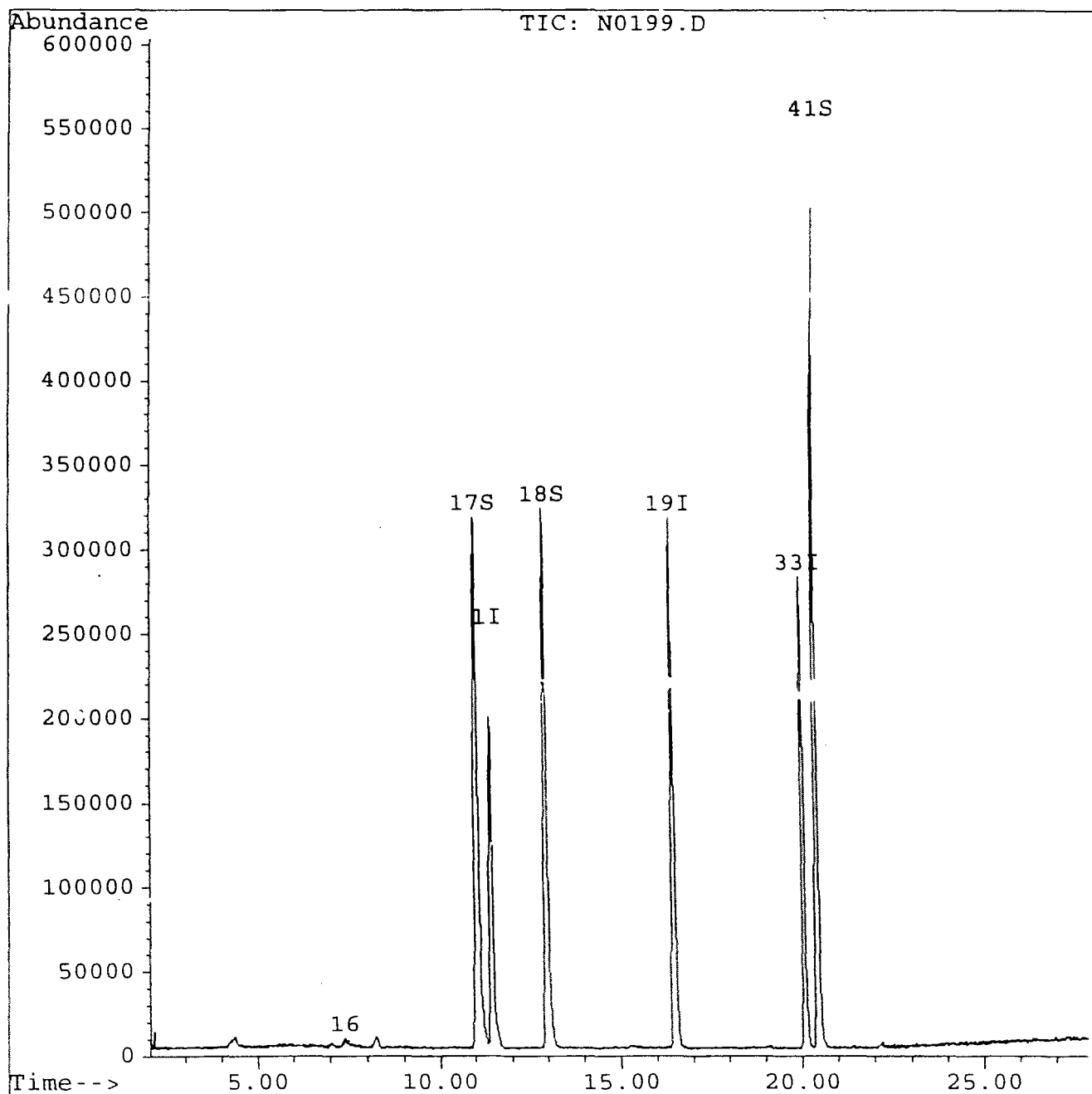
CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) UG/L	Q
110-75-8-----	2-Chloroethylvinyl Ether_____	4	U
156-60-5-----	Trans, 1,2-Dichloroethene_____	1	U

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0199.D
 Acq Time : 14 Nov 94 11:31 am
 Sample : VBLKN04,VBLKN04,
 Misc : 1,,,,5,5,P624
 Quant Time: Dec 8 12:08 1994

Operator: LDS
 Inst : HPN
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Dec 06 02:26:13 1994
 Response via : Multiple Level Calibration



000035

Quantitation Report

Data File : C:\HPCHEM\1\DATA\NOV1494\N0199.D
 Acq Time : 14 Nov 94 11:31 am
 Sample : VBLKN04,VBLKN04,
 Misc : 1,,,,5,5,P624
 Quant Time: Dec 8 12:08 1994

Operator: LDS
 Inst : HPN
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Dec 06 02:26:13 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) CI01 Bromochloromethane	11.44	128	174658	30.00	ug/l	-0.04
19) 2-BROMO-1-CHLOROPROPANE	16.49	77	681811	30.00	ug/l	-0.01
33) 1,4-DICHLOROBUTANE	20.06	55	538079	30.00	ug/l	-0.02

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) PENTAFLUOROBENZENE	11.04	168	890793	24.47	ug/l	81.55%
18) FLUOROBENZENE	12.97	96	1052247	24.70	ug/l	82.33%
41) CS10 4-Bromofluorobenzene	20.44	95	620849	22.51	ug/l	75.03%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
16) C177 TERTIARY BUTYL ALCOHO	7.38	59	29563	6.85	ug/l	100

000036

2A
WATER VOLATILE SURROGATE COMPOUND RECOVERY

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

	EPA SAMPLE NO.	SUR1 (FB) #	SUR2 (BFB) #	SUR3 (PFB) #	OTHER	TOT OUT
	=====	=====	=====	=====	=====	=====
01	QCCHECK	86	82	87		0
02	VBLKN04	93	85	92		0
03	814-FB	82	71	79		0
04	814-TB	84	68	82		0
05	814-DUP	85	66	83		0
06	814-1	85	66	82		0
07	287-1	84	69	81		0
08	208B-1	83	60	81		0
09	282-1	85	60	83		0
10	207B-1	85	57*	83		1
11	689A-1	85	58*	83		1
12	600-1	85	55*	82		1
13	2700-4-1	86	58*	83		1
14	QCCHECK1	105	73	96		0
15	QCCHECK2	108	73	98		0
16	VBLKN09	90	78	82		0
17	1220-1	78	55*	62*		2
18	1076-1	75	66	59*		1
19	1076-2	74	66	58*		1
20	1076-3	74	63	58*		1
21	1076-3MS	86	56*	76		1
22	1076-3MSD	88	58*	78		1
23	689B-2	85	61	75		0
24	2044-1	80	54*	76		1
25	2044-2	90	56*	77		1
26	2044-3	86	56*	74		1
27	2044-FB	88	56*	77		1
28	2044-DUP	86	55*	74		1
29	2044-TB	86	56*	73		1
30	QCSAMPLE	95	94	83		0

QC LIMITS

SUR1 (FB) = Fluorobenzene (70-140)
 SUR2 (BFB) = Bromofluorobenzene (60-150)
 SUR3 (PFB) = Pentafluorobenzene (70-140)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2252116
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: 1076-3MS
Operator: LDS
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	10	11	110.60	0-273
4 Bromomethane	10	14	135.23	0-242
5 Vinyl Chloride	10	12	116.93	0-251
6 Chloroethane	10	15	149.12	14-230
7 Methylene Chloride	10	16	163.06	0-221
10 1,1-Dichloroethene	10	14	136.32	0-234
12 1,1-Dichloroethane	10	16	165.89*	59-155
14 Trans, 1,2-Dichlor	10	14	140.82	54-156
15 Chloroform	10	16	159.29*	51-138
16 1,2-Dichloroethane	10	17	173.16*	49-155
19 Trichloromonofluor	10	12	117.60	17-181
24 1,1,1-Trichloroeth	10	10	99.89	52-162
25 Carbon Tetrachlori	10	8	84.59	70-140
27 Bromodichlorometha	10	11	107.00	35-155
28 1,2-Dichloropropan	10	12	119.61	0-210
29 cis-1,3-Dichloropr	10	12	122.87	0-227
30 Trichloroethene	10	7	74.97	71-157
31 Dibromochlorometha	10	8	79.23	53-149
32 1,1,2-Trichloroeth	10	10	105.90	52-150
34 Benzene	10	11	111.45	37-151
35 trans-1,3-Dichloro	10	12	121.20	17-183
37 Bromoform	10	10	103.02	45-169
38 2-Chloroethylvinyl	10	12	119.62	0-305
41 Tetrachloroethene	10	8	77.99	64-148
43 1,1,2,2-Tetrachlor	10	12	117.32	46-157
45 Toluene	10	11	109.40	47-150
46 Chlorobenzene	10	8	82.31	37-160
47 Ethylbenzene	10	8	77.74	37-162
53 1,3-Dichlorobenzen	10	8	81.00	59-156
54 1,4-Dichlorobenzen	10	7	69.36	18-190
55 1,2-Dichlorobenzen	10	9	94.70	18-190

000038

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2252117
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

Client SDG: ARMY2
Fraction: VOA
Client Smp ID: 1076-3MSD
Operator: LDS
SampleType: MSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	10	12	120.81	0-273
4 Bromomethane	10	15	148.02	0-242
5 Vinyl Chloride	10	13	126.10	0-251
6 Chloroethane	10	15	154.94	14-230
7 Methylene Chloride	10	16	163.35	0-221
10 1,1-Dichloroethene	10	15	146.59	0-234
12 1,1-Dichloroethane	10	18	178.39*	59-155
14 Trans, 1,2-Dichlor	10	15	150.72	54-156
15 Chloroform	10	17	170.55*	51-138
16 1,2-Dichloroethane	10	18	184.36*	49-155
19 Trichloromonofluor	10	13	128.64	17-181
24 1,1,1-Trichloroeth	10	11	108.28	52-162
25 Carbon Tetrachlori	10	9	92.05	70-140
27 Bromodichlorometha	10	12	115.51	35-155
28 1,2-Dichloropropan	10	13	130.63	0-210
29 cis-1,3-Dichloropr	10	13	129.96	0-227
30 Trichloroethene	10	8	79.12	71-157
31 Dibromochlorometha	10	8	85.02	53-149
32 1,1,2-Trichloroeth	10	11	112.58	52-150
34 Benzene	10	12	120.08	37-151
35 trans-1,3-Dichloro	10	13	130.16	17-183
37 Bromoform	10	11	108.84	45-169
38 2-Chloroethylvinyl	10	13	130.64	0-305
41 Tetrachloroethene	10	8	85.95	64-148
43 1,1,2,2-Tetrachlor	10	13	126.56	46-157
45 Toluene	10	12	118.92	47-150
46 Chlorobenzene	10	9	90.91	37-160
47 Ethylbenzene	10	9	87.47	37-162
53 1,3-Dichlorobenzen	10	9	90.03	59-156
54 1,4-Dichlorobenzen	10	8	77.62	18-190
55 1,2-Dichlorobenzen	10	10	103.41	18-190

000039

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLKN04

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Lab File ID: N0199.D

Lab Sample ID: VBLKN04

Date Analyzed: 11/14/94

Time Analyzed: 1131

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: HPN

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	QCCHECK	QCCHECK	N0198.D	1058
02	814-FB	2252101	N0223.D	0047
03	814-TB	2252102	N0224.D	0120
04	814-DUP	2252103	N0225.D	0154
05	814-1	2252104	N0226.D	0228
06	287-1	2252105	N0227.D	0302
07	208B-1	2252106	N0228.D	0336
08	282-1	2252107	N0229.D	0410
09	207B-1	2252108	N0230.D	0444
10	689A-1	2252109	N0231.D	0518
11	600-1	2252110	N0232.D	0552
12	2700-4-1	2252111	N0233.D	0626
13				
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COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Lab File ID: N0163.D

BFB Injection Date: 11/08/94

Instrument ID: HPN

BFB Injection Time: 1152

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	15.4
75	30.0 - 60.0% of mass 95	38.4
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	67.3
175	5.0 - 9.0% of mass 174	5.2 (7.7)1
176	Greater than 95.0%, but less than 101.0% of mass 174	65.8 (97.8)1
177	5.0 - 9.0% of mass 176	4.5 (6.8)2

1-Value is % mass 174

2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	N0165.D	11/08/94	1237
02	VSTD010	VSTD010	N0166.D	11/08/94	1310
03	VSTD030	VSTD030	N0167.D	11/08/94	1343
04	VSTD050	VSTD050	N0168.D	11/08/94	1416
05	VSTD200	VSTD200	N0169.D	11/08/94	1450
06					
07					
08					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Lab File ID: N0197.D

BFB Injection Date: 11/14/94

Instrument ID: HPN

BFB Injection Time: 1028

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	15.1
75	30.0 - 60.0% of mass 95	40.3
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	69.8
175	5.0 - 9.0% of mass 174	5.6 (8.0)1
176	Greater than 95.0%, but less than 101.0% of mass 174	69.8 (100.0)1
177	5.0 - 9.0% of mass 176	4.0 (5.8)2

1-Value is % mass 174

2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	QCCKECK	QCCKECK	N0198.D	11/14/94	1058
02	VBLKN04	VBLKN04	N0199.D	11/14/94	1131
03	814-FB	2252101	N0223.D	11/15/94	0047
04	814-TB	2252102	N0224.D	11/15/94	0120
05	814-DUP	2252103	N0225.D	11/15/94	0154
06	814-1	2252104	N0226.D	11/15/94	0228
07	287-1	2252105	N0227.D	11/15/94	0302
08	208B-1	2252106	N0228.D	11/15/94	0336
09	282-1	2252107	N0229.D	11/15/94	0410
10	207B-1	2252108	N0230.D	11/15/94	0444
11	689A-1	2252109	N0231.D	11/15/94	0518
12	600-1	2252110	N0232.D	11/15/94	0552
13	2700-4-1	2252111	N0233.D	11/15/94	0626
14					
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22					

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Instrument ID: HPN

Calibration Date(s): 11/08/94

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF005 =N0165.D		RRF010 =N0166.D		RRF030=N0167.D		RRF050=N0168.D		RRF200=N0169.D	
RRF030=N0167.D		RRF050=N0168.D		RRF010 =N0166.D		RRF030=N0167.D		RRF050=N0168.D		RRF200=N0169.D	
COMPOUND		RRF005	RRF010	RRF030	RRF050	RRF200	RRF	%	RSD		
=====		=====	=====	=====	=====	=====	=====	=====	=====		
Chloromethane		1.569	1.346	1.370	1.315	1.288	1.378	8.1			
Bromomethane		1.967	1.807	1.716	1.642	1.596	1.746	8.4			
Vinyl Chloride		1.965	1.785	1.822	1.747	1.789	1.821	4.6			
Chloroethane		1.133	1.109	1.001	1.021	0.975	1.048	6.6			
Methylene Chloride		3.913	2.873	2.154	2.030	1.854	2.565	33.0			
1,1-Dichloroethene		2.105	1.877	1.918	1.889	1.855	1.929	5.2			
1,1-Dichloroethane		3.845	3.464	3.518	3.485	3.589	3.580	4.3			
Chloroform		4.126	3.689	3.562	3.506	3.588	3.694	6.8			
1,2-Dichloroethane		2.024	1.859	1.799	1.741	1.835	1.852	5.7			
1,1,1-Trichloroethane		0.939	0.857	0.859	0.827	0.866	0.869	4.8			
Carbon Tetrachloride		0.814	0.736	0.760	0.751	0.778	0.768	3.9			
Bromodichloromethane		1.081	0.977	0.971	0.953	1.010	0.998	5.1			
1,2-Dichloropropane		0.722	0.658	0.658	0.647	0.686	0.674	4.5			
cis-1,3-Dichloropropene		0.983	0.873	0.869	0.846	0.897	0.893	5.9			
Trichloroethene		0.712	0.643	0.653	0.652	0.669	0.666	4.1			
Dibromochloromethane		0.883	0.816	0.812	0.803	0.843	0.831	3.9			
1,1,2-Trichloroethane		0.629	0.570	0.564	0.548	0.578	0.578	5.3			
Benzene		1.788	1.593	1.612	1.576	1.647	1.643	5.2			
trans-1,3-Dichloropropene		0.792	0.710	0.708	0.688	0.726	0.725	5.5			
Bromoform		0.709	0.646	0.644	0.645	0.565	0.642	7.9			
Tetrachloroethene		0.921	0.805	0.826	0.835	0.902	0.858	5.9			
1,1,2,2-Tetrachloroethane		1.209	1.036	1.013	0.986	0.000	1.061	9.5			
Toluene		2.017	1.801	1.774	1.746	1.820	1.832	5.8			
Chlorobenzene		2.021	1.789	1.801	1.797	1.970	1.876	5.9			
Ethylbenzene		0.976	0.823	0.799	0.835	0.905	0.868	8.3			
Xylene (total)		1.192	1.065	1.058	1.066	1.152	1.106	5.5			
Trichloromonofluoromethane		3.860	3.429	3.389	3.310	3.404	3.479	6.3			
Acrolein		0.139	0.100	0.096	0.087	0.072	0.099	25.4			
Acrylonitrile		0.792	0.744	0.714	0.764	0.695	0.742	5.2			
Tertiary Butyl Alcohol		1.994	1.821	3.284	3.221	1.915	2.447	30.2			
Methyl Tertiary Butyl Ether		4.512	4.110	3.702	3.671	3.551	3.909	10.2			
1,3-Dichlorobenzene		1.776	1.527	1.544	1.574	1.335	1.551	10.1			
1,4-Dichlorobenzene		1.808	1.663	1.553	1.722	1.257	1.600	13.3			
1,2-Dichlorobenzene		1.663	1.436	1.449	1.469	0.000	1.504	7.1			
2-Chloroethylvinyl Ether		0.722	0.658	0.658	0.647	0.686	0.674	4.5			
Trans, 1,2-Dichloroethene		2.270	1.921	1.880	1.838	1.838	1.950	9.4			
=====		=====	=====	=====	=====	=====	=====	=====			
Fluorobenzene		7.222	6.388	6.218	6.099	6.397	6.465	6.8			

000043

6A
VOLATILE ORGANICS INITIAL CALIBRATION DAI.

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22509

SAS No.:

SDG No.: ARMY1

Instrument ID: HPN

Calibration Date(s): 11/08/94

Matrix:(soil/water) WATER Level:(low/med) LOW Column:(pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF005 =N0165.D		RRF010 =N0166.D			
RRF030=N0167.D		RRF050=N0168.D		RRF200=N0169.D			
COMPOUND	RRF005	RRF010	RRF030	RRF050	RRF200	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
Bromofluorobenzene	1.548	1.324	1.291	1.240	1.371	1.355	8.7
Pentafluorobenzene	6.013	5.464	5.291	5.277	5.534	5.516	5.4

000044

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY2
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: QCCHECK Client Smp ID: QCCHECK
Level: LOW Operator: LDS
Data Type: MS DATA SampleType: MS
SpikeList File: QCCHK.spk Quant Type: ISTD
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	10	9	93.65	0-204
4 Bromomethane	10	12	120.55	14-186
5 Vinyl Chloride	10	9	93.76	4-196
6 Chloroethane	10	12	117.23	38-162
7 Methylene Chloride	10	13	128.27	60-140
10 1,1-Dichloroethene	10	12	115.97	50-150
12 1,1-Dichloroethane	10	12	121.88	72-128
14 Trans, 1,2-Dichlor	10	12	121.73	70-130
15 Chloroform	10	13	129.64	68-132
16 1,2-Dichloroethane	10	13	129.33	68-132
19 Trichloromonofluor	10	11	108.43	48-152
24 1,1,1-Trichloroeth	10	12	123.83	75-125
25 Carbon Tetrachlori	10	12	120.99	73-127
27 Bromodichlorometha	10	12	123.55	66-134
28 1,2-Dichloropropan	10	12	123.82	34-166
29 cis-1,3-Dichloropr	10	13	128.31	24-176
30 Trichloroethene	10	12	119.42	66-134
31 Dibromochlorometha	10	12	124.96	68-132
32 1,1,2-Trichloroeth	10	12	124.50	71-129
34 Benzene	10	12	123.90	64-136
35 trans-1,3-Dichloro	10	13	128.05	50-150
37 Bromoform	10	13	130.91*	71-129
38 2-Chloroethylvinyl	10	12	123.83	0-224
41 Tetrachloroethene	10	11	114.93	74-126
43 1,1,2,2-Tetrachlor	10	13	133.01	60-140
45 Toluene	10	13	126.54*	74-126
46 Chlorobenzene	10	12	118.24	66-134
47 Ethylbenzene	10	12	117.79	59-141
53 1,3-Dichlorobenzen	10	12	124.53	73-127
54 1,4-Dichlorobenzen	10	11	108.55	63-137
55 1,2-Dichlorobenzen	10	15	148.69*	63-127

000045

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY2
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: QCSAMPLE Client Smp ID: QCSAMPLE
Level: LOW Operator: LDS
Data Type: MS DATA SampleType: MS
SpikeList File: QCMS.spk Quant Type: ISTD
Method File: /chem/HPN.i/22521.b/624.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	10	10	100.93	0-273
4 Bromomethane	10	12	120.62	0-242
5 Vinyl Chloride	10	10	104.26	0-251
6 Chloroethane	10	14	136.30	14-230
7 Methylene Chloride	10	13	131.98	0-221
10 1,1-Dichloroethene	10	13	126.28	0-234
12 1,1-Dichloroethane	10	15	151.73	59-155
14 Trans, 1,2-Dichlor	10	13	129.54	54-156
15 Chloroform	10	14	143.94*	51-138
16 1,2-Dichloroethane	10	16	156.14*	49-155
19 Trichloromonofluor	10	11	107.58	17-181
24 1,1,1-Trichloroeth	10	13	127.30	52-162
25 Carbon Tetrachlori	10	11	106.93	70-140
27 Bromodichlorometha	10	13	132.75	35-155
28 1,2-Dichloropropan	10	15	151.15	0-210
29 cis-1,3-Dichloropr	10	15	149.30	0-227
30 Trichloroethene	10	9	92.84	71-157
31 Dibromochlorometha	10	10	97.22	53-149
32 1,1,2-Trichloroeth	10	13	130.29	52-150
34 Benzene	10	14	140.43	37-151
35 trans-1,3-Dichloro	10	15	146.83	17-183
37 Bromoform	10	12	124.04	45-169
38 2-Chloroethylvinyl	10	15	151.16	0-305
41 Tetrachloroethene	10	11	109.85	64-148
43 1,1,2,2-Tetrachlor	10	15	151.41	46-157
45 Toluene	10	14	142.24	47-150
46 Chlorobenzene	10	12	115.37	37-160
47 Ethylbenzene	10	12	118.35	37-162
53 1,3-Dichlorobenzen	10	12	115.99	59-156
54 1,4-Dichlorobenzen	10	10	103.24	18-190
55 1,2-Dichlorobenzen	10	13	133.57	18-190

000046

Semivolatile Data

000047

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252101

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1764.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

111-44-4-----bis(2-Chloroethyl) Ether	1	U
541-73-1-----1,3-Dichlorobenzene	1	U
106-46-7-----1,4-Dichlorobenzene	1	U
95-50-1-----1,2-Dichlorobenzene	1	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	1	U
621-64-7-----N-Nitroso-di-n-propylamine	1	U
67-72-1-----Hexachloroethane	1	U
98-95-3-----Nitrobenzene	1	U
78-59-1-----Isophorone	1	U
120-82-1-----1,2,4-Trichlorobenzene	1	U
91-20-3-----Naphthalene	1	U
87-68-3-----Hexachlorobutadiene	1	U
111-91-1-----bis(2-Chloroethoxy) methane	1	U
77-47-4-----Hexachlorocyclopentadiene	1	U
91-58-7-----2-Chloronaphthalene	1	U
131-11-3-----Dimethylphthalate	2	
208-96-8-----Acenaphthylene	1	U
606-20-2-----2,6-Dinitrotoluene	1	U
83-32-9-----Acenaphthene	1	U
121-14-2-----2,4-Dinitrotoluene	1	U
84-66-2-----Diethylphthalate	1	U
7005-72-3-----4-Chlorophenyl-phenylether	1	U
86-73-7-----Fluorene	1	U
86-30-6-----N-Nitrosodiphenylamine (1)	1	U
101-55-3-----4-Bromophenyl-phenylether	1	U
118-74-1-----Hexachlorobenzene	1	U
85-01-8-----Phenanthrene	1	U
120-12-7-----Anthracene	1	U
84-74-2-----Di-n-butylphthalate	1	U
206-44-0-----Fluoranthene	1	U
129-00-0-----Pyrene	1	U
85-68-7-----Butylbenzylphthalate	1	U
91-94-1-----3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000048

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252101

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1764.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

56-55-3-----	Benzo (a) anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	1	U
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo (b) fluoranthene	1	U
207-08-9-----	Benzo (k) fluoranthene	1	U
50-32-8-----	Benzo (a) pyrene	1	U
193-39-5-----	Indeno (1,2,3-cd) pyrene	1	U
53-70-3-----	Dibenz (a,h) anthracene	1	U
191-24-2-----	Benzo (g,h,i) perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U
92-87-5-----	Benzidine	1	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

814-FB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252101

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1764.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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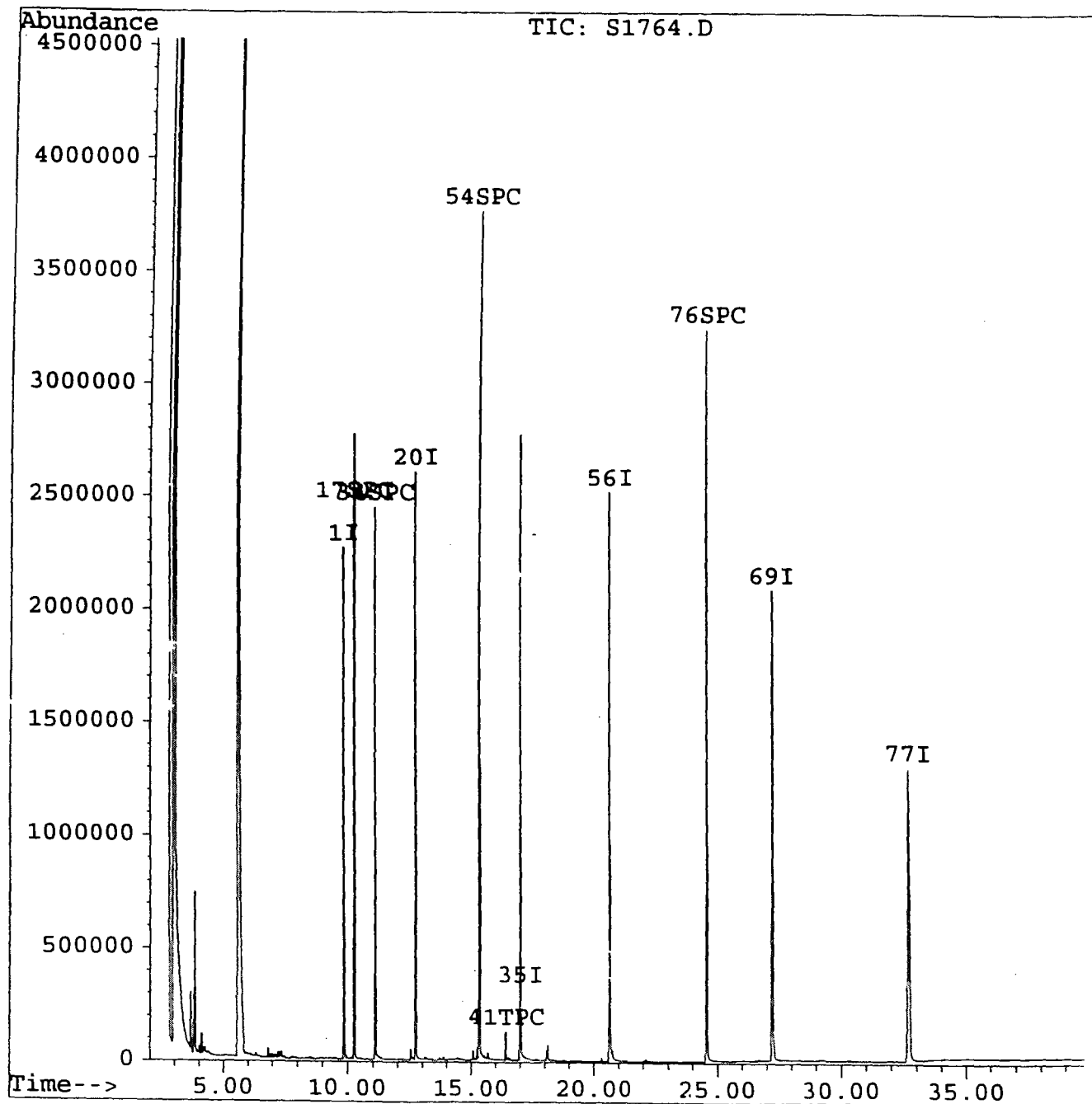
000050

Quantitation Report

Data File : c:\hpchem\1\data\1202\s1764.d
 Acq On : 3 Dec 94 12:30 pm
 Sample : 2252101,814-FB,
 Misc : 1,,,13-NOV-94,1000,1,PBN625+15, WATER
 Quant Time: Dec 3 13:10 1994

Vial: 51
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Mon Dec 05 19:18:12 1994
 Response via : Multiple Level Calibration



000051

Quantitation Report

Data File : c:\hpchem\1\data\1202\s1764.d
 Acq On : 3 Dec 94 12:30 pm
 Sample : 2252101,814-FB,
 Misc : 1,,13-NOV-94,1000,1,PBN625+15, WATER
 Quant Time: Dec 3 13:10 1994

Vial: 51
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Fri Dec 02 19:39:08 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.87	152	801448	20.00	ug/L	0.00
20) Naphthalene-D8	12.73	136	2837291	20.00	ug/L	-0.02
35) Acenaphthene-d10	17.01	164	1375778	20.00	ug/L	-0.02
56) Phenanthrene-D10	20.63	188	2155825	20.00	ug/L	-0.02
69) Chrysene-D12	27.23	240	1910175	20.00	ug/L	-0.02
77) Perylene-D12	32.70	264	2330505	20.00	ug/L	-0.03

System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	9.13	99	1812	0.03	ug/L	NA 0.04%
16) 2-Chlorophenol-d4	9.45	132	828	0.02	ug/L	NA 0.02%
17) 1,2-Dichlorobenzene-d4	10.29	150	1830908	28.60	ug/L	57.20%
34) Nitrobenzene-d5	11.13	82	1841494	31.20	ug/L	62.39%
54) 2-Fluorobiphenyl	15.34	172	2756922	31.12	ug/L	62.24%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.58	244	3088320	37.09	ug/L	74.19%

Target Compounds						Qvalue
41) Dimethylphthalate	16.42	163	143160	1.52	ug/L	98

000052

John R. H. 12/6/94

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

s1764.d 625.M

Tue Dec 06 10:28:41 1994

HPPC

Page 1

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252109

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1771.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

111-44-4	-----bis(2-Chloroethyl) Ether	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
108-60-1	-----2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	-----N-Nitroso-di-n-propylamine	1	U
67-72-1	-----Hexachloroethane	1	U
98-95-3	-----Nitrobenzene	1	U
78-59-1	-----Isophorone	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U
91-20-3	-----Naphthalene	1	U
87-68-3	-----Hexachlorobutadiene	1	U
111-91-1	-----bis(2-Chloroethoxy) methane	1	U
77-47-4	-----Hexachlorocyclopentadiene	1	U
91-58-7	-----2-Chloronaphthalene	1	U
131-11-3	-----Dimethylphthalate	2	
208-96-8	-----Acenaphthylene	1	U
606-20-2	-----2,6-Dinitrotoluene	1	U
83-32-9	-----Acenaphthene	1	U
121-14-2	-----2,4-Dinitrotoluene	1	U
84-66-2	-----Diethylphthalate	1	U
7005-72-3	-----4-Chlorophenyl-phenylether	1	U
86-73-7	-----Fluorene	1	U
86-30-6	-----N-Nitrosodiphenylamine (1)	1	U
101-55-3	-----4-Bromophenyl-phenylether	1	U
118-74-1	-----Hexachlorobenzene	1	U
85-01-8	-----Phenanthrene	1	U
120-12-7	-----Anthracene	1	U
84-74-2	-----Di-n-butylphthalate	1	U
206-44-0	-----Fluoranthene	1	U
129-00-0	-----Pyrene	1	U
85-68-7	-----Butylbenzylphthalate	1	U
91-94-1	-----3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252109

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1771.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

56-55-3-----	Benzo (a) anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis (2-Ethylhexyl) phthalate	1	U
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo (b) fluoranthene	1	U
207-08-9-----	Benzo (k) fluoranthene	1	U
50-32-8-----	Benzo (a) pyrene	1	U
193-39-5-----	Indeno (1,2,3-cd) pyrene	1	U
53-70-3-----	Dibenz (a,h) anthracene	1	U
191-24-2-----	Benzo (g,h,i) perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U
92-87-5-----	Benzidine	1	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: 2252109

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1771.D

Level: (low/med) LOW

Date Received: 11/10/94

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 1.0

Number TICs found: 0

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

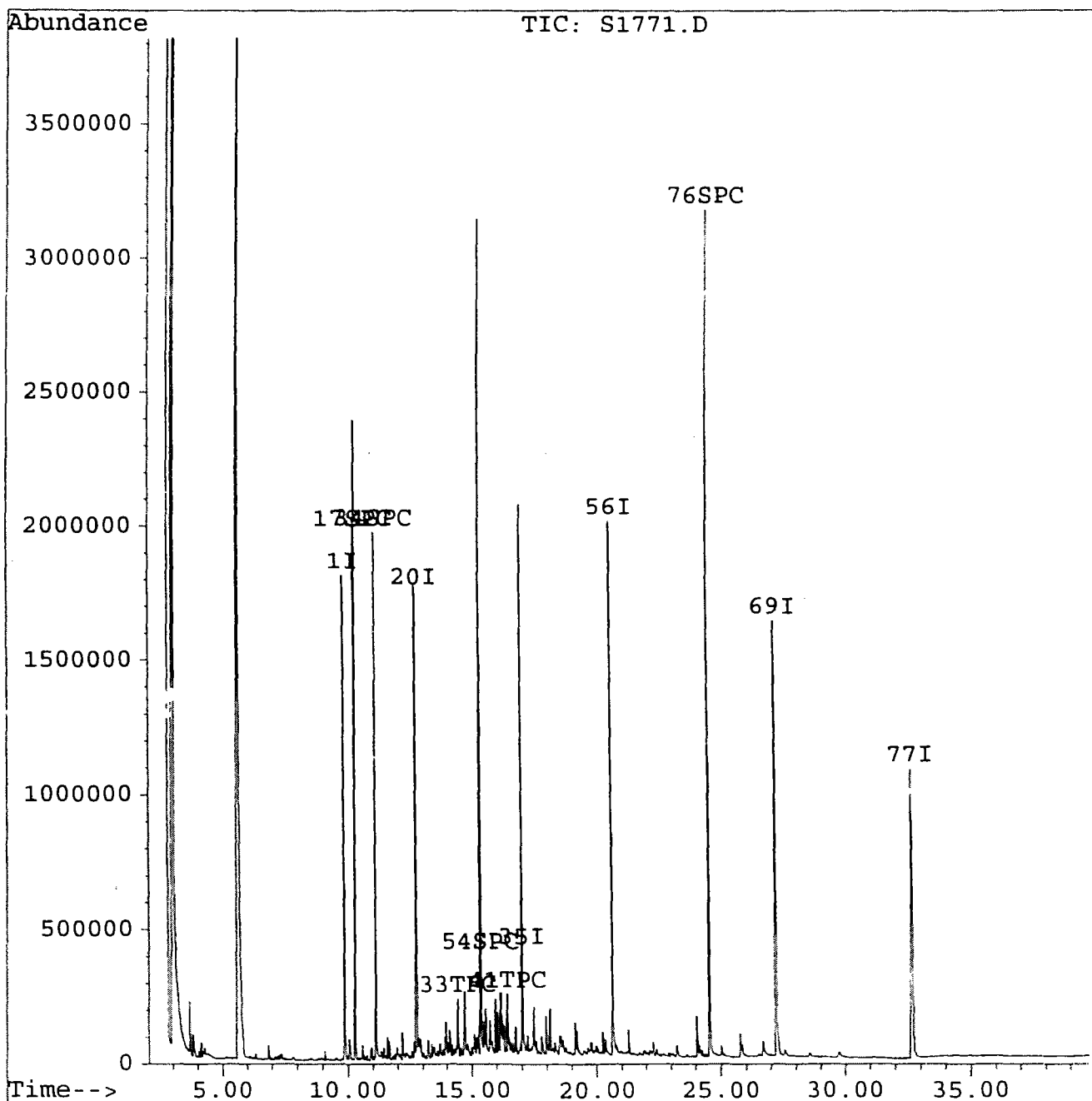
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
5.				
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Quantitation Report

Data File : c:\hpchem\1\data\1202\s1771.d
 Acq On : 3 Dec 94 18:17 pm
 Sample : 2252109,689A-1,
 Misc : 1,,13-NOV-94,1000,1,PBN625+15, WATER
 Quant Time: Dec 3 18:57 1994

Vial: 58
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M .
 Title : 390/ASP/8270
 Last Update : Mon Dec 05 19:18:12 1994
 Response via : Multiple Level Calibration



000056

Quantitation Report

Data File : c:\hpchem\1\data\1202\s1771.d
 Acq On : 3 Dec 94 18:17 pm
 Sample : 2252109,689A-1,
 Misc : 1,,13-NOV-94,1000,1,PBN625+15, WATER
 Quant Time: Dec 3 18:57 1994

Vial: 58
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Fri Dec 02 19:39:08 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.87	152	598747	20.00	ug/L	0.00
20) Naphthalene-D8	12.74	136	2097311	20.00	ug/L	0.00
35) Acetaphthene-d10	17.01	164	1010197	20.00	ug/L	-0.02
56) Phenanthrene-D10	20.63	188	1631376	20.00	ug/L	-0.02
69) Chrysene-D12	27.23	240	1487606	20.00	ug/L	-0.02
77) Perylene-D12	32.70	264	1812144	20.00	ug/L	-0.03
System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	0.00%
15) Phenol-d5	9.14	99	1678	0.03	ug/L	0.05%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.28	150	1468254	30.70	ug/L	61.40%
34) Nitrobenzene-d5	11.13	82	1333370	30.56	ug/L	61.11%
54) 2-Fluorobiphenyl	15.34	172	2234617	34.35	ug/L	68.70%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	0.00%
76) Terphenyl-d14	24.58	244	2851368	43.98	ug/L	87.95%
Target Compounds						Qvalue
33) 2-Methylnaphthalene	14.43	142	156902	2.31	ug/L	97
41) Dimethylphthalate	16.42	163	155686	2.25	ug/L	98

000057

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: WB1113A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1751.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

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

CAS NO.	COMPOUND	Q
111-44-4	-----bis(2-Chloroethyl) Ether	U
541-73-1	-----1,3-Dichlorobenzene	U
106-46-7	-----1,4-Dichlorobenzene	U
95-50-1	-----1,2-Dichlorobenzene	U
108-60-1	-----2,2'-oxybis(1-Chloropropane)	U
621-64-7	-----N-Nitroso-di-n-propylamine	U
67-72-1	-----Hexachloroethane	U
98-95-3	-----Nitrobenzene	U
78-59-1	-----Isophorone	U
120-82-1	-----1,2,4-Trichlorobenzene	U
91-20-3	-----Naphthalene	U
87-68-3	-----Hexachlorobutadiene	U
111-91-1	-----bis(2-Chloroethoxy) methane	U
77-47-4	-----Hexachlorocyclopentadiene	U
91-58-7	-----2-Chloronaphthalene	U
131-11-3	-----Dimethylphthalate	U
208-96-8	-----Acenaphthylene	U
606-20-2	-----2,6-Dinitrotoluene	U
83-32-9	-----Acenaphthene	U
121-14-2	-----2,4-Dinitrotoluene	U
84-66-2	-----Diethylphthalate	U
7005-72-3	-----4-Chlorophenyl-phenylether	U
86-73-7	-----Fluorene	U
86-30-6	-----N-Nitrosodiphenylamine (1)	U
101-55-3	-----4-Bromophenyl-phenylether	U
118-74-1	-----Hexachlorobenzene	U
85-01-8	-----Phenanthrene	U
120-12-7	-----Anthracene	U
84-74-2	-----Di-n-butylphthalate	U
206-44-0	-----Fluoranthene	U
129-00-0	-----Pyrene	U
85-68-7	-----Butylbenzylphthalate	U
91-94-1	-----3,3'-Dichlorobenzidine	U

(1) - Cannot be separated from Diphenylamine

000058

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: WB1113A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1751.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

56-55-3-----	Benzo (a) anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis (2-Ethylhexyl) phthalate	1	U
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo (b) fluoranthene	1	U
207-08-9-----	Benzo (k) fluoranthene	1	U
50-32-8-----	Benzo (a) pyrene	1	U
193-39-5-----	Indeno (1,2,3-cd) pyrene	1	U
53-70-3-----	Dibenz (a,h) anthracene	1	U
191-24-2-----	Benzo (g,h,i) perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U
92-87-5-----	Benzidine	1	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Matrix: (soil/water) WATER

Lab Sample ID: WB1113A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S1751.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

GPC Cleanup: (Y/N) N

pH: 5.0

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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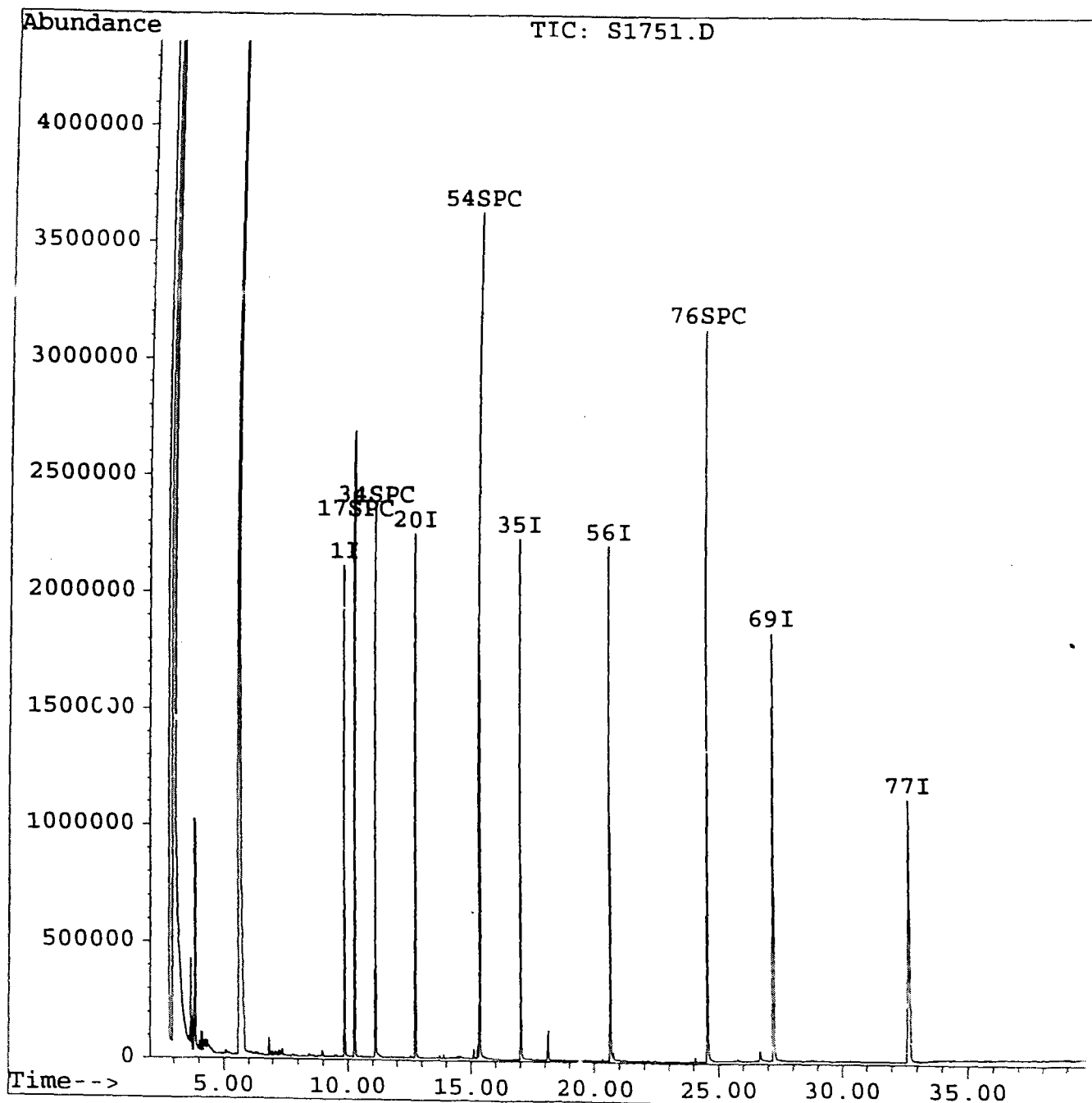
000060

Quantitation Report

Data File : c:\hpchem\1\data\1202\s1751.d
 Acq On : 3 Dec 94 3:14 am
 Sample : WB1113A,SBLK28,
 Misc : 1,5,,13-NOV-94,1000,1,P625
 Quant Time: Dec 3 3:54 1994

Vial: 40
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Fri Dec 02 19:39:08 1994
 Response via : Multiple Level Calibration



000061

Data File : c:\hpcchem\1\data\1202\s1751.d
 Acq On : 3 Dec 94 3:14 am
 Sample : WB1113A, SBLK28,
 Misc : 1,5,,13-NOV-94,1000,1,P625
 Quant Time: Dec 3 3:54 1994

Vial: 40
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Fri Dec 02 19:39:08 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.87	152	744679	20.00	ug/L	0.00
20) Naphthalene-D8	12.73	136	2595426	20.00	ug/L	-0.01
35) Acenaphthene-d10	17.01	164	1157750	20.00	ug/L	-0.01
56) Phenanthrene-D10	20.63	188	1913888	20.00	ug/L	-0.01
69) Chrysene-D12	27.23	240	1663491	20.00	ug/L	-0.01
77) Perylene-D12	32.70	264	1948120	20.00	ug/L	-0.03

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	0.00%
15) Phenol-d5	9.13	99	1654	0.03	ug/L	0.04%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.29	150	1880646	31.62	ug/L	63.23%
34) Nitrobenzene-d5	11.14	82	1741026	32.24	ug/L	64.48%
54) 2-Fluorobiphenyl	15.35	172	2731690	36.64	ug/L	73.28%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	0.00%
76) Terphenyl-d14	24.58	244	2889447	39.85	ug/L	79.71%

Target Compounds

Qvalue

000062

John Raffi 12/5/94

(#) = qualifier out of range (m) = manual integration
 s1751.d 625.M Sun Dec 04 05:39:38 1994 HPPC

2C
WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	SSTD050	49	49	50	49	24				0
02	SBLK28	64	73	80	63					0
03	SSTD050	48	48	50	49	24				0
04	814-FB	62	62	74	57					0
05	814-DUP	62	64	80	58					0
06	814-1	65	60	64	61					0
07	287-1	60	60	68	55					0
08	208B-1	54	51	70	49					0
09	282-1	50	48	60	43					0
10	207B-1	59	51	72	52					0
11	689A-1	61	69	88	61					0
12	600-1	56	63	78	56					0
13	SSTD050	49	48	47	49	24				0
14	2700-4-1	55	58	70	52					0
15	1220-1	64	57	59	51					0
16	1076-1	75	62	62	57					0
17	1076-2	71	69	69	65					0
18	1076-3	68	64	67	55					0
19	1076-3MS	69	68	72	69					0
20	1076-3MSD	64	70	74	67					0
21	689B-2	69	63	61	62					0
22										
23										
24										
25										
26										
27										
28										
29										
30										

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 (35-114)
 S2 (FBP) = 2-Fluorobiphenyl (43-116)
 S3 (TPH) = Terphenyl-d14 (33-141)
 S4 = 1,2-Dichlorobenzene-d4 (33-110)
 S5 = N/A
 S6 = N/A
 S7 = N/A
 S8 = N/A

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

nytest

RECOVERY REPORT

Client Name: aguilar
Sample Matrix: LIQUID
Lab Smp Id: 2252116
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22521.b/625.m
Misc Info:

Client SDG: ARMY2a
Fraction: SV
Client Smp ID: 1076-3MS
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Phenol	50	0.0	*	17-100
9 bis(2-Chloroethyl)	50	40	79.41	43-126
10 1,3-Dichlorobenzen	50	37	74.93	17-154
13 1,4-Dichlorobenzen	50	37	74.01	37-106
15 1,2-Dichlorobenzen	50	38	76.23	49-112
21 2,2'-oxybis(1-Chlo	50	42	83.01	63-139
18 N-Nitroso-di-n-pro	50	42	84.74	14-198
17 Hexachloroethane	50	38	75.91	55-100
20 Nitrobenzene	50	36	73.13	54-158
22 Isophorone	50	34	68.54	47-180
23 2-Nitrophenol	50	0.0	*	45-167
24 2,4-Dimethylphenol	50	0.0	*	42-109
26 bis(2-Chloroethoxy	50	39	77.51	49-165
27 2,4-Dichlorophenol	50	0.0	*	52-122
28 1,2,4-Trichloroben	50	35	69.21	57-129
31 Naphthalene	50	34	67.55	36-120
33 Hexachlorobutadien	50	34	68.47	38-102
34 4-Chloro-3-Methyl	50	0.0	*	41-128
36 Hexachlorocyclophen	50	38	77.10	38-102
37 2,4,6-Trichloroph	50	0.0	*	52-129
40 2-Chloronaphthalen	50	37	74.28	64-114
43 Dimethylphthalate	50	41	81.55	0-100
42 Acenaphthylene	50	35	69.52	54-126
44 2,6-Dinitrotoluene	50	42	84.94	68-137
46 Acenaphthene	50	37	73.90	60-132
48 2,4-Dinitrophenol	50	0.0	*	0-173
50 4-Nitrophenol	50	0.0	*	13-106
8 2-Chlorophenol	50	0.0	*	36-120
51 2,4-Dinitrotoluene	50	48	96.21	48-127
54 Diethylphthalate	50	38	76.95	0-100
53 4-Chlorophenyl-phe	50	37	73.99	38-145
52 Fluorene	50	36	71.86	72-108
55 4,6-Dinitro-2-met	50	0.0	*	53-100
56 N-Nitrosodiphenyla	50	37	73.50	14-198
59 4-Bromophenyl-phen	50	35	69.87	65-114
60 Hexachlorobenzene	50	33	66.40	8-142

Acids are not Applicable
000064

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	29	58.93*	65-109
64 Anthracene	50	31	62.28	43-118
66 Di-n-butylphthalat	50	34	67.88	8-111
67 Fluoranthene	50	33	66.05	43-121
68 Pyrene	50	37	73.98	70-100
70 Butylbenzylphthala	50	37	73.52	0-140
73 3,3'-Dichlorobenzi	50	61	122.07	8-212
71 Benzo(a)anthracene	50	37	74.94	42-133
74 Chrysene	50	34	69.17	44-140
75 bis(2-Ethylhexyl)p	50	38	76.11	29-137
76 Di-n-octylphthalat	50	31	61.58	19-132
77 Benzo(b)fluoranth	50	0.0	*	42-140
78 Benzo(k)fluoranth	50	29	58.62	25-146
79 Benzo(a)pyrene	50	30	59.00	32-148
81 Indeno(1,2,3-cd)py	50	30	60.66	0-151
82 Dibenz(a,h)anthrac	50	29	58.38	0-200
83 Benzo(g,h,i)peryle	50	31	61.29	0-195

Acids are not applicable

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 1,2-Dichlorobenzen	50	35	69.31	33-110
\$ 29 Nitrobenzene-d5	50	34	68.98	35-114
\$ 39 2-Fluorobiphenyl	50	34	68.39	43-116
\$ 69 Terphenyl-d14	50	36	71.53	33-141

000065

nytest

RECOVERY REPORT

Client Name: aguilar
Sample Matrix: LIQUID
Lab Smp Id: 2252117
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22521.b/625.m
Misc Info:

Client SDG: ARMY2a
Fraction: SV
Client Smp ID: 1076-3MSD
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Phenol	50	0.0	*	17-100
9 bis(2-Chloroethyl)	50	36	71.96	43-126
10 1,3-Dichlorobenzen	50	36	71.06	17-154
13 1,4-Dichlorobenzen	50	35	70.96	37-106
15 1,2-Dichlorobenzen	50	36	71.91	49-112
21 2,2'-oxybis(1-Chlo	50	38	75.75	63-139
18 N-Nitroso-di-n-pro	50	40	80.47	14-198
17 Hexachloroethane	50	36	72.90	55-100
20 Nitrobenzene	50	34	67.66	54-158
22 Isophorone	50	33	65.71	47-180
23 2-Nitrophenol	50	0.0	*	45-167
24 2,4-Dimethylphenol	50	0.0	*	42-109
26 bis(2-Chloroethoxy	50	37	74.17	49-165
27 2,4-Dichlorophenol	50	0.0	*	52-122
28 1,2,4-Trichloroben	50	33	66.15	57-129
31 Naphthalene	50	32	64.05	36-120
33 Hexachlorobutadien	50	33	65.83	38-102
34 4-Chloro-3-Methyl	50	0.0	*	41-128
36 Hexachlorocyclopen	50	38	76.33	38-102
37 2,4,6-Trichloroph	50	0.0	*	52-129
40 2-Chloronaphthalen	50	37	74.49	64-114
43 Dimethylphthalate	50	41	82.40	0-100
42 Acenaphthylene	50	36	71.06	54-126
44 2,6-Dinitrotoluene	50	43	85.88	68-137
46 Acenaphthene	50	37	74.85	60-132
48 2,4-Dinitrophenol	50	0.0	*	0-173
50 4-Nitrophenol	50	0.0	*	13-106
8 2-Chlorophenol	50	0.0	*	36-120
51 2,4-Dinitrotoluene	50	48	96.29	48-127
54 Diethylphthalate	50	39	78.20	0-100
53 4-Chlorophenyl-phe	50	37	74.96	38-145
52 Fluorene	50	36	72.61	72-108
55 4,6-Dinitro-2-met	50	0.0	*	53-100
56 N-Nitrosodiphenyla	50	37	74.85	14-198
59 4-Bromophenyl-phen	50	36	72.00	65-114
60 Hexachlorobenzene	50	34	67.97	8-142

Acids are not applicable
000066

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	30	59.60*	65-109
64 Anthracene	50	31	62.54	43-118
66 Di-n-butylphthalat	50	35	70.01	8-111
67 Fluoranthene	50	34	67.37	43-121
68 Pyrene	50	38	76.32	70-100
70 Butylbenzylphthala	50	38	77.09	0-140
73 3,3'-Dichlorobenzi	50	62	123.64	8-212
71 Benzo(a)anthracene	50	38	76.91	42-133
74 Chrysene	50	36	71.90	44-140
75 bis(2-Ethylhexyl)p	50	39	78.31	29-137
76 Di-n-octylphthalat	50	31	62.72	19-132
77 Benzo(b)fluoranthene	50	31	62.14	42-140
78 Benzo(k)fluoranthene	50	30	60.06	25-146
79 Benzo(a)pyrene	50	30	59.85	32-148
81 Indeno(1,2,3-cd)py	50	31	62.53	0-151
82 Dibenz(a,h)anthrac	50	30	60.20	0-200
83 Benzo(g,h,i)perylene	50	32	63.28	0-195

Acids are not applicable

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 1,2-Dichlorobenzene	50	34	67.34	33-110
\$ 29 Nitrobenzene-d5	50	32	63.71	35-114
\$ 39 2-Fluorobiphenyl	50	35	70.05	43-116
\$ 69 Terphenyl-d14	50	37	74.54	33-141

000067

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK28

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Lab File ID: S1751.D

Lab Sample ID: WB1113A

Date Extracted: 11/13/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/03/94

Time Analyzed: 0314

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: HPS

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	814-FB	2252101	S1764.D	12/03/94
02	814-DUP	2252103	S1765.D	12/03/94
03	814-1	2252104	S1766.D	12/03/94
04	287-1	2252105	S1767.D	12/03/94
05	208B-1	2252106	S1768.D	12/03/94
06	282-1	2252107	S1769.D	12/03/94
07	207B-1	2252108	S1770.D	12/03/94
08	689A-1	2252109	S1771.D	12/03/94
09	600-1	2252110	S1772.D	12/03/94
10	2700-4-1	2252111	S1791.D	12/05/94
11	1220-1	2252112	S1792.D	12/05/94
12	1076-1	2252113	S1793.D	12/05/94
13	1076-2	2252114	S1794.D	12/05/94
14	1076-3	2252115	S1795.D	12/05/94
15	1076-3MS	2252116	S1796.D	12/05/94
16	1076-3MSD	2252117	S1797.D	12/06/94
17	589B-2	2252118	S1798.D	12/06/94
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE C K
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Lab File ID: S1733.D

DFTPP Injection Date: 12/02/94

Instrument ID: HPS

DFTPP Injection Time: 0946

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	54.5
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	43.5
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.2
365	Greater than 1.00% of mass 198	2.18
441	Present, but less than mass 443	10.6
442	Greater than 40.0% of mass 198	74.1
443	17.0 - 23.0% of mass 442	14.5 (19.6)2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	SSTD010	S1735.D	12/02/94	1154
02	SSTD020	SSTD020	S1736.D	12/02/94	1244
03	SSTD050	SSTD050	S1737.D	12/02/94	1333
04	SSTD080	SSTD080	S1738.D	12/02/94	1421
05	SSTD160	SSTD160	S1739.D	12/02/94	1510
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
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17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Lab File ID: S1740.D

DFTPP Injection Date: 12/02/94

Instrument ID: HPS

DFTPP Injection Time: 1834

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	41.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	55.3
70	Less than 2.0% of mass 69	0.2 (0.3)1
127	40.0 - 60.0% of mass 198	43.3
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	19.3
365	Greater than 1.00% of mass 198	2.10
441	Present, but less than mass 443	11.1
442	Greater than 40.0% of mass 198	76.8
443	17.0 - 23.0% of mass 442	14.9 (19.4)2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S1741.D	12/02/94	1853
02	SBLK28	WB1113A	S1751.D	12/03/94	0314
03					
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Lab File ID: S1760.D

DFTPP Injection Date: 12/03/94

Instrument ID: HPS

DFTPP Injection Time: 1032

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	35.2
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	46.5
70	Less than 2.0% of mass 69	0.2 (0.4)1
127	40.0 - 60.0% of mass 198	41.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	19.5
365	Greater than 1.00% of mass 198	2.05
441	Present, but less than mass 443	10.4
442	Greater than 40.0% of mass 198	71.6
443	17.0 - 23.0% of mass 442	13.9 (19.5)2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S1763.D	12/03/94	1142
02	814-FB	2252101	S1764.D	12/03/94	1230
03	814-DUP	2252103	S1765.D	12/03/94	1319
04	814-1	2252104	S1766.D	12/03/94	1408
05	287-1	2252105	S1767.D	12/03/94	1457
06	208B-1	2252106	S1768.D	12/03/94	1546
07	282-1	2252107	S1769.D	12/03/94	1636
08	207B-1	2252108	S1770.D	12/03/94	1727
09	689A-1	2252109	S1771.D	12/03/94	1817
10	600-1	2252110	S1772.D	12/03/94	1908
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Instrument ID: HPS

Calibration Date(s): 12/02/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF010 =S1735.D		RRF020 =S1736.D		RRF050 =S1737.D		RRF080=S1738.D		RRF160=S1739.D	
COMPOUND		RRF010	RRF020	RRF050	RRF080	RRF160	RRF	%	RSD		
=====		=====	=====	=====	=====	=====	=====	=====	=====		
bis(2-Chloroethyl) Ether		1.669	1.458	1.335	1.301	1.087	1.370	15.6			
1,3-Dichlorobenzene		1.819	1.590	1.444	1.400	1.123	1.475	17.4			
1,4-Dichlorobenzene		1.818	1.569	1.421	1.371	1.052	1.446	19.4			
1,2-Dichlorobenzene		1.741	1.505	1.352	1.255	0.934	1.357	22.1			
2,2'-oxybis(1-Chloropropane)		2.396	2.071	1.906	1.904	1.699	1.995	13.0			
N-Nitroso-di-n-propylamine		1.082	0.929	0.889	0.886	0.790	0.915	11.6			
Hexachloroethane		0.753	0.651	0.601	0.589	0.481	0.615	16.1			
Nitrobenzene		0.452	0.413	0.387	0.373	0.314	0.388	13.2			
Isophorone		0.956	0.845	0.769	0.752	0.669	0.798	13.6			
1,2,4-Trichlorobenzene		0.423	0.382	0.346	0.338	0.267	0.351	16.5			
Naphthalene		1.255	1.128	1.018	0.934	0.732	1.013	19.6			
bis(2-Chloroethoxy)methane		0.571	0.503	0.452	0.440	0.375	0.468	15.7			
Hexachlorobutadiene		0.217	0.198	0.183	0.176	0.138	0.183	16.1			
Hexachlorocyclopentadiene		0.321	0.337	0.350	0.353	0.302	0.333	6.4			
2-Chloronaphthalene		1.447	1.268	1.135	1.079	0.851	1.156	19.2			
Dimethylphthalate		1.702	1.449	1.324	1.308	1.073	1.371	16.7			
Acenaphthylene		2.321	2.000	1.725	1.578	1.035	1.732	27.8			
2,6-Dinitrotoluene		0.391	0.346	0.330	0.324	0.232	0.325	18.0			
Acenaphthene		1.384	1.199	1.036	0.982	0.770	1.074	21.5			
2,4-Dinitrotoluene		0.472	0.417	0.425	0.447	0.411	0.434	5.8			
Diethylphthalate		1.681	1.413	1.273	1.266	1.020	1.331	18.2			
4-Chlorophenyl-phenylether		0.698	0.584	0.501	0.460	0.337	0.516	26.2			
Fluorene		1.487	1.240	1.057	0.934	0.695	1.083	27.7			
N-Nitrosodiphenylamine (1)		0.677	0.561	0.469	0.443	0.356	0.501	24.4			
4-Bromophenyl-phenylether		0.282	0.259	0.247	0.235	0.180	0.241	15.7			
Hexachlorobenzene		0.357	0.320	0.296	0.273	0.202	0.290	20.0			
Phenanthrene		1.400	1.246	1.156	1.085	0.798	1.137	19.6			
Anthracene		1.396	1.236	1.157	1.087	0.817	1.138	18.8			
Di-n-butylphthalate		1.901	1.656	1.570	1.504	1.128	1.552	18.1			
Fluoranthene		1.388	1.205	1.141	1.094	0.848	1.135	17.2			
Pyrene		1.565	1.349	1.255	1.198	1.002	1.273	16.2			
Butylbenzylphthalate		0.934	0.813	0.930	0.760	0.664	0.820	14.0			
3,3'-Dichlorobenzidine		0.355	0.244	0.212	0.237	0.264	0.263	21.0			
Benzo(a)anthracene		1.321	1.150	1.121	1.087	0.875	1.111	14.4			
Chrysene		1.223	1.068	0.955	0.885	0.736	0.973	18.9			
bis(2-Ethylhexyl)phthalate		1.235	1.045	0.930	0.875	0.720	0.961	20.0			
Di-n-octylphthalate		1.989	1.993	2.094	2.102	1.785	1.993	6.4			

(1) - Cannot be separated from Diphenylamine

000072

SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22521

SAS No.:

SDG No.: ARMY2

Instrument ID: HPS

Calibration Date(s): 12/02/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF010 =S1735.D		RRF020 =S1736.D			
RRF050 =S1737.D		RRF080=S1738.D		RRF160=S1739.D			
COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
Benzo (b) fluoranthene	1.229	1.325	1.380	1.558	1.296	1.358	9.2
Benzo (k) fluoranthene	1.175	1.285	1.342	1.341	0.946	1.218	13.7
Benzo (a) pyrene	1.201	1.233	1.328	1.365	1.247	1.275	5.4
Indeno (1,2,3-cd) pyrene	1.406	1.455	1.583	1.648	1.501	1.519	6.4
Dibenz (a,h) anthracene	1.136	1.169	1.285	1.324	1.104	1.203	8.0
Benzo (g,h,i) perylene	1.226	1.273	1.387	1.459	1.376	1.344	7.0
N-Nitrosodimethylamine	0.811	0.734	0.683	0.606	0.574	0.682	14.0
Benzidine	0.072	0.038	0.035	0.068	0.074	0.057	33.4
=====	=====	=====	=====	=====	=====	=====	=====
Nitrobenzene-d5	0.477	0.433	0.409	0.408	0.354	0.416	10.8
2-Fluorobiphenyl	1.616	1.435	1.266	1.189	0.934	1.288	20.0
Terphenyl-d14	1.095	0.944	0.878	0.820	0.621	0.872	19.9
1,2-Dichlorobenzene-d4	2.008	1.747	1.592	1.497	1.143	1.598	20.0

(1) - Cannot be separated from Diphenylamine

000073



TOTAL ANALYTICAL SERVICES FOR A SAFE ENVIRONMENT

nytest environmental inc.

Project No.: 9421415
Log in No.: 22662K
P.O. No.: Pending
Date: 2/20/95
SDG No.: Army 3
NJDEPE Case #:93-11-10-758-23

ANALYTICAL DATA REPORT
PACKAGE FOR

Aguilar Associates

30 Freneau Avenue

Matawan, NJ 07747

ATTN: Darryl Schmitt
REF: US Army Fort Monmouth, Well# and NJDEPE Reg# 1- 2930966
Sample Location Bldg. 689A

LABORATORY
NUMBER

SAMPLE
IDENTIFICATION

TYPE OF
SAMPLE

SEE NEXT PAGE

WE CERTIFY THAT THIS REPORT IS A
TRUE REPORT OF RESULTS OBTAINED
FROM OUR TESTS OF THIS MATERIAL.

NYS Lab ID. #10195
NJ Cert. #73469

RESPECTFULLY SUBMITTED,
NYTEST ENVIRONMENTAL INC.

Yon Bey

REMO GIGANTE
EXEC. VICE PRESIDENT

Report on sample(s) furnished by client applies to sample(s) Report on sample(s) obtained by us applies only to lot sampled. Information contained herein is not to be used for reproduction except by special permission. Sample(s) will be retained for thirty days maximum after date of report unless specifically requested otherwise by client. In the event that there are portions or parts of sample(s) remaining after Nytest has completed the required tests, Nytest shall have the option of returning such sample(s) to the client at the client's expense

NYTEST ENVIRONMENTAL Inc.

LABORATORY NUMBER	SAMPLE IDENTIFICATION	WELL #	TYPE OF SAMPLE
2266217	689A-1	1-2930966	Water
2266208	FIELDDB	-	Water
2266218	TRIPBL	-	Water

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BLDG.#: 689A W#: 1 NJDEPE WELL ID # 2930966

U.S. ARMY FORT MONMOUTH
MONITORING WELL SAMPLING DATASHEET

DATE: 12/1/94

IJO#94-0843 B

SAMPLING CONTRACTOR: Aguilar Associates Inc.

LABORATORY: NYTEST Environmental Inc. CERT #:73469

SAMPLERS NAMES: D. Schmitt, N. Vonasek, S. Panizzi

WEATHER CONDITIONS: Mild 40's cold, windy

ELEVATION OF CASING SURVEY MARK: 15.63

TOTAL DEPTH OF WELL FROM TOP OF SURVEYORS MARK: 12.50 FT

DEPTH FROM SURVEYORS MARK TO SCREEN: 2.0 FT

LENGTH OF SCREENED SECTION: 10.5 FT.

DEPTH TO WATER PRIOR TO PURGING AND SAMPLING: 6.71 FT

ELEVATION OF GW PRIOR TO PURGING: 8.92 FT

THICKNESS OF LNAPL PRIOR TO PURGING: - FT

PID/Hnu READING IMMEDIATELY AFTER THE WELL CAP IS

REMOVED: 3 PPM

pH: 4.80 TEMP: 14 C, SPECIFIC CONDUCTIVITY: 620 μ S

DEPTH OF WELL: 12.50 FT D.O. - 2.3

HEIGHT OF WATER: 5.79 FT

EVACUATED GAL. H2O: 11.50 GAL (5.79 X .65 X 3 = 11.29)

PURGING START TIME: 11:00 END TIME: 11:18

PURGE METHOD: REDI-FLOW 2 INCH SUBMERSIBLE PUMP VARIABLE

FLOW RATE OF <0.5 GPM TO >5.0 GPM

PURGE RATE (<0.5 GPM): <1 GPM

TOTAL VOLUME PURGED: 11.50 GAL.

DEPTH TO WATER AFTER PURGING AND BEFORE

SAMPLING: 7.00 FT

DISSOLVED OXYGEN: 4.8 pH: 4.58 TEMP: 14 °C

SPECIFIC CONDUCTIVITY: 700 μ S

SAMPLING METHOD: DEDICATED, DECONTAMINATED (IAW NJDEP

FSPM 1992) TEFLON® BAILER

START TIME OF SAMPLING: 11:30 END TIME: 11:40

DISSOLVED OXYGEN: 3.2 pH: 4.48 TEMP: 13.5 °C

SPECIFIC CONDUCTIVITY: 860 μ S

COMMENTS: _____

U.S. ARMY FORT MONMOUTH

P.O. #: Aguilar/94-0843

Chain of Custody

Project #: <u>93-11-10-758-23</u>		Sampler: <u>D. Schmitt-Aguilar</u>		Date / Time <u>12/1/94</u> <u>12:45</u>		Analysis Parameters		Start:	
Customer: <u>C. Appleby</u>		Site Name: <u>Bldg 689A</u>						Finish:	
Phone: <u>(908) 532-6224</u>		DICAR#: <u>93-11-10-758-23</u>							
		<u>MW Sampling</u>						Preservation Method	
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles	Analysis Parameters				Remarks
<u>1751.1</u>	<u>12/1/94</u> <u>1135</u>	<u>MW-1, 2930966</u>	<u>AQ</u>	<u>4</u>	<u>2</u>	<u>2</u>		<u>3.0</u>	<u>Sample kept <40C</u>
<u>1748.2</u>	<u>12/1/94</u> <u>8:05</u>	<u>Field Blank</u>	<u>AQ</u>	<u>4</u>	<u>2</u>	<u>2</u>			
<u>.3</u>	<u>12/1/94</u> <u>8:40</u>	<u>Trip Blank</u>	<u>AQ</u>	<u>2</u>	<u>2</u>				
<u>.4</u>	<u>12/1/94</u> <u>-</u>	<u>Duplicate</u>	<u>AQ</u>	<u>4</u>	<u>2</u>	<u>2</u>			
<u>.5</u>	<u>12/1/94</u> <u>9:00</u>	<u>MW-1 Np 2939 2430957</u>	<u>AQ</u>	<u>4</u>	<u>2</u>	<u>2</u>			
									<u>Hnu 801497</u>
									<u>Hnu = 0 (approx)</u>
									<u>calibrated 11/23/94</u>
									<u>5627m bearing 50m</u>
									<u>6605 91 22m Szn 9.8 ft</u>
Relinquished By (signature)		Date / Time		Received By (signature)		Shipped By:			
Relinquished By (signature)		Date / Time		Received for Lab by (signature):		Date / Time			

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



(516) 625-5500

FAX: (516) 625-1274

page # : 1 of 1

Log in # _____
Ship to: _____
Nytest Environmental Inc
60 Seaview Blvd
Port Washington N.Y. 11050
Attn.: Sample Control
Date Shipped: _____
Carrier: _____
Air Bill #: _____
Cooler #: _____
C of C #: _____
SDG #: _____
NEI QT #: _____

Comments

Lab Use Only

Custody Seal:	Intact	Broken
Sample Res'd in Good Condition? :	☒ Y	☐ N

Sample Temperature: 6 Degrees Celsius

INSPECTED BY: ML

COMMENTS: _____

Special Instructions : _____

CLIENT RETAINS YELLOW COPY ONLY



CHAIN OF CUSTODY RECORD

Page 1 of 1

REPORT TO: Client Name Ag. 190 A350
Address 2500 E. 1st St. Apt. 2
Mesa, AZ 85203
Phone 903-290-3500
Attn. D. Seizinger

[illegible]

Relinquished by (Signature) <i>Darryl W. Schmitt</i>	Date <i>6/14</i>	Time <i>16:20</i>	Rec'd By (Signature) <i>Murray Ferguson</i>	Date <i>12/2</i>	Time <i>16:20</i>
Print Name <i>Darryl W. Schmitt</i>			Print Name <i>MURRAY FERGUSON</i>		
Relinquished by (Signature) <i>Murray Ferguson</i>	Date <i>12/2</i>	Time <i>18:30</i>	Rec'd by (Signature)	Date	Time
Print Name <i>MURRAY FERGUSON</i>			Print Name		
Relinquished by (Signature)	Date	Time	Received for Laboratory by (Signature) <i>Phil Lan.</i>	Date	Time
Print Name			Print Name <i>Michael Lan.</i>	<i>12/14/79</i>	<i>18:22</i>

Special Instructions/Comments.

-000002

INTERNAL CHAIN OF CUSTODY

Laboratory Person Breaking Field Seal on Sample Shuttle & Accepting Responsibility for Sample

NAME: Michael | an

TITLE: *SECRET*

Client:

Aguilar Assoc

Date Broken

12/02/94

Military Time Seal Broken:

1830

Login #:

2266d

Analytical Parameter/Fraction: **PG241/5** **PRNG251/5**

SAMPLE NO.	ALQUOT/EXTRACT NO.	SAMPLE NO.	ALQUOT/EXTRACT NO.
814-1	22662-c1	1220-1	22662-11
1076-1	02	207B-1	12
1076-2	03	207B-1MS	13
1076-3	04	207B-1MSD	14
689B-2	05	208B-1	15
600-1	06	282-1	16
287-1	07	689A-1	17
FIELD B	08	TRIPBL	18
DUPLIC	09		
27604-1	10		

DATE	TIME	RELINQUISHED BY	RECEIVED BY	PURPOSE OF CHANGE OF CUSTODY
12/5	11:50	PRINTED NAME M. LANI SIGNATURE M. Lan	PRINTED NAME Scaver SIGNATURE Scaver	WVA
12/5/94	1200	PRINTED NAME M. LANI SIGNATURE M. Lan	PRINTED NAME C Voss SIGNATURE C Voss	18N625+15
12/6/94	1305	PRINTED NAME C Voss SIGNATURE C Voss	PRINTED NAME J. PIERIDES SIGNATURE J. PIERIDES	STORAGE
12/13/94	0800	PRINTED NAME Scaver SIGNATURE Scaver	PRINTED NAME M. LANI SIGNATURE M. Lan	STORAGE
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	
		PRINTED NAME SIGNATURE	PRINTED NAME SIGNATURE	000003

LABORATORY DELIVERABLES

Check if
Complete

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

Jon Bay
Laboratory Manager or Environmental
Consultant's Signature

2/21/95
Date

000004

GC/MS ANALYSIS CONFORMANCE/NON-CONFORMANCE SUMMARY FORMAT

	<u>No</u>	<u>Yes</u>
1. Chromatograms Labeled/Compounds Identified (Field Samples and Method Blanks)	—	✓
2. GC/MS Tune Specifications		
a. BFB Meet Criteria	—	✓
b. DFTPP Meet Criteria	—	✓
3. GC/MS Tune Frequency - Performed every 24 hours for 600 series and 12 hours for 8000 series.	—	✓
4. GC/MS Calibration - Initial Calibration performed within 30 days before sample analysis and continuing calibration performed within 24 hours of sample analysis for 600 series and 12 hours for 8000 series	—	✓
5. GC/MS Calibration Requirements		
a. Calibration Check Compounds	—	✓
b. System Performance Check Compounds	—	✓
6. Blank Contamination - If yes, list compounds and concentrations in each blank:		
a. VOA fraction <i>1/18/95</i>		
b. B/N Fraction		
c. Acid Fraction		
7. Surrogate Recoveries Meet Criteria	✓	
If not met, list those compounds and their recoveries which fall outside the acceptable range:		
a. VOA Fraction		
b. B/N Fraction		
c. Acid Fraction		
If not met, were the calculations checked and the results qualified as estimated?		
	NA	
8. Matrix Spike/Matrix Spike Duplicate Recoveries Meet Criteria (if not met, list these compounds and their recoveries which fall outside the acceptable range)	✓	
a. VOA Fraction		
b. B/N Fraction		
c. Acid Fraction		
9. Internal Standard Area/Retention Time Shift Meet Criteria		

000005

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

No **Yes**

10. Extraction Holding Time Met

✓

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

SEVERAL SAMPLES REQUIRED RE-EXTRACTIONS,
WHICH WERE PERFORMED OUTSIDE OF HOLDING TIME

11. Analysis Holding Time Met

 ✓

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

Additional Comments: _____

Laboratory Manager: Yoni Ben

Date 2/21/95

000006

Laboratory Chronicle

Client Name: Aguilar Associates

Log In No: 22662K

Date(s) of Sample Collection: 12/01/94

Date Received: 12/02/94

Sample ID: As per chain of custody

Organics Extraction:

1. Acids _____
12/05/94 12/30/94
2. Base/Neutrals _____
3. Pesticides/PCBs _____
4. Herbicides _____

Analysis:

12/05/94, 12/06/94

1. Volatiles _____
2. Acids _____
12/29/94 12/30/94 1/09/95
3. Base/Neutrals _____
4. Pesticides/PCBs _____
5. Herbicides _____

Section Supervisor

Review & Approval

Don Ber

Inorganics:

1. Metals _____
2. Cyanides _____
3. Phenols _____

Other Analysis:

Section Supervisor

Review & Approval

Quality Control Supervisor

Review & Approval

Dates are included for re-extractions and reanalysis.

000007

**NARRATIVE DISCUSSION
VOLATILES - 22662K**

Bldg:689A

INTRODUCTION

This narrative covers the analysis of three(3) samples in accordance with NEI SOP #703 based on USEPA Method 624.

HOLDING TIMES

The analytical holding time for this analysis was met.

CALIBRATIONS

All required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

QC CHECK SAMPLE

All % recoveries in the QC check samples met the requirements as stipulated by the method.

METHOD BLANKS

The method blank associated with these samples met all method requirements.

SURROGATES

All surrogate recoveries met QC criteria.

MATRIX SPIKES

As requested sample 207B-1 was utilized for the MS and MSD analyses. Spike recoveries were within the advisory QC limits. The form 3 was included in this report.

INTERNAL STANDARDS

Area response and retention time summaries are not required.

SAMPLE COMMENTS

NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

No further analytical problems were encountered.

000008

NARRATIVE DISCUSSION
SEMIVOLATILES - 22662K
Bldg:689A

INTRODUCTION

This narrative covers the analysis of two (2) samples in accordance with NEI SOP #501 based on USEPA Method 625.

HOLDING TIMES

The extraction and analytical holding times for this analysis were met with the exception of sample FIELDDB which was reextracted outside of the allowable holding time.

Initial extraction of this sample which was performed within the allowable holding time did not meet QC criteria, therefore reextraction was performed.

CALIBRATIONS

Required minimum RRFs and maximum % RSD initial calibration requirements have been met in accordance with the Method.

OMETHOD BLANKS

The method blanks associated with these samples did not contain any target compounds at or above QC limits.

SURROGATES

Surrogate recoveries were outside QC limits in method blank SBLK67, and samples 689A-1 and FIELDDB. It should be noted that all samples showed a consistent recovery pattern. Reextraction and reanalysis was performed on FIELDDB. Comparable results were obtained. Both sets of data are included.

MATRIX SPIKES

As requested sample 207B-1 was utilized for the MS and MSD analyses. The form 3 was included in this report.

INTERNAL STANDARDS

Area response and retention time summaries are not required.

000009

SAMPLE COMMENTS

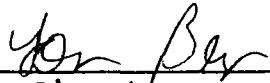
NEI is reporting the results to our method detection limits (MDL's) rounded up to the nearest part per billion (ppb) in accordance with the guidance provided by NJDEP. These MDL's indicate that NEI did not detect any compounds above these levels.

Other analytical problems were encountered.

000010

nytest environmental_{inc}

I certify that this data package has been reviewed for the quality control and quality assurance measures for all analyzed methodologies.



Remo Gigante
Exec. Vice President

000011

METHODOLOGY SUMMARY

AQUEOUS METHODOLOGIES:	REF 1	REF 2	REF 3	REF 5
BNA, Pesticides/PCB's Extraction		3510/3520		
AA/ICP Sample Preparation	200.7			
Furnace Sample Preparation	200.0			
Mercury Sample Preparation	245.1			
Hexavalent Chromium Sample Preparation	218.5			
Clean-Up		3610/3620/3630/ 3640/3660		
Organochlorine Pesticide and PCB's by Gas Chromatography			608	505
Herbicides by Gas Chromatography			362	515.1
Purgeable Organics by GC/MS			624	524.2
Base/Neutral, Acids by GC/MS			625	525
2,3,7,8-TCDD by GC/MS			613/625	
BTEX			602	502.2
EDB/DBCP by Microextraction				504.1

NON-AQUEOUS METHODOLOGIES:

BNA, Pesticides/PCB's Extraction	3550
AA/ICP Sample Preparation	3050
Furnace Sample Preparation	3020/3030/3050
Mercury Sample Preparation	7471
Clean-Up	3610/3620/3630/ 3640/3660

GC, Gas Chromatography/Mass Spectrometry:

Purgeable Organics	8240/8021
Base/Neutral and Acid Extractables	8270
Organophosphorus Pesticides	8140
Organochlorine Pesticide and PCB's by Gas Chromatography	8080
BTEX	8020
Halogenated Purgeable Organics	8010

000012

METHODOLOGY SUMMARY

REFERENCES:

- (1) USEPA-600/4-79-020, Methods for Chemical Analysis of Water and Waste
- (2) USEPA SW 846, Test Methods for Evaluating Solid Waste, Third Edition
- (3) Federal Register 40 CFR Part 136, Vol.49, No.209 Test Parameters for the Analysis of Pollutants
- (4) Federal Register Vol.51, No.216 Friday, 11/7/86, pp.40643-40652
- (5) Method for the Determination of Organic Compounds in Drinking Water, EPA 500/4-88/039, Dec. 1988
- (6) Standard Method for Examination of Water and Wastewater, 15 Edition 1980

000013

Method Qualifiers for Organic Non-CLP Methodologies

Q Qualifier - Specified entries and their meanings as follows:

- U -** Indicates compound was analyzed for but was not detected. The sample quantitation limit is corrected for dilutions and for the moisture content for soil samples. If a sample extract can not be concentrated to the protocol - specific volume, this fact is also accounted for in reporting the sample quantitation limit. The number is the minimum detected limits for the sample.
- J -** Indicates an estimated volume. The flag is used either when estimating concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicates the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N -** Indicates presumptive evidence of a compound. This flag is used only for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the **N** code is not used.
- B -** This flag is used when the analyte is found in the analyte is found in the associated blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag is used for a TIC as well as for a positively identified target compound.
- E -** This flag identifies compounds whose concentrations exceeded the calibration range of the GC/MS instrument for that specific analysis.
- D -** This flag identifies all compounds identified in an analysis at a secondary dilution factor.
- A -** This flag indicates that a TIC is a suspected aldol condensation product.

GC/MS Data

000015

Volatile Data

000016

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDDB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1202.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

74-87-3-----	Chloromethane	2	U
74-83-9-----	Bromomethane	1	U
75-01-4-----	Vinyl Chloride	1	U
75-00-3-----	Chloroethane	1	U
75-09-2-----	Methylene Chloride	3	U
75-35-4-----	1,1-Dichloroethene	2	U
75-34-3-----	1,1-Dichloroethane	1	U
67-66-3-----	Chloroform	1	U
107-06-2-----	1,2-Dichloroethane	1	U
71-55-6-----	1,1,1-Trichloroethane	1	U
56-23-5-----	Carbon Tetrachloride	2	U
75-27-4-----	Bromodichloromethane	1	U
78-87-5-----	1,2-Dichloropropane	1	U
10061-01-5----	cis-1,3-Dichloropropene	1	U
79-01-6-----	Trichloroethene	2	U
124-48-1-----	Dibromochloromethane	1	U
79-00-5-----	1,1,2-Trichloroethane	1	U
71-43-2-----	Benzene	1	U
10061-02-6----	trans-1,3-Dichloropropene	1	U
75-25-2-----	Bromoform	1	U
127-18-4-----	Tetrachloroethene	3	U
79-34-5-----	1,1,2,2-Tetrachloroethane	2	U
108-88-3-----	Toluene	2	U
108-90-7-----	Chlorobenzene	2	U
100-41-4-----	Ethylbenzene	2	U
1330-20-7-----	Xylene (total)	6	U
75-69-4-----	Trichloromonofluoromethane	2	U
107-02-8-----	Acrolein	20	U
107-13-1-----	Acrylonitrile	2	U
75-65-0-----	Tertiary Butyl Alcohol	100	U
1634-34-4-----	Methyl Tertiary Butyl Ether	1	U
541-73-1-----	1,3-Dichlorobenzene	2	U
106-46-7-----	1,4-Dichlorobenzene	2	U
95-50-1-----	1,2-Dichlorobenzene	2	U

000017

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD B

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1202.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

110-75-8-----	2-Chloroethylvinyl Ether_____	4	U
156-60-5-----	Trans, 1,2-Dichloroethene_____	1	U

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELDDB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: M1202.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
4.				
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29.				
30.				

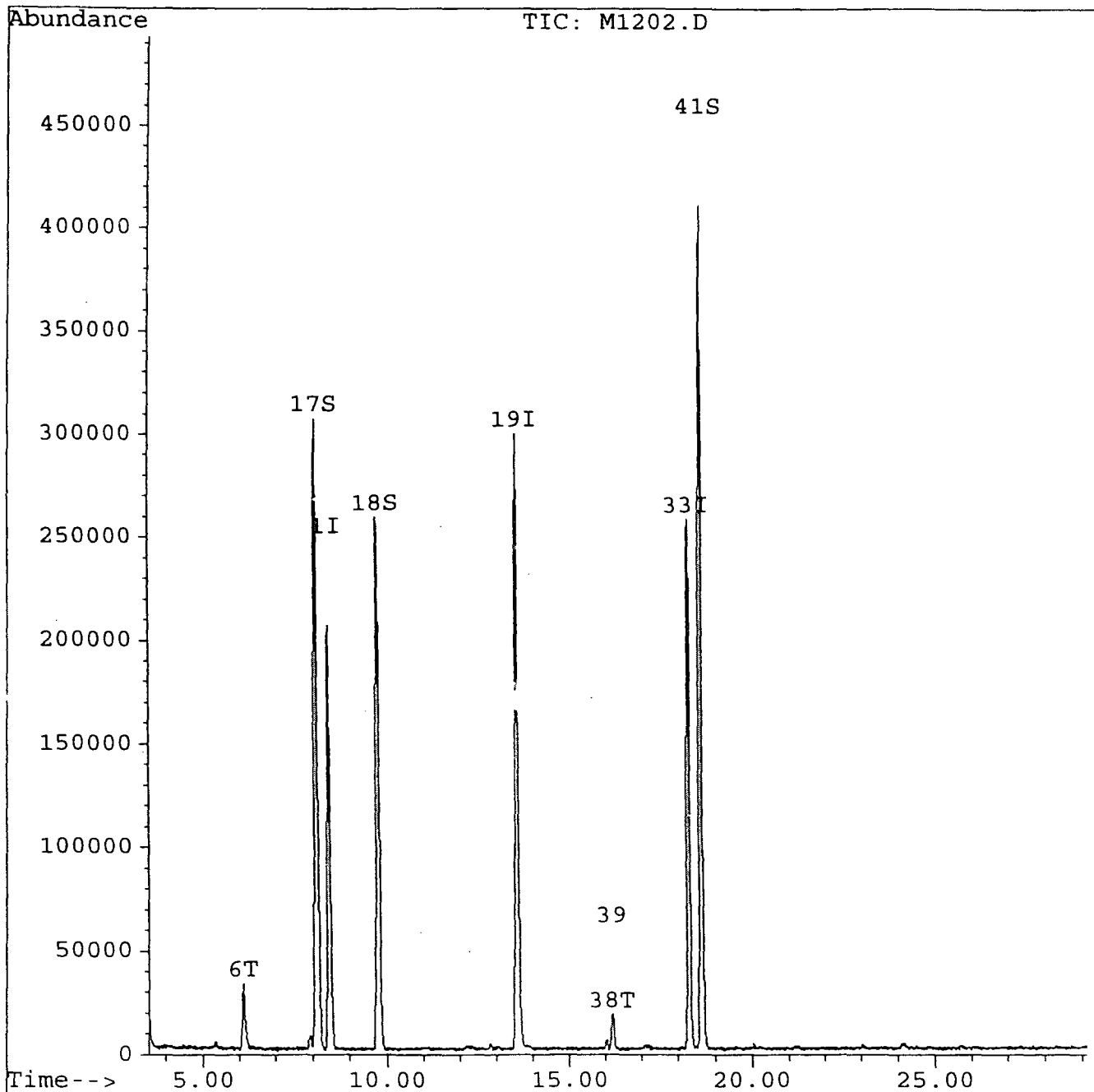
000019

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1202.D
Acq Time : 5 Dec 94 16:48 pm
Sample : 2266208, FIELDDB,
Misc : 1,1,,,5,5,L,W,R12-2-94,
Quant Time: Dec 19 14:51 1994

Operator: VC
Inst : HPM
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
Title : VOA Standards for 5 point calibration
Last Update : Tue Nov 29 12:18:35 1994
Response via : Multiple Level Calibration



000020

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1202.D
 Acq Time : 5 Dec 94 16:48 pm
 Sample : 2266208, FIELDDB,
 Misc : 1,1,,,5,5,L,W,R12-2-94,
 Quant Time: Dec 19 14:51 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	8.43	128	128492	30.00	ug/l	0.00
19) 2-Bromo-1-Chloropropane	13.57	77	435580	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.29	55	448672	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) Pentafluorobenzene	8.09	168	809224	28.34	ug/l	94.48%
18) Fluorobenzene	9.76	96	649625	26.18	ug/l	87.26%
41) CS10 4-Bomofluorobenzene	18.63	95	379755	29.73	ug/l	99.09%
Target Compounds						Qvalue
6) C030 Methylene Chloride	6.11	84	31756	2.69	ug/l	92
39) C250 M-P,Xylene	16.19	106	15882	1.33	ug/l	98

2 COR100AD RE20L MPL

we 1/10/95

000021

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266217

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1218.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/06/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

74-87-3	-----Chloromethane	2	U
74-83-9	-----Bromomethane	1	U
75-01-4	-----Vinyl Chloride	1	U
75-00-3	-----Chloroethane	1	U
75-09-2	-----Methylene Chloride	3	U
75-35-4	-----1,1-Dichloroethene	2	U
75-34-3	-----1,1-Dichloroethane	1	U
67-66-3	-----Chloroform	1	U
107-06-2	-----1,2-Dichloroethane	1	U
71-55-6	-----1,1,1-Trichloroethane	3	
56-23-5	-----Carbon Tetrachloride	2	U
75-27-4	-----Bromodichloromethane	1	U
78-87-5	-----1,2-Dichloropropane	1	U
10061-01-5	-----cis-1,3-Dichloropropene	1	U
79-01-6	-----Trichloroethene	2	U
124-48-1	-----Dibromochloromethane	1	U
79-00-5	-----1,1,2-Trichloroethane	1	U
71-43-2	-----Benzene	1	U
10061-02-6	-----trans-1,3-Dichloropropene	1	U
75-25-2	-----Bromoform	1	U
127-18-4	-----Tetrachloroethere	3	U
79-34-5	-----1,1,2,2-Tetrachloroethane	2	U
108-88-3	-----Toluene	2	U
108-90-7	-----Chlorobenzene	2	U
100-41-4	-----Ethylbenzene	2	U
1330-20-7	-----Xylene (total)	6	U
75-69-4	-----Trichloromonofluoromethane	2	U
107-02-8	-----Acrolein	20	U
107-13-1	-----Acrylonitrile	2	U
75-65-0	-----Tertiary Butyl Alcohol	100	U
1634-34-4	-----Methyl Tertiary Butyl Ether	1	U
541-73-1	-----1,3-Dichlorobenzene	2	U
106-46-7	-----1,4-Dichlorobenzene	2	U
95-50-1	-----1,2-Dichlorobenzene	2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266217

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1218.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/06/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) UG/L	Q
110-75-8-----	2-Chloroethylvinyl Ether_____	4	U
156-60-5-----	Trans, 1,2-Dichloroethene_____	1	U

000023

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266217

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: M1218.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/06/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 11

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN FREON ISOMER	5.290	4	J
2.	TRIMETHYL BENZENE ISOMER	21.400	3	J
3.	UNKNOWN AROMATIC	21.950	3	J
4.	UNKNOWN AROMATIC	22.740	4	J
5.	UNKNOWN AROMATIC	23.880	4	J
6.	TETRAMETHYL BENZENE ISOMER	24.080	5	J
7.	TETRAMETHYL BENZENE ISOMER	25.220	4	J
8.	UNKNOWN AROMATIC	26.180	5	J
9.	UNKNOWN AROMATIC	27.250	4	J
10.	UNKNOWN AROMATIC	28.650	3	J
11.	UNKNOWN AROMATIC	28.910	4	J
12.				
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1218.D

Acq Time : 6 Dec 94 1:57 am

Sample : 2266217,689A-1,

Misc : 1,1,,,5,5,L,W,R12-2-94,

Quant Time: Dec 19 15:11 1994

Operator: VC

Inst : HPM

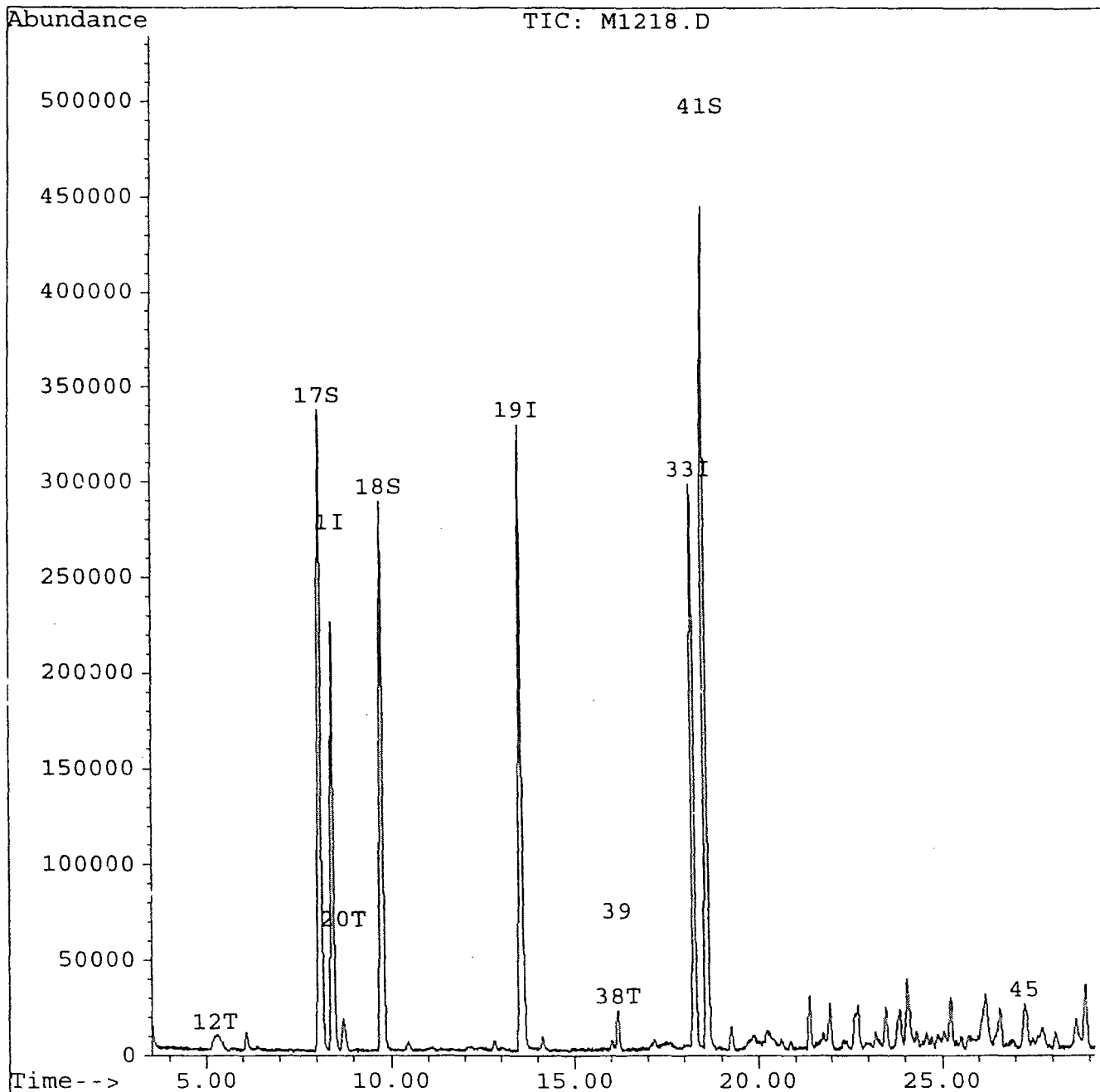
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M

Title : VOA Standards for 5 point calibration

Last Update : Tue Nov 29 12:18:35 1994

Response via : Multiple Level Calibration



000025

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1218.D
 Acq Time : 6 Dec 94 1:57 am
 Sample : 2266217,689A-1,
 Misc : 1,1,,,5,5,L,W,R12-2-94,
 Quant Time: Dec 19 15:11 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) CI01 Bromochloromethane	8.42	128	140871	30.00	ug/l	0.00
19) 2-Bromo-1-Chloropropane	13.56	77	490883	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.29	55	518069	30.00	ug/l	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
17) Pentafluorobenzene	8.08	168	890460	28.45	ug/l	94.82%
18) Fluorobenzene	9.76	96	719267	26.44	ug/l	88.13%
41) CS10 4-Bomofluorobenzene	18.63	95	414150	28.08	ug/l	93.59%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
20) C115 1,1,1-Trichloroethane	8.73	97	37165	2.83	ug/l	88
39) C250 M-P,Xylene	16.19	106	18214	1.32	ug/l	87

*2 COMPOUND BELOW MDL
 we 1/10/95*

000026

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

M1218.D P624.M

Mon Dec 19 15:26:35 1994

HPM

Page 1

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBL

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266218

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1201.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

74-87-3-----	Chloromethane	2	U
74-83-9-----	Bromomethane	1	U
75-01-4-----	Vinyl Chloride	1	U
75-00-3-----	Chloroethane	1	U
75-09-2-----	Methylene Chloride	3	U
75-35-4-----	1,1-Dichloroethene	2	U
75-34-3-----	1,1-Dichloroethane	1	U
67-66-3-----	Chloroform	1	U
107-06-2-----	1,2-Dichloroethane	1	U
71-55-6-----	1,1,1-Trichloroethane	1	U
56-23-5-----	Carbon Tetrachloride	2	U
75-27-4-----	Bromodichloromethane	1	U
78-87-5-----	1,2-Dichloropropane	1	U
10061-01-5----	cis-1,3-Dichloropropene	1	U
79-01-6-----	Trichloroethene	2	U
124-48-1-----	Dibromochloromethane	1	U
79-00-5-----	1,1,2-Trichloroethane	1	U
71-43-2-----	Benzene	1	U
10061-02-6----	trans-1,3-Dichloropropene	1	U
75-25-2-----	Bromoform	1	U
127-18-4-----	Tetrachloroether	3	U
79-34-5-----	1,1,2,2-Tetrachloroethane	2	U
108-88-3-----	Toluene	2	U
108-90-7-----	Chlorobenzene	2	U
100-41-4-----	Ethylbenzene	2	U
1330-20-7-----	Xylene (total)	6	U
75-69-4-----	Trichloromonofluoromethane	2	U
107-02-8-----	Acrolein	20	U
107-13-1-----	Acrylonitrile	2	U
75-65-0-----	Tertiary Butyl Alcohol	100	U
1634-34-4-----	Methyl Tertiary Butyl Ether	1	U
541-73-1-----	1,3-Dichlorobenzene	2	U
106-46-7-----	1,4-Dichlorobenzene	2	U
95-50-1-----	1,2-Dichlorobenzene	2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIPBL

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266218

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1201.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

110-75-8-----	2-Chloroethylvinyl Ether	4	U
156-60-5-----	Trans, 1,2-Dichloroethene	1	U

000028

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIPBL

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266218

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: M1201.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
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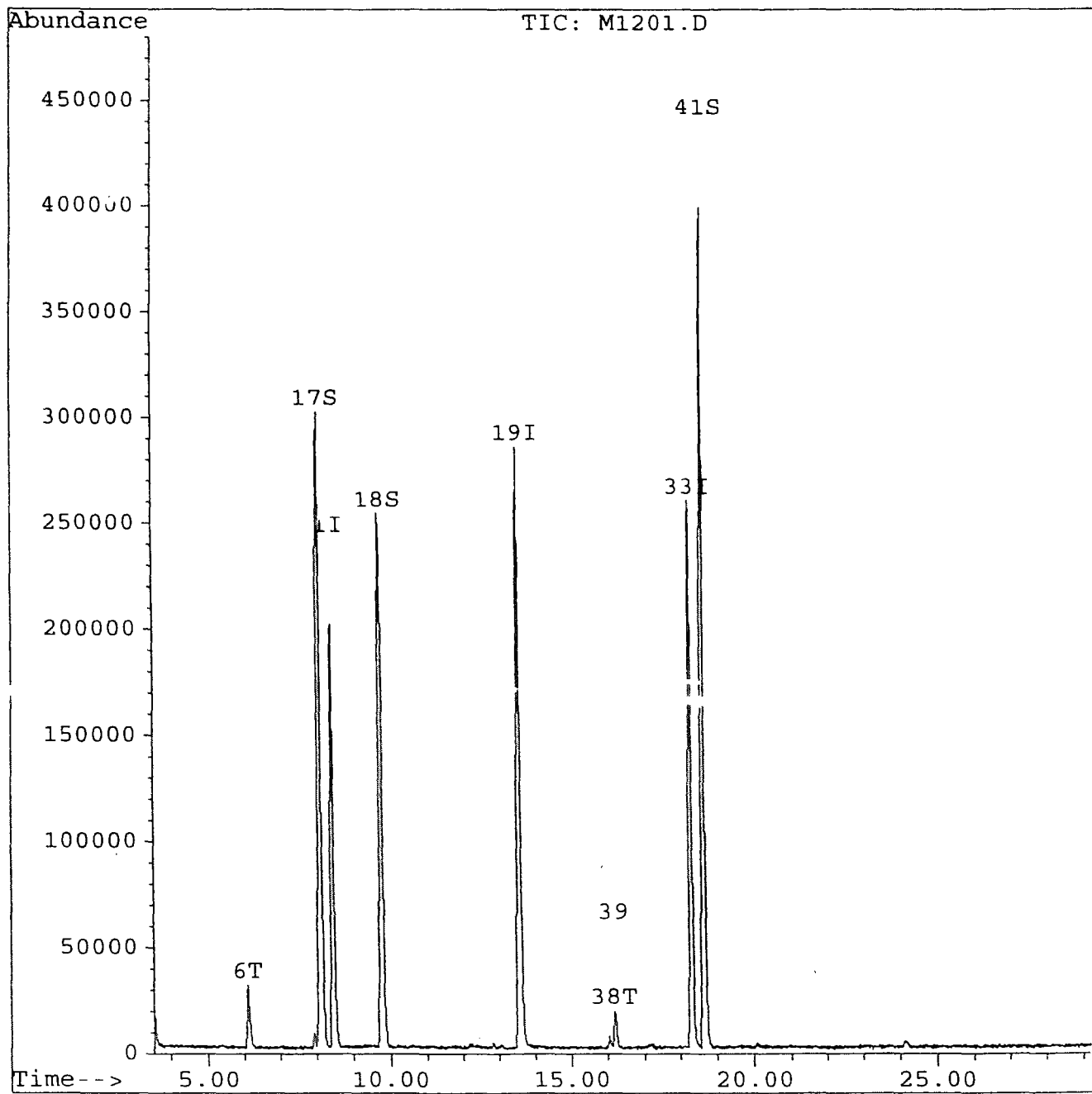
000029

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1201.D
 Acq Time : 5 Dec 94 16:14 pm
 Sample : 2266218,TRIPBL,
 Misc : 1,1,,,5,5,L,W,R12-2-94,
 Quant Time: Dec 19 14:50 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Multiple Level Calibration



000030

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1201.D
 Acq Time : 5 Dec 94 16:14 pm
 Sample : 2266218,TRIPBL,
 Misc : 1,1,,,5,5,L,W,R12-2-94,
 Quant Time: Dec 19 14:50 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) CI01 Bromochloromethane	8.43	128	125778	30.00	ug/l	0.00
19) 2-Bromo-1-Chloropropane	13.57	77	435426	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.29	55	454074	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) Pentafluorobenzene	8.09	168	791862	28.33	ug/l	94.44%
18) Fluorobenzene	9.77	96	639208	26.32	ug/l	87.72%
41) CS10 4-Bomofluorobenzene	18.64	95	369100	28.55	ug/l	95.16%
Target Compounds						Qvalue
6) C030 Methylene Chloride	6.10	84	28793	2.49	ug/l	92
39) C250 M-P,Xylene	16.18	106	15908	1.31	ug/l	90

1 compound below xAL

we 11/10/94

000031

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBK43

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: VBK43

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1200.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

74-87-3-----	Chloromethane	2	U
74-83-9-----	Bromomethane	1	U
75-01-4-----	Vinyl Chloride	1	U
75-00-3-----	Chloroethane	1	U
75-09-2-----	Methylene Chloride	3	U
75-35-4-----	1,1-Dichloroethene	2	U
75-34-3-----	1,1-Dichloroethane	1	U
67-66-3-----	Chloroform	1	U
107-06-2-----	1,2-Dichloroethane	1	U
71-55-6-----	1,1,1-Trichloroethane	1	U
56-23-5-----	Carbon Tetrachloride	2	U
75-27-4-----	Bromodichloromethane	1	U
78-87-5-----	1,2-Dichloropropane	1	U
10061-01-5-----	cis-1,3-Dichloropropene	1	U
79-01-6-----	Trichloroethene	2	U
124-48-1-----	Dibromochloromethane	1	U
79-00-5-----	1,1,2-Trichloroethane	1	U
71-43-2-----	Benzene	1	U
10061-02-6-----	trans-1,3-Dichloropropene	1	U
75-25-2-----	Bromoform	1	U
127-18-4-----	Tetrachloroethene	3	U
79-34-5-----	1,1,2,2-Tetrachloroethane	2	U
108-88-3-----	Toluene	2	U
108-90-7-----	Chlorobenzene	2	U
100-41-4-----	Ethylbenzene	2	U
1330-20-7-----	Xylene (total)	6	U
75-69-4-----	Trichloromonofluoromethane	2	U
107-02-8-----	Acrolein	20	U
107-13-1-----	Acrylonitrile	2	U
75-65-0-----	Tertiary Butyl Alcohol	100	U
1634-34-4-----	Methyl Tertiary Butyl Ether	1	U
541-73-1-----	1,3-Dichlorobenzene	2	U
106-46-7-----	1,4-Dichlorobenzene	2	U
95-50-1-----	1,2-Dichlorobenzene	2	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VLK43

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: VLK43

Sample wt/vol: 5.0 (g/mL) ML

Lab File ID: M1200.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg) UG/L	Q
110-75-8-----	2-Chloroethyl vinyl Ether	4	U
156-60-5-----	Trans, 1,2-Dichloroethene	1	U

000033

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBK43

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: VBK43

Sample wt/vol: 5.0

(g/mL) ML

Lab File ID: M1200.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. _____

Date Analyzed: 12/05/94

Column: (pack/cap) CAP

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
2.				
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Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1200.D

Acq Time : 5 Dec 94 15:39 pm

Sample : VBLK43,VBLK43,

Misc : 1,,,,,5,5,L,W,

Quant Time: Dec 19 14:50 1994

Operator: VC

Inst : HPM

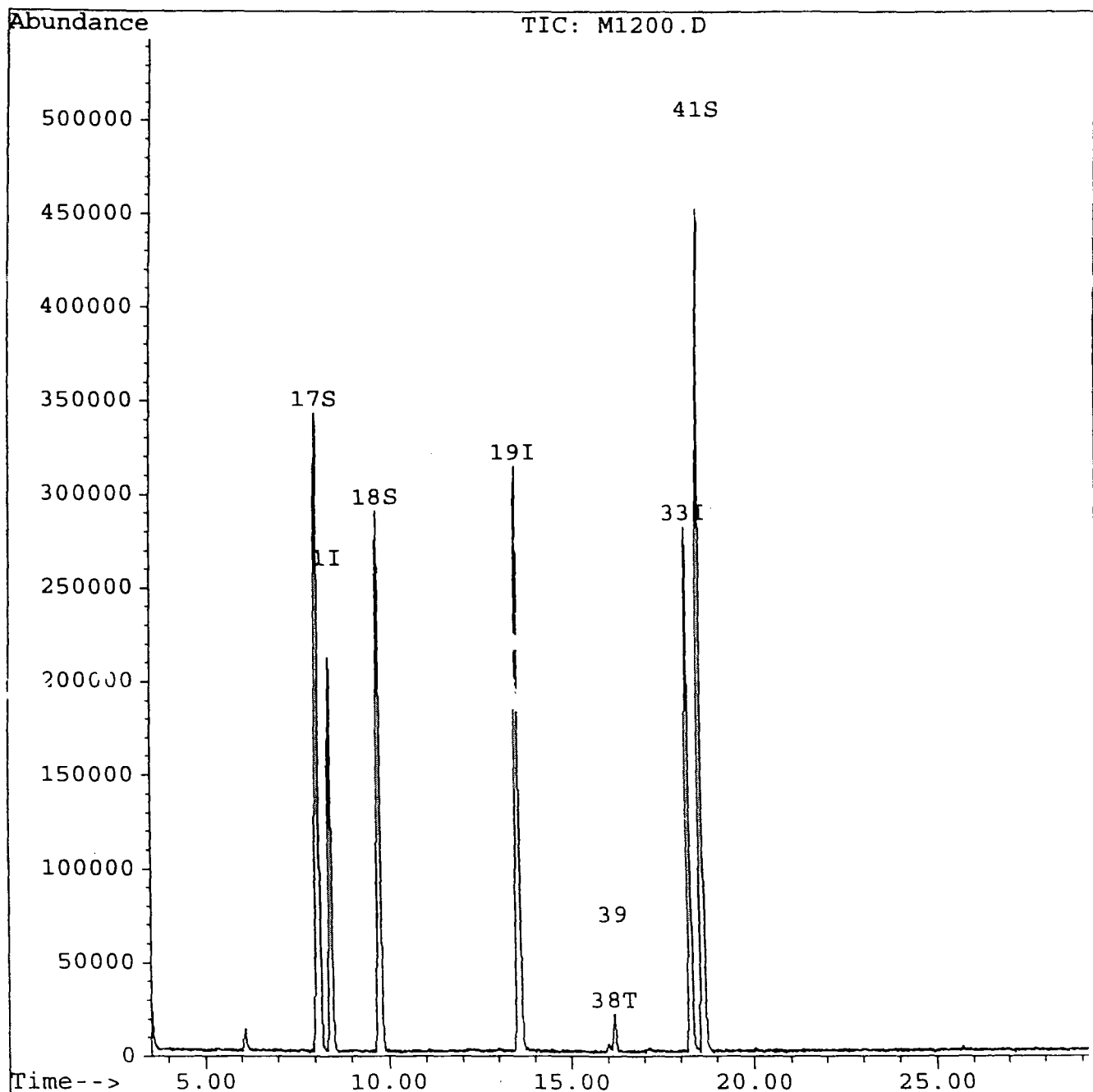
Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M

Title : VOA Standards for 5 point calibration

Last Update : Tue Nov 29 12:18:35 1994

Response via : Multiple Level Calibration



000035

Quantitation Report

Data File : C:\HPCHEM\1\DATA\120594\M1200.D
 Acq Time : 5 Dec 94 15:39 pm
 Sample : VBLK43,VBLK43,
 Misc : 1,,,,,5,5,L,W,
 Quant Time: Dec 19 14:50 1994

Operator: VC
 Inst : HPM
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\P624.M
 Title : VOA Standards for 5 point calibration
 Last Update : Tue Nov 29 12:18:35 1994
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev (Min)
1) CI01 Bromochloromethane	8.41	128	133508	30.00	ug/l	-0.01
19) 2-Bromo-1-Chloropropane	13.57	77	473175	30.00	ug/l	0.00
33) 1,4-Dichlorobutane	18.29	55	497027	30.00	ug/l	0.00
System Monitoring Compounds						%Recovery
17) Pentafluorobenzene	8.08	168	909484	30.66	ug/l	102.19%
18) Fluorobenzene	9.76	96	727796	28.23	ug/l	94.09%
41) CS10 4-Bomofluorobenzene	18.63	95	418587	29.58	ug/l	98.59%
Target Compounds						Qvalue
39) C250 M-P,Xylene	16.20	106	17603	1.33	ug/l	51

all compounds below MPL

we 1/10/94

000036

2A
WATER VOLATILE SURROGATE COMPOUND RECOVERY

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

	EPA SAMPLE NO.	SUR1 (FB) #	SUR2 (BFB) #	SUR3 (PFB) #	OTHER	TOT OUT
01	MW-6MSD	89	89	90		0
02	QCCKE2	87	96	93		0
03	VBLK43	94	98	102		0
04	TRIPBL	88	95	94		0
05	FIELDDB	87	99	94		0
06	814-1	89	95	97		0
07	1076-1	86	94	93		0
08	1076-2	89	92	95		0
09	1076-3	87	92	93		0
10	689-B	88	92	94		0
11	600-1	87	91	93		0
12	208B-1	87	99	95		0
13	282-1	88	94	94		0
14	689A-1	88	94	95		0
15	27004-1	92	113	101		0
16	207B-1	90	98	96		0
17	207B-1MSD	90	92	93		0
18	1220-1	87	92	92		0
19	207B-1MS	87	94	92		0
20	QCCKE4	86	92	92		0
21	VBLK45	101	118	111		0
22	DUPLIC	86	85	93		0
23	287-1	88	86	92		0
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

SUR1 (FB) = Fluorobenzene (70-140)
 SUR2 (BFB) = Bromofluorobenzene (60-150)
 SUR3 (PFB) = Pentafluorobenzene (70-140)

Column to be used to flag recovery values

* Values outside of contract required QC limits

D Surrogates diluted out

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266213
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MS
Operator: VC
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	20	16	78.99	0-273
4 Bromomethane	20	16	81.98	0-242
5 Vinyl Chloride	20	13	64.61	0-251
6 Chloroethane	20	14	72.18	14-230
7 Methylene Chloride	20	14	67.65	0-221
10 1,1-Dichloroethene	20	15	76.10	0-234
12 1,1-Dichloroethane	20	15	75.20	59-155
14 Trans, 1,2-Dichlor	20	15	76.42	54-156
15 Chloroform	20	16	77.71	51-138
16 1,2-Dichloroethane	20	15	75.28	49-155
19 Trichloromonofluor	20	16	81.72	17-181
24 1,1,1-Trichloroeth	20	16	81.16	52-162
25 Carbon Tetrachlori	20	16	79.72	70-140
27 Bromodichlorometha	20	15	76.65	35-155
28 1,2-Dichloropropan	20	15	76.44	0-210
29 cis-1,3-Dichloropr	20	16	79.60	0-227
30 Trichloroethene	20	16	78.53	71-157
31 Dibromochlorometha	20	15	74.98	53-149
32 1,1,2-Trichloroeth	20	15	74.47	52-150
34 Benzene	20	15	77.35	37-151
35 trans-1,3-Dichloro	20	16	78.07	17-183
37 Bromoform	20	15	74.76	45-169
38 2-Chloroethylvinyl	20	15	76.41	0-305
41 Tetrachloroethene	20	17	87.35	64-148
43 1,1,2,2-Tetrachlor	20	15	75.45	46-157
45 Toluene	20	16	81.42	47-150
46 Chlorobenzene	20	17	84.41	37-160
47 Ethylbenzene	20	17	84.36	37-162
53 1,3-Dichlorobenzen	20	18	89.42	59-156
54 1,4-Dichlorobenzen	20	19	94.77	18-190
55 1,2-Dichlorobenzen	20	19	93.60	18-190

000038

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266213
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MS
Operator: VC
SampleType: MS
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
\$ 33 Pentafluorobenzene	30	28	92.27	70-140
\$ 44 Fluorobenzene	30	26	86.77	70-140
\$ 48 Bromofluorobenzene	30	28	93.75	60-150

000039

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266214
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MSD
Operator: VC
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	20	15	76.89	0-273
4 Bromomethane	20	16	80.61	0-242
5 Vinyl Chloride	20	13	64.41	0-251
6 Chloroethane	20	14	71.91	14-230
7 Methylene Chloride	20	13	63.19	0-221
10 1,1-Dichloroethene	20	15	75.86	0-234
12 1,1-Dichloroethane	20	15	75.48	59-155
14 Trans, 1,2-Dichlor	20	15	76.03	54-156
15 Chloroform	20	16	78.86	51-138
16 1,2-Dichloroethane	20	15	75.94	49-155
19 Trichloromonofluor	20	16	80.27	17-181
24 1,1,1-Trichloroeth	20	15	76.29	52-162
25 Carbon Tetrachlori	20	15	75.48	70-140
27 Bromodichlorometha	20	15	74.40	35-155
28 1,2-Dichloropropan	20	14	72.85	0-210
29 cis-1,3-Dichloropr	20	15	75.75	0-227
30 Trichloroethene	20	15	73.37	71-157
31 Dibromochlorometha	20	14	72.79	53-149
32 1,1,2-Trichloroeth	20	14	72.47	52-150
34 Benzene	20	15	74.87	37-151
35 trans-1,3-Dichloro	20	15	74.71	17-183
37 Bromoform	20	15	73.30	45-169
38 2-Chloroethylvinyl	20	14	72.82	0-305
41 Tetrachloroethene	20	16	78.67	64-148
43 1,1,2,2-Tetrachlor	20	15	73.11	46-157
45 Toluene	20	16	78.65	47-150
46 Chlorobenzene	20	15	77.01	37-160
47 Ethylbenzene	20	16	78.20	37-162
53 1,3-Dichlorobenzen	20	17	83.70	59-156
54 1,4-Dichlorobenzen	20	18	89.07	18-190
55 1,2-Dichlorobenzen	20	18	88.12	18-190

000040

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266214
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: 207B-1MSD
Operator: VC
SampleType: MS
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
\$ 33 Pentafluorobenzene	30	28	93.04	70-140
\$ 44 Fluorobenzene	30	27	89.51	70-140
\$ 48 Bromofluorobenzene	30	28	91.78	60-150

000041

4A
VOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

VBLK43

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Lab File ID: M1200.D

Lab Sample ID: VBLK43

Date Analyzed: 12/05/94

Time Analyzed: 1539

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: HPM

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	QCCKE2	QCCKE2	M1198.D	1354
02	TRIPBL	2266218	M1201.D	1614
03	FIELD B	2266208	M1202.D	1648
04	814-1	2266201	M1203.D	1723
05	1076-1	2266202	M1204.D	1755
06	1076-2	2266203	M1205.D	1830
07	1076-3	2266204	M1206.D	1904
08	689-B	2266205	M1207.D	1939
09	600-1	2266206	M1208.D	2013
10	208B-1	2266215	M1216.D	0048
11	282-1	2266216	M1217.D	0123
12	689A-1	2266217	M1218.D	0157
13	27004-1	2266210	M1219.D	1049
14	207B-1	2266212	M1220.D	1124
15	207B-1MSD	2266214	M1221.D	1200
16	1220-1	2266211	M1222.D	1242
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COMMENTS:

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Lab File ID: M1098.D

BFB Injection Date: 11/28/94

Instrument ID: HPM

BFB Injection Time: 1706

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	24.7
75	30.0 - 60.0% of mass 95	46.6
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	6.3
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	95.9
175	5.0 - 9.0% of mass 174	7.3 (7.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	93.3 (97.2)1
177	5.0 - 9.0% of mass 176	6.1 (6.5)2

1-Value is % mass 174

2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD005	VSTD005	M1100.D	11/28/94	1755
02	VSTD020	VSTD020	M1102.D	11/28/94	1912
03	VSTD050	VSTD050	M1103.D	11/28/94	1950
04	VSTD100	VSTD100	M1105.D	11/28/94	2108
05	VSTD200	VSTD200	M1107.D	11/28/94	2225
06					
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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Lab File ID: M1197.D

BFB Injection Date: 12/05/94

Instrument ID: HPM

BFB Injection Time: 1338

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	25.3
75	30.0 - 60.0% of mass 95	48.0
95	Base peak, 100% relative abundance	100.0
96	5.0 - 9.0% of mass 95	7.0
173	Less than 2.0% of mass 174	0.0 (0.0)1
174	Greater than 50.0% of mass 95	92.2
175	5.0 - 9.0% of mass 174	6.1 (6.6)1
176	Greater than 95.0%, but less than 101.0% of mass 174	90.9 (98.7)1
177	5.0 - 9.0% of mass 176	6.8 (7.5)2

1-Value is % mass 174

2-Value is % mass 176

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	QCCHECK2	QCCHECK2	M1198.D	12/05/94	1354
02	VBLK43	VBLK43	M1200.D	12/05/94	1539
03	TRIPBL	2266218	M1201.D	12/05/94	1614
04	FIELDDB	2266208	M1202.D	12/05/94	1648
05	814-1	2266201	M1203.D	12/05/94	1723
06	1076-1	2266202	M1204.D	12/05/94	1755
07	1076-2	2266203	M1205.D	12/05/94	1830
08	1076-3	2266204	M1206.D	12/05/94	1904
09	689-B	2266205	M1207.D	12/05/94	1939
10	600-1	2266206	M1208.D	12/05/94	2013
11	208B-1	2266215	M1216.D	12/06/94	0048
12	282-1	2266216	M1217.D	12/06/94	0123
13	689A-1	2266217	M1218.D	12/06/94	0157
14	27004-1	2266210	M1219.D	12/06/94	1049
15	207B-1	2266212	M1220.D	12/06/94	1124
16	207B-1MSD	2266214	M1221.D	12/06/94	1200
17	1220-1	2266211	M1222.D	12/06/94	1242
18	207B-1MS	2266213	M1223.D	12/06/94	1316
19					
20					
21					
22					

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Instrument ID: HPM

Calibration Date(s): 11/28/94

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF005 =M1100.D		RRF010 =M1102.D			
RRF030=M1103.D		RRF050=M1105.D		RRF200=M1107.D			
COMPOUND	RRF005	RRF010	RRF030	RRF050	RRF200	RRF	% RSD
Chloromethane	1.236	1.732	1.432	1.462	1.359	1.444	12.7
Bromomethane	1.418	1.713	1.276	1.472	1.357	1.447	11.4
Vinyl Chloride	1.526	2.017	1.598	1.824	1.705	1.734	11.2
Chloroethane	0.911	1.227	0.942	1.102	1.040	1.044	12.2
Methylene Chloride	3.837	3.259	1.863	2.065		2.756	34.4
1,1-Dichloroethene	1.465	1.880	1.456	1.712	1.565	1.616	11.2
1,1-Dichloroethane	3.420	4.234	3.262	3.820	3.362	3.620	11.2
Chloroform	3.209	3.968	3.002	3.518	3.267	3.393	10.9
1,2-Dichloroethane	2.329	2.835	2.179	2.590	2.346	2.456	10.5
1,1,1-Trichloroethane	0.757	0.927	0.724	0.861	0.750	0.804	10.7
Carbon Tetrachloride	0.721	0.853	0.699	0.831	0.725	0.766	9.2
Bromodichloromethane	0.862	1.054	0.834	0.988	0.879	0.923	10.1
1,2-Dichloropropane	0.683	0.817	0.631	0.752	0.665	0.710	10.5
cis-1,3-Dichloropropene	0.858	1.041	0.820	0.960	0.836	0.903	10.5
Trichloroethene	0.638	0.770	0.606	0.701	0.633	0.670	9.9
Dibromochloromethane	0.774	0.985	0.783	0.934	0.826	0.860	10.9
1,1,2-Trichloroethane	0.540	0.664	0.516	0.606	0.531	0.571	10.9
Benzene	1.561	1.818	1.424	1.679	1.461	1.589	10.2
trans-1,3-Dichloropropene	0.745	0.901	0.711	0.835	0.731	0.784	10.2
Bromoform	0.715	0.942	0.779	0.920	0.812	0.834	11.5
Tetrachloroethene	0.698	0.780	0.604	0.708	0.632	0.684	10.1
1,1 2,2-Tetrachloroethane	0.821	0.999	0.768	0.906	0.761	0.851	11.9
Toluene	1.760	2.005	1.533	1.866	1.632	1.777	10.5
Chlorobenzene	1.209	1.365	1.042	1.226	1.093	1.187	10.6
Ethylbenzene	0.625	0.708	0.526	0.625	0.571	0.611	11.2
Xylene (total)	0.720	0.819	0.622	0.743	0.671	0.715	10.4
Trichloromonofluoromethane	2.566	3.298	2.535	2.927	2.714	2.808	11.2
Acrolein		0.109	0.121	0.047	0.106	0.096	34.9
Acrylonitrile	1.220	1.556	1.306	1.444	1.237	1.353	10.6
Tertiary Butyl Alcohol	0.000	0.204	0.165	0.165		0.178	12.6
Methyl Tertiary Butyl Ether	3.406	4.306	3.105	3.687	2.875	3.476	16.0
1,3-Dichlorobenzene	1.260	1.448	1.108	1.314	1.178	1.261	10.4
1,4-Dichlorobenzene	1.296	1.504	1.147	1.371	1.227	1.309	10.4
1,2-Dichlorobenzene	1.150	1.332	1.013	1.213	1.084	1.159	10.6
2-Chloroethylvinyl Ether	0.683	0.817	0.631	0.752	0.666	0.710	10.5
Trans, 1,2-Dichloroethene	1.574	1.988	1.517	1.798	1.596	1.695	11.5
Fluorobenzene	5.498	6.761	5.100	5.999	5.611	5.794	10.8

000045

6A
VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22633

SAS No.:

SDG No.: ARMY3

Instrument ID: HPM

Calibration Date(s): 11/28/94

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF005 =M1100.D		RRF010 =M1102.D			
RRF030=M1103.D		RRF050=M1105.D		RRF200=M1107.D			
COMPOUND	RRF005	RRF010	RRF030	RRF050	RRF200	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
Bromofluorobenzene	0.843	0.979	0.744	0.890	0.816	0.854	10.2
Pentafluorobenzene	6.449	7.843	5.983	6.876	6.279	6.666	11.2

000046

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY3
Sample Matrix: LIQUID Fraction: VOA
Lab Smp Id: QCCHECK2 Client Smp ID: QCCHECK2
Level: LOW Operator: VC
Data Type: MS DATA SampleType: MS
SpikeList File: QCCHK.spk Quant Type: ISTD
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
1 Chloromethane	20	19	97.42	0-200
4 Bromomethane	20	20	99.61	14-186
5 Vinyl Chloride	20	16	79.87	4-196
6 Chloroethane	20	19	93.43	38-162
7 Methylene Chloride	20	14	68.34	60-140
10 1,1-Dichloroethene	20	19	94.72	50-150
12 1,1-Dichloroethane	20	19	94.63	72-128
14 Trans, 1,2-Dichlor	20	19	94.59	70-130
15 Chloroform	20	20	97.78	68-132
16 1,2-Dichloroethane	20	19	93.01	68-132
19 Trichloromonofluor	20	20	99.63	48-152
24 1,1,1-Trichloroeth	20	20	97.99	75-125
25 Carbon Tetrachlori	20	19	96.84	73-127
27 Bromodichlorometha	20	19	94.80	66-134
28 1,2-Dichloropropan	20	19	93.12	34-166
29 cis-1,3-Dichloropr	20	19	97.00	24-176
30 Trichloroethene	20	18	92.70	66-134
31 Dibromochlorometha	20	19	93.85	68-132
32 1,1,2-Trichloroeth	20	18	90.75	71-129
34 Benzene	20	19	93.74	64-136
35 trans-1,3-Dichloro	20	19	95.70	50-150
37 Bromoform	20	19	94.20	71-129
38 2-Chloroethylvinyl	20	19	93.09	0-224
41 Tetrachloroethene	20	20	99.80	74-126
43 1,1,2,2-Tetrachlor	20	19	93.65	60-140
45 Toluene	20	19	95.72	74-126
46 Chlorobenzene	20	20	100.71	66-134
47 Ethylbenzene	20	20	98.15	59-141
53 1,3-Dichlorobenzen	20	20	100.78	73-127
54 1,4-Dichlorobenzen	20	22	108.84	63-137
55 1,2-Dichlorobenzen	20	21	107.34	63-127

000047

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCCHECK2
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPM.i/22633.b/624.m
Misc Info:

Client SDG: ARMY3
Fraction: VOA
Client Smp ID: QCCHECK2
Operator: VC
SampleType: MS
Quant Type: ISTD

SURROGATE COMPOUND	CONC ADDED ug/l	CONC RECOVERED ug/l	% RECOVERED	LIMITS
\$ 33 Pentafluorobenzene	30	28	93.43	70-140
\$ 44 Fluorobenzene	30	26	86.81	70-140
\$ 48 Bromofluorobenzene	30	29	95.62	60-150

000048

SEMIVOLATILE DATA

000049

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266217

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2210.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/30/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

111-44-4-----bis(2-Chloroethyl) Ether_____	1	U
541-73-1-----1,3-Dichlorobenzene_____	1	U
106-46-7-----1,4-Dichlorobenzene_____	1	U
95-50-1-----1,2-Dichlorobenzene_____	1	U
108-60-1-----2,2'-oxybis(1-Chloropropane)_____	1	U
621-64-7-----N-Nitroso-di-n-propylamine_____	1	U
67-72-1-----Hexachloroethane_____	1	U
98-95-3-----Nitrobenzene_____	1	U
78-59-1-----Isophorone_____	1	U
120-82-1-----1,2,4-Trichlorobenzene_____	1	U
91-20-3-----Naphthalene_____	1	U
87-68-3-----Hexachlorobutadiene_____	1	U
111-91-1-----bis(2-Chloroethoxy) methane_____	1	U
77-47-4-----Hexachlorocyclopentadiene_____	1	U
91-58-7-----2-Chloronaphthalene_____	1	U
131-11-3-----Dimethylphthalate_____	1	U
208-96-8-----Acenaphthylene_____	1	U
606-20-2-----2,6-Dinitrotoluene_____	1	U
83-32-9-----Acenaphthene_____	1	U
121-14-2-----2,4-Dinitrotoluene_____	1	U
84-66-2-----Diethylphthalate_____	1	U
7005-72-3-----4-Chlorophenyl-phenylether_____	1	U
86-73-7-----Fluorene_____	1	U
86-30-6-----N-Nitrosodiphenylamine (1)_____	1	U
101-55-3-----4-Bromophenyl-phenylether_____	1	U
118-74-1-----Hexachlorobenzene_____	1	U
85-01-8-----Phenanthrene_____	1	U
120-12-7-----Anthracene_____	1	U
84-74-2-----Di-n-butylphthalate_____	1	U
206-44-0-----Fluoranthene_____	1	U
129-00-0-----Pyrene_____	1	U
85-68-7-----Butylbenzylphthalate_____	1	U
91-94-1-----3,3'-Dichlorobenzidine_____	1	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD B

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2197.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

111-44-4-----bis(2-Chloroethyl) Ether	1	U
541-73-1-----1,3-Dichlorobenzene	1	U
106-46-7-----1,4-Dichlorobenzene	1	U
95-50-1-----1,2-Dichlorobenzene	1	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	1	U
621-64-7-----N-Nitroso-di-n-propylamine	1	U
67-72-1-----Hexachloroethane	1	U
98-95-3-----Nitrobenzene	1	U
78-59-1-----Isophorone	1	U
120-82-1-----1,2,4-Trichlorobenzene	1	U
91-20-3-----Naphthalene	1	U
87-68-3-----Hexachlorobutadiene	1	U
111-91-1-----bis(2-Chloroethoxy)methane	1	U
77-47-4-----Hexachlorocyclopentadiene	1	U
91-58-7-----2-Chloronaphthalene	1	U
131-11-3-----Dimethylphthalate	1	U
208-96-8-----Acenaphthylene	1	U
606-20-2-----2,6-Dinitrotoluene	1	U
83-32-9-----Acenaphthene	1	U
121-14-2-----2,4-Dinitrotoluene	1	U
84-66-2-----Diethylphthalate	1	U
7005-72-3-----4-Chlorophenyl-phenylether	1	U
86-73-7-----Fluorene	1	U
86-30-6-----N-Nitrosodiphenylamine (1)	1	U
101-55-3-----4-Bromophenyl-phenylether	1	U
118-74-1-----Hexachlorobenzene	1	U
85-01-8-----Phenanthrene	1	U
120-12-7-----Anthracene	1	U
84-74-2-----Di-n-butylphthalate	1	
206-44-0-----Fluoranthene	1	U
129-00-0-----Pyrene	1	U
85-68-7-----Butylbenzylphthalate	1	U
91-94-1-----3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD B

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2197.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

56-55-3-----	Benzo (a) anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis (2-Ethylhexyl) phthalate	2	
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo (b) fluoranthene	1	U
207-08-9-----	Benzo (k) fluoranthene	1	U
50-32-8-----	Benzo (a) pyrene	1	U
193-39-5-----	Indeno (1,2,3-cd) pyrene	1	U
53-70-3-----	Dibenz (a,h) anthracene	1	U
191-24-2-----	Benzo (g,h,i) perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD B

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2197.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 6.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

92-87-5-----Benzidine	100	U
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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELDDB

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2197.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N

pH: 6.0

Dilution Factor: 1.0

Number TICs found: 5

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

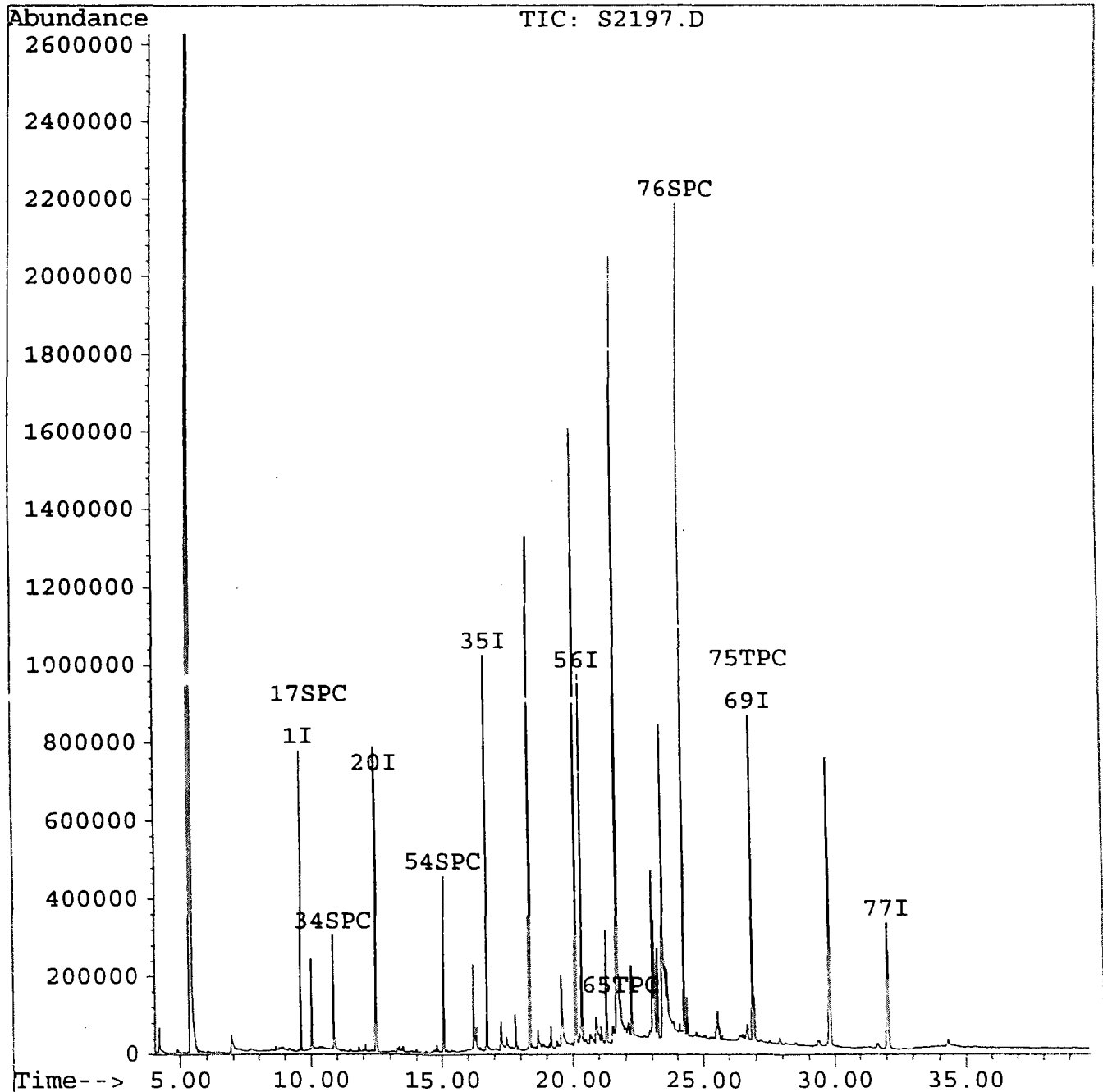
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	18.381	37	J
2.	UNKNOWN	20.130	52	J
3.	UNKNOWN	21.706	71	J
4.	UNKNOWN	23.456	38	J
5.	UNKNOWN	29.812	40	J
6.				
7.				
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30.				

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2197.d
 Acq On : 29 Dec 94 21:10 pm
 Sample : 2266208, FIELDB,
 Misc : 1,6,,05-DEC-94,1000,1,FBN625+15, WATER
 Quant Time: Jan 3 16:03 1995

Vial: 12
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Tue Jan 03 13:15:58 1995
 Response via : Multiple Level Calibration



000055

) Quantitation Report

Data File : c:\hpchem\1\data\1229\s2197.d
 Acq On : 29 Dec 94 21:10 pm
 Sample : 2266208, FIELDDB,
 Misc : 1,6,,05-DEC-94,1000,1,PBN625+15, WATER
 Quant Time: Jan 3 16:03 1995

Vial: 12
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Tue Jan 03 13:15:58 1995
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.62	152	182882	20.00	ug/L	0.05
20) Naphthalene-D8	12.47	136	707539	20.00	ug/L	0.05
35) Acenaphthene-d10	16.74	164	366461	20.00	ug/L	0.05
56) Phenanthrene-D10	20.34	188	565661	20.00	ug/L	0.05
69) Chrysene-D12	26.90	240	456113	20.00	ug/L	0.05
77) Perylene-D12	32.06	264	391235	20.00	ug/L	0.14

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	N/A 0.00%
15) Phenol-d5	0.00	99	0	0.00	ug/L	0.00%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.01	150	86476	6.53	ug/L	13.05%
34) Nitrobenzene-d5	10.86	82	165425	10.84	ug/L	21.68%
54) 2-Fluorobiphenyl	15.07	172	217779	11.18	ug/L	22.36%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	N/A 0.00%
76) Terphenyl-d14	24.29	244	1199277	82.27	ug/L	164.54%

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
65) Di-n-butylphthalate	21.84	149	55715	1.03	ug/L	100
75) Bis(2-ethylhexyl)phthalate	26.95	149	74201	2.22	ug/L	83

000056

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BRE

Lab Name: NYTEST ENV INC Contract: 9421415

Lab Code: NYTEST Case No.: 22662 SAS No.: SDG No.: ARMY3

Matrix: (soil/water) WATER Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S2328.D

Level: (low/med) LOW Date Received: 12/02/94

% Moisture: not dec. 0 dec. Date Extracted: 12/30/94

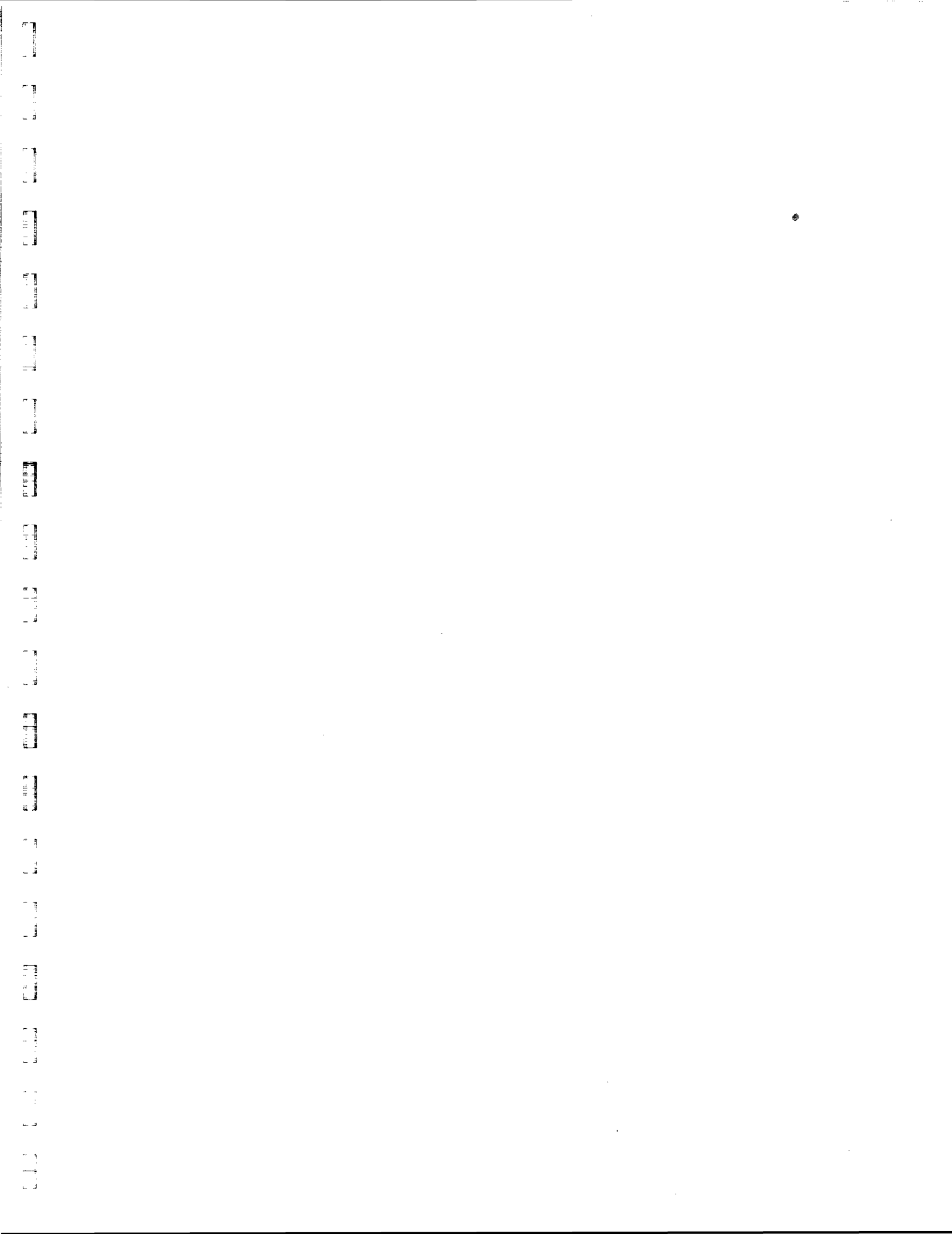
Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS:	
		(ug/L or ug/Kg)	UG/L
			Q
111-44-4	-----bis (2-Chloroethyl) Ether	1	U
541-73-1	-----1,3-Dichlorobenzene	1	U
106-46-7	-----1,4-Dichlorobenzene	1	U
95-50-1	-----1,2-Dichlorobenzene	1	U
108-60-1	-----2,2'-oxybis (1-Chloropropane)	1	U
621-64-7	-----N-Nitroso-di-n-propylamine	1	U
67-72-1	-----Hexachloroethane	1	U
98-95-3	-----Nitrobenzene	1	U
78-59-1	-----Isophorone	1	U
120-82-1	-----1,2,4-Trichlorobenzene	1	U
91-20-3	-----Naphthalene	1	U
87-68-3	-----Hexachlorobutadiene	1	U
111-91-1	-----bis (2-Chloroethoxy) methane	1	U
77-47-4	-----Hexachlorocyclopentadiene	1	U
91-58-7	-----2-Chloronaphthalene	1	U
131-11-3	-----Dimethylphthalate	1	U
208-96-8	-----Acenaphthylene	1	U
606-20-2	-----2,6-Dinitrotoluene	1	U
83-32-9	-----Acenaphthene	1	U
121-14-2	-----2,4-Dinitrotoluene	1	U
84-66-2	-----Diethylphthalate	1	U
7005-72-3	-----4-Chlorophenyl-phenylether	1	U
86-73-7	-----Fluorene	1	U
86-30-6	-----N-Nitrosodiphenylamine (1)	1	U
101-55-3	-----4-Bromophenyl-phenylether	1	U
118-74-1	-----Hexachlorobenzene	1	U
85-01-8	-----Phenanthrene	1	U
120-12-7	-----Anthracene	1	U
84-74-2	-----Di-n-butylphthalate	1	U
206-44-0	-----Fluoranthene	1	U
129-00-0	-----Pyrene	1	U
85-68-7	-----Butylbenzylphthalate	1	U
91-94-1	-----3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000057



1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BRE

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2328.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/30/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 7.0

Dilution Factor: 1.0

CAS NO. COMPOUND CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L Q

56-55-3-----	Benzo (a) anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis (2-Ethylhexyl) phthalate	1	U
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo (b) fluoranthene	1	U
207-08-9-----	Benzo (k) fluoranthene	1	U
50-32-8-----	Benzo (a) pyrene	1	U
193-39-5-----	Indeno (1,2,3-cd) pyrene	1	U
53-70-3-----	Dibenz (a,h) anthracene	1	U
191-24-2-----	Benzo (g,h,i) perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U
92-87-5-----	Benzidine	100	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BRE

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266208

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2328.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/30/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N

pH: 7.0

Dilution Factor: 1.0

Number TICs found: 1

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

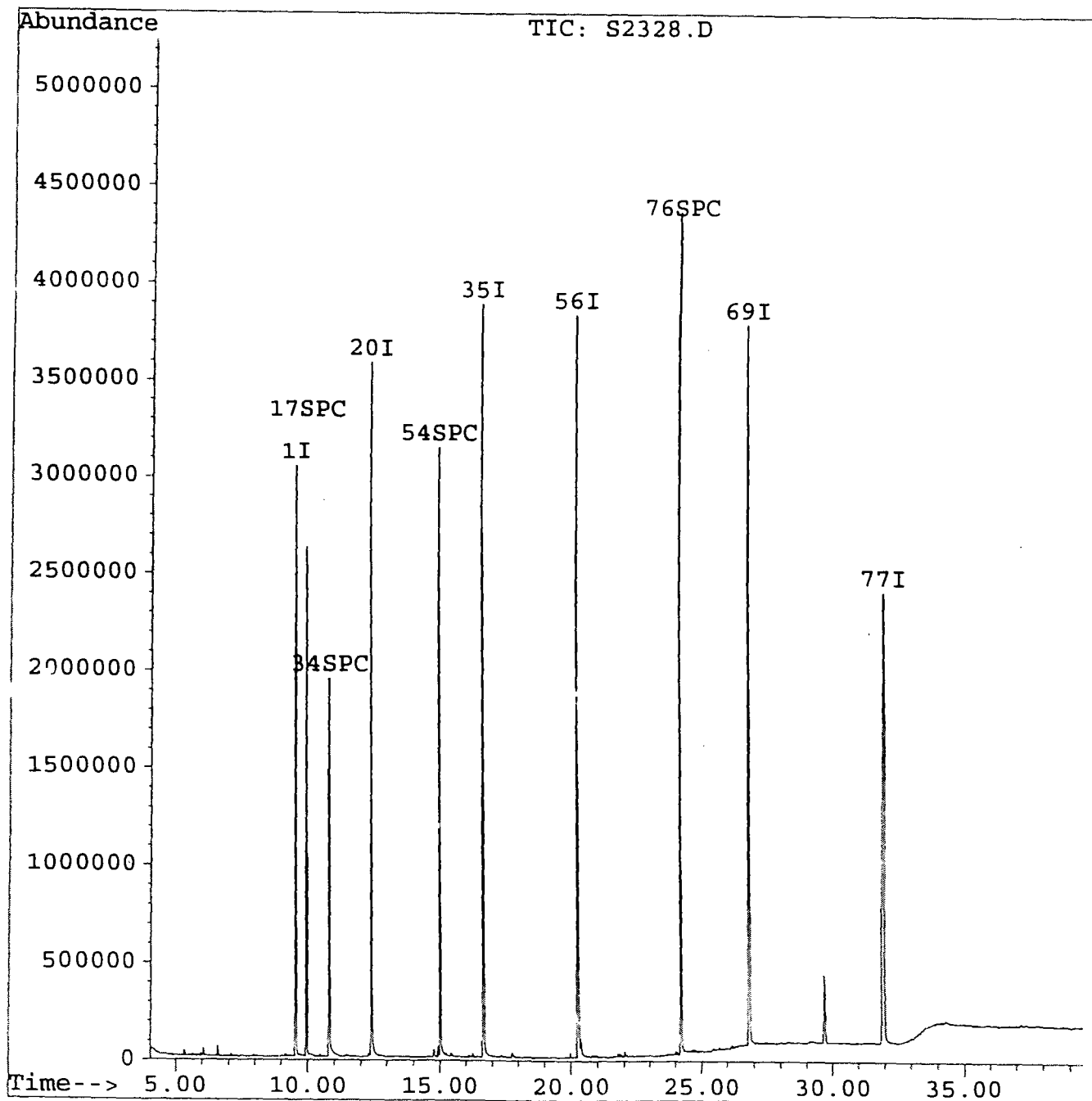
CAS NUMBER	COMPCUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	29.698	2	J
2.				
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Quantitation Report

Data File : c:\hpchem\1\data\0109\s2328.d
Acq On : 9 Jan 95 22:44 pm
Sample : 2266208, FIELDBRE,
Misc : 1,,,30-DEC-94,1000,1,PBN625+15, WATER
Quant Time: Jan 9 23:24 1995

Vial: 76
Operator: jr
Inst : HPS
Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625-3.M
Title : 390/ASP/8270
Last Update : Tue Jan 10 10:08:31 1995
Response via : Multiple Level Calibration



000060

Quantitation Report

Data File : c:\hpchem\1\data\0109\s2328.d
 Acq On : 9 Jan 95 22:44 pm
 Sample : 2266208, FIELDBRE,
 Misc : 1,,30-DEC-94,1000,1,PBN625+15, WATER
 Quant Time: Jan 9 23:24 1995

Vial: 76
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625-3.M
 Title : 390/ASP/8270
 Last Update : Mon Jan 09 19:03:16 1995
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.57	152	1154906	20.00	ug/L	-0.02
20) Naphthalene-D8	12.41	136	3779172	20.00	ug/L	-0.04
35) Acenaphthene-d10	16.67	164	2066985	20.00	ug/L	-0.04
56) Phenanthrene-D10	20.29	188	3558212	20.00	ug/L	-0.04
69) Chrysene-D12	26.84	240	3549972	20.00	ug/L	-0.05
77) Perylene-D12	31.97	264	4535080	20.00	ug/L	-0.07

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	9.27	99	1388	0.01	ug/L	0.02%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	9.97	150	1407576	13.98	ug/L	27.96%
34) Nitrobenzene-d5	10.83	82	1354364	17.47	ug/L	34.94%
54) 2-Fluorobiphenyl	15.02	172	2530825	15.82	ug/L	31.64%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.24	244	4418238	24.19	ug/L	48.38%

Target Compounds

Qvalue

000061

John H. H. 1/10/95

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

s2328.d 625-3.M

Tue Jan 10 14:49:21 1995

HPPC

Page 1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266217

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2210.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/30/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

56-55-3-----	Benzo(a)anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	1	U
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo(b)fluoranthene	1	U
207-08-9-----	Benzo(k)fluoranthene	1	U
50-32-8-----	Benzo(a)pyrene	1	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	1	U
53-70-3-----	Dibenz(a,h)anthracene	1	U
191-24-2-----	Benzo(g,h,i)perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266217

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2210.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/30/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
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92-87-5-----Benzidine	100	U
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1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

689A-1

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: 2266217

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2210.D

Level: (low/med) LOW

Date Received: 12/02/94

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/30/94

GPC Cleanup: (Y/N) N

pH: 5.0

Dilution Factor: 1.0

Number TICs found: 0

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

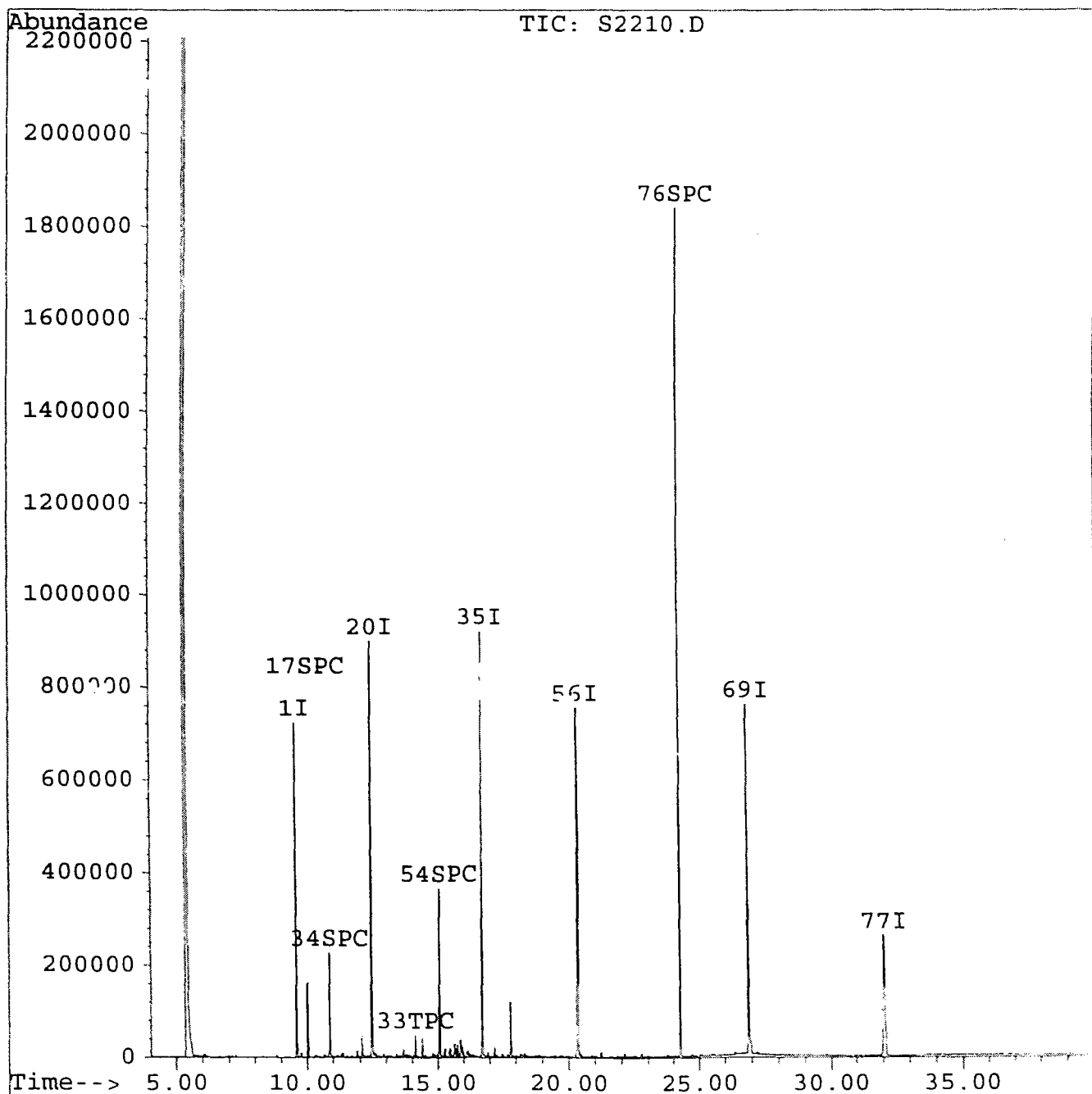
CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
=====	=====	=====	=====	=====
1.				
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Quantitation Report

Data File : c:\hpchem\1\data\1229\s2210.d
 Acq On : 30 Dec 94 6:55 am
 Sample : 2266217,689A-1,
 Misc : 1,5,,05-DEC-94,1000,1,PBN625+15, WATER
 Quant Time: Jan 3 16:18 1995

Vial: 21
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Tue Jan 03 13:15:58 1995
 Response via : Multiple Level Calibration



000065

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2210.d
 Acq On : 30 Dec 94 6:55 am
 Sample : 2266217,689A-1,
 Misc : 1,5,,05-DEC-94,1000,1,PBN625+15, WATER
 Quant Time: Jan 3 16:18 1995

Vial: 21
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Tue Jan 03 13:15:58 1995
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.60	152	155422	20.00	ug/L	0.04
20) Naphthalene-D8	12.46	136	649509	20.00	ug/L	0.04
35) Acenaphthene-d10	16.72	164	318992	20.00	ug/L	0.04
56) Phenanthrene-D10	20.32	188	501046	20.00	ug/L	0.04
69) Chrysene-D12	26.88	240	405674	20.00	ug/L	0.04
77) Perylene-D12	32.05	264	337923	20.00	ug/L	0.12

System Monitoring Compounds						%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	0.00%
15) Phenol-d5	0.00	99	0	0.00	ug/L	0.00%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.01	150	71692	6.37	ug/L	12.73%
34) Nitrobenzene-d5	10.86	82	143020	10.21	ug/L	20.42%
54) 2-Fluorobiphenyl	15.05	172	165958	9.79	ug/L	19.57%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	0.00%
76) Terphenyl-d14	24.27	244	864425	66.67	ug/L	133.34%

Target Compounds						Qvalue
33) 2-Methylnaphthalene	14.14	142	24868	1.31	ug/L	# 89

000066

Jim Hall 1/3/95

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2189.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

111-44-4-----bis(2-Chloroethyl) Ether	1	U
541-73-1-----1,3-Dichlorobenzene	1	U
106-46-7-----1,4-Dichlorobenzene	1	U
95-50-1-----1,2-Dichlorobenzene	1	U
108-60-1-----2,2'-oxybis(1-Chloropropane)	1	U
621-64-7-----N-Nitroso-di-n-propylamine	1	U
67-72-1-----Hexachloroethane	1	U
98-95-3-----Nitrobenzene	1	U
78-59-1-----Isophorone	1	U
120-82-1-----1,2,4-Trichlorobenzene	1	U
91-20-3-----Naphthalene	1	U
87-68-3-----Hexachlorobutadiene	1	U
111-91-1-----bis(2-Chloroethoxy) methane	1	U
77-47-4-----Hexachlorocyclopentadiene	1	U
91-58-7-----2-Chloronaphthalene	1	U
131-11-3-----Dimethylphthalate	1	U
208-96-8-----Acenaphthylene	1	U
606-20-2-----2,6-Dinitrotoluene	1	U
83-32-9-----Acenaphthene	1	U
121-14-2-----2,4-Dinitrotoluene	1	U
84-66-2-----Diethylphthalate	1	U
7005-72-3-----4-Chlorophenyl-phenylether	1	U
86-73-7-----Fluorene	1	U
86-30-6-----N-Nitrosodiphenylamine (1)	1	U
101-55-3-----4-Bromophenyl-phenylether	1	U
118-74-1-----Hexachlorobenzene	1	U
85-01-8-----Phenanthrene	1	U
120-12-7-----Anthracene	1	U
84-74-2-----Di-n-butylphthalate	1	U
206-44-0-----Fluoranthene	1	U
129-00-0-----Pyrene	1	U
85-68-7-----Butylbenzylphthalate	1	U
91-94-1-----3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2189.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

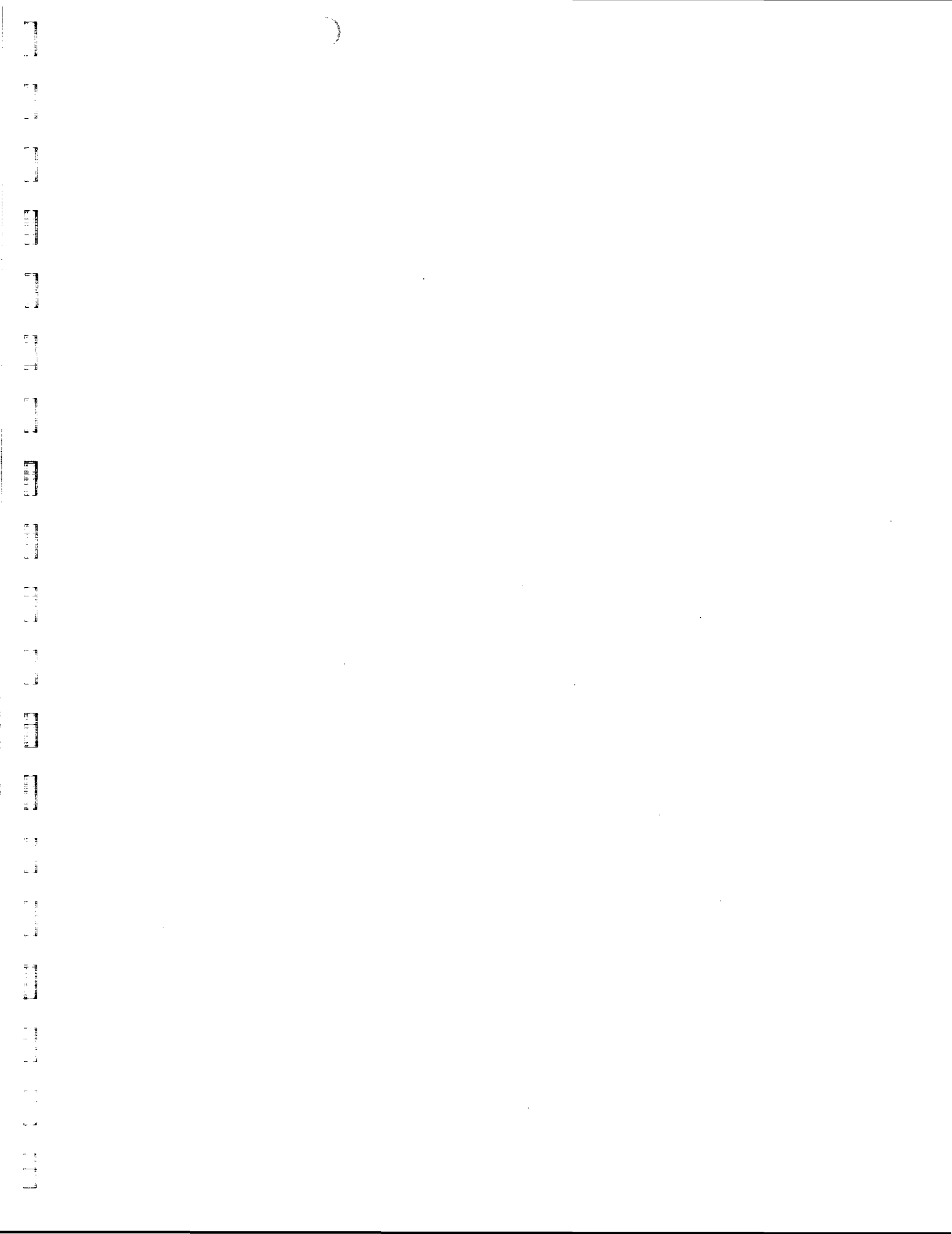
Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

56-55-3-----	Benzo(a)anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis(2-Ethylhexyl)phthalate	1	U
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo(b)fluoranthene	1	U
207-08-9-----	Benzo(k)fluoranthene	1	U
50-32-8-----	Benzo(a)pyrene	1	U
193-39-5-----	Indeno(1,2,3-cd)pyrene	1	U
53-70-3-----	Dibenz(a,h)anthracene	1	U
191-24-2-----	Benzo(g,h,i)perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U



1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2189.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO.

COMPOUND

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

Q

92-87-5-----Benzidine

100

U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: WB1205A

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2189.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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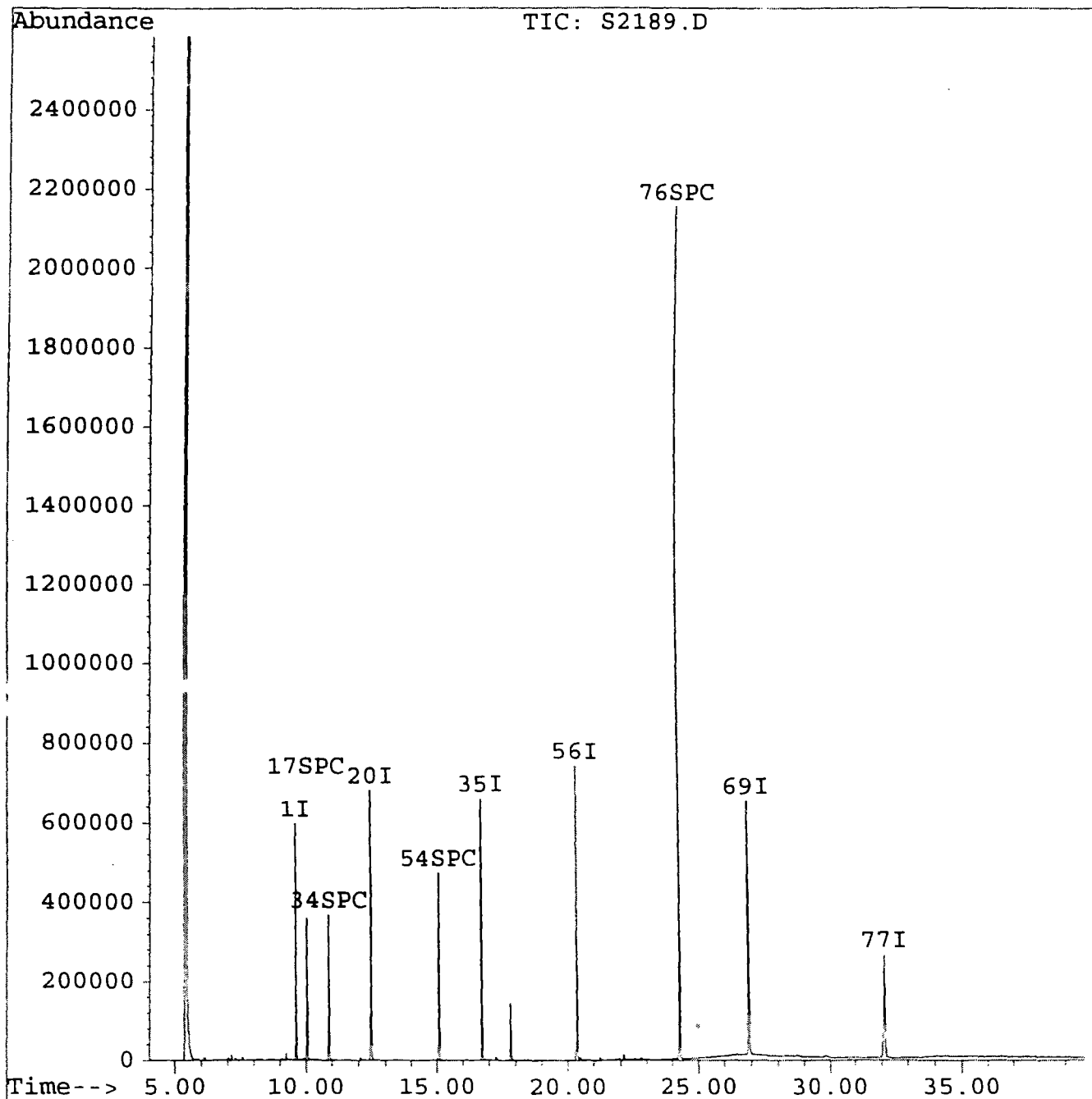
000070

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2189.d
 Acq On : 29 Dec 94 14:28 pm
 Sample : WB1205A,SBLK67,
 Misc : 1,5,,05-DEC-94,1000,1,PNB625+15, WATER
 Quant Time: Jan 3 15:31 1995

Vial: 4
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : c:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Tue Jan 03 13:15:58 1995
 Response via : Multiple Level Calibration



000071

Quantitation Report

Data File : c:\hpchem\1\data\1229\s2189.d
 Acq On : 29 Dec 94 14:28 pm
 Sample : WB1205A,SBLK67,
 Misc : 1,5,,05-DEC-94,1000,1,PBN625+15, WATER
 Quant Time: Jan 3 15:31 1995

Vial: 4
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625.M
 Title : 390/ASP/8270
 Last Update : Tue Jan 03 13:15:58 1995
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.63	152	144780	20.00	ug/L	0.07
20) Naphthalene-D8	12.47	136	556210	20.00	ug/L	0.05
35) Acenaphthene-d10	16.75	164	272256	20.00	ug/L	0.07
56) Phenanthrene-D10	20.35	188	430193	20.00	ug/L	0.07
69) Chrysene-D12	26.92	240	373353	20.00	ug/L	0.07
77) Perylene-D12	32.10	264	309781	20.00	ug/L	0.17

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
14) 2-Fluorophenol	0.00	112	0	0.00	ug/L	NA 0.00%
15) Phenol-d5	0.00	99	0	0.00	ug/L	0.00%
16) 2-Chlorophenol-d4	0.00	132	0	0.00	ug/L	0.00%
17) 1,2-Dichlorobenzene-d4	10.03	150	129726	12.37	ug/L	24.74%
34) Nitrobenzene-d5	10.88	82	207219	17.28	ug/L	34.55%
54) 2-Fluorobiphenyl	15.09	172	249642	17.25	ug/L	34.49%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	NA 0.00%
76) Terphenyl-d14	24.30	244	1190482	99.77	ug/L	199.54%

Target Compounds

Qvalue

000072

John [signature] 1/4/95

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK75

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: WB1230B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2323.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 12/30/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N pH: 5.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
111-44-4	bis(2-Chloroethyl) Ether	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1	U
621-64-7	N-Nitroso-di-n-propylamine	1	U
67-72-1	Hexachloroethane	1	U
98-95-3	Nitrobenzene	1	U
78-59-1	Isophorone	1	U
120-82-1	1,2,4-Trichlorobenzene	1	U
91-20-3	Naphthalene	1	U
87-68-3	Hexachlorobutadiene	1	U
111-91-1	bis(2-Chloroethoxy) methane	1	U
77-47-4	Hexachlorocyclopentadiene	1	U
91-58-7	2-Chloronaphthalene	1	U
131-11-3	Dimethylphthalate	1	U
208-96-8	Acenaphthylene	1	U
606-20-2	2,6-Dinitrotoluene	1	U
83-32-9	Acenaphthene	1	U
121-14-2	2,4-Dinitrotoluene	1	U
84-66-2	Diethylphthalate	1	U
7005-72-3	4-Chlorophenyl-phenylether	1	U
86-73-7	Fluorene	1	U
86-30-6	N-Nitrosodiphenylamine (1)	1	U
101-55-3	4-Bromophenyl-phenylether	1	U
118-74-1	Hexachlorobenzene	1	U
85-01-8	Phenanthrene	1	U
120-12-7	Anthracene	1	U
84-74-2	Di-n-butylphthalate	1	U
206-44-0	Fluoranthene	1	U
129-00-0	Pyrene	1	U
85-68-7	Butylbenzylphthalate	1	U
91-94-1	3,3'-Dichlorobenzidine	1	U

(1) - Cannot be separated from Diphenylamine

000073

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK75

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: WB1230B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2323.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 12/30/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N

pH: 5.0

Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
---------	----------	--	---

56-55-3-----	Benzo (a) anthracene	1	U
218-01-9-----	Chrysene	1	U
117-81-7-----	bis (2-Ethylhexyl) phthalate	1	U
117-84-0-----	Di-n-octylphthalate	1	U
205-99-2-----	Benzo (b) fluoranthene	1	U
207-08-9-----	Benzo (k) fluoranthene	1	U
50-32-8-----	Benzo (a) pyrene	1	U
193-39-5-----	Indeno (1,2,3-cd) pyrene	1	U
53-70-3-----	Dibenz (a,h) anthracene	1	U
191-24-2-----	Benzo (g,h,i) perylene	1	U
62-75-9-----	N-Nitrosodimethylamine	1	U
92-87-5-----	Benzidine	100	U

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK75

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Matrix: (soil/water) WATER

Lab Sample ID: WB1230B

Sample wt/vol: 1000 (g/mL) ML

Lab File ID: S2323.D

Level: (low/med) LOW

Date Received: 00/00/00

% Moisture: not dec. 0 dec.

Date Extracted: 12/30/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 01/09/95

GPC Cleanup: (Y/N) N

pH: 5.0

Dilution Factor: 1.0

Number TICs found: 0

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

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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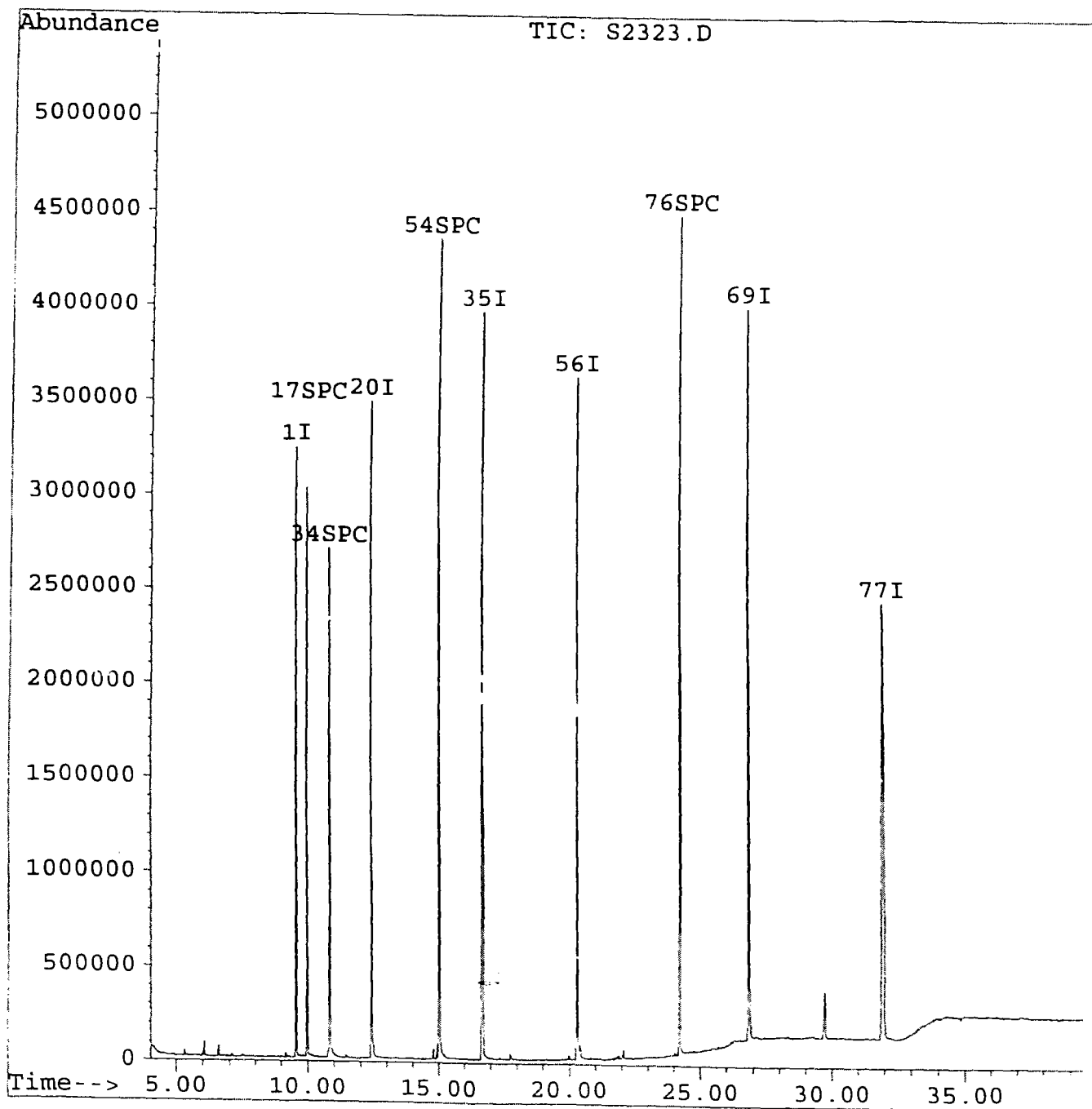
000075

) Quantitation Report

Data File : c:\hpchem\1\data\0109\s2323.d
 Acq On : 9 Jan 95 18:42 pm
 Sample : WB1230B,SBLK75,
 Misc : 1,5,,30-DEC-94,1000,1,PBN625+15, WATER
 Quant Time: Jan 9 19:22 1995

Vial: 71
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625-3.M
 Title : 390/ASP/8270
 Last Update : Tue Jan 10 10:08:31 1995
 Response via : Multiple Level Calibration



000076

Quantitation Report

Data File : c:\hpchem\1\data\0109\s2323.d
 Acq On : 9 Jan 95 18:42 pm
 Sample : WB1230B, SBLK75,
 Misc : 1,5,,30-DEC-94,1000,1,PBN625+15, WATER
 Quant Time: Jan 9 19:22 1995

Vial: 71
 Operator: jr
 Inst : HPS
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\625-3.M
 Title : 390/ASP/8270
 Last Update : Mon Jan 09 19:03:16 1995
 Response via : Initial Calibration

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) 1,4-Dichlorobenzene-D4	9.57	152	1122540	20.00	ug/L	-0.02
20) Naphthalene-D8	12.42	136	3742537	20.00	ug/L	-0.02
35) Acenaphthene-d10	16.69	164	2067149	20.00	ug/L	-0.02
56) Phenanthrene-D10	20.29	188	3615772	20.00	ug/L	-0.04
69) Chrysene-D12	26.85	240	3540808	20.00	ug/L	-0.04
77) Perylene-D12	31.97	264	4519712	20.00	ug/L	-0.07

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	%Recovery
14) 2-Fluorophenol	7.50	112	736	0.01	ug/L	0.01%
15) Phenol-d5	9.18	99	768	0.01	ug/L	0.01%
16) 2-Chlorophenol-d4	9.34	132	1783	0.02	ug/L	0.03%
17) 1,2-Dichlorobenzene-d4	9.98	150	1890598	19.32	ug/L	38.64%
34) Nitrobenzene-d5	10.83	82	1732613	22.57	ug/L	45.13%
54) 2-Fluorobiphenyl	15.02	172	3317485	20.74	ug/L	41.47%
55) 2,4,6-Tribromophenol	0.00	330	0	0.00	ug/L	0.00%
76) Terphenyl-d14	24.24	244	4008788	22.01	ug/L	44.01%

Target Compounds

Qvalue

000077

Thm/1/1/95

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

s2323.d 625-3.M

Tue Jan 10 14:33:32 1995

HPPC

Page 1

2C
WATER SEMI-VOLATILE SURROGATE RECOVERY

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

	EPA SAMPLE NO.	S1 (NBZ) #	S2 (FBP) #	S3 (TPH) #	S4 #	S5 #	S6 #	S7 #	S8 #	TOT OUT
01	SBLK67	34*	34*	200*	25*					4
02	814-1	33*	29*	77	24*					3
03	1076-1	34*	33*	87	27*					3
04	1076-2	28*	23*	77	18*					3
05	1076-3	40	37*	127	30*					2
06	689B-2	34*	33*	106	27*					3
07	600-1	31*	32*	117	22*					3
08	287-1	33*	36*	163*	24*					4
09	FIELD B	22*	22*	164*	13*					4
10	27004-1	23*	22*	98	17*					3
11	1220-1	19*	18*	102	14*					3
12	207B-1	18*	15*	87	13*					3
13	207B-1MS	47	46	137	41					0
14	207B-1MSD	36	39*	165*	26*					3
15	208B-1	41	42*	187*	26*					3
16	282-1	29*	31*	150*	21*					4
17	689A-1	20*	20*	133	13*					3
18	QC	21*	19*	53	15*					3
19	QCRE	23*	20*	53	14*					3
20	DUPLIC	35	35*	113	26*					2
21	SBLK75	45	41*	44	39					1
22	814-1RE	32*	31*	36	29*					3
23	1076-1RE	36	33*	39	33					1
24	600-1RE	51	48	46	44					0
25	287-1RE	43	40*	47	35					1
26	FIELD BRE	35	32*	48	28*					2
27										
28										
29										
30										

QC LIMITS

S1 (NBZ) = Nitrobenzene-d5 (35-114)
 S2 (FBP) = 2-Fluorobiphenyl (43-116)
 S3 (TPH) = Terphenyl-d14 (33-141)
 S4 = 1,2-Dichlorobenzene-d4 (33-110)
 S5 = N/A
 S6 = N/A
 S7 = N/A
 S8 = N/A

Column to be used to flag recovery values
 * Values outside of contract required QC limits
 D Surrogate diluted out

nytest

RECOVERY REPORT

Client Name: Client SDG: ARMY3a
Sample Matrix: LIQUID Fraction: SV
Lab Smp Id: QC Client Smp ID: QC
Level: LOW Operator:
Data Type: MS DATA SampleType: MS
SpikeList File: QCCHK.spk Quant Type: ISTD
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Phenol	12	0.0	*	17-100
9 bis(2-Chloroethyl)	12	10	82.28	43-126
10 1,3-Dichlorobenzen	12	8	64.94	17-154
13 1,4-Dichlorobenzen	12	8	66.48	37-106
15 1,2-Dichlorobenzen	12	9	70.45	49-112
21 2,2'-oxybis(1-Chlo	12	12	92.50	63-139
18 N-Nitroso-di-n-pro	12	11	89.45	14-198
17 Hexachloroethane	12	7	59.66	55-100
20 Nitrobenzene	12	11	89.22	54-158
22 Isophorone	12	12	94.13	47-180
23 2-Nitrophenol	12	0.0	*	45-167
24 2,4-Dimethylphenol	12	0.0	*	42-109
26 bis(2-Chloroethoxy	12	11	89.48	49-165
27 2,4-Dichlorophenol	12	0.0	*	52-122
28 1,2,4-Trichloroben	12	10	76.76	57-129
31 Naphthalene	12	10	84.42	36-120
33 Hexachlorobutadien	12	9	70.07	38-102
34 4-Chloro-3-Methyl	12	0.0	*	41-128
36 Hexachlorocyclope	12	0.0	*	38-102
37 2,4,6-Trichloroph	12	0.0	*	52-129
40 2-Chloronaphthalen	12	11	90.57	64-114
43 Dimethylphthalate	12	7	53.01	0-100
42 Acenaphthylene	12	13	102.48	54-126
44 2,6-Dinitrotoluene	12	17	135.71	68-137
46 Acenaphthene	12	12	95.51	60-132
48 2,4-Dinitrophenol	12	0.0	*	0-173
50 4-Nitrophenol	12	0.0	*	13-106
8 2-Chlorophenol	12	0.0	*	36-120
51 2,4-Dinitrotoluene	12	19	155.58*	48-127
54 Diethylphthalate	12	16	127.90*	0-100
53 4-Chlorophenyl-phe	12	19	148.91*	38-145
52 Fluorene	12	17	133.28*	72-108
55 4,6-Dinitro-2-met	12	0.0	*	53-100
56 N-Nitrosodiphenyla	12	16	129.60	14-198
59 4-Bromophenyl-phen	12	16	130.35*	65-114
60 Hexachlorobenzene	12	20	156.93*	8-142

000079

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	12	0.0	*	38-152
63 Phenanthrene	12	20	160.36*	65-109
64 Anthracene	12	19	150.37*	43-118
66 Di-n-butylphthalat	12	21	165.67*	8-111
67 Fluoranthene	12	23	187.77*	43-121
68 Pyrene	12	22	174.36*	70-100
70 Butylbenzylphthala	12	19	155.45*	0-140
73 3,3'-Dichlorobenzi	12	31	248.94*	8-212
71 Benzo(a)anthracene	12	24	195.05*	42-133
74 Chrysene	12	21	165.30*	44-140
75 bis(2-Ethylhexyl)p	12	18	148.08*	29-137
76 Di-n-octylphthalat	12	20	158.88*	19-132
77 Benzo(b)fluoranthene	12	19	155.48*	42-140
78 Benzo(k)fluoranthene	12	17	138.81	25-146
79 Benzo(a)pyrene	12	18	144.48	32-148
81 Indeno(1,2,3-cd)py	12	19	153.40*	0-151
82 Dibenz(a,h)anthrac	12	22	175.46	0-200
83 Benzo(g,h,i)perylene	12	17	137.24	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 1,2-Dichlorobenzen	50	8	15.20*	33-110
\$ 29 Nitrobenzene-d5	50	10	20.70*	35-114
\$ 39 2-Fluorobiphenyl	50	10	19.37*	43-116
\$ 69 Terphenyl-d14	50	26	52.92	33-141

000080

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: QCRE
Level: LOW
Data Type: MS DATA
SpikeList File: QCCHK.spk
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

Client SDG: ARMY3a
Fraction: SV
Client Smp ID: QCRE
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Phenol	12	0.0	*	17-100
9 bis(2-Chloroethyl)	12	9	73.09	43-126
10 1,3-Dichlorobenzen	12	7	57.92	17-154
13 1,4-Dichlorobenzen	12	8	60.77	37-106
15 1,2-Dichlorobenzen	12	8	62.95	49-112
21 2,2'-oxybis(1-Chlo	12	10	82.48	63-139
18 N-Nitroso-di-n-pro	12	10	77.80	14-198
17 Hexachloroethane	12	7	53.02*	55-100
20 Nitrobenzene	12	10	84.14	54-158
22 Isophorone	12	11	85.55	47-180
23 2-Nitrophenol	12	0.0	*	45-167
24 2,4-Dimethylphenol	12	0.0	*	42-109
26 bis(2-Chloroethoxy	12	11	84.81	49-165
27 2,4-Dichlorophenol	12	0.0	*	52-122
28 1,2,4-Trichloroben	12	9	73.98	57-129
31 Naphthalene	12	10	83.64	36-120
33 Hexachlorobutadien	12	8	67.02	38-102
34 4-Chloro-3-Methyl	12	0.0	*	41-128
36 Hexachlorocyclope	12	0.0	*	38-102
37 2,4,6-Trichloroph	12	0.0	*	52-129
40 2-Chloronaphthalen	12	11	87.52	64-114
43 Dimethylphthalate	12	6	48.24	0-100
42 Acenaphthylene	12	13	100.87	54-126
44 2,6-Dinitrotoluene	12	16	130.43	68-137
46 Acenaphthene	12	12	97.51	60-132
48 2,4-Dinitrophenol	12	0.0	*	0-173
50 4-Nitrophenol	12	0.0	*	13-106
8 2-Chlorophenol	12	0.0	*	36-120
51 2,4-Dinitrotoluene	12	18	144.06*	48-127
54 Diethylphthalate	12	16	124.02*	0-100
53 4-Chlorophenyl-phe	12	16	130.36	38-145
52 Fluorene	12	16	127.62*	72-108
55 4,6-Dinitro-2-met	12	0.0	*	53-100
56 N-Nitrosodiphenyla	12	17	135.33	14-198
59 4-Bromophenyl-phen	12	16	132.38*	65-114
60 Hexachlorobenzene	12	19	154.79*	8-142

000081

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	12	0.0	*	38-152
63 Phenanthrene	12	20	160.99*	65-109
64 Anthracene	12	16	125.80*	43-118
66 Di-n-butylphthalat	12	20	156.62*	8-111
67 Fluoranthene	12	22	177.50*	43-121
68 Pyrene	12	22	173.40*	70-100
70 Butylbenzylphthala	12	17	137.45	0-140
73 3,3'-Dichlorobenzi	12	27	214.81*	8-212
71 Benzo(a)anthracene	12	24	191.16*	42-133
74 Chrysene	12	18	147.56*	44-140
75 bis(2-Ethylhexyl)p	12	18	141.77*	29-137
76 Di-n-octylphthalat	12	19	149.71*	19-132
77 Benzo(b)fluoranth	12	19	149.39*	42-140
78 Benzo(k)fluoranth	12	20	160.88*	25-146
79 Benzo(a)pyrene	12	18	140.22	32-148
81 Indeno(1,2,3-cd)py	12	18	145.59	0-151
82 Dibenz(a,h)anthrac	12	21	168.81	0-200
83 Benzo(g,h,i)peryle	12	16	128.04	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 1,2-Dichlorobenzen	50	7	14.43*	33-110
\$ 29 Nitrobenzene-d5	50	12	23.12*	35-114
\$ 39 2-Fluorobiphenyl	50	10	20.50*	43-116
\$ 69 Terphenyl-d14	50	26	53.03	33-141

000082

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266213
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

Client SDG: ARMY3a
Fraction: SV
Client Smp ID: 207B-1MS
Operator:
SampleType: MS
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Phenol	50	0.0	*	17-100
9 bis(2-Chloroethyl)	50	27	54.56	43-126
10 1,3-Dichlorobenzen	50	23	46.23	17-154
13 1,4-Dichlorobenzen	50	23	46.82	37-106
15 1,2-Dichlorobenzen	50	24	48.87	49-112
21 2,2'-oxybis(1-Chlo	50	29	58.32*	63-139
18 N-Nitroso-di-n-pro	50	30	61.08	14-198
17 Hexachloroethane	50	20	40.33*	55-100
20 Nitrobenzene	50	26	52.49*	54-158
22 Isophorone	50	26	51.81	47-180
23 2-Nitrophenol	50	0.0	*	45-167
24 2,4-Dimethylphenol	50	0.0	*	42-109
26 bis(2-Chloroethoxy	50	25	49.50	49-165
27 2,4-Dichlorophenol	50	0.0	*	52-122
28 1,2,4-Trichloroben	50	23	45.44*	57-129
31 Naphthalene	50	25	50.43	36-120
33 Hexachlorobutadien	50	18	35.12*	38-102
34 4-Chloro-3-Methyl	50	0.0	*	41-128
36 Hexachlorocyclopen	50	24	48.65	38-102
37 2,4,6-Trichloroph	50	0.0	*	52-129
40 2-Chloronaphthalen	50	30	60.02*	64-114
43 Dimethylphthalate	50	21	42.15	0-100
42 Acenaphthylene	50	33	65.65	54-126
44 2,6-Dinitrotoluene	50	39	78.40	68-137
46 Acenaphthene	50	31	61.85	60-132
48 2,4-Dinitrophenol	50	0.0	*	0-173
50 4-Nitrophenol	50	0.0	*	13-106
8 2-Chlorophenol	50	0.0	*	36-120
51 2,4-Dinitrotoluene	50	42	83.11	48-127
54 Diethylphthalate	50	38	75.92	0-100
53 4-Chlorophenyl-phe	50	43	86.94	38-145
52 Fluorene	50	41	82.13	72-108
55 4,6-Dinitro-2-met	50	0.0	*	53-100
56 N-Nitrosodiphenyla	50	38	76.73	14-198
59 4-Bromophenyl-phen	50	36	73.06	65-114
60 Hexachlorobenzene	50	45	89.44	8-142

000083

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	41	82.64	65-109
64 Anthracene	50	39	77.45	43-118
66 Di-n-butylphthalat	50	44	89.18	8-111
67 Fluoranthene	50	46	92.05	43-121
68 Pyrene	50	54	107.75*	70-100
70 Butylbenzylphthala	50	44	89.19	0-140
73 3,3'-Dichlorobenzi	50	96	192.47	8-212
71 Benzo(a)anthracene	50	61	122.37	42-133
74 Chrysene	50	50	99.07	44-140
75 bis(2-Ethylhexyl)p	50	46	91.45	29-137
76 Di-n-octylphthalat	50	39	78.35	19-132
77 Benzo(b)fluoranth	50	31	61.99	42-140
78 Benzo(k)fluoranth	50	38	76.20	25-146
79 Benzo(a)pyrene	50	36	71.60	32-148
81 Indeno(1,2,3-cd)py	50	38	75.93	0-151
82 Dibenz(a,h)anthrac	50	42	83.05	0-200
83 Benzo(g,h,i)peryle	50	35	69.49	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 1,2-Dichlorobenzen	50	20	41.18	33-110
\$ 29 Nitrobenzene-d5	50	24	47.26	35-114
\$ 39 2-Fluorobiphenyl	50	23	46.18	43-116
\$ 69 Terphenyl-d14	50	68	137.17	33-141

000084

nytest

RECOVERY REPORT

Client Name:
Sample Matrix: LIQUID
Lab Smp Id: 2266214
Level: LOW
Data Type: MS DATA
SpikeList File: QCMS.spk
Method File: /chem/HPS.i/22662.b/625.m
Misc Info:

Client SDG: ARMY3a
Fraction: SV
Client Smp ID: 207B-1MSD
Operator:
SampleType: MSD
Quant Type: ISTD

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
7 Phenol	50	0.0	*	17-100
9 bis(2-Chloroethyl)	50	20	40.73*	43-126
10 1,3-Dichlorobenzen	50	14	28.01	17-154
13 1,4-Dichlorobenzen	50	14	29.16*	37-106
15 1,2-Dichlorobenzen	50	16	32.06*	49-112
21 2,2'-oxybis(1-Chlo	50	22	43.58*	63-139
18 N-Nitroso-di-n-pro	50	23	45.54	14-198
17 Hexachloroethane	50	11	22.87*	55-100
20 Nitrobenzene	50	20	39.31*	54-158
22 Isophorone	50	20	40.79*	47-180
23 2-Nitrophenol	50	0.0	*	45-167
24 2,4-Dimethylphenol	50	0.0	*	42-109
26 bis(2-Chloroethoxy	50	19	38.29*	49-165
27 2,4-Dichlorophenol	50	0.0	*	52-122
28 1,2,4-Trichloroben	50	14	28.08*	57-129
31 Naphthalene	50	18	36.26	36-120
33 Hexachlorobutadien	50	11	21.89*	38-102
34 4-Chloro-3-Methyl	50	0.0	*	41-128
36 Hexachlorocyclopen	50	4	8.23*	38-102
37 2,4,6-Trichloroph	50	0.0	*	52-129
40 2-Chloronaphthalen	50	24	47.96*	64-114
43 Dimethylphthalate	50	23	45.71	0-100
42 Acenaphthylene	50	29	57.48	54-126
44 2,6-Dinitrotoluene	50	43	86.37	68-137
46 Acenaphthene	50	29	57.56*	60-132
48 2,4-Dinitrophenol	50	0.0	*	0-173
50 4-Nitrophenol	50	0.0	*	13-106
8 2-Chlorophenol	50	0.0	*	36-120
51 2,4-Dinitrotoluene	50	49	97.35	48-127
54 Diethylphthalate	50	40	80.94	0-100
53 4-Chlorophenyl-phe	50	49	98.17	38-145
52 Fluorene	50	43	86.85	72-108
55 4,6-Dinitro-2-met	50	0.0	*	53-100
56 N-Nitrosodiphenyla	50	45	90.46	14-198
59 4-Bromophenyl-phen	50	50	99.94	65-114
60 Hexachlorobenzene	50	64	128.21	8-142

000085

SPIKE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
61 Pentachlorophenol	50	0.0	*	38-152
63 Phenanthrene	50	55	110.39*	65-109
64 Anthracene	50	53	106.21	43-118
66 Di-n-butylphthalat	50	60	119.59*	8-111
67 Fluoranthene	50	68	136.90*	43-121
68 Pyrene	50	63	126.71*	70-100
70 Butylbenzylphthala	50	56	111.05	0-140
73 3,3'-Dichlorobenzi	50	100	202.55	8-212
71 Benzo(a)anthracene	50	72	144.56*	42-133
74 Chrysene	50	58	116.42	44-140
75 bis(2-Ethylhexyl)p	50	51	102.08	29-137
76 Di-n-octylphthalat	50	46	92.12	19-132
77 Benzo(b)fluoranth	50	46	92.12	42-140
78 Benzo(k)fluoranth	50	52	103.21	25-146
79 Benzo(a)pyrene	50	44	87.86	32-148
81 Indeno(1,2,3-cd)py	50	48	95.91	0-151
82 Dibenz(a,h)anthrac	50	55	109.73	0-200
83 Benzo(g,h,i)peryle	50	43	86.73	0-195

SURROGATE COMPOUND	CONC ADDED ug/L	CONC RECOVERED ug/L	% RECOVERED	LIMITS
\$ 5 1,2-Dichlorobenzen	50	13	26.20*	33-110
\$ 29 Nitrobenzene-d5	50	18	36.24	35-114
\$ 39 2-Fluorobiphenyl	50	19	38.83*	43-116
\$ 69 Terphenyl-d14	50	82	165.13*	33-141

000086

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK67

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2189.D

Lab Sample ID: WB1205A

Date Extracted: 12/05/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 12/29/94

Time Analyzed: 1428

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: HPS

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	814-1	2266201	S2190.D	12/29/94
02	1076-1	2266202	S2191.D	12/29/94
03	1076-2	2266203	S2192.D	12/29/94
04	1076-3	2266204	S2193.D	12/29/94
05	689B-2	2266205	S2194.D	12/29/94
06	600-1	2266206	S2195.D	12/29/94
07	287-1	2266207	S2196.D	12/29/94
08	FIELDDB	2266208	S2197.D	12/29/94
09	27004-1	2266210	S2199.D	12/29/94
10	1220-1	2266211	S2200.D	12/29/94
11	207B-1	2266212	S2201.D	12/30/94
12	207B-1MS	2266213	S2206.D	12/30/94
13	207B-1MSD	2266214	S2207.D	12/30/94
14	208B-1	2266215	S2208.D	12/30/94
15	282-1	2266216	S2209.D	12/30/94
16	689A-1	2266217	S2210.D	12/30/94
17	QC	QC	S2217.D	12/30/94
18	QCRE	QCRE	S2221.D	01/03/95
19	DUPLIC	2266209	S2222.D	01/03/95
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS:

4B
SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK75

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2323.D

Lab Sample ID: WB1230B

Date Extracted: 12/30/94

Extraction: (SepF/Cont/Sonc) SEPF

Date Analyzed: 01/09/95

Time Analyzed: 1842

Matrix: (soil/water) WATER

Level: (low/med) LOW

Instrument ID: HPS

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	814-1RE	2266201	S2324.D	01/09/95
02	1076-1RE	2266202	S2325.D	01/09/95
03	600-1RE	2266206	S2326.D	01/09/95
04	287-1RE	2266207	S2327.D	01/09/95
05	FIELD BRE	2266208	S2328.D	01/09/95
06				
07				
08				
09				
10				
11				
12				
13				
14				
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COMMENTS:

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2175.D

DFTPP Injection Date: 12/28/94

Instrument ID: HPS

DFTPP Injection Time: 1745

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	65.9
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	53.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	18.4
365	Greater than 1.00% of mass 198	2.66
441	Present, but less than mass 443	7.3
442	Greater than 40.0% of mass 198	49.9
443	17.0 - 23.0% of mass 442	9.8 (19.5)2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	SSTD010	S2176.D	12/28/94	1759
02	SSTD020	SSTD020	S2177.D	12/28/94	1848
03	SSTD050	SSTD050	S2178.D	12/28/94	1937
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
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21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2175.D

DFTPP Injection Date: 12/28/94

Instrument ID: HPS

DFTPP Injection Time: 1745

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	47.5
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	65.9
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	53.2
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	18.4
365	Greater than 1.00% of mass 198	2.66
441	Present, but less than mass 443	7.3
442	Greater than 40.0% of mass 198	49.9
443	17.0 - 23.0% of mass 442	9.8 (19.5)2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	BENZ1	BENZ1	S2181.D	12/28/94	2204
02	BENZ2	BENZ2	S2182.D	12/28/94	2253
03	BENZ3	BENZ3	S2183.D	12/28/94	2342
04					
05					
06					
07					
08					
09					
10					
11					
12					
13					
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15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2186.D

DFTPP Injection Date: 12/29/94

Instrument ID: HPS

DFTPP Injection Time: 1223

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	51.7
68	Less than 2.0% of mass 69	0.0 (0.0)1
69	Mass 69 relative abundance	67.8
70	Less than 2.0% of mass 69	0.3 (0.4)1
127	40.0 - 60.0% of mass 198	54.6
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.5
275	10.0 - 30.0% of mass 198	17.9
365	Greater than 1.00% of mass 198	2.71
441	Present, but less than mass 443	6.8
442	Greater than 40.0% of mass 198	47.7
443	17.0 - 23.0% of mass 442	9.3 (19.6)2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S2187.D	12/29/94	1236
02	SBLK67	WB1205A	S2189.D	12/29/94	1428
03	814-1	2266201	S2190.D	12/29/94	1517
04	1076-1	2266202	S2191.D	12/29/94	1609
05	1076-2	2266203	S2192.D	12/29/94	1657
06	1076-3	2266204	S2193.D	12/29/94	1746
07	689B-2	2266205	S2194.D	12/29/94	1834
08	600-1	2266206	S2195.D	12/29/94	1930
09	287-1	2266207	S2196.D	12/29/94	2019
10	FIELD B	2266208	S2197.D	12/29/94	2110
11	27004-1	2266210	S2199.D	12/29/94	2246
12	1220-1	2266211	S2200.D	12/29/94	2334
13	207B-1	2266212	S2201.D	12/30/94	0022
14					
15	Benz3	Benz3	S2188.D	12/29/94	1339
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2202.D

DFTPP Injection Date: 12/30/94

Instrument ID: ~~MS~~

DFTPP Injection Time: 0105

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	43.6
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	58.9
70	Less than 2.0% of mass 69	0.2 (0.4) 1
127	40.0 - 60.0% of mass 198	50.7
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	19.7
365	Greater than 1.00% of mass 198	3.02
441	Present, but less than mass 443	8.6
442	Greater than 40.0% of mass 198	59.5
443	17.0 - 23.0% of mass 442	11.4 (19.2) 2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S2203.D	12/30/94	0120
02	207B-1MS	2266213	S2206.D	12/30/94	0343
03	207B-1MSD	2266214	S2207.D	12/30/94	0431
04	208B-1	2266215	S2208.D	12/30/94	0519
05	282-1	2266216	S2209.D	12/30/94	0607
06	689A-1	2266217	S2210.D	12/30/94	0655
07	QC	QC	S2217.D	12/30/94	1233
08					
09	<u>benz3</u>	<u>benz3</u>	<u>S2204.D</u>	<u>12/30/94</u>	<u>0207</u>
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2218.D

DFTPP Injection Date: 01/03/95

Instrument ID: HPS

DFTPP Injection Time: 1202

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	45.9
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	63.3
70	Less than 2.0% of mass 69	0.3 (0.4) 1
127	40.0 - 60.0% of mass 198	51.4
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.6
275	10.0 - 30.0% of mass 198	18.9
365	Greater than 1.00% of mass 198	2.83
441	Present, but less than mass 443	7.1
442	Greater than 40.0% of mass 198	49.4
443	17.0 - 23.0% of mass 442	9.5 (19.2) 2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD050	SSTD050	S2219.D	01/03/95	1216
02	QCRE	QCRE	S2221.D	01/03/95	1401
03	DUPLIC	2266209	S2222.D	01/03/95	1450
04					
05	Benz3	Benz3	S2220.D	1/3/95	1313
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5B
SEMIVOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
DECAFLUOROTRIPHENYLPHOSPHINE (DFTPP)

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Lab File ID: S2316.D

DFTPP Injection Date: 01/09/95

Instrument ID: HPS

DFTPP Injection Time: 1337

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
51	30.0 - 60.0% of mass 198	40.1
68	Less than 2.0% of mass 69	0.0 (0.0) 1
69	Mass 69 relative abundance	48.2
70	Less than 2.0% of mass 69	0.1 (0.2) 1
127	40.0 - 60.0% of mass 198	42.9
197	Less than 1.0% of mass 198	0.0
198	Base peak, 100% relative abundance	100.0
199	5.0 to 9.0% of mass 198	6.7
275	10.0 - 30.0% of mass 198	20.7
365	Greater than 1.00% of mass 198	3.33
441	Present, but less than mass 443	12.7
442	Greater than 40.0% of mass 198	83.2
443	17.0 - 23.0% of mass 442	16.2 (19.5) 2

1-Value is % mass 69

2-Value is % mass 442

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

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	SSTD010	SSTD010	S2317.D	01/09/95	1351
02	SSTD020	SSTD020	S2318.D	01/09/95	1440
03	SSTD050	SSTD050	S2319.D	01/09/95	1528
04	SBLK75	WB1230B	S2323.D	01/09/95	1842
05	814-1RE	2266201	S2324.D	01/09/95	1931
06	1076-1RE	2266202	S2325.D	01/09/95	2019
07	600-1RE	2266206	S2326.D	01/09/95	2108
08	287-1RE	2266207	S2327.D	01/09/95	2156
09	FIELDRE	2266208	S2328.D	01/09/95	2244
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Instrument ID: HPS

Calibration Date(s): 12/28/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:	RRF010 =S2176.D	RRF020 =S2177.D					
RRF050 =S2178.D	RRF080=	RRF160=					
COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	RRF	% RSD
bis(2-Chloroethyl) Ether	1.251	1.154	1.212			1.206	4.0
1,3-Dichlorobenzene	1.213	1.229	1.289			1.244	3.2
1,4-Dichlorobenzene	1.352	1.355	1.368			1.359	0.6
1,2-Dichlorobenzene	1.212	1.241	1.339			1.264	5.3
2,2'-oxybis(1-Chloropropane)	1.909	1.801	1.818			1.843	3.2
N-Nitroso-di-n-propylamine	1.041	1.037	1.005			1.028	1.9
Hexachloroethane	0.722	0.691	0.718			0.711	2.4
Nitrobenzene	0.432	0.400	0.416			0.416	3.8
Isophorone	0.808	0.779	0.793			0.793	1.8
1,2,4-Trichlorobenzene	0.243	0.247	0.267			0.253	5.2
Naphthalene	0.950	0.928	1.004			0.961	4.1
bis(2-Chloroethoxy) methane	0.429	0.422	0.427			0.426	0.9
Hexachlorobutadiene	0.138	0.136	0.153			0.142	6.6
Hexachlorocyclopentadiene	0.060	0.040	0.104			0.000	0.0
2-Chloronaphthalene	0.927	1.012	1.047			0.995	6.2
Dimethylphthalate	1.163	1.200	1.190			1.184	1.5
Acenaphthylene	1.691	1.610	1.757			1.686	4.4
2,6-Dinitrotoluene	0.297	0.296	0.339			0.311	7.9
Acenaphthene	1.066	0.993	1.153			1.070	7.5
2,4-Dinitrotoluene	0.372	0.345	0.375			0.364	4.6
Diethylphthalate	1.441	1.401	1.449			1.430	1.8
4-Chlorophenyl-phenylether	0.455	0.422	0.559			0.479	15.0
Fluorene	1.128	1.106	1.326			1.187	10.2
N-Nitrosodiphenylamine (1)	0.422	0.433	0.387			0.414	5.8
4-Bromophenyl-phenylether	0.136	0.152	0.186			0.158	16.3
Hexachlorobenzene	0.185	0.197	0.233			0.205	12.1
Phenanthrene	0.974	1.045	1.132			1.051	7.5
Anthracene	1.005	0.988	1.164			1.052	9.2
Di-n-butylphthalate	1.751	1.910	2.099			1.920	9.1
Fluoranthene	0.957	1.002	1.137			1.032	9.1
Pyrene	0.936	1.029	1.070			1.012	6.8
Butylbenzylphthalate	0.800	0.879	0.845			0.842	4.7
3,3'-Dichlorobenzidine	0.217	0.227	0.235			0.226	3.9
Benzo(a) anthracene	0.866	0.891	1.004			0.920	8.0
Chrysene	0.836	0.945	1.182			0.988	17.9
bis(2-Ethylhexyl)phthalate	1.329	1.468	1.593			1.463	9.0
Di-n-octylphthalate	2.769	3.435	3.847			3.350	16.2

(1) - Cannot be separated from Diphenylamine

000095

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Instrument ID: HPS

Calibration Date(s): 12/28/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF010 =S2176.D		RRF020 =S2177.D			
RRF050 =S2178.D		RRF080=		RRF160=			
COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
Benzo (b) fluoranthene	1.059	1.279	1.478			1.272	16.5
Benzo (k) fluoranthene	1.035	1.175	1.513			1.241	19.8
Benzo (a) pyrene	0.935	1.134	1.302			1.124	16.3
Indeno (1,2,3-cd) pyrene	1.064	1.321	1.504			1.297	17.0
Dibenz (a,h) anthracene	0.862	1.068	1.319			1.083	21.2
Benzo (g,h,i) perylene	0.853	1.073	1.169			1.031	15.7
N-Nitrosodimethylamine	1.028	1.031	0.992			1.017	2.2
=====	=====	=====	=====	=====	=====	=====	=====
Nitrobenzene-d5	0.452	0.415	0.426			0.431	4.4
2-Fluorobiphenyl	1.030	1.009	1.151			1.063	7.2
Terphenyl-d14	0.605	0.621	0.692			0.639	7.3
1,2-Dichlorobenzene-d4	1.372	1.432	1.542			1.449	6.0

(1) - Cannot be separated from Diphenylamine

000096

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Instrument ID: HPS

Calibration Date(s): 12/28/94

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:	RRF010 =S2181.D	RRF020 =S2182.D
RRF050 =S2183.D	RRF080=	RRF160=

COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
Benzidine	7.489	10.06	6.960			8.170	20.3

000097

6B
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Instrument ID: HPS

Calibration Date(s): 01/09/95

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF010 =S2317.D		RRF020 =S2318.D			
RRF050 =S2319.D		RRF080=		RRF160=			
COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
bis(2-Chloroethyl) Ether	1.165	1.284	1.047			1.165	10.2
1,3-Dichlorobenzene	1.801	1.873	1.474			1.716	12.4
1,4-Dichlorobenzene	1.767	1.852	1.440			1.686	12.9
1,2-Dichlorobenzene	1.713	1.735	1.274			1.574	16.5
2,2'-oxybis(1-Chloropropane)	1.900	2.028	1.728			1.885	8.0
N-Nitroso-di-n-propylamine	0.936	1.014	0.843			0.931	9.2
Hexachloroethane	0.681	0.729	0.593			0.668	10.3
Nitrobenzene	0.387	0.422	0.355			0.388	8.6
Isophorone	0.812	0.852	0.693			0.786	10.5
1,2,4-Trichlorobenzene	0.450	0.451	0.319			0.406	18.6
Naphthalene	1.269	1.302	0.985			1.185	14.7
bis(2-Chloroethoxy)methane	0.485	0.518	0.419			0.474	10.6
Hexachlorobutadiene	0.262	0.271	0.213			0.249	12.5
Hexachlorocyclopentadiene	0.043	0.098	0.190			0.000	0.0
2-Chloronaphthalene	1.480	1.487	1.074			1.347	17.5
Dimethylphthalate	1.787	1.841	1.401			1.676	14.3
Acenaphthylene	2.225	2.192	1.500			1.972	20.8
2,6-Dinitrotoluene	0.423	0.505	0.460			0.463	8.9
Acenaphthene	1.409	1.420	1.035			1.288	17.0
2,4-Dinitrotoluene	0.423	0.505	0.461			0.463	8.9
Diethylphthalate	1.753	1.811	1.374			1.646	14.4
4-Chlorophenyl-phenylether	0.745	0.720	0.488			0.651	21.7
Fluorene	1.506	1.444	0.987			1.312	21.6
N-Nitrosodiphenylamine (1)	0.672	0.677	0.462			0.604	20.3
4-Bromophenyl-phenylether	0.296	0.318	0.242			0.285	13.8
Hexachlorobenzene	0.317	0.385	0.279			0.327	16.3
Phenanthrene	1.407	1.485	1.091			1.328	15.7
Anthracene	1.398	1.505	1.095			1.333	15.9
Di-n-butylphthalate	1.873	1.997	1.505			1.792	14.3
Fluoranthene	1.475	1.556	1.158			1.397	15.1
Pyrene	1.542	1.659	1.288			1.496	12.7
Butylbenzylphthalate	0.858	0.939	0.779			0.859	9.3
3,3'-Dichlorobenzidine	0.444	0.356	0.239			0.346	29.7
Benzo(a)anthracene	1.379	1.434	1.082			1.298	14.6
Chrysene	1.275	1.299	0.904			1.160	19.1
bis(2-Ethylhexyl)phthalate	1.170	1.197	0.889			1.085	15.7
Di-n-octylphthalate	1.976	2.652	2.107			2.245	16.0

(1) - Cannot be separated from Diphenylamine

000038

6C
SEMIVOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: NYTEST ENV INC

Contract: 9421415

Lab Code: NYTEST

Case No.: 22662

SAS No.:

SDG No.: ARMY3

Instrument ID: HPS

Calibration Date(s): 01/09/95

Max %RSD for CCC(*) = 35.0%

LAB FILE ID:		RRF010 =S2317.D		RRF020 =S2318.D			
RRF050 =S2319.D		RRF080=		RRF160=			
COMPOUND	RRF010	RRF020	RRF050	RRF080	RRF160	RRF	% RSD
=====	=====	=====	=====	=====	=====	=====	=====
Benzo (b) fluoranthene	1.410	1.802	1.464			1.559	13.6
Benzo (k) fluoranthene	1.116	1.609	1.246			1.324	19.3
Benzo (a) pyrene	1.215	1.651	1.350			1.405	15.9
Indeno (1,2,3-cd) pyrene	1.435	1.954	1.597			1.662	16.0
Dibenz (a,h) anthracene	1.146	1.560	1.238			1.315	16.5
Benzo (g,h,i) perylene	1.237	1.682	1.406			1.442	15.6
N-Nitrosodimethylamine	0.892	0.932	0.744			0.856	11.6
Benzidine	0.059	0.041	0.030			0.043	34.3
=====	=====	=====	=====	=====	=====	=====	=====
Nitrobenzene-d5	0.401	0.448	0.383			0.410	8.2
2-Fluorobiphenyl	1.698	1.698	1.248			1.548	16.8
Terphenyl-d14	1.083	1.137	0.867			1.029	13.9
1,2-Dichlorobenzene-d4	1.942	1.918	1.370			1.744	18.6

(1) - Cannot be separated from Diphenylamine

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