

United States Army
Fort Monmouth, New Jersey

Underground Storage Tank Closure and Site Investigation Report

***Building 116C
Main Post-East Area***

COPY

NJDEP UST Registration No. 90010-10

December 1997

**UNDERGROUND STORAGE TANK
CLOSURE AND SITE INVESTIGATION REPORT**

BUILDING 116C

**MAIN POST-EAST AREA
NJDEP UST REGISTRATION NO. 90010-10**

DECEMBER 1997

PREPARED FOR:

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

PREPARED BY:

**SMC ENVIRONMENTAL SERVICES GROUP
501 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406**

PROJECT NO. 2429-3080

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EXECUTIVE SUMMARY

UST Closure

On May 20, 1996, a steel underground storage tank (UST) was closed by removal in accordance with the New Jersey Department of Environmental Protection (NJDEP) underground storage tank closure plan approved on September 25, 1995 at the Main Post-East area of the U.S. Army Fort Monmouth, Fort Monmouth, New Jersey. The UST, NJDEP Registration No. 90010-10 (Fort Monmouth ID No. 116C), was located south of Building 116C. UST No. 90010-10 was a 2,000-gallon No. 2 fuel oil UST. The fill port was located directly above the tank.

Site Assessment

The site assessment was performed by U.S. Army personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (N.J.A.C. 7:26E) and the NJDEP *Field Sampling Procedures Manual*. The sampling and laboratory analysis conducted during the site assessment were performed in accordance with Section 7:26E-2.1 of the *Technical Requirements for Site Remediation*. Soils surrounding the tank were screened visually and with air monitoring equipment for evidence of contamination. Following removal, the UST was inspected for corrosion holes. No holes were noted in the UST and no evidence of potentially contaminated soils was observed surrounding the tank. Groundwater was encountered at 6.0 feet below ground surface and no sheen was observed. Soil samples contained non-detectable TPHC concentrations.

Site Restoration

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

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 or associated piping.

No further action is proposed in regard to the closure and site assessment of UST No. 90010-10 at Building 116C.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No. 90010-10, was closed at Building 116C at the Main Post-East area of U.S. Army Fort Monmouth, Fort Monmouth, New Jersey on May 20, 1996. Refer to site location map on Figure 1. This report presents the results of the U.S. Army Department of Public Work (DPW)'s implementation of the UST Decommissioning/Closure Plan approved by the NJDEP on September 25, 1995. The UST was a steel 2,000-gallon tank containing No. 2 fuel oil. The fill port was located directly above the tank.

Decommissioning activities for UST No. 90010-10 complied with all applicable Federal, State and Local laws and ordinances in effect at the date of decommissioning. These laws included but were not limited to N.J.A.C. 7:14B-1 et seq., N.J.A.C. 5:23-1 et seq., and Occupational Safety and Health Administration (OSHA) 1910.146 & 1910.120. All permits including but not limited to the NJDEP-approved Decommissioning/Closure Plan were posted onsite for inspection. The decommissioning activities were conducted by DPW personnel who are registered and certified by the NJDEP for performing UST closure activities. Closure of UST No. 90010-10 proceeded under the approval of the NJDEP Bureau of Underground Storage Tanks (NJDEP-BUST). The NJDEP-BUST Closure Approval Letter and signed Site Assessment Summary form for UST No. 90010-10 are included in Appendices A and B, respectively.

Based on inspecting the UST, field screening of subsurface soils and groundwater, and reviewing analytical results of collected soil samples, the DPW has concluded that no significant historical discharges are associated with the UST or associated piping.

This UST Closure and Site Investigation Report has been prepared by SMC Environmental Services Group, to assist the U.S. Army DPW in complying with the NJDEP-BUST regulations. The applicable NJDEP-BUST regulations at the date of closure were the *Interim Closure Requirements for Underground Storage Tank Systems* (N.J.A.C. 7:14B-1 et seq. October 1990 and revisions dated November 1, 1991).

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

1.2 SITE DESCRIPTION

Building 116C is located in the Main Post-East area of the Fort Monmouth Army Base. UST No. 90010-10 was located south of Building 116C. Appurtenant copper piping was approximately fifteen (15) feet in length and ran north to Building 116C. 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 116C. 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-coarse-grained sand that contains abundant rock fragments, minor mica and glauconite (Jablonski). The lower member (Sandy Hook) is a dark gray to black, medium-to-fine grained sand with abundant clay, mica, and glauconite.

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

Hydrogeology

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

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

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

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

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

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

Building 116C located approximately 750 feet north of Oceanport Creek, the nearest water body. Based on the Main Post topography, the groundwater flow in the area of Building 116C is anticipated to be to the east.

1.3 HEALTH AND SAFETY

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

1.4 REMOVAL OF UNDERGROUND STORAGE TANK

1.4.1 General Procedures

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

1.4.2 Underground Storage Tank Excavation and Cleaning

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 hole 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 135 gallons of liquid from the UST and its associated piping were transported by Lionetti Oil Recovery Co. Inc to the Lionetti Oil Recovery Co. Inc. facility, a NJDEP-approved petroleum recycling and disposal company located in Old Bridge, New Jersey. Refer to Appendix C for the waste manifest (NJA-2594129).

After the UST was cleaned, it was staged on polyethylene sheeting and examined for holes. No holes were observed during the inspection by the Sub-Surface Evaluator. Soils surrounding the UST and piping were screened visually and with an OVA for evidence of contamination. No evidence of contamination was observed. Groundwater was encountered at 6.0 feet bgs and a sheen was not observed. See Figure 3 for a cross-sectional view of the excavated area.

1.5 UNDERGROUND STORAGE TANK TRANSPORTATION AND DISPOSAL

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

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

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

1.6 MANAGEMENT OF EXCAVATED SOILS

Based on OVA air monitoring and TPHC analysis results from the post-excavation soil samples, no soils exhibited signs of contamination. Therefore, the excavated soils were used as backfill following removal of the UST.

2.0 SITE INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Site Investigation was managed and carried out by U.S. Army DPW personnel. All analyses were performed and reported by U.S. Army Fort Monmouth Environmental Laboratory, a NJDEP certified testing laboratory. All sampling was performed under the direct supervision of a NJDEP certified Sub-Surface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual* (1992). Sampling frequency and parameters analyzed complied with the NJDEP-BUST document *Interim Closure Requirements for Underground Storage Tank Systems* (October 1990 and revisions dated November 1, 1991) which was the applicable regulation at the date of the closure. All records of the Site Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Site Investigation Activities:

- Subsurface Evaluator: Eugene Lesinski
Employer: U.S. Army, Fort Monmouth
Phone Number: (908) 532-0989
NJDEP Certification No.: 0014537
- Analytical Laboratory: U.S. Army Fort Monmouth Environmental Laboratory
Contact Person: Brian K. McKee (currently, Daniel K. Wright)
Phone Number: (908) 532-4359
NJDEP Company Certification No.: 13461

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP Certified Sub-Surface Evaluator using an OVA and visual observations to identify potentially contaminated material. Soil excavated from around the tank and appurtenant piping, as well as the UST excavation sidewalls and bottom, did not exhibit any evidence of potential contamination. Groundwater encountered did not exhibit a sheen.

2.3 SOIL SAMPLING

On May 20, 1996, following the removal of the UST, post-excavation soil samples A, B, C, D, E, F, and DUP C were collected from a total of six (6) locations of the UST excavation. Sidewall samples A, B, C, D, and DUP C were collected at a depth of 5.5 feet bgs. Pipe run samples E and F were collected along the former piping trench, which was approximately fifteen (15) feet in length and which ran north to Building 116C. Samples E and F were collected at a depth of 1.5 feet bgs. All samples were analyzed for total petroleum hydrocarbons (TPHC) and total solids.

U.S. Army personnel in accordance with the NJDEP Technical Requirements and the NJDEP Field Sampling Procedures Manual performed the site assessment. A summary of sampling activities including parameters analyzed is provided in Table 1. The post-excavation soil samples were collected using NJDEP *Field Sampling Procedures Manual* (1992) standard sampling procedures. Following soil sampling activities, the samples were chilled and delivered to U.S. Army Fort Monmouth Environmental Laboratory located in Fort Monmouth, New Jersey, for analysis.

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 on May 20, 1996 from a total of six (6) locations. All samples were analyzed for TPHC and total solids. The post-excavation sampling results were compared to the NJDEP residential direct contact total organic contaminants soil cleanup criteria of 10,000 mg/kg (N.J.A.C. 7:26D and revisions dated February 3, 1994). A summary of the analytical results and comparison to the NJDEP soil cleanup criteria is provided in Table 2 and the soil sampling locations are shown on Figure 4. The analytical data package is provided in Appendix E.

All post-excavation soil samples collected on May 20, 1996, from the UST excavation and from below piping associated with the UST contained concentrations of TPHC below the NJDEP soil cleanup criteria. Samples contained non-detectable TPHC concentrations.

3.2 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all post-excavation soil samples collected from the UST closure excavation at Building 116C 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 or associated piping.

No further action is proposed in regard to the closure and site assessment of UST No. 90010-10 at Building 116C.

TABLES

TABLE 1

SUMMARY OF POST-EXCAVATION SAMPLING ACTIVITIES
BUILDING 116C, MAIN POST-EAST AREA
FORT MONMOUTH, NEW JERSEY

Page 1 of 1

Sample ID	Date of Collection	Date Analysis Started	Matrix	Sample Type	Analytical Parameters*	NJDEP Method
A	5/20/96	5/30/96	Soil	Post-Excavation	TPHC	OQA-QAM-025
B	5/20/96	5/30/96	Soil	Post-Excavation	TPHC	OQA-QAM-025
C	5/20/96	5/30/96	Soil	Post-Excavation	TPHC	OQA-QAM-025
D	5/20/96	5/30/96	Soil	Post-Excavation	TPHC	OQA-QAM-025
E	5/20/96	5/30/96	Soil	Post-Excavation	TPHC	OQA-QAM-025
F	5/20/96	5/30/96	Soil	Post-Excavation	TPHC	OQA-QAM-025
DUP C	5/20/96	5/30/96	Soil	Post-Excavation	TPHC	OQA-QAM-025

Note:

* TPHC Total Petroleum Hydrocarbons

FIGURES

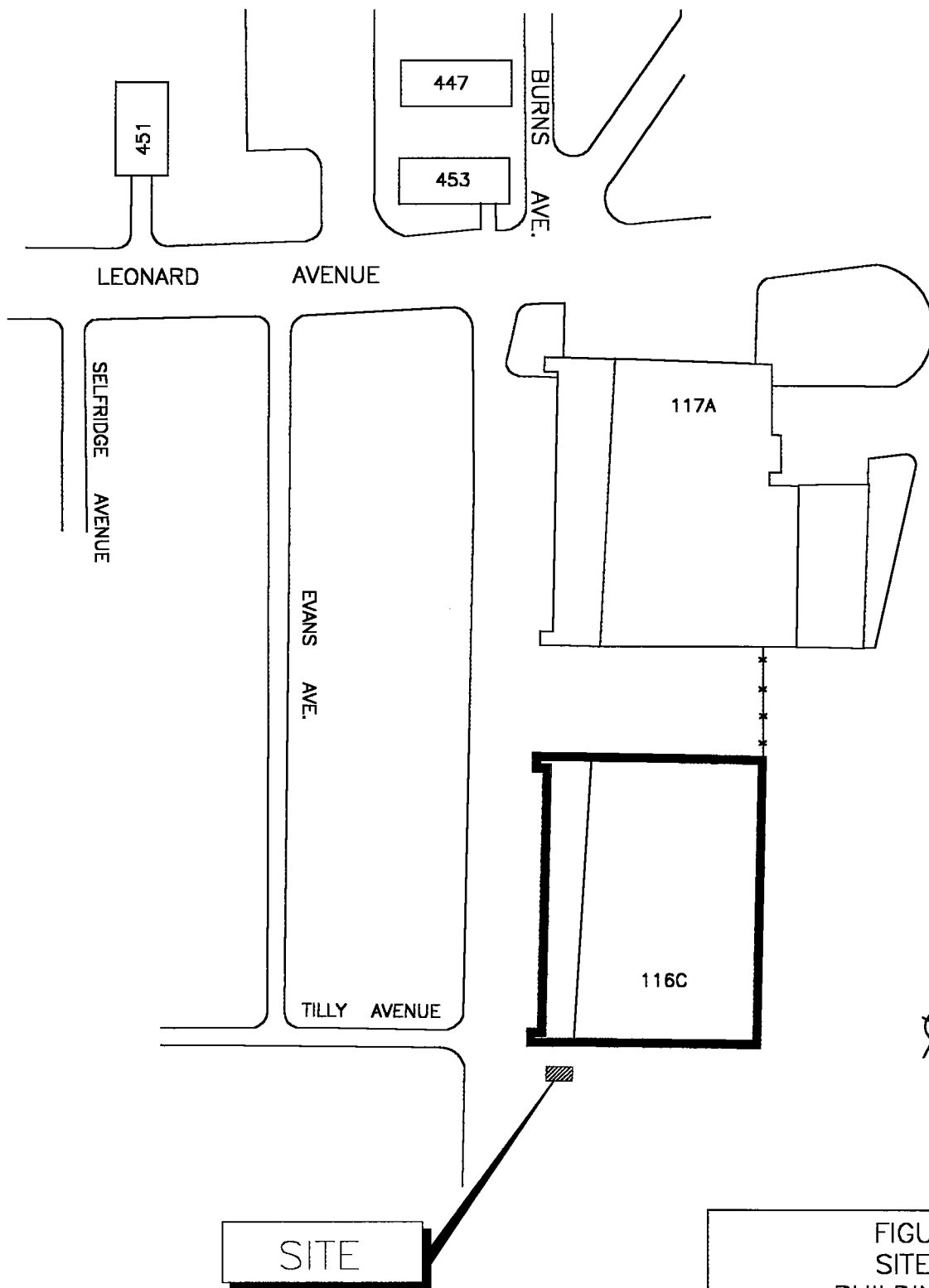


FIGURE 2
SITE MAP
BUILDING 116C
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ



**SMC ENVIRONMENTAL
SERVICES GROUP**
Engineers, Managers, Scientists & Planners
VALLEY FORGE, PA

SCALE: 1"=100'

DATE: DEC. 1997

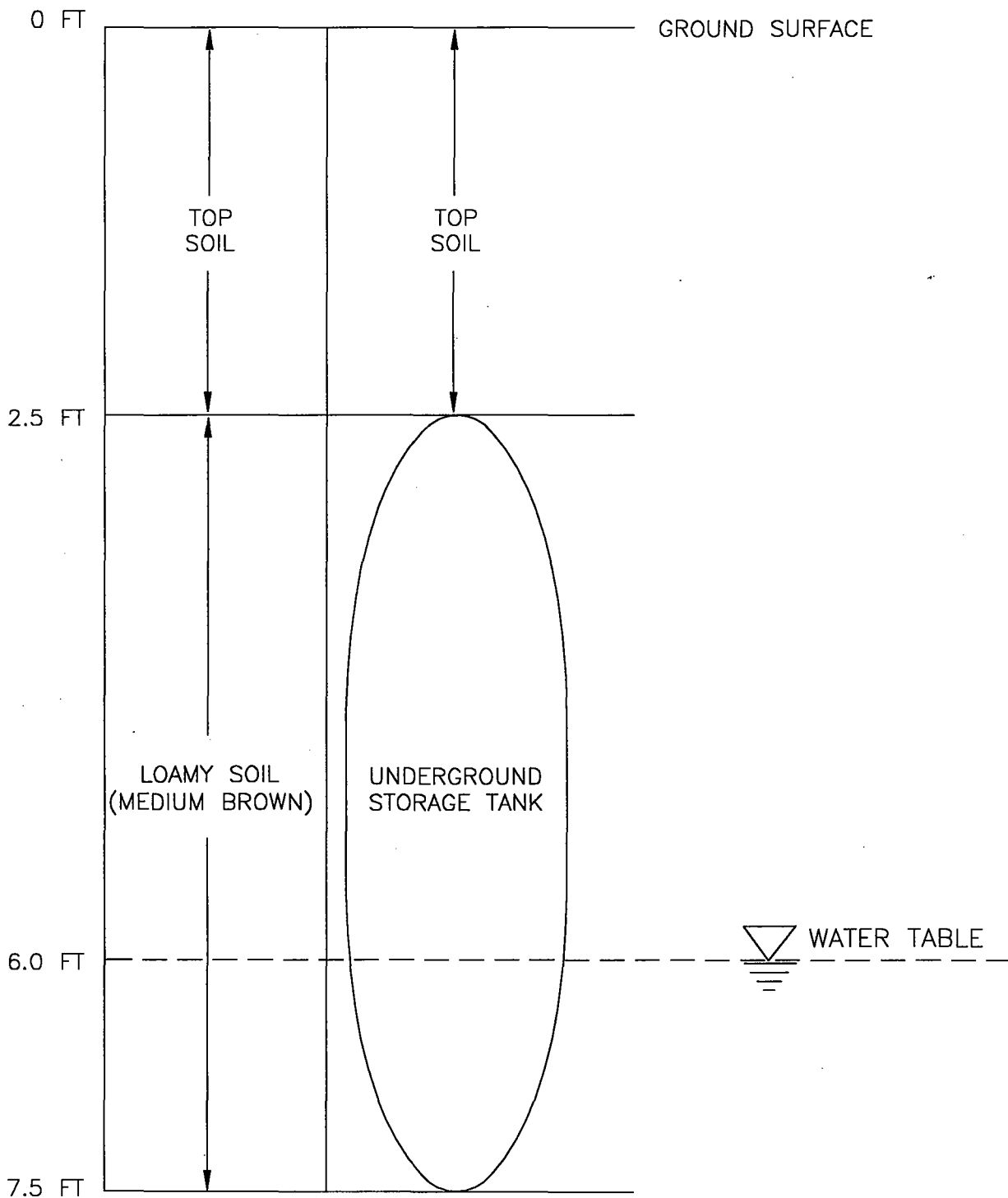
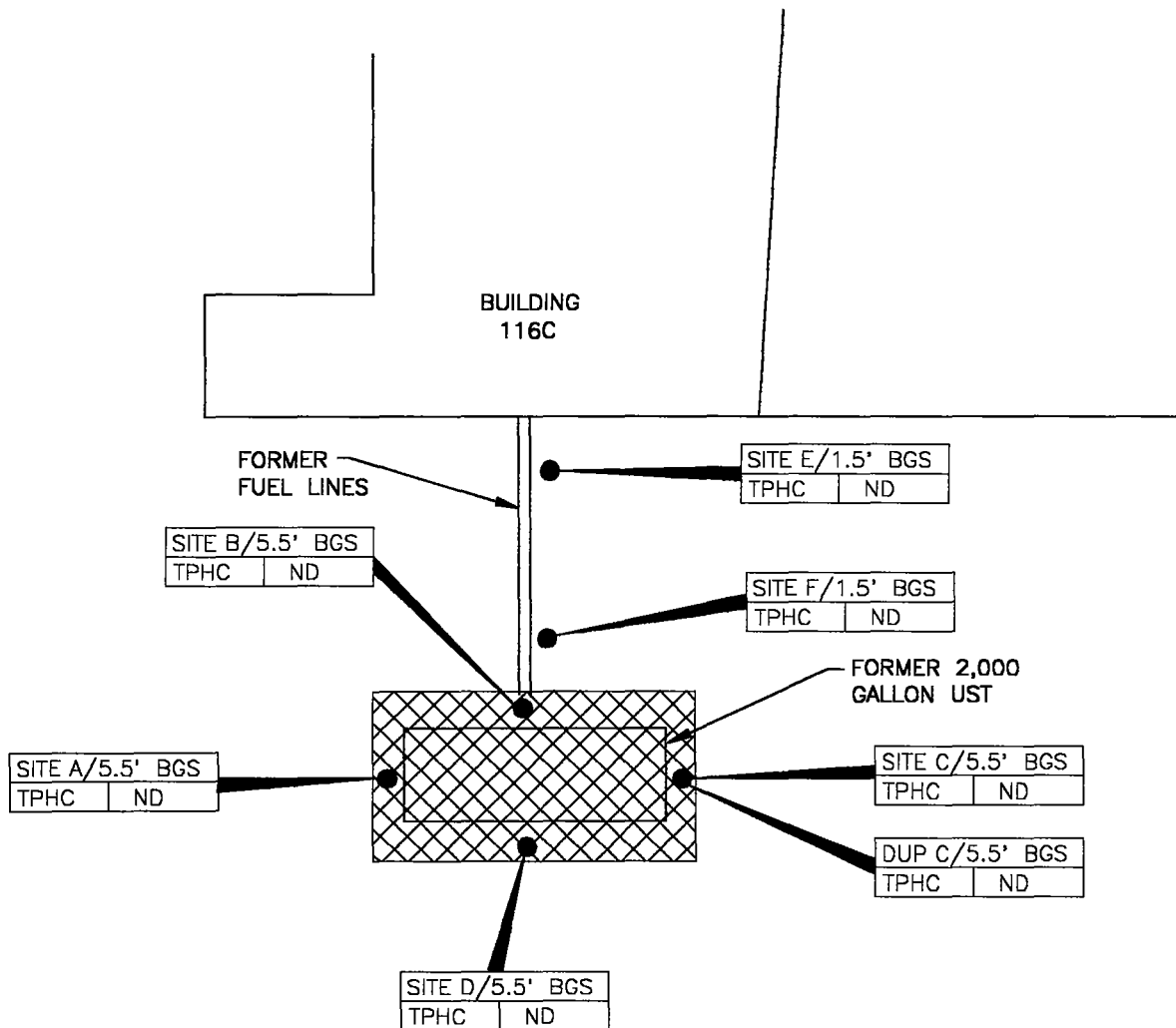


FIGURE 3
CROSS SECTIONAL VIEW
BUILDING 116C
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ

 **SMC ENVIRONMENTAL
SERVICES GROUP**
Engineers, Managers, Scientists & Planners
VALLEY FORGE, PA.

SCALE: NTS

DATE: OCT. 1997



LEGEND

● SOIL SAMPLE LOCATION
(MAY 20, 1996)

▨ LIMIT OF EXCAVATION
(MAY 20, 1996)

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

FIGURE 4
SOIL SAMPLING LOCATION MAP
BUILDING 116C
FORT MONMOUTH ARMY BASE
MONMOUTH COUNTY, NJ



**SMC ENVIRONMENTAL
SERVICES GROUP**

Engineers, Managers, Scientists & Planners
VALLEY FORGE, PA.

SCALE: 1"=10'

DATE: DEC. 1997

APPENDIX A

NJDEP-BUST CLOSURE APPROVAL LETTER



State of New Jersey

Christine Todd Whitman
Governor

Department of Environmental Protection

Robert C. Shinn, Jr.
Commissioner

Mr. James Ott
SELFM-EH-EV
Department of the Army
Headquarters CECOM Fort Monmouth
Fort Monmouth, NJ 077703-5000

SEP 25 1995

Dear Mr. Ott:

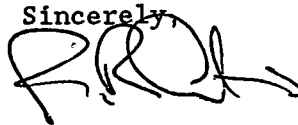
Re: UST Closure Approval Applications
Fort Monmouth Army Base
Tinton Falls, Monmouth County

The NJDEP has reviewed the Underground Storage Tank Closure Applications listed below and we have determined that the scheduled closures for these Number 2 fuel oil tanks are consistent with NJDEP requirements. This letter shall serve as the closure approval for the following USTs:

AREA	REGISTRATION NO. - SIZE	BLDG NO.	UST NO.	TANK SAMP	LINE SAMP	REMOVAL DATE	REPORT DATE
CW - West	0081515 - 1000	2504	15	4/1	1	9/18/95	1/19/96
CW - East	0090010 - 1000	484	56	4/1	0	10/23/95	2/23/96
CW - West	0081533 - 1000	550	79	4/1	0	10/24/95	2/26/96
CW - West	0081533 - 550	826	134	4/1	2	10/25/95	2/27/96
CW - West	0081533 - 1000	902	144	4/1	0	10/27/95	2/29/96
CW - East	0090010 - 1000	116	9	4/1	1	10/2/95	2/5/96
CW - East	0090010 - 2000	116	10	4/1	0	10/3/95	2/5/96
CW - East	0090010 - 1000	173	19	4/1	3	10/4/95	2/6/96
CW - East	0090010 - 1000	276	23	4/1	2	10/10/95	2/12/96
CW - East	0090010 - 1000	277	24	4/1	0	10/11/95	2/13/96
CW - East	0090010 - 1080	420	36	4/1	2	10/12/95	2/13/96
CW - East	0090010 - 1080	428	42	4/1	3	10/16/95	2/20/96
CW - East	0090010 - 1080	429	43	4/1	3	10/17/95	2/20/96
CW - East	0090010 - 1080	439	48	4/1	2	10/18/95	2/20/96

If you should have any questions or require additional information, please do not hesitate to contact me at (609) 633-1455.

Sincerely,

A handwritten signature in black ink, appearing to read 'I. R. Curtis', with a stylized flourish at the end.

Ian R. Curtis, Case Manager
Bureau of Federal Case Management

cc. Gene Lesinski, FTMMTH

RPCE\BFCM\FTMMTH31.IRC



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

ATTN: UST Program
(609) 984-3156

For State Use Only

Date Rec'd. _____
Auth. _____
Routing _____
UST NO. _____

STANDARD REPORTING FORM
for reporting activities at an UST facility:

- | | |
|--|---|
| ☐ General Facility Information Changes | ☐ Sale or Transfer |
| ☒ Closure (Abandonment or Removal) | ☐ Substantial Modification |
| ☐ Temporary Closure | ☐ Financial Responsibility |
| ☐ Change in Service | ☐ Address Change Only |

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

(More than one tank can be listed per activity)

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

Answer questions 1 through 5 and others as applicable.

1. Company name and address (as it appears on registration questionnaire):

U.S. ARMY - FORT MONMOUTH
DPW - BUILDING 173
FORT MONMOUTH NJ 07703
ATTN: EUGENE W. LESINSKI

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

3. Contact person for this activity:

BLDG 116

GENE LESINSKI
Telephone Number: (908) 532-0989

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

10

5. Registration Number (if known):

UST - 0090010

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

- a. Facility name: _____
b. Facility location: _____
c. Owner's mailing address: _____

NJ _____
d. Block: _____ Lot: _____
e. Contact person (facility operator): _____
f. Contact telephone number: (_____) _____ - _____
g. Other (Specify): _____

(OVER)

7. For CLOSURE (abandonment or closure - check all that apply):

a. ☐ Abandonment Date: 5/20/96 Case No: _____

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

b. ☒ Removal Date: 7/1/96 Case No. _____

Attach the necessary implementation schedule (3 copies).

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

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

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

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

Tank No. _____	Old _____	New _____
Tank No. _____	Old _____	New _____
Tank No. _____	Old _____	New _____

(Attach additional sheets if more space is needed)

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

a. New Owner (operator) _____

b. New Facility Name _____

_____ NJ _____

_____ County _____

c. Closing Attorney _____ Tele: (____) _____

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

a. Type of Modification _____ Date: / /

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

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

a. Policy Type: ☐

d. Company/Carrier: ☐

b. Policy Number: ☐

e. Expiration Date: ☐

c. Other: ☐

(Specify)

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

CERTIFICATION

This registration form shall be signed by the highest ranking individual at the facility with overall responsibility for that facility (N.J.A.C. 7:14B-23 (a) 1).

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

Signature: James Ott

Name (print or type): JAMES OTT

Title: DIRECTOR - DEPT OF PUBLIC WORKS Date: 7/29/97

APPENDIX B

SITE ASSESSMENT SUMMARY

UST-014
2/91

FOR STATE USE ONLY
UST#
Date Rec'd
TMS #
Staff

STATE OF NEW JERSEY
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Division of Responsible Party Site Remediation
CN 029

TRENTON, N.J. 08625-0028
Tel. # 609-984-3156
Fax.# 609-292-5604

Scott A. Weiner
Commissioner

Karl J. Delaney
Director

UNDERGROUND STORAGE TANK
SITE ASSESSMENT SUMMARY

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

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

INSTRUCTIONS:

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

Date of Submission: _____

Building No. 116C UST No. 90010-10

0192477-1

Facility Registration #

1. FACILITY NAME AND ADDRESS:

U.S. Army Fort Monmouth New Jersey

Directorate of Engineering and Housing Building 167

Fort Monmouth New Jersey 07703 County Monmouth

Telephone No. 908-532-6224

OWNER'S NAME AND ADDRESS, if different from above.

Telephone No. _____

II. DISCHARGE REPORTING REQUIREMENTS

- A. Was contamination found ? ☐ Yes ☒ No If Yes, Case No. _____
(Note: All discharges must be reported to the Environmental Action Hotline (609) 292-7172)
- B. The substance(s) discharged was (were) N/A
- C. Have any vapor hazards been mitigated? ☐ Yes ☐ No ☒ N/A

III. DECOMMISSIONING OF TANK SYSTEMS

Closure approval No. Sept 25, 1995 letter

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

IV. SITE ASSESSMENT REQUIREMENTS

A. Excavated Soil

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

B. Scaled Site Diagrams

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

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

C. Soil samples and borings (check appropriate answer)

- Were soil samples taken from the excavation as prescribed? ☒ Yes ☐ No ☐ N/A
- Were soil borings taken at the tank system closure site as prescribed? ☐ Yes ☐ No ☒ N/A
- Attach the analytical results in tabular form and include the following information about each sample
 - Customer sample number (keyed to the site map)
 - The depth of the soil sample
 - Soil boring logs
 - Method detection limit of the method used
 - QA/QC information as required

D. Ground Water Monitoring

1. Number of ground water monitoring wells installed 0
2. Attach the analytical results of the ground water samples in tabular form. Include the following information for each sample from each well:
 - a. Site diagram number for each well installed
 - b. Depth of ground water surface
 - c. Depth of screened interval
 - d. Method detection limit of the method used
 - e. Well logs
 - f. Well permit numbers
 - g. QA/QC Information as required

V. SOIL CONTAMINATION

- A. Was soil contamination found? Yes X No
If "Yes", please answer Question B-E
If "No", please answer Question B
- B. The highest soil contamination still remaining in the ground has been determined to be:
 1. N/A ppb total BTEX, N/A ppb total non-targeted VOC
 2. N/A ppb total B/N, N/A ppb total non-targeted B/N
 3. ND ppm TPHC
 4. N/A ppb N/A (for non-petroleum substance)
- C. Remediation of free product contaminated soils
 1. All free product contaminated soil on the property boundaries and above the water table are believed to have been removed from the subsurface. Yes No
 2. Free product contaminated soils are suspected to exist below the water table. Yes No
 3. Free product contaminated soils are suspected to exist off the property boundaries. Yes No
- D. Was the vertical and horizontal extent of contamination determined? Yes No N/A
- E. Does soil contamination intersect ground water? Yes No N/A

VI. GROUND WATER CONTAMINATION

- A. Was ground water contamination found? Yes X No
If "Yes", please answer Questions B-G.
If "No", please answer only Question B.
- B. The highest ground water contamination at any 1 sampling location and at any 1 sampling event to date has been determined to be: N/A
 1. ppb total BTEX, ppb total non-targeted VOC
 2. ppb total B/N, ppb total non-targeted B/N
 3. ppb total MTBE, ppb total TBA
 4. ppb (for non-petroleum substance)
 5. greatest thickness of separate phase product found
 6. separate phase product has been delineated Yes No N/A

C. Results (s) of well search

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

2. The number of these wells identified is _____.

D. Proximity of wells and contaminant plume

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

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

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

E. A plan for separate phase product recovery has been included. ____ Yes ____ No ____ N/A

F. A ground water contour map has been submitted which includes the ground water elevations for each well. ____ Yes ____ No ____ N/A

G. Delineation of contamination

1. The ground water contaminants have been delineated to MCLs or lower values at the property boundaries. ____ Yes ____ No

2. The plume is suspected to continue off the property at concentrations greater than MCLs. ____ Yes ____ No

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

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

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

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

NAME (Print or Type) Eugene Lesinski

SIGNATURE SEE ATTACHED SUB-SURFACE EVALUATOR LOG

COMPANY NAME U.S. Army Fort Monmouth

DATE _____

(Preparer of Site Assessment Plan)

CERTIFYING

ORGANIZATION NJDEP

CERTIFYING

NUMBER 0014537

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

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

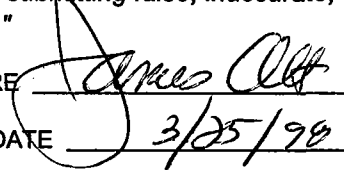
NAME (Print or Type) SAME AS SITE ASSESSMENT SIGNATURE _____

COMPANY NAME _____ DATE _____
(Performer of Tank Decommissioning)

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

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

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

NAME (Print or Type) James Ott SIGNATURE 

COMPANY NAME U.S. Army Fort Monmouth DATE 3/25/98

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

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

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

NAME (Print or Type) _____ SIGNATURE _____

COMPANY NAME _____ DATE _____

US ARMY, SELFM-PW-FV
DAILY UST SUBSURFACE REMOVAL LOG

BLDG.#: 116C REG.#: 0090010 - 10 CLOSURE#: DEP LTR 9-25-8
 DATE: 5-20-96 TOA: 1000 TOD: 1600
 GOV. SSE: LESINSKI NJDEP CERT.#: 6014537
 REMOVAL CONTRACTOR: SAI Inc.
 CLOSURE SUPERVISOR: DeMarinis NJDEP CERT.#: _____
 WEATHER: Sunny - 90°

ACTIVITY	YES / NO
THE SUPERVISOR (CLOSURE CERT.) WAS ON-SITE DURING ALL CLOSURE RELATED ACTIVITIES	Y
THE SSE WAS ON-SITE DURING UST REMOVAL AND SITE SCREENING AND SAMPLING ACTIVITIES	Y
ALL ON-SITE PERSONNEL HAD TRAINING IAW ALL SAFETY REQUIREMENTS (E.G. 29CFR)	Y
A CONFINED ENTRY PERMIT WAS COMPLETED AND POSTED ON-SITE BY THE CONTRACTOR	Y
THE UST WAS PLACED ONTO PLASTIC, SCRAPED OFF, INSPECTED FOR HOLES AND PHOTOGRAPHED	Y
A DISCHARGE WAS REPORTED TO THE NJDEP (609-292-7172), CASE# _____	N
PHOTOS HAVE UST#, BLDG. #, DATE, TIME, NAME OF SSE AND DESCR. WRITTEN ON BACK	Y
GROUNDWATER WAS ENCOUNTERED AT <u>6</u> FEET BG, A SHEEN (WAS/WAS NOT) OBSERVED ON GW	Y
IF OVA/Hnu WAS USED: WAS IT CAL. AND FOUND TO BE OPERATIONAL (cal. data on COC)	Y
IF SAMPLES WERE TAKEN: COC, SCALED SITE MAP (VERT. SOIL HORIZONS AND PLOT PLAN)	Y
ALL SAMPLE COLLECTION ACTIVITIES WERE AS DESCRIBED IN THE NJDEP FSPM, 1992	Y
ALL SAMPLING WAS BIASED TOWARD HIGHEST OVA/FID RECORDED SITES IAW 7:26E-3.6 et seq.	Y
ALL PETROL. CONT. SOILS WERE SECURED FROM THE WEATHER BY CLOSE OF BUSINESS TODAY	N/A
THE SSE AUTHORIZED BACKFILLING THE EXCAVATION (STONE TO 1" ABOVE GROUNDWATER)	N/A
ADDITIONAL NOTES WERE TAKEN AND ARE RECORDED ON THE BACK OF THIS FORM	N
THE FOLLOWING DOCUMENTS WERE ADDED TO THE PROJECT FOLDER TODAY: (CIRCLE EACH) SCRAP TICKET, CSE PERMIT, ACCIDENT REPORT, HAZ. WASTE MANIFEST, DAILY UST CLOSURE LOG, SCALED SITE MAP (SAMPLING), SRF-CLOSURE, CHAIN OF CUSTODY, SOIL ANALYTICAL RESULTS, CLEAN FILL TICKETS (IN YDS ³), PHOTOGRAPHS (UST, EXCAVATION, SAMPLING POINTS)	N

CHECK ALL BOXES. LEAVE NO BLANKS

I certify under penalty of law that tank decommissioning activities were performed in compliance with N.J.A.C. 7:14B-9.2(b)3 and 7:26 et seq.. I am aware that there are significant penalties for submitting false, inaccurate, or incomplete information, including fines and/or imprisonment.

SIGNATURE: _____ DATE: 5-20-96

ca\ms\ust\removal\sitessls.doc

5/22/96 - EXCAVATION BACKFILLED

APPENDIX C

WASTE MANIFEST



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



2 5 9 4 1 2 9

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

Form Approved. OMB No. 2050-0039. Expires 9-30-96.

UNIFORM HAZARDOUS WASTE MANIFEST		1. Generator's US EPA ID No. NJ32100205979		Manifest Document No. 1139		2. Page 1 of 1		Information in the shaded areas is not required by Federal law.							
3. Generator's Name and Mailing Address USAIR COMMUNICATIONS ELECTRONIC COMMAND CENTER C/O SAMEL SHERRIN BLVD 173 ATT SELF IN PW EW FORT MONMOUTH NJ 07703 USEPA SITE NJ32100205979						A. State Manifest Document Number NJA 2594129									
4. Generator's Phone (908) 532-0989						B. State Generator's ID (Gen. Site Address) SAMEL									
5. Transporter 1 Company Name LIONETTI OIL RECOVERY CO., INC.						6. US EPA ID Number N J D 0 8 4 0 4 4 0 6 4									
7. Transporter 2 Company Name						8. US EPA ID Number									
9. Designation of Facility Name and Address LIONETTI OIL RECOVERY CO., INC/DBA LORCO PETROLEUM SVCS. RUNYON & CHEESECAKE ROADS OLD BRIDGE NJ 08857						10. US EPA ID Number N J D 0 8 4 0 4 4 0 6 4									
11. US DOT Description (Including Proper Shipping Name, Hazard Class or Division, ID Number and Packing Group) a. ☒ PETROLEUM OIL (PETROLEUM OIL) (BLDG 116C) COMBUSTIBLE LIQUID UN 1270 PG III 0090010-10						12. Containers No. Type		13. Total Quantity		14. Unit Wt/Vol		15. Waste No.			
b. ☒ PETROLEUM OIL (PETROLEUM OIL) COMBUSTIBLE LIQUID UN 1270 PG III (DRUMS)						001 TTX		XX135 G		X.72.2		X.72.2			
c.															
d.															
J. Additional Descriptions for Materials Listed Above 1. PETROLEUM OIL 15% WATER 25% TL Petroleum 25% WATER 25%						K. Handling Codes for Wastes Listed Above T04-FILTRATION TL + Kerosene									
15. Special Handling Instructions and Additional Information NOT EPA REGULATED, REGULATED AS HAZARDOUS WASTE IN NEW JERSEY 24 HOUR EMERGENCY RESPONSE (908)721-0900 DECAL#73601 ERG# 27 DEXSIL TEST KIT RESULTS < 1000 PPM															
16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations. If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.															
Printed/Typed Name EUGENE W. LESINSKI						Signature <i>Eugene W. Lesinski</i>		Month Day Year 05 29 96							
17. Transporter 1 Acknowledgement of Receipt of Materials Printed/Typed Name Gy Weck						Signature <i>Gy Weck</i>		Month Day Year 10 24 96							
18. Transporter 2 Acknowledgement of Receipt of Materials Printed/Typed Name						Signature		Month Day Year							
19. Discrepancy Indication Space															
20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19. Printed/Typed Name Tom Wyckoff						Signature <i>Tom Wyckoff</i>		Month Day Year 05 29 96							

APPENDIX D

UST DISPOSAL CERTIFICATE

[illegible]

MAZZA & SONS, INC.
RECYCLING DIVISION
DEBTOR IN POSSESSION
3230 SHAFTO RD.
TINTON FALLS, NJ 07753

3267

DATE _____

**PAY
TO THE
ORDER OF**

\$ 109.20

10 DOLLARS Security feature included. Details on back.

098111

MAZZA & SONS, INC.

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

Customer's Name

Address

Make of Autos

Weight	Price
--------	-------

Tires

Tank

Price:

Cast Iron

Steel

Copper #1

Copper #2

Lt. Copper

Brass

Alum Clean

Lead

Stainless

Radiators

Battery

TOTAL AMOUNT:

CK# 3267
BUDG 116C
0090010-10
2000 GAL.

Weigher

Customer

APPENDIX E

SOIL ANALYTICAL DATA PACKAGE

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

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

Lab. ID #: 2070.1-.7
Sample Rec'd: 05/20/96
Analysis Start: 05/30/96
Analysis Comp: 05/31/96

Analysis: OQA-QAM-025
Matrix: Soil
Analyst: B.McKee
Ext. Meth: Shake

NJDEP	UST Reg. #:
	Closure #:
	DICAR #:
	Location #: Bldg. 116C

Lab ID.	Description	OVA	%Solid	MDL (mg/Kg)	Surrogate % Recovery	Result (mg/Kg)
2070.1	116C-A (Sidewall @ 5.5')	ND	85.4	317	93.5	ND
2070.2	116C-B (Sidewall @ 5.5')	ND	83.3	317	87.5	ND
2070.3	116C-C (Sidewall @ 5.5')	ND	88.7	317	100.7	ND
2070.4	116C-D (Sidewall @ 5.5')	ND	85	317	86.3	ND
2070.5	116C-E (Piperun @ 1.5')	ND	93.3	317	93.6	ND
2070.6	116C-F (Piperun @ 1.5')	ND	90.1	317	102.8	ND
2070.7	116C-Field Duplicate	ND	93.8	317	97.3	ND
M. Bl.	Method Blank	NA	100	317	89.3	ND

QC: 2077.7S=153, 2077.7SD=149%, RPD= 2.3%, 2077.7dup,100% @ ND
QC Limits: Surrogate: 50% - 120% (initial)
MS/MSD: not established RPD: not established

Notes: ND = Not Detected, MDL = Method Detection Limit
NA = Not Applicable


Brian K. McKee
Laboratory Director

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

Analysis: Munsel

[illegible]

Brian W. K.

Brian K. McKee
Laboratory Director

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

CHAIN-OF-CUSTODY

P.O. #: PWS-07

Project #: _____		Sampler: <u>Gary DiMartinis - TVS</u>		Date / Time: <u>5-20-96 / 1400</u>		Analysis Parameters		Start: _____	
Customer: <u>GENE LESINSKI</u> <u>SELF-PM-EV</u>		Site Name: <u>BUILDING # 116C</u>				TPHC 6% Solids MUNSEL OVA		Finish: _____	
Phone: <u>(908) 532-0989</u>								Preservation Method	
Lab Sample ID Number	Date/Time	Customer Sample Location/ID Number	Sample Matrix	# of Bottles					Remarks
<u>2070.1</u>	<u>5-20-96 / 1455</u>	<u>116C-A (SIDEWALL @ S.S.)</u>	<u>SOIL</u>	<u>1</u>	☒	☒	☒	☒	<u>ND</u> *
<u>2</u>	<u>1445</u>	<u>116C-B</u>	<u>"</u>	<u>1</u>	☒	☒	☒	☒	<u>ND</u> * = SAMPLES
<u>3</u>	<u>1442</u>	<u>116C-C</u>	<u>"</u>	<u>1</u>	☒	☒	☒	☒	<u>ND</u> KEPT BELOW
<u>4</u>	<u>1451</u>	<u>116C-D</u>	<u>"</u>	<u>1</u>	☒	☒	☒	☒	<u>ND</u> 4°C
<u>5</u>	<u>1516</u>	<u>116C-E (Piping Run @ I.S.)</u>	<u>"</u>	<u>1</u>	☒	☒	☒	☒	<u>ND</u>
<u>6</u>	<u>1510</u>	<u>116C-F</u>	<u>"</u>	<u>1</u>	☒	☒	☒	☒	<u>ND</u>
<u>7</u>	<u>—</u>	<u>116C-DUP (FIELD DUPLICATE)</u>	<u>↓</u>	<u>↓</u>	☒	☒	☒	☒	<u>N/A</u>
NOTE: OVA CALIBRATED TO 95 PPM METER READING W/ 95 PPM CHL ZERO (0) AIR BY G. DiMartinis @ 1415									
Relinquished By (signature): <u>[Signature]</u>		Date / Time: <u>5-20-96 / 1600</u>		Received By (signature): <u>[Signature]</u>		Shipped By: <u>HAND</u>		ON <u>5-20-96</u> (SERIAL # <u>A51963</u>)	
Relinquished By (signature): _____		Date / Time: _____		Received for Lab by (signature): <u>[Signature]</u>		Date / Time: <u>5-20-96 / 1600</u>			
Note: A drawing depicting sample location should be attached or drawn on the reverse side of this chain of custody. DEDICATED SAMPLING TOOLS USED. SEE PROJECT FILE FOR SAMPLING LOCATIONS									

Sample Receipt Form

Date Received: 5-20-96

Lab Project ID #: _____

Site/Project Name: B 116C

Cooler Temp: <4°C

Received by: A. J. Hubbard

Circle the appropriate answer

1. Did the samples come in a cooler?
2. Were chain of custody papers filled out correctly and legibly?
3. Did you sign the chain of custody in the appropriate place?
4. Was the project identifiable from the chain of custody?
5. Did all bottles arrive unbroken and were labels in good condition?
6. Did all labels agree with the chain of custody?
7. Were correct containers and/or preservatives used for the tests indicated?
8. Were bubbles absent from aqueous VOC sample containers?

yes no
yes no
yes no
yes no
yes no
yes no
yes no
yes no

N/A

Fill out the following for each sample bottle.

Sample ID	Preservative	pH	Sample ID	Preservative	pH
ALL SAMPLES	<4°C	N/A			

Comments: NONE

Samples Accepted By: A. J. Hubbard

Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319607.D
 Acq On : 27 May 96 09:05 PM
 Sample : Blank
 Misc :
 Quant Time: May 30 18:47 1996

Vial: 1
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) S o-Terphenyl	7.86	2549	0.357 ng/ulm
	Recovery	=	1.79%
Target Compounds			
20) h TPH	10.00	11991	4.575 ng/ul

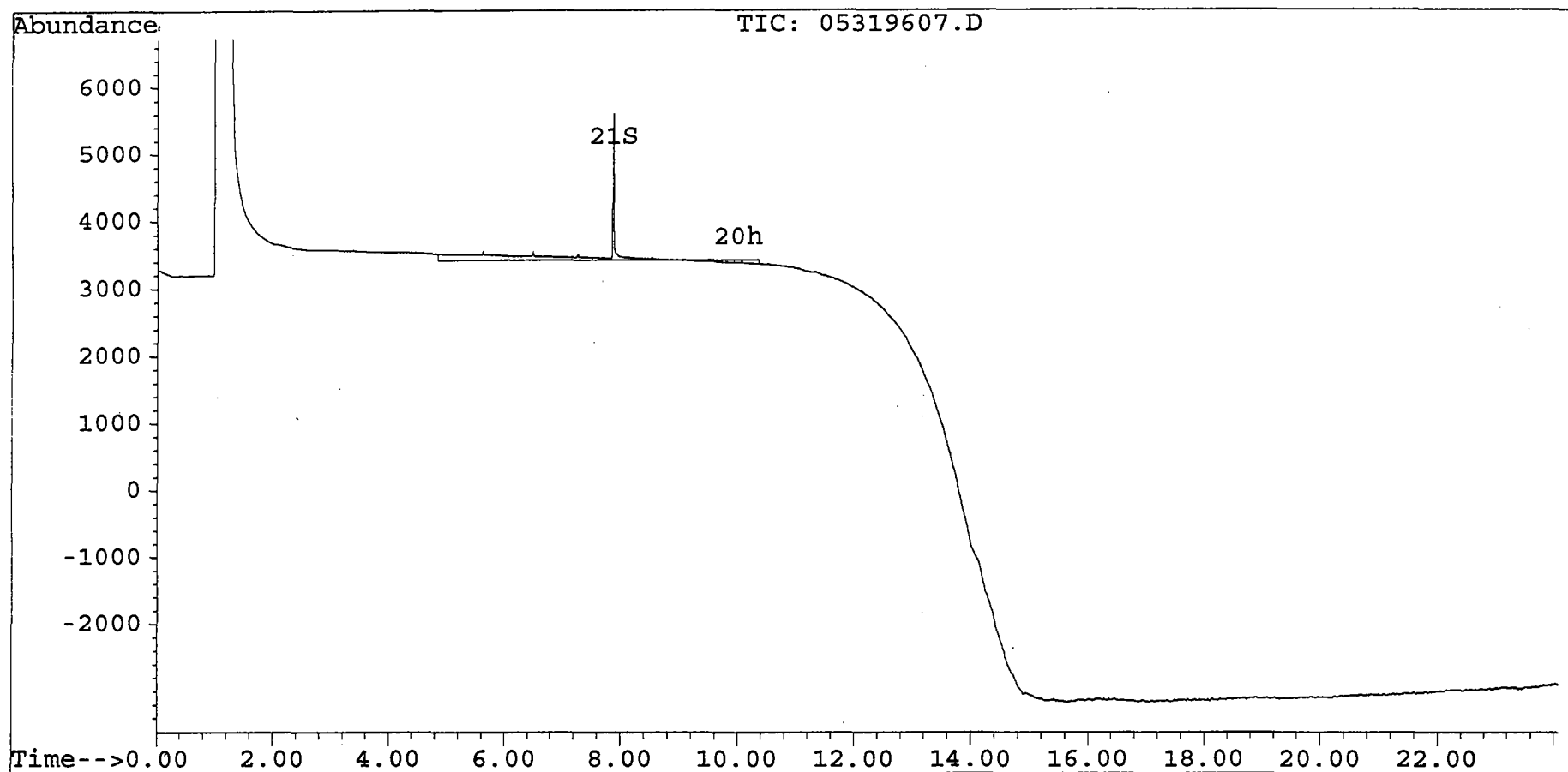
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319607.D
Acq On : 27 May 96 09:05 PM
Sample : Blank
Misc :
Quant Time: May 30 18:47 1996

Vial: 1
Operator:
Inst : FID/ECD
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
Title : TPH
Last Update : Tue Apr 23 08:17:14 1996
Response via : Multiple Level Calibration

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319608.D
 Acq On : 27 May 96 09:39 PM
 Sample : 2070.1
 Misc :
 Quant Time: May 30 18:51 1996

Vial: 7
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
<i>System Monitoring Compounds</i>			
21) S o-Terphenyl	7.86	2669	0.374 ng/ulm
	Recovery	=	1.87%
<i>Target Compounds</i>			
20) h TPH	10.00	26463	10.097 ng/ul

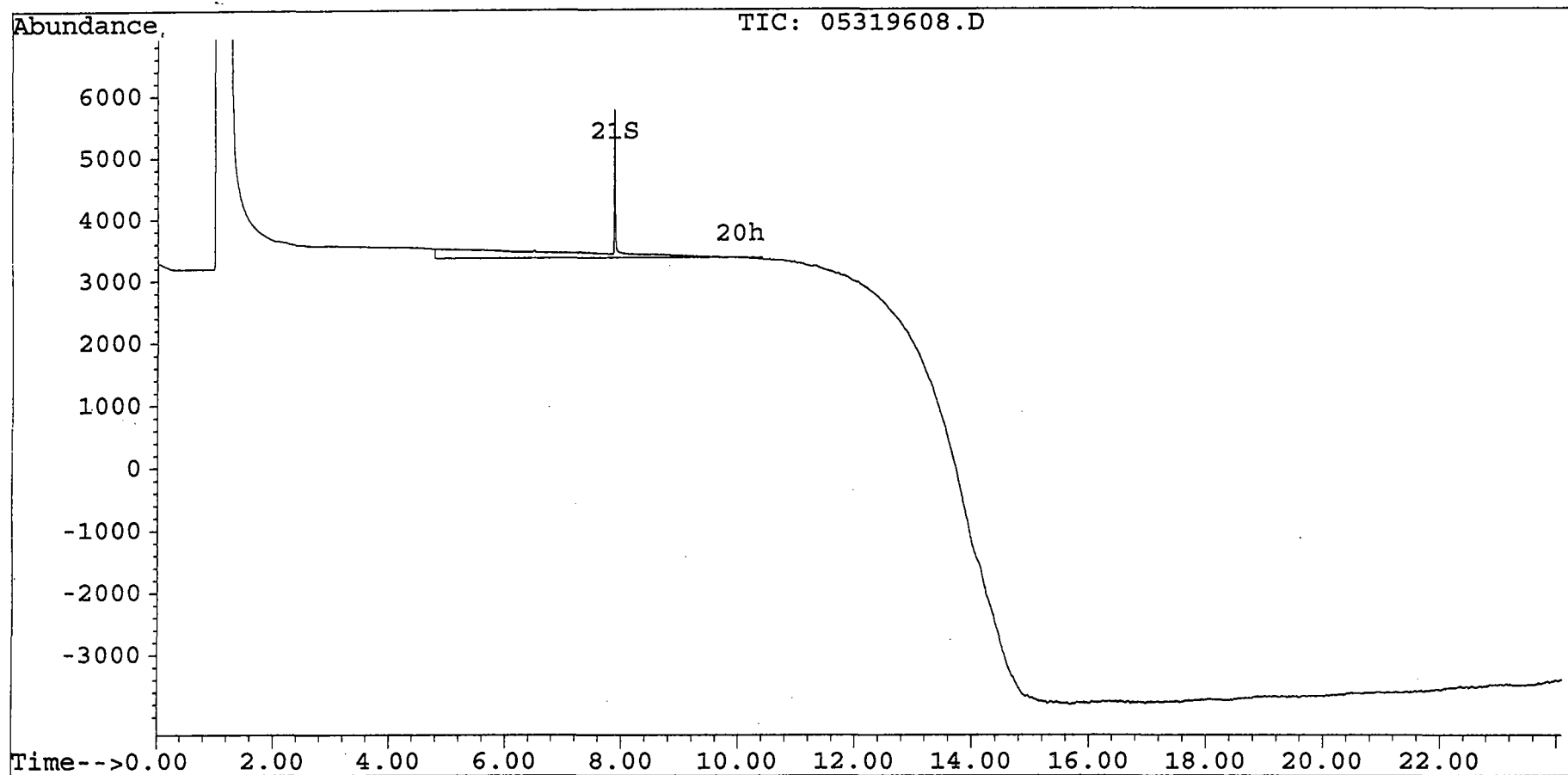
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319608.D
 Acq On : 27 May 96 09:39 PM
 Sample : 2070.1
 Misc :
 Quant Time: May 30 18:51 1996

Vial: 7
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319609.D
 Acq On : 27 May 96 10:13 PM
 Sample : 2070.2
 Misc :
 Quant Time: May 30 18:52 1996

Vial: 8
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

87.5			
System Monitoring Compounds			
21) S o-Terphenyl	7.85	2500	0.350 ng/ulm
	Recovery	=	1.75%
Target Compounds			
20) h TPH	10.00	19904	7.594 ng/ul

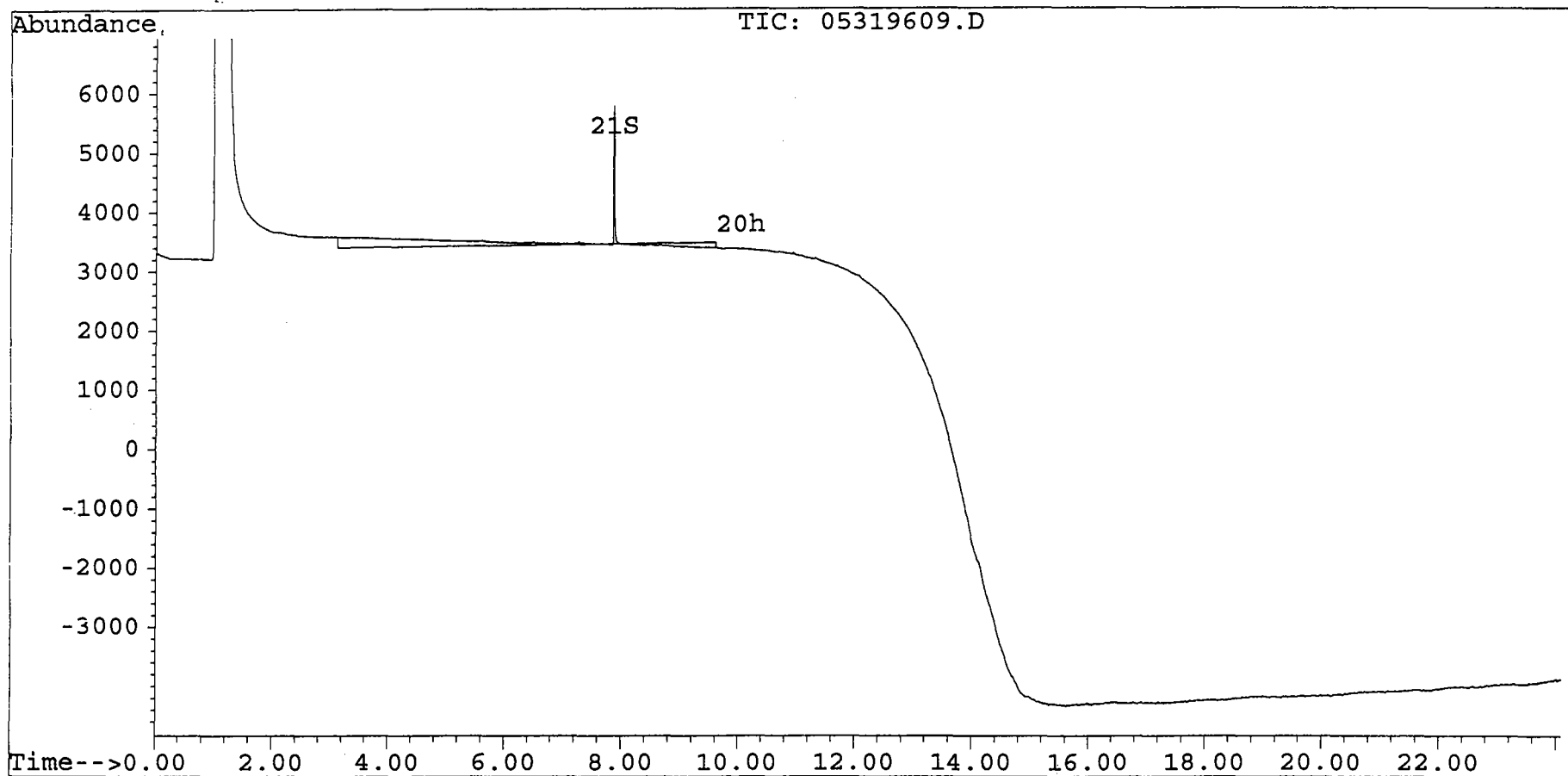
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319609.D
 Acq On : 27 May 96 10:13 PM
 Sample : 2070.2
 Misc :
 Quant Time: May 30 18:52 1996

Vial: 8
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319610.D
 Acq On : 27 May 96 10:47 PM
 Sample : 2070.3
 Misc :
 Quant Time: May 30 18:54 1996

Vial: 9
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
21) S o-Terphenyl	7.85	2876	0.403 ng/ulm
	Recovery	=	2.02%
Target Compounds			
20) h TPH	10.00	42830	16.342 ng/ul

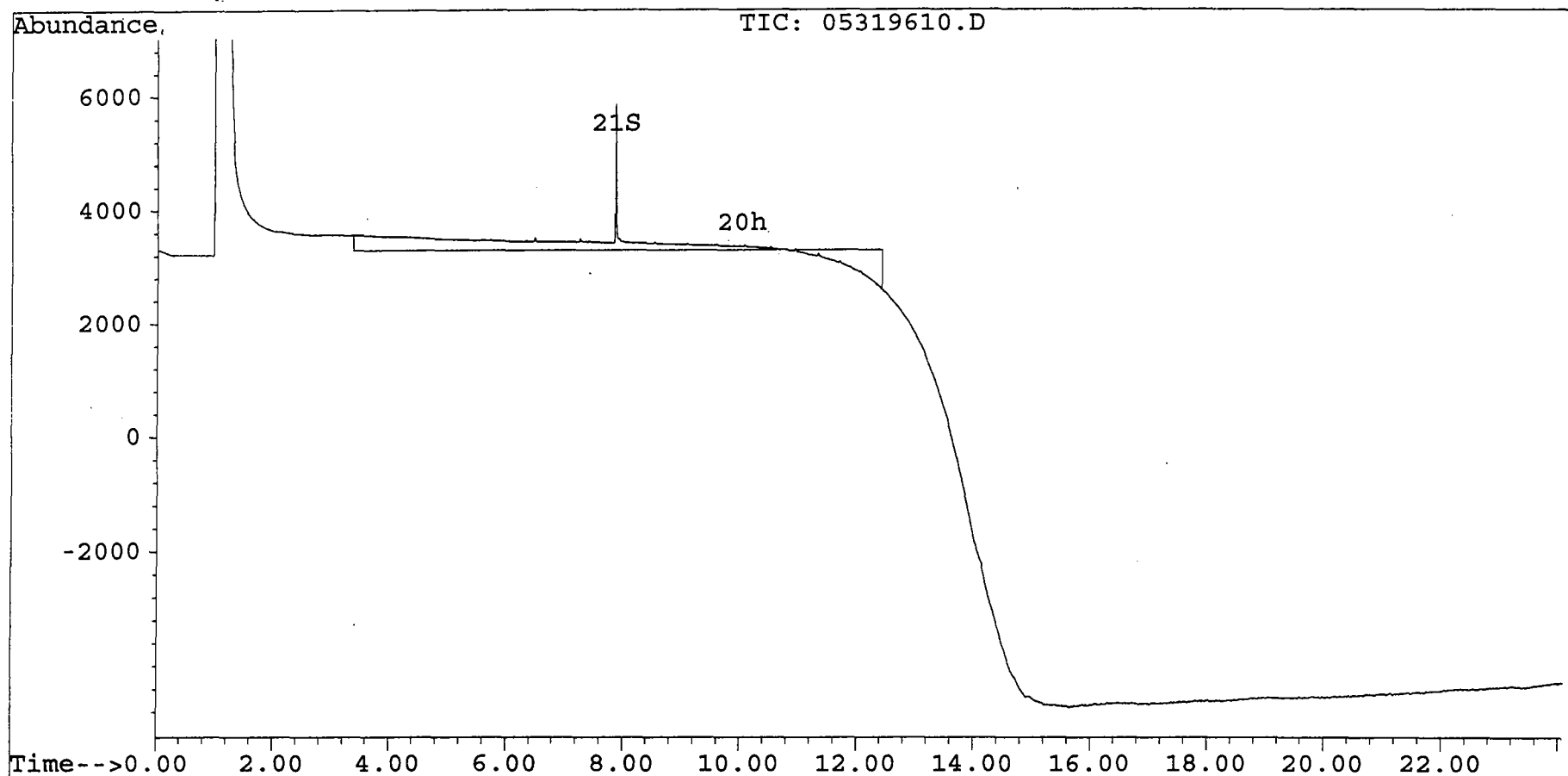
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319610.D
 Acq On : 27 May 96 10:47 PM
 Sample : 2070.3
 Misc :
 Quant Time: May 30 18:54 1996

Vial: 9
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319611.D
 Acq On : 27 May 96 11:22 PM
 Sample : 2070.4
 Misc :
 Quant Time: Jun 13 10:48 1996

Vial: 10
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
21) S o-Terphenyl	7.85	2468	0.345 ng/ulm
	Recovery	=	1.73%
Target Compounds			
20) h TPH	10.00	16255	6.202 ng/ul

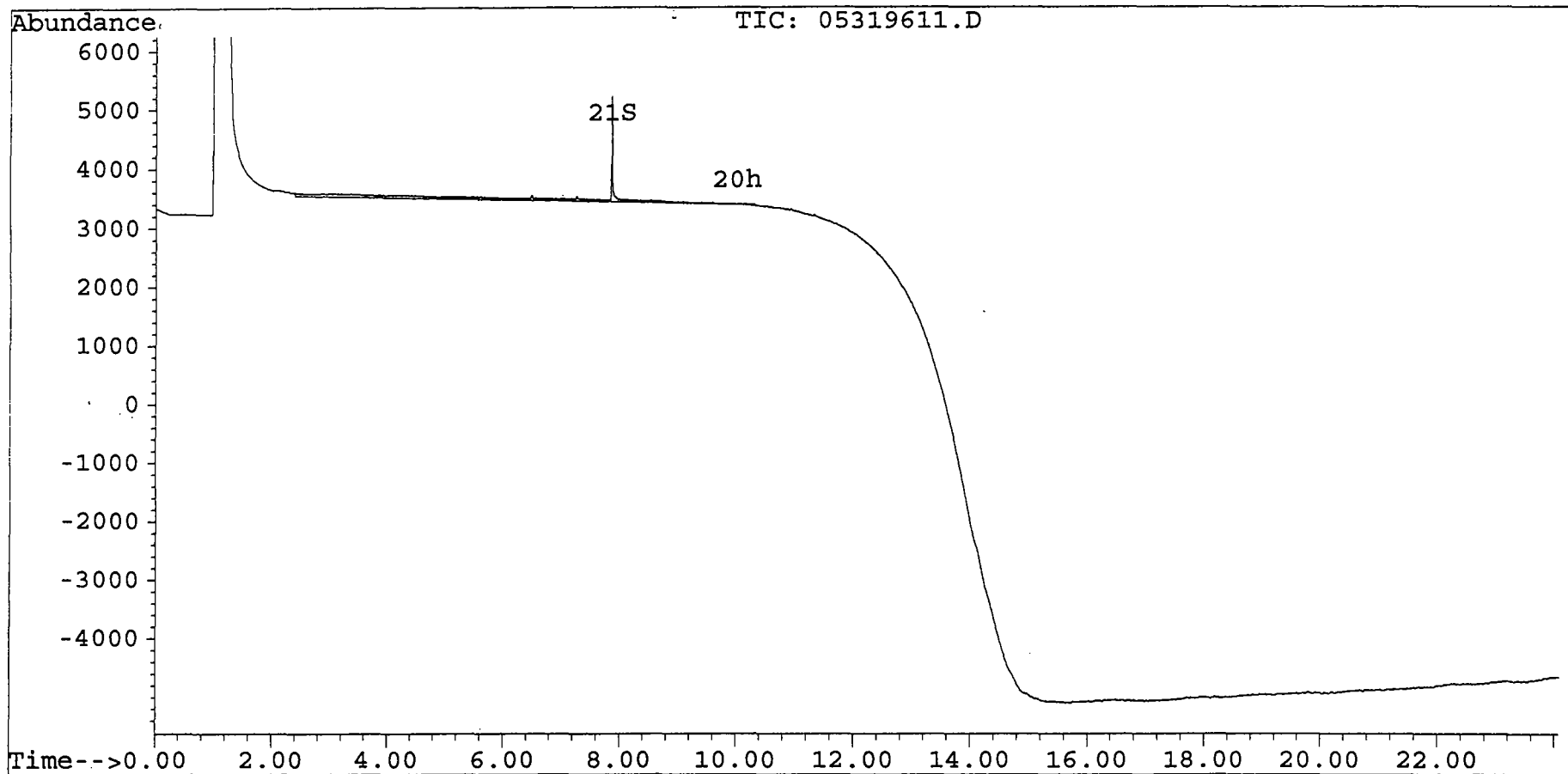
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319611.D
Acq On : 27 May 96 11:22 PM
Sample : 2070.4
Misc :
Quant Time: Jun 13 10:48 1996

Vial: 10
Operator:
Inst : FID/ECD
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
Title : TPH
Last Update : Tue Apr 23 08:17:14 1996
Response via : Multiple Level Calibration

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319612.D
 Acq On : 27 May 96 11:56 PM
 Sample : 2070.5
 Misc :
 Quant Time: Jun 13 10:49 1996

Vial: 11
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
21) S o-Terphenyl	7.85	5349	0.749 ng/ulm
	Recovery	=	3.75%
Target Compounds			
20) h TPH	10.00	50977	19.450 ng/ul

93.6

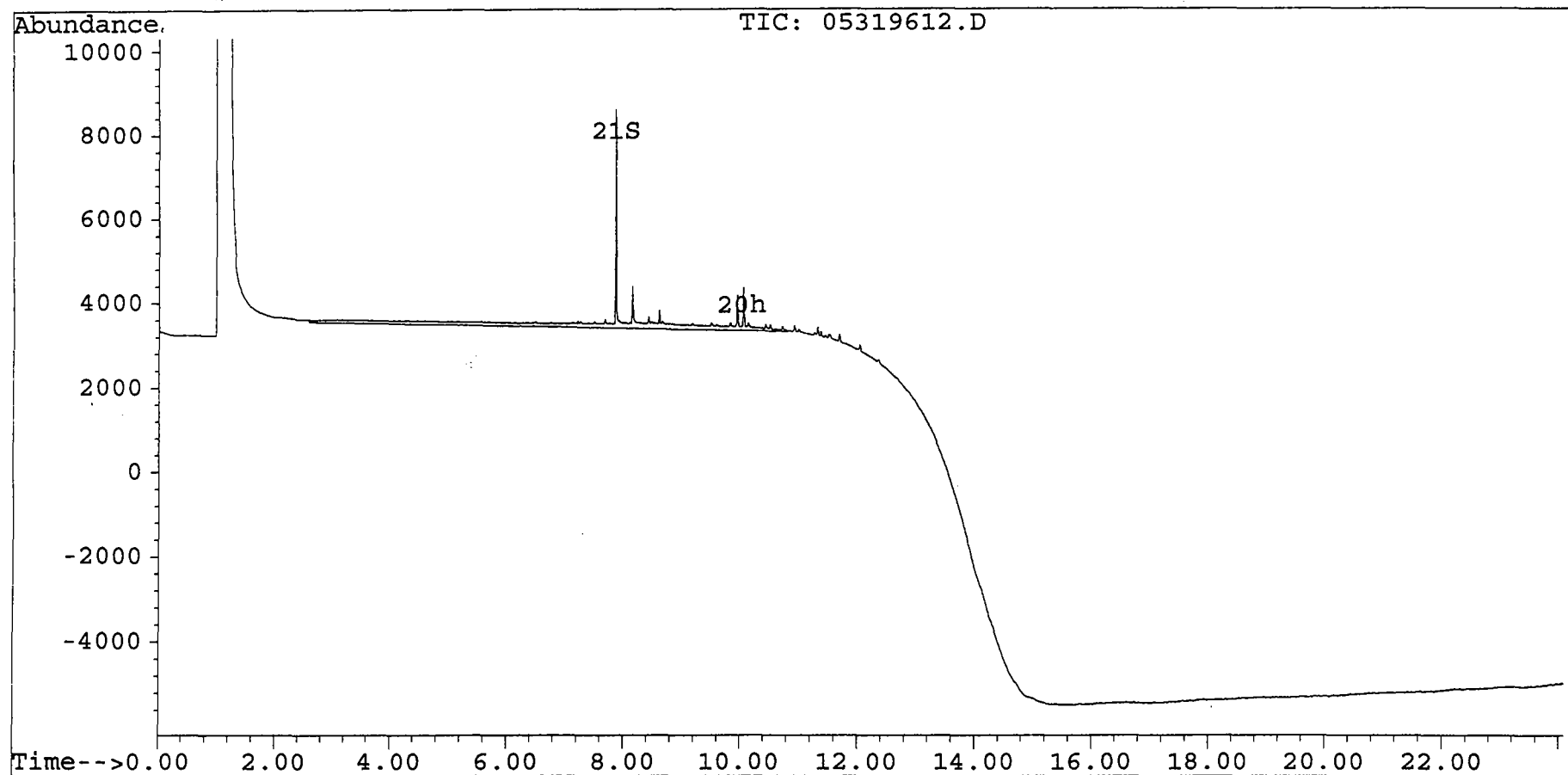
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319612.D
Acq On : 27 May 96 11:56 PM
Sample : 2070.5
Misc :
Quant Time: Jun 13 10:49 1996

Vial: 11
Operator:
Inst : FID/ECD
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
Title : TPH
Last Update : Tue Apr 23 08:17:14 1996
Response via : Multiple Level Calibration

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319613.D
 Acq On : 28 May 96 00:30 AM
 Sample : 2070.6
 Misc :
 Quant Time: Jun 13 10:51 1996

Vial: 12
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) S o-Terphenyl	7.85	2933	0.411 ng/ulm
	Recovery	=	2.06%
Target Compounds			
20) h TPH	10.00	110546	42.178 ng/ul

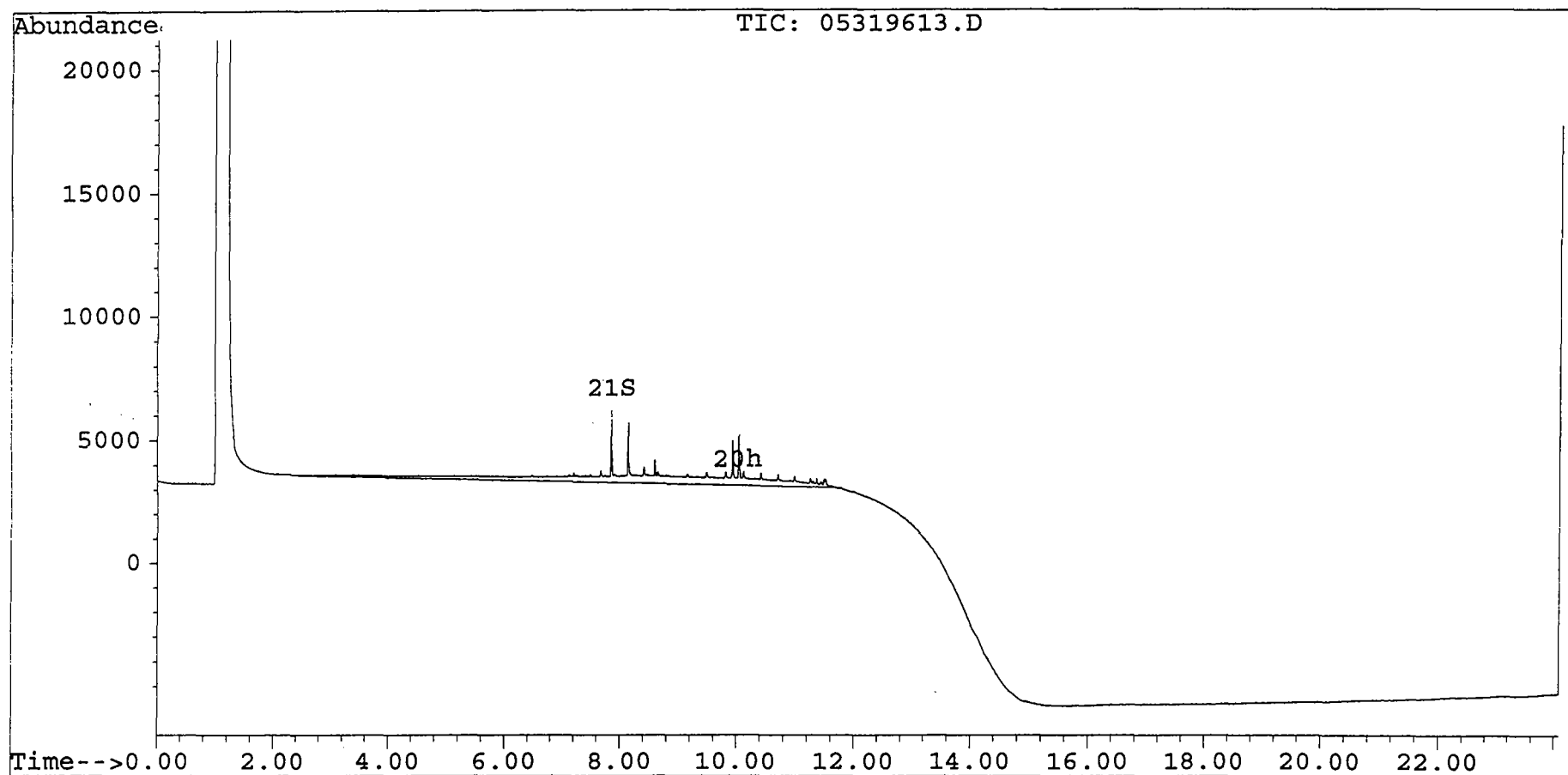
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319613.D
Acq On : 28 May 96 00:30 AM
Sample : 2070.6
Misc :
Quant Time: Jun 13 10:51 1996

Vial: 12
Operator:
Inst : FID/ECD
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
Title : TPH
Last Update : Tue Apr 23 08:17:14 1996
Response via : Multiple Level Calibration

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319614.D
 Acq On : 28 May 96 01:04 AM
 Sample : 2070.7
 Misc :
 Quant Time: Jun 13 10:52 1996

Vial: 13
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) S o-Terphenyl	7.85	2776	0.389 ng/ulm
	Recovery	=	1.95%
Target Compounds			
20) h TPH	10.00	73898	28.196 ng/ul

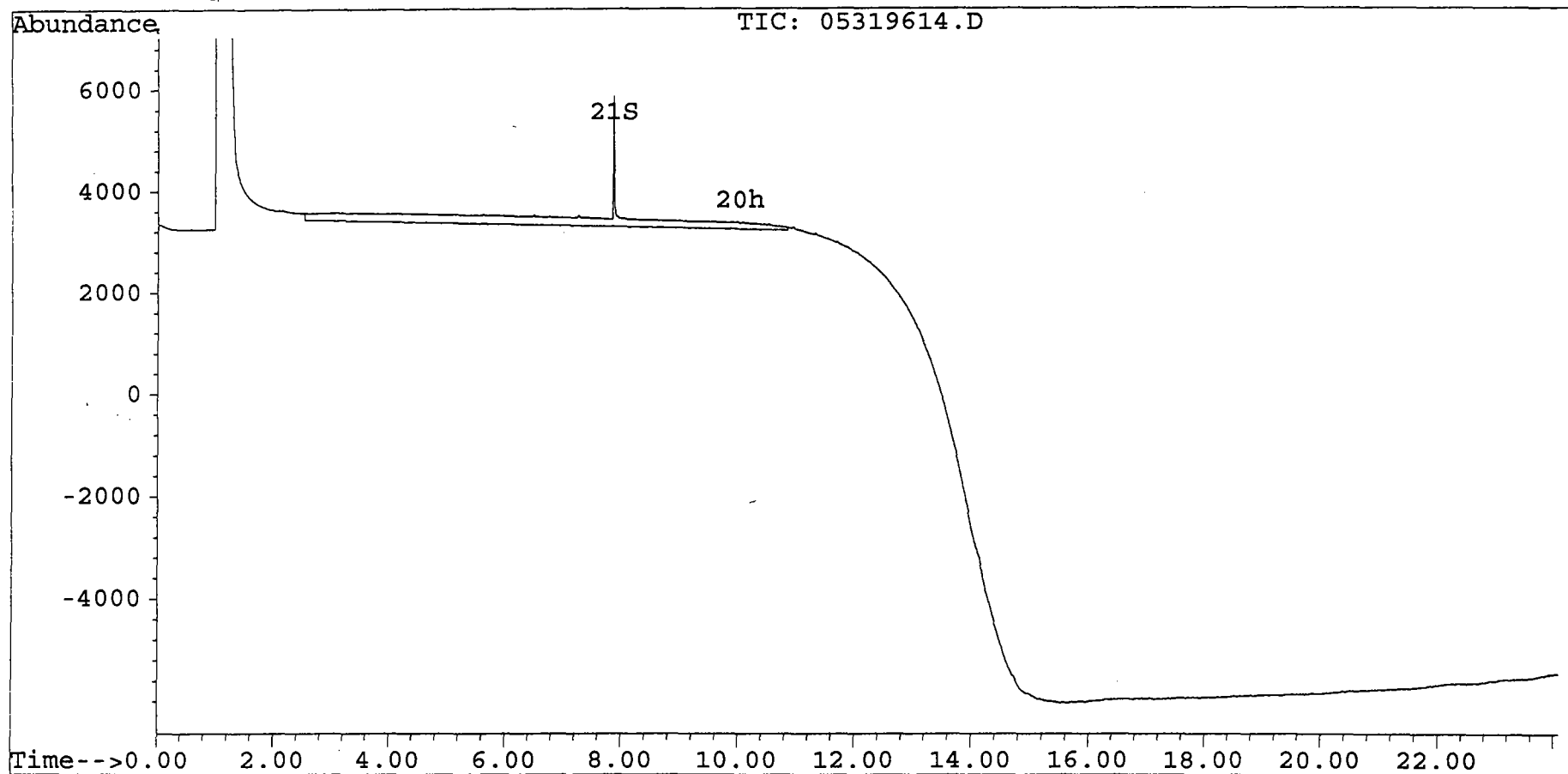
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319614.D
Acq On : 28 May 96 01:04 AM
Sample : 2070.7
Misc :
Quant Time: Jun 13 10:52 1996

Vial: 13
Operator:
Inst : FID/ECD
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
Title : TPH
Last Update : Tue Apr 23 08:17:14 1996
Response via : Multiple Level Calibration

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319622.D
 Acq On : 30 May 96 12:36 PM
 Sample : 2077.7
 Misc :
 Quant Time: Jun 13 11:06 1996

Vial: 20
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) S o-Terphenyl	7.84	3102	0.434 ng/ulm
	Recovery	=	2.17%
Target Compounds			
20) h TPH	10.00	27684	10.563 ng/ul

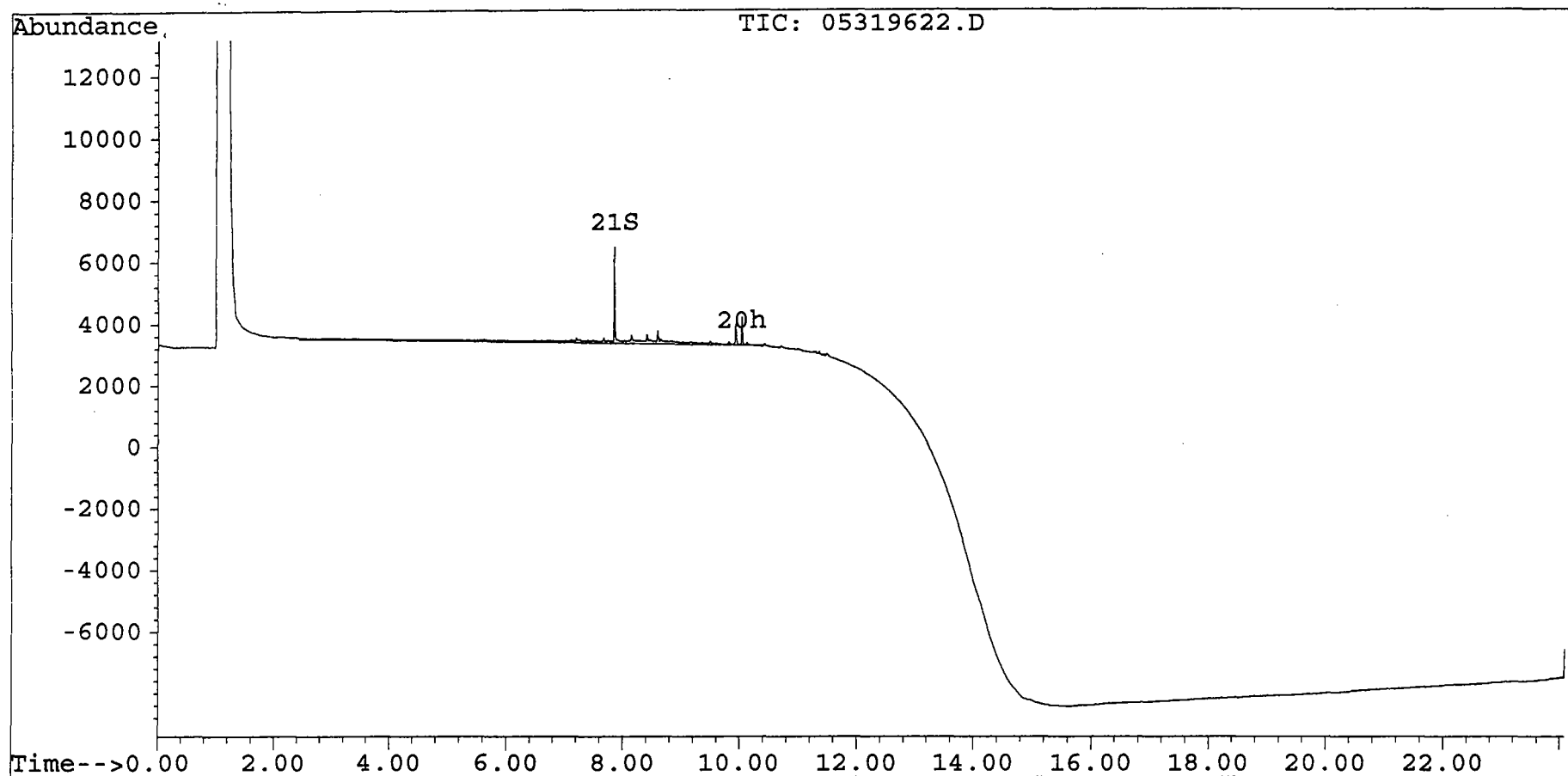
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319622.D
Acq On : 30 May 96 12:36 PM
Sample : 2077.7
Misc :
Quant Time: Jun 13 11:06 1996

Vial: 20
Operator:
Inst : FID/ECD
Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
Title : TPH
Last Update : Tue Apr 23 08:17:14 1996
Response via : Multiple Level Calibration

Volume Inj. :
Signal Phase :
Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319623.D
 Acq On : 30 May 96 01:10 PM
 Sample : 2077.7 dup
 Misc :
 Quant Time: Jun 13 11:00 1996

Vial: 21
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) S o-Terphenyl	7.84	2643	0.370 ng/ulm
	Recovery	=	1.85%
Target Compounds			
20) h TPH	10.00	68656	26.195 ng/ul

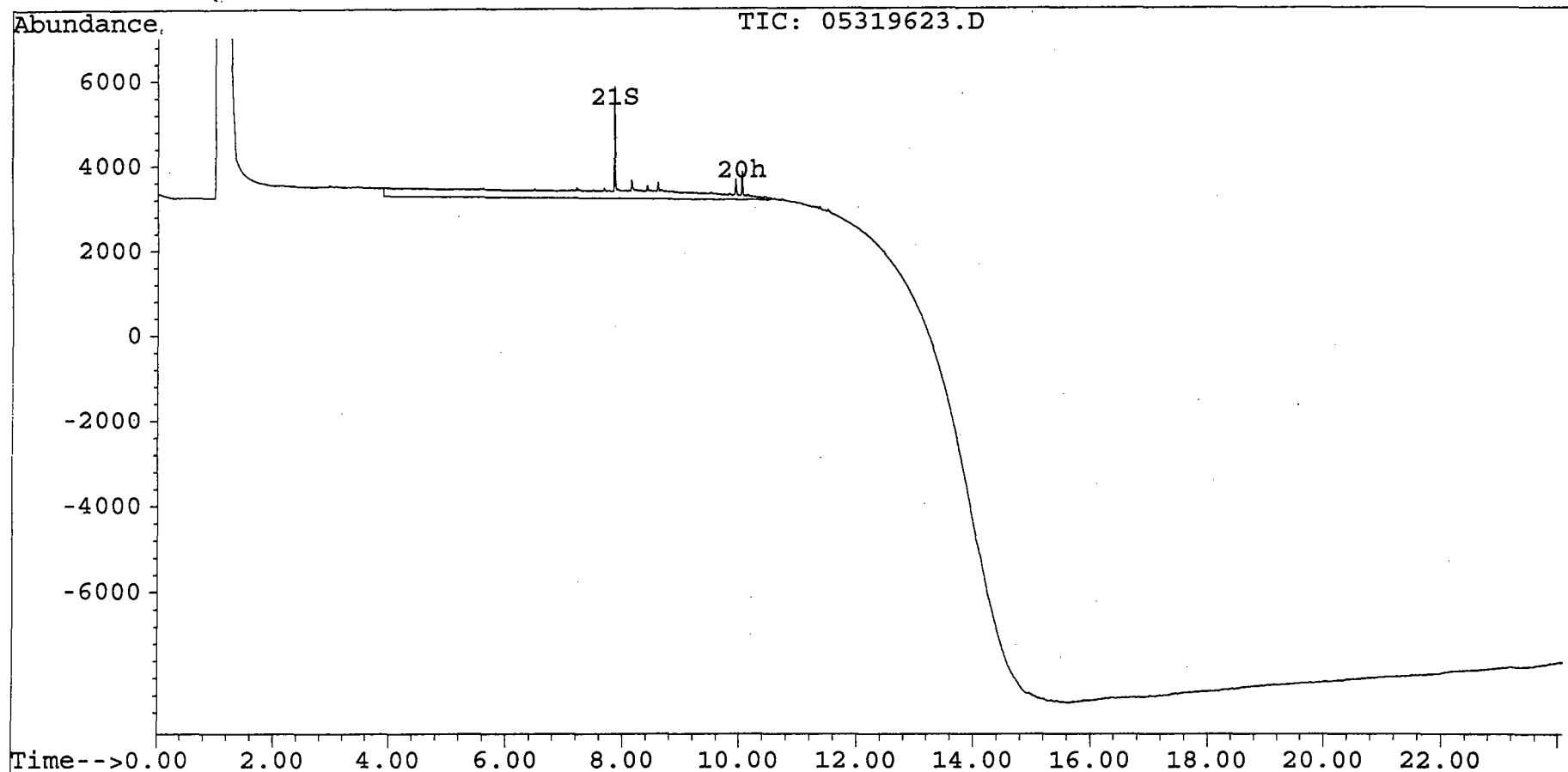
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319623.D
 Acq On : 30 May 96 01:10 PM
 Sample : 2077.7 dup
 Misc :
 Quant Time: Jun 13 11:00 1996

Vial: 21
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitative Report

Data File : C:\HPCHEM\6\DATA\05319624.D
 Acq On : 30 May 96 01:44 PM
 Sample : 2077.7.spk
 Misc :
 Quant Time: May 30 19:03 1996

Vial: 22
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) S o-Terphenyl	7.84	3431	0.480 ng/ulm
	Recovery	=	2.40%
Target Compounds			
20) h TPH	10.00	360366	137.497 ng/ul

458.3 = 112.91
75.4

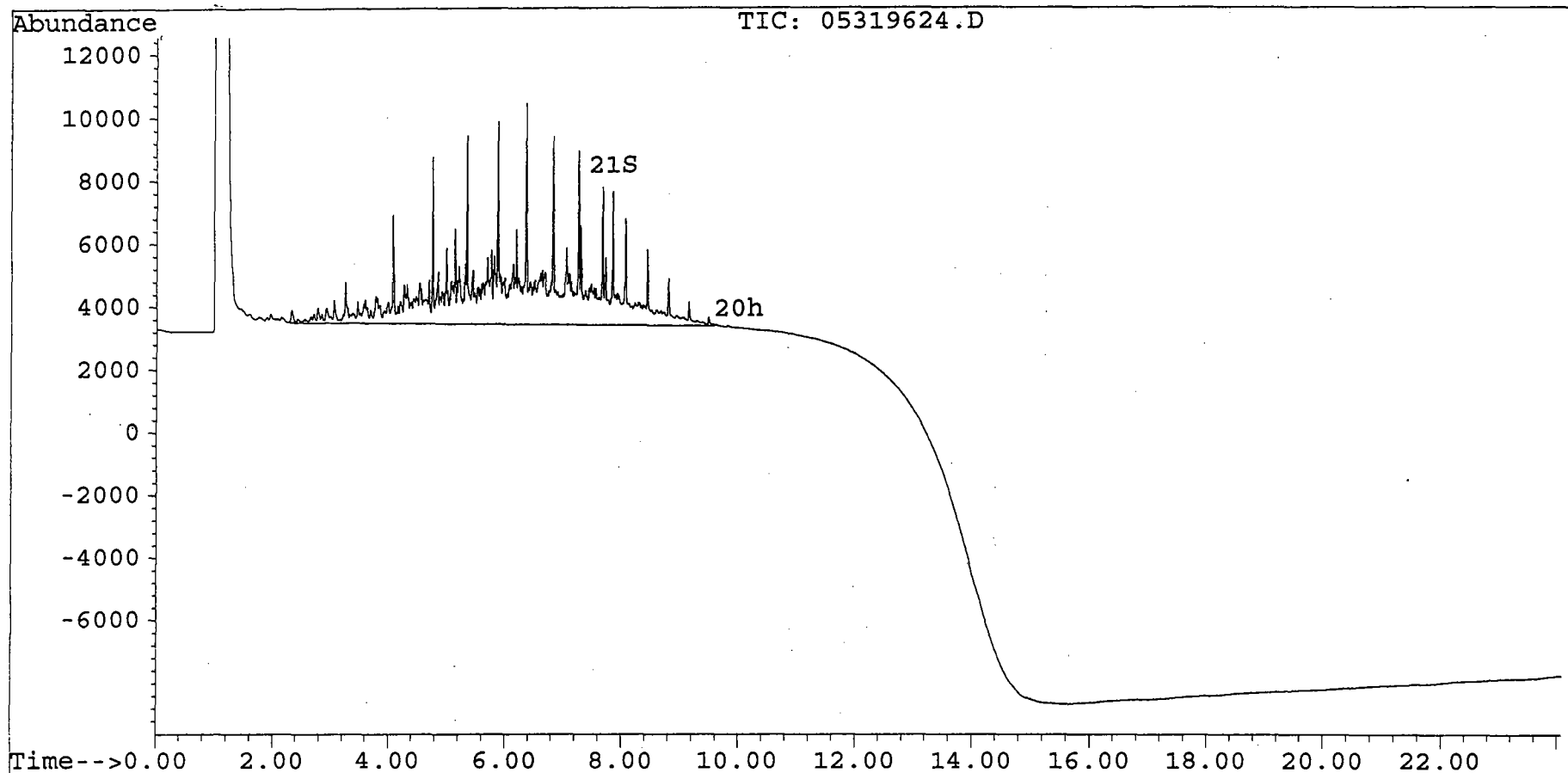
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319624.D
 Acq On : 30 May 96 01:44 PM
 Sample : 2077.7 spk
 Misc :
 Quant Time: May 30 19:03 1996

Vial: 22
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319625.D
 Acq On : 30 May 96 02:18 PM
 Sample : 2077.7 msd
 Misc :
 Quant Time: May 30 19:04 1996

Vial: 23
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
21) S o-Terphenyl	7.83	3282	0.459 ng/ulm
	Recovery	=	2.30%
Target Compounds			
20) h TPH	10.00	352071	134.332 ng/ul

Handwritten: 947.8 = 117.5

Handwritten: 45.5
 2500.33

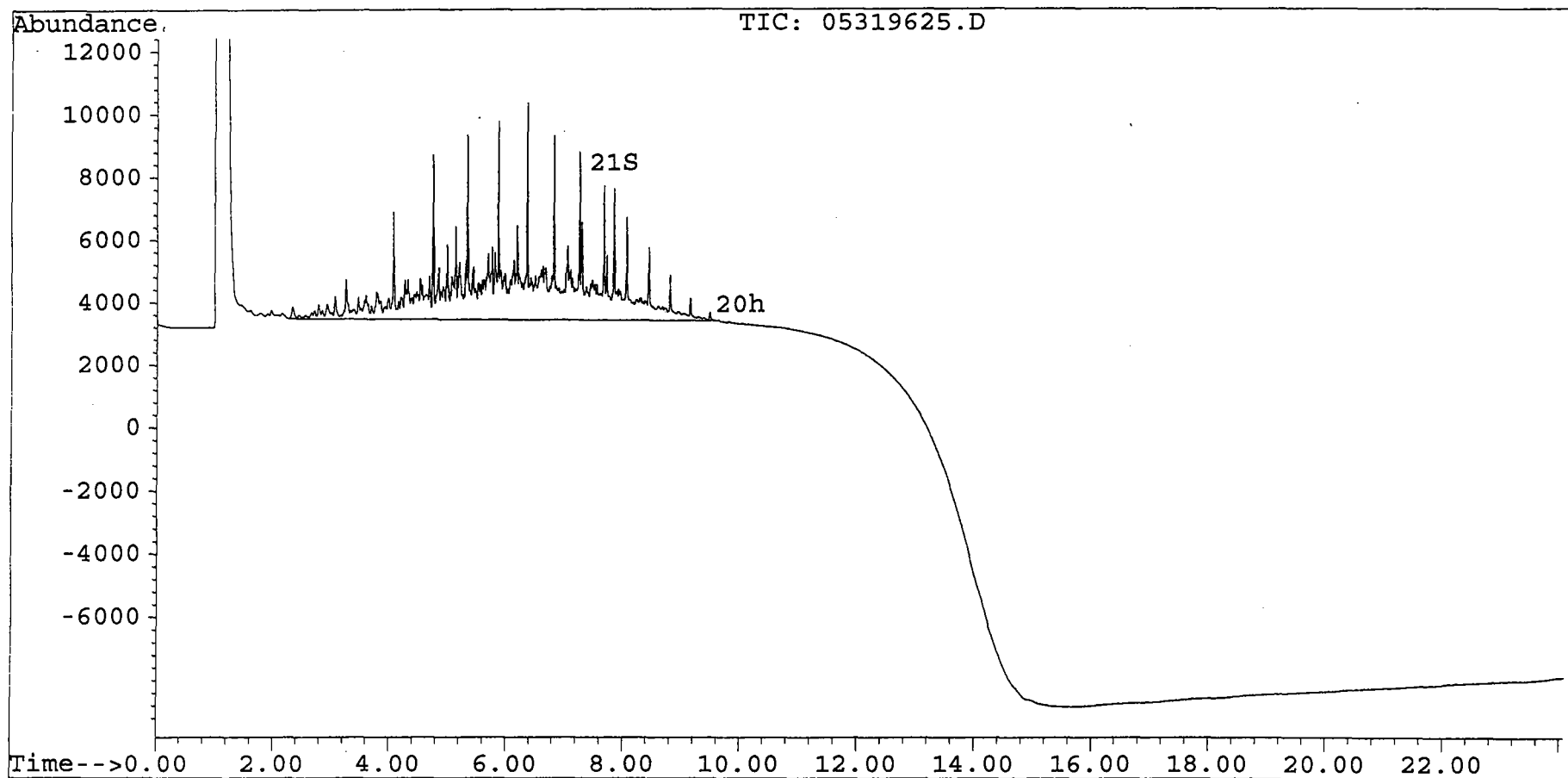
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319625.D
 Acq On : 30 May 96 02:18 PM
 Sample : 2077.7 msd
 Misc :
 Quant Time: May 30 19:04 1996

Vial: 23
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319602.D
 Acq On : 27 May 96 06:11 PM
 Sample : 1 std
 Misc :
 Quant Time: May 30 18:34 1996

Vial: 2
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound		R.T.	Response	Conc Units

System Monitoring Compounds				
21) S	o-Terphenyl	7.87	70026	9.801 ng/ul
		Recovery	=	49.01%
Target Compounds				
1) t	c8	1.60	18535	7.038 ng/ul
2) t	c10	3.26	12983	4.836 ng/ul
3) t	c12	4.77	12913	4.765 ng/ul
4) t	c14	5.89	12897	4.710 ng/ul
5) t	c16	6.84	13555	4.859 ng/ul
6) t	Pristane	7.31	15624	5.392 ng/ul
7) t	c18	7.69	13478	4.672 ng/ul
8) t	Phytane	7.74	16061	5.849 ng/ul
9) t	c20	8.46	14040	4.907 ng/ul
10) t	c22	9.17	14090	4.927 ng/ul
11) t	c24	9.82	14218	5.200 ng/ul
12) t	c26	10.43	14076	5.176 ng/ul
13) t	c28	11.00	13454	4.929 ng/ul
14) t	c30	11.53	13784	5.178 ng/ul
15) t	c32	12.03	13868	5.409 ng/ul
16) t	c34	12.50	12783	5.469 ng/ul
17) t	c36	12.94	12569	6.117 ng/ul
18) t	c38	13.36	12649	8.373 ng/ul
19) t	c40	13.76	12036	12.569 ng/ul
20) h	TPH	10.00	320794	122.398 ng/ul

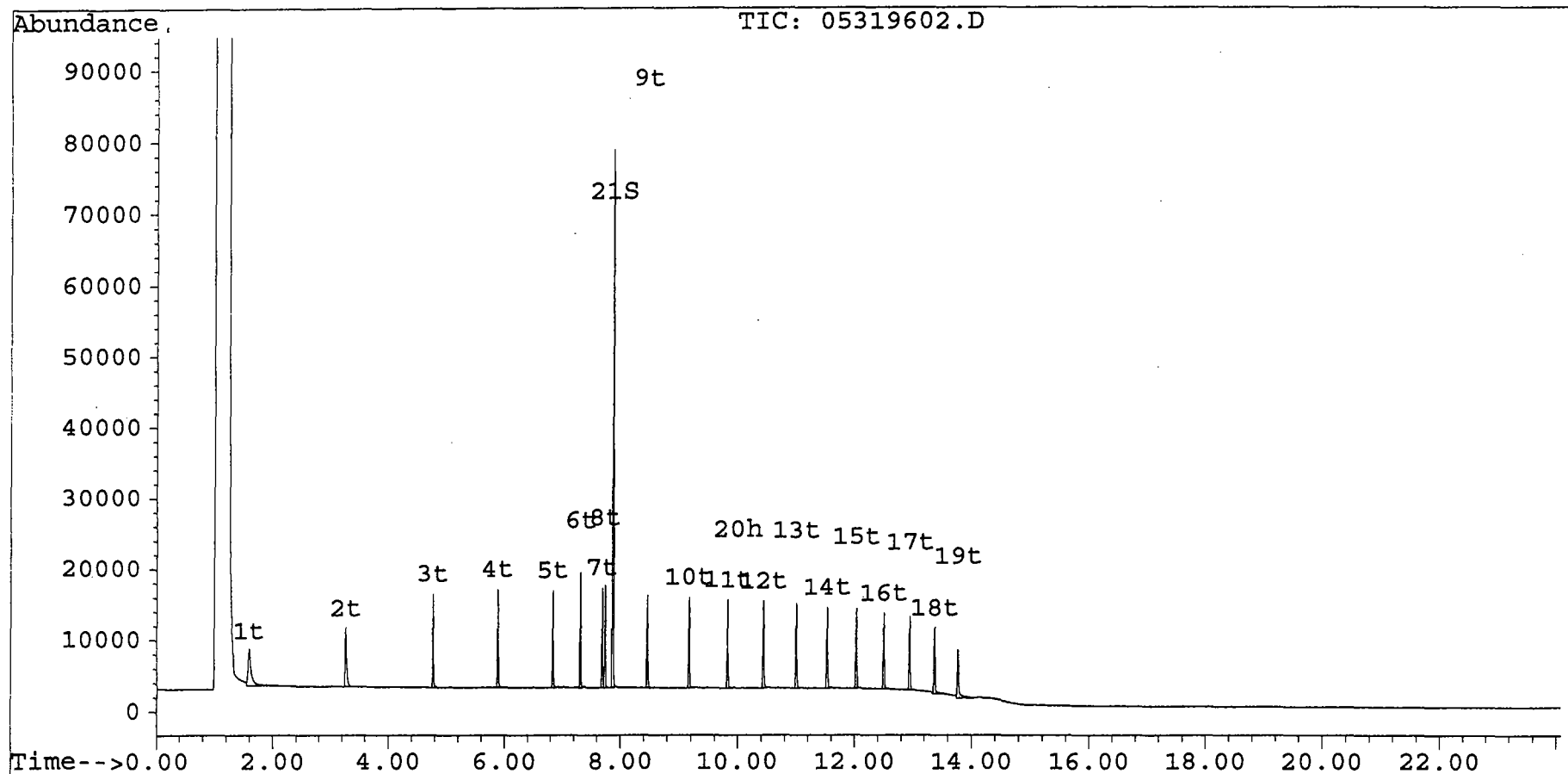
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319602.D
 Acq On : 27 May 96 06:11 PM
 Sample : 1 std
 Misc :
 Quant Time: May 30 18:34 1996

Vial: 2
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Tue Apr 23 08:17:14 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319603.D
 Acq On : 27 May 96 06:45 PM
 Sample : 2 std
 Misc :
 Quant Time: May 27 19:11 1996

Vial: 3
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound		R.T.	Response	Conc Units

System Monitoring Compounds				
21) S	o-Terphenyl	7.87	70919	9.926 ng/ul
		Recovery	=	49.63%
Target Compounds				
1) t	c8	1.60	58699	22.289 ng/ul
2) t	c10	3.26	53208	19.818 ng/ul
3) t	c12	4.77	53615	19.785 ng/ul
4) t	c14	5.89	52318	19.108 ng/ul
5) t	c16	6.84	52856	18.948 ng/ul
6) t	Pristane	7.32	56909	19.639 ng/ul
7) t	c18	7.69	54600	18.926 ng/ul
8) t	Phytane	7.74	54608	19.888 ng/ul
9) t	c20	8.46	54053	18.892 ng/ul
10) t	c22	9.17	54466	19.046 ng/ul
11) t	c24	9.82	53258	19.479 ng/ul
12) t	c26	10.43	53163	19.551 ng/ul
13) t	c28	11.00	56473	20.689 ng/ul
14) t	c30	11.53	52929	19.882 ng/ul
15) t	c32	12.03	54236	21.154 ng/ul
16) t	c34	12.50	53117	22.724 ng/ul
17) t	c36	12.94	52291	25.450 ng/ul
18) t	c38	13.36	48593	32.165 ng/ul
19) t	c40	13.77	50206	52.428 ng/ul
20) h	TPH	10.00	2333505	890.341 ng/ul

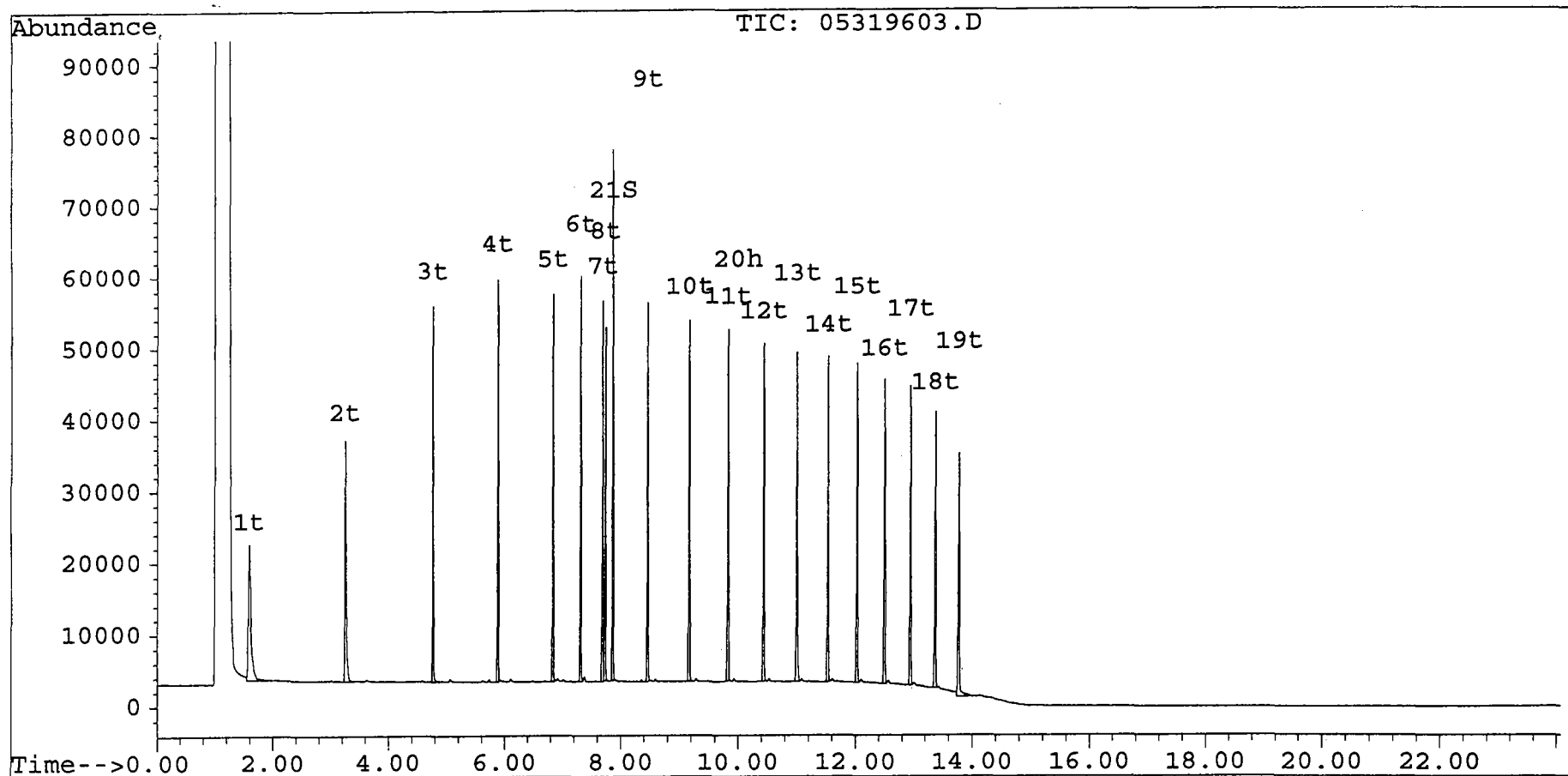
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319603.D
 Acq On : 27 May 96 06:45 PM
 Sample : 2 std
 Misc :
 Quant Time: May 27 19:11 1996

Vial: 3
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319604.D
 Acq On : 27 May 96 07:20 PM
 Sample : 3 std
 Misc :
 Quant Time: May 27 19:45 1996

Vial: 4
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
21) S o-Terphenyl	7.87	71298	9.979 ng/ul
	Recovery	=	49.90%
Target Compounds			
1) t c8	1.59f	146246	55.532 ng/ul
2) t c10	3.25	148091	55.158 ng/ul
3) t c12	4.77	148024	54.624 ng/ul
4) t c14	5.89	146195	53.393 ng/ul
5) t c16	6.84	147363	52.828 ng/ul
6) t Pristane	7.32	141289	48.758 ng/ul
7) t c18	7.69	150600	52.202 ng/ul
8) t Phytane	7.74	134852	49.112 ng/ul
9) t c20	8.46	150931	52.752 ng/ul
10) t c22	9.17	147879	51.712 ng/ul
11) t c24	9.83	142945	52.282 ng/ul
12) t c26	10.43	142384	52.362 ng/ul
13) t c28	11.00	144853	53.068 ng/ul
14) t c30	11.53	146240	54.933 ng/ul
15) t c32	12.03	149281	58.225 ng/ul
16) t c34	12.50	147487	63.098 ng/ul
17) t c36	12.95	147980	72.021 ng/ul
18) t c38	13.37	138795	91.871 ng/ul
19) t c40	13.77	129392	135.119 ng/ul
20) h TPH	10.00	4360969	1663.914 ng/ul

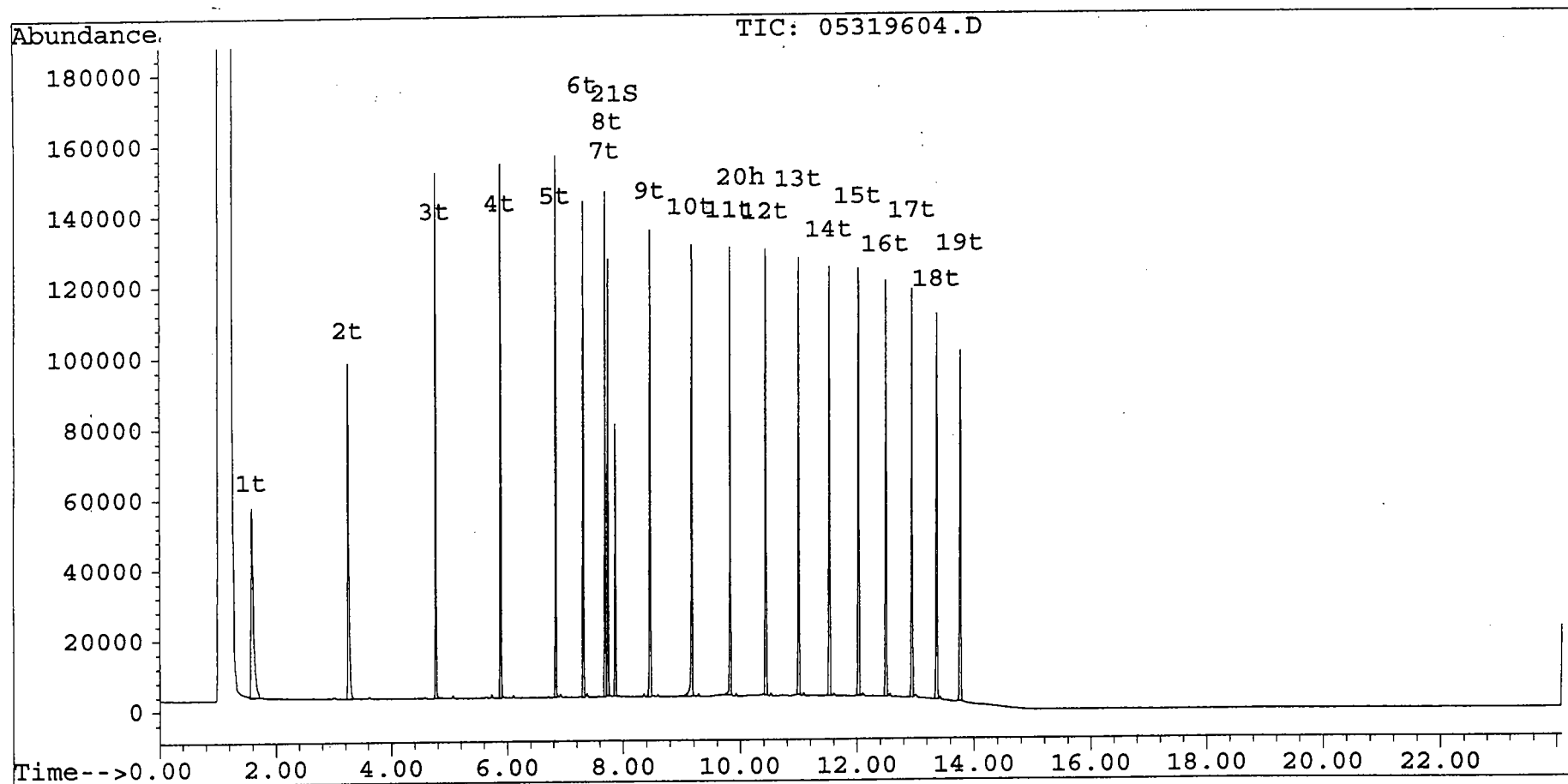
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319604.D
 Acq On : 27 May 96 07:20 PM
 Sample : 3 std
 Misc :
 Quant Time: May 27 19:45 1996

Vial: 4
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319605.D
 Acq On : 27 May 96 07:55 PM
 Sample : 4 std
 Misc :
 Quant Time: May 27 20:20 1996

Vial: 5
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound		R.T.	Response	Conc Units

System Monitoring Compounds				
21) S	o-Terphenyl	7.87	69932	9.788 ng/ul
		Recovery	=	48.94%
Target Compounds				
1) t	c8	1.59f	285657	108.468 ng/ul
2) t	c10	3.25	288880	107.596 ng/ul
3) t	c12	4.77	287553	106.113 ng/ul
4) t	c14	5.89	288179	105.249 ng/ul
5) t	c16	6.84	290473	104.132 ng/ul
6) t	Pristane	7.32	296535	102.332 ng/ul
7) t	c18	7.69	296436	102.753 ng/ul
8) t	Phytane	7.74	281168	102.400 ng/ul
9) t	c20	8.46	292662	102.289 ng/ul
10) t	c22	9.17	284380	99.446 ng/ul
11) t	c24	9.83	275084	100.613 ng/ul
12) t	c26	10.44	275940	101.478 ng/ul
13) t	c28	11.00	281990	103.309 ng/ul
14) t	c30	11.53	285211	107.135 ng/ul
15) t	c32	12.03	291590	113.731 ng/ul
16) t	c34	12.50	287409	122.959 ng/ul
17) t	c36	12.95	287772	140.057 ng/ul
18) t	c38	13.37	269038	178.081 ng/ul
19) t	c40	13.77	252690	263.874 ng/ul
20) h	TPH	10.00	726649	2772.567 ng/ul

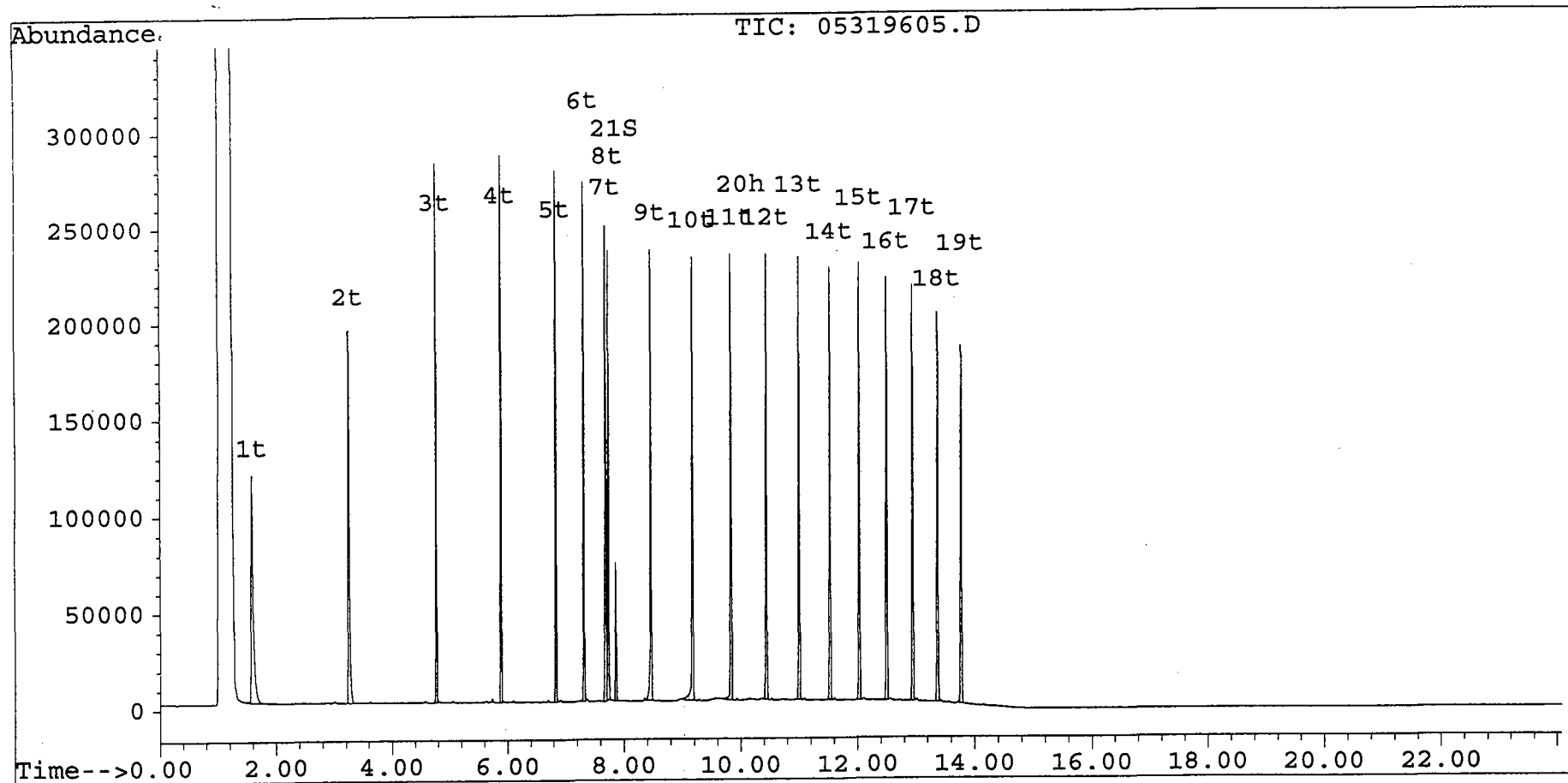
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319605.D
 Acq On : 27 May 96 07:55 PM
 Sample : 4 std
 Misc :
 Quant Time: May 27 20:20 1996

Vial: 5
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319606.D
 Acq On : 27 May 96 08:30 PM
 Sample : 5 std
 Misc :
 Quant Time: May 27 20:55 1996

Vial: 6
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
21) S o-Terphenyl	7.86	73350	10.266 ng/ul
	Recovery	=	51.33%
Target Compounds			
2) t c10	3.25	564926	210.412 ng/ul
3) t c12	4.77	567117	209.277 ng/ul
4) t c14	5.90	567844	207.388 ng/ul
5) t c16	6.85	574025	205.783 ng/ul
6) t Pristane	7.32	603878	208.394 ng/ul
7) t c18	7.70	610295	211.545 ng/ul
8) t Phytane	7.75	543337	197.881 ng/ul
9) t c20	8.47	571179	199.633 ng/ul
10) t c22	9.18	534168	186.795 ng/ul
11) t c24	9.84	538829	197.078 ng/ul
12) t c26	10.44	548307	201.642 ng/ul
13) t c28	11.01	563205	206.335 ng/ul
14) t c30	11.54	567884	213.317 ng/ul
15) t c32	12.04	578716	225.720 ng/ul
16) t c34	12.51	569701	243.729 ng/ul
17) t c36	12.96	566961	275.936 ng/ul
18) t c38	13.38	523133	346.271 ng/ul
19) t c40	13.78	479117	500.322 ng/ul
20) h TPH	10.00	12622943	4816.244 ng/ul

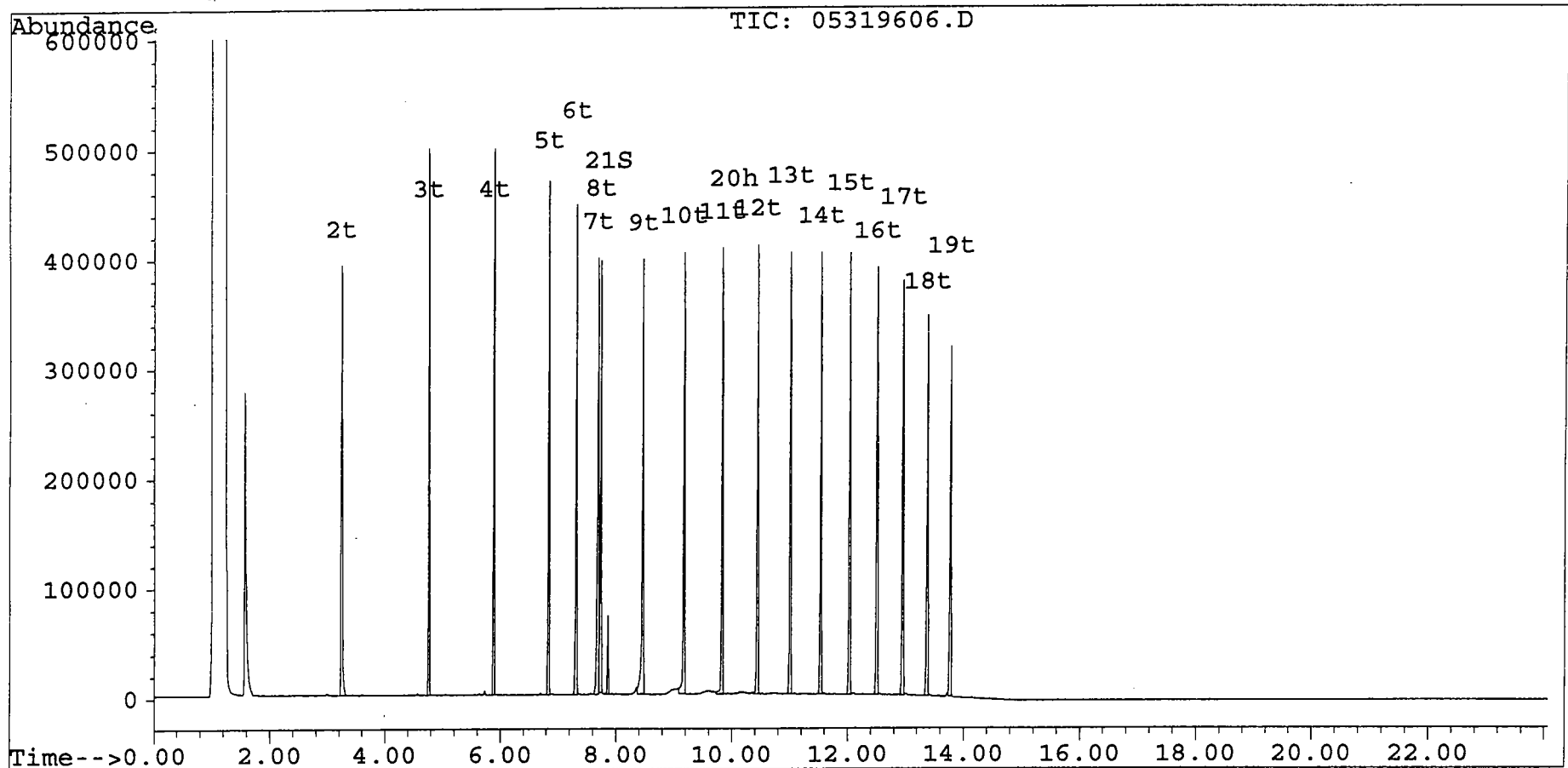
Quantitation Report

Data File : C:\HPCHEM\6\DATA\05319606.D
 Acq On : 27 May 96 08:30 PM
 Sample : 5 std
 Misc :
 Quant Time: May 27 20:55 1996

Vial: 6
 Operator:
 Inst : FID/ECD
 Multiplr: 1.00

Method : C:\HPCHEM\5\METHODS\TPH3.M
 Title : TPH
 Last Update : Mon May 27 17:25:57 1996
 Response via : Multiple Level Calibration

Volume Inj. :
 Signal Phase :
 Signal Info :



PHC Conformance/Non-conformance Summary Report

	<u>No</u>	<u>Yes</u>
1. Method Detection Limits provided.	<u>—</u>	<u>✓</u>
2. Method Blank Contamination - If yes, list the sample and the corresponding concentrations in each blank. _____ _____	<u>✓</u>	<u>—</u>
3. Matrix Spike Result Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____	<u>—</u>	<u>✓</u>
4. Duplicate Results Summary Meet Criteria. (If not met, list the sample and corresponding recovery which falls outside the acceptable range). _____ _____	<u>—</u>	<u>✓</u>
5. IR Spectra submitted for standards, blanks, & samples	<u>—</u>	<u>N/A</u>
6. Chromatograms submitted for standards, blanks, and samples if GC fingerprinting was conducted.	<u>—</u>	<u>✓</u>
7. Analysis holding time met. (If not met, list number of days exceeded for each sample) _____ _____	<u>—</u>	<u>✓</u>
Additional Comments: <u>None</u> _____ _____		

Laboratory Authentication Statement

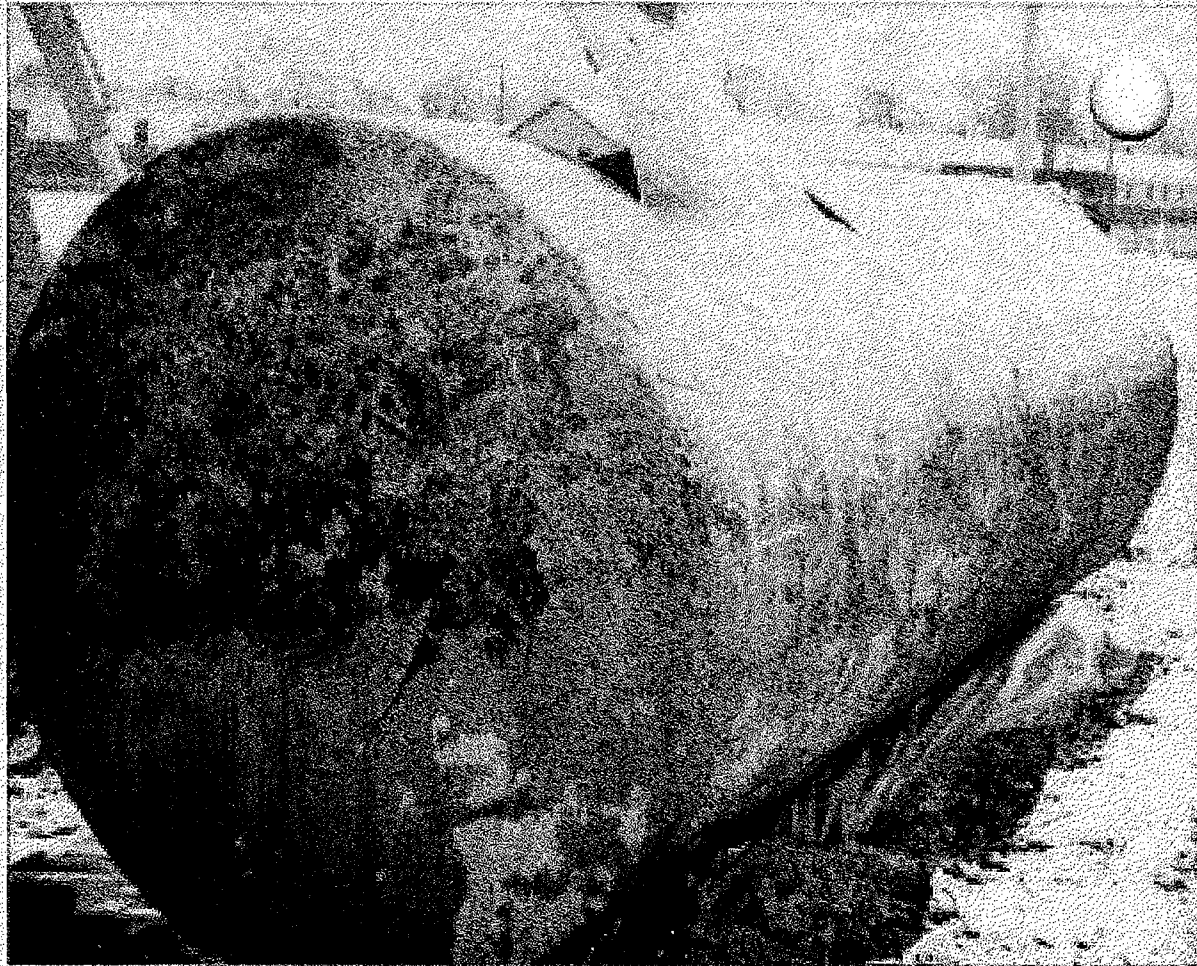
I certify under penalty of law, where applicable, that this laboratory meets the Laboratory Performance Standards and Quality Control requirements specified in N.J.A.C. 7:18 and 40 CFR Part 136 for Water and Wastewater Analyses and SW 846 for Solid Waste Analysis. I have personally examined the information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

Project #2070

Brian K. McKee
Brian K. McKee
Laboratory Manager

APPENDIX F

PHOTOGRAPHS



B. 116C

5-20-96

December 1997

PHOTOGRAPHIC LOG

UST No. 90010-10

Building 116C
Main Post-East
Fort Monmouth



SMC Environmental Services Group
Engineers, Managers, Scientists, & Planners
Valley Forge, Pennsylvania