

U.S. Army Garrison
Fort Monmouth, New Jersey

Underground Storage Tank Report

Main Post West –Bldg. 1203

NJDEP UST Registration No. 81533-227

TMS #: 0-06830
June 2011

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

**MAIN POST WEST – BLDG. 1203
NJDEP UST REGISTRATION NO.: 81533-227**

JUNE 2011

PREPARED FOR:

**U.S. ARMY GARRISON, FORT MONMOUTH, NJ
DIRECTORATE OF PUBLIC WORKS
BUILDING 173
FORT MONMOUTH, NJ 07703**

PREPARED BY:

**TECOM-VINNELL SERVICES, INC.
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EXECUTIVE SUMMARY

May 11-15, 2009, one regulated underground storage tank (UST) was closed by removal in accordance with the Directorate of Public Works (DPW) UST Management Plan for the U.S. Army Garrison, Fort Monmouth, New Jersey. The UST was located near Building 1203 in the West Main Post area of Fort Monmouth. UST No. 81533-227 was a 10,000-gallon, double-walled, fiberglass tank and double-walled piping with a leak detection system that contained diesel fuel for emergency generator. Fuel oil from the tank was transferred to other above ground storage tanks and off road diesel powered vehicles; therefore no liquid wastes were generated during the removal of the UST.

The site assessment was performed by TECOM-Vinnell Services (TVS) personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* (TRSR) and the NJDEP *Field Sampling Procedures Manual*. Soil surrounding the tank was screened visually and with a calibrated hand held Mini-Rae Photo-Ionization air monitoring instrument for evidence of contamination. Following removal, the UST was inspected for holes. No holes or evidence of impacted soils were observed after the removal of the tank from the ground.

All soil sampling was performed by a NJDEP Certified Subsurface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual* (August 2005 edition-updated 15 February 2008). Sampling frequency and parameters analyzed complied with the NJDEP TRSR, 7:26E-3.9 (December 17, 2007 and revisions dated June 2, 2008) which was the applicable regulation at the date of the closure.

The post-excavation soil samples collected from the UST excavation associated with former UST No. 81533-227 contained total petroleum hydrocarbon (TPH) concentrations below the NJDEP health-based criterion of 4,800 milligrams per kilogram (mg/kg) for residual #2-home heating oil/diesel fuel (N.J.A.C. 7:26E and revisions dated September 2008). None of the soil samples collected for post remedial confirmation analysis was in excess of the additional analytical threshold of 1,000 mg/kg. The analytical data confirmed that no release had occurred from the excavated UST.

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

Based on the post-excavation soil sampling results, soils present are less than the NJDEP health based standards for residual #2-home heating oil/diesel fuel and there are no detected base/neutral compounds (B/N) that exceed the NJDEP Residential Direct Contact Soil Cleanup Standards (RDCSCS).

No further action is proposed in regard to the closure and site assessment of USTs No. 81533-227.

1.0 UNDERGROUND STORAGE TANK DECOMMISSIONING ACTIVITIES

1.1 OVERVIEW

One underground storage tank (UST), New Jersey Department of Environmental Protection (NJDEP) Registration No 81533-227, was closed in the area of Bldg. 1203 located at the West Main Post at U.S. Army Garrison, Fort Monmouth, New Jersey on May 11-15, 2009. Refer to site location map on Figure 1. This report presents the results of the implementation of the DPW's UST Management Plan, March, 1996. UST No. 81533-227 was a regulated 10,000 gallon diesel oil tank.

Decommissioning activities for the USTs 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. The closure and subsurface evaluation of the UST was conducted by a NJDEP licensed US ARMY employee.

This UST Closure and Remedial Investigation Report has been prepared by TVS to assist the US Army Garrison Directorate of Public Works (DPW) in complying with the NJDEP - Underground Storage Tanks regulations. The applicable NJDEP regulations at the date of closure were the *Closure of Underground Storage Tank Systems* (N.J.A.C. 7:14B-9 et seq. December, 1987 and revisions dated April 20, 2003).

This report was prepared using information required by the Technical Requirements for Site Remediation (*TRSR*). Section 1 of this UST Closure and Remedial 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 Section 3 of this report.

1.2 SITE DESCRIPTION

Building 1203 is located in the western portion of the Main Post area of Fort Monmouth, as shown on Figure 1. The UST was located to the north of Building 1203. The fill port and appurtenant double walled piping was not encountered in the excavation during the tank removal phase. The piping was removed prior to the excavation of the tank.

1.2.1 Geological/Hydrogeological Setting

The following is a description of the geological/hydrogeological setting of the Bldg. 1203. 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.

Fort Monmouth lies within the Outer Coastal Plain subprovince of the New Jersey section of the Atlantic Coastal Plain physiographic province, which generally consists of a seaward-dipping wedge of unconsolidated sediments including interbedded clay, silt, sand, and gravel. To the northwest is the boundary between the Outer and Inner Coastal Plains, marked by a line of hills extending southwest, from the Atlantic Highlands overlooking Sandy Hook Bay, to a point southeast of Freehold, New Jersey, and then across the state to the Delaware Bay. These formations of clay, silt, sand, and gravel formations were deposited on Precambrian and lower Paleozoic rocks and typically strike northeast-southwest, with a dip that ranges from 10 – 60 feet per mile. Coastal Plain sediments date from the Cretaceous through the Quaternary Periods and are predominantly derived from deltaic, shallow marine, and continental shelf environments.

The fort is located within the outer fringe of the Atlantic Coastal Plain Physiographic Province, of New Jersey, approximately 13 miles south of Raritan Bay. This province is characterized by a wedge-shaped mass of unconsolidated to semi-consolidated marine, marginal marine and non-marine deposits of clay, silt, sand, and gravel. These sediments range in age from Cretaceous to Holocene and lie unconformably on pre-Cretaceous bedrock consisting of metamorphic schists and gneiss, with local occurrences of basalts, sandstone, and shale (Zapeczka, 1984). These sediments trend northeast-southwest and dip southeast toward the Atlantic Ocean. These sediments thicken southeastward from the Piedmont-Coastal Plain Province boundary to approximately 4,500 feet near Atlantic City, New Jersey. During the Cretaceous and Tertiary time period, sediments were deposited alternately in flood plains and in marine environments during sea transgression and sea regression periods. The formations record several major transgressive/regressive cycles and contain units that 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 thicknesses of these units vary greatly, ranging from several feet to several hundred feet, and thicken to the southeast. For a visual representation, refer to Figure 2.

The eastern half of the Main Post is underlain by the Red Bank Formation, ranging in thickness from 20-30 feet, while the western half is underlain by the Hornerstown Formation, ranging in thickness from 20-30 feet. The predominant formation underlying the Charles Wood Area is also the Hornerstown, along with small areas of Vincentown Formation intruding in the southwest corner. Sand and gravel deposited in recent geologic times lie above these formations. Interbedded sequences of clay serve as semi-confining units for groundwater. The mineralogy ranges from quartz to glauconite.

Udorthents-Urban land is the primary classification of soils on Fort Monmouth, which have been modified by excavating or filling. Soils at the Main Post include Freehold sandy loam, Downer sandy loam, and Kresson loam. Freehold and Downer are somewhat well drained, while Kresson is a poorly drained soil. The Charles Wood Area has sandy loams of the Freehold, Shrewsbury, and Holmdel types. Shrewsbury is a hydric soil; Kresson and Holmdel are hydric due to inclusions of Shrewsbury. Downer is not generally hydric, but can be.

Local Geology

Fort Monmouth lies in the Atlantic and Eastern Gulf Coastal Plain groundwater region and is underlain by underformed, unconsolidated to semi-consolidated sedimentary deposits. The chemistry of the water near the surface is variable with generally low dissolved solids and high iron concentrations. In areas underlain by glauconitic sediments, the water chemistry is dominated by calcium, magnesium, and iron (e.g. Red Bank and Tinton sands). The sediments in the vicinity of Fort Monmouth were deposited in fluvial-deltaic to nearshore environments. The water table is generally from two (2) – twelve (12) feet at the Installation, and, in certain areas fluctuates with the tidal action in Parkers and Oceanport creeks at the Main Post.

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. The Hornerstown Formation acts as an upper boundary of the Red Bank aquifer, but it might yield enough water within its outcrop to supply individual household needs. The Red Bank outcrops along the northern edges of the Installation and contains two members, an upper sand member and a lower clayey sand member. The upper sand member functions as the aquifer, and is probably present on some of the surface of the Main Post and at a shallow depth below the Charles Wood Area. The Hornerstown and Red Bank formations overlay the larger Wenonah-Mount Laurel aquifer. For a visual representation, refer to Figure 3.

The area of Bldg. 1203 is located approximately 500 feet south of Lafetra Creek. Based on the Main Post topography, the groundwater flow in the area of Bldg. 1203 is anticipated to be to the north. The wells in this area are not tidally influenced.

1.3 HEALTH AND SAFETY

Work site health and safety hazards were minimized during all decommissioning activities. All areas that posed a vapor hazard were monitored by a qualified individual utilizing a calibrated photo-ionizer detector (PID): Thermo Instruments Organic Vapor Monitor (OVM) – Model #580-B. The individual ascertained if the area was properly vented to render the area safe, as defined by OSHA. All work areas were properly vented to insure that there were no contaminants present in the breathing zone above permissible exposure limits (PELs).

1.4 REMOVAL OF UNDERGROUND STORAGE TANKS

1.4.1 General Procedures

- All underground utilities were marked out by the respective shops and/or utility contractor prior to excavation activities.
- All activities were carried out with great regard to safety and health and the safeguarding of the environment.
- All excavated soils were visually examined and screened with an OVM for evidence of contamination. No impacted soils were encountered during the tank excavation. These soils were used to backfill the excavation upon clearance.
- 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 certified Subsurface Evaluator was present during all UST closure activities.

1.4.2 Underground Storage Tank Excavations

During UST decommissioning activities, surficial soil was removed to expose the USTs. The tank was completely emptied of all liquids prior to removal from the ground.

Approximately 5,000 gallons of fuel was present in the UST prior to excavation. Of the contents of the UST, 2,000 gallons were transferred to the above ground storage tank at building 1203. The remaining material was used as fuel for portable generators, and off road vehicles at the Fort.

After the UST was removed from the excavation, it was staged on polyethylene sheeting, labeled, and examined for holes. No holes in the tank were observed during the inspection by the Subsurface Evaluator. Soils surrounding the UST were screened visually and with an Organic Vapor Monitor (OVM) for evidence of petroleum contamination. No soil staining or odors of fuel were observed. After removal, the tank was transported for storage at the Bldg. 108 pad for subsequent cutting and disposal.

1.5 UNDERGROUND STORAGE TANK DECOMMISSIONING AND DISPOSAL

Subsequent to disposal, the UST was purged with air to remove vapors prior to cutting. The end of the UST was opened using a gasoline powered demolition saw equipped with a fiberglass blade. The UST was cleaned first with rubber squeegees and adsorbent material broomed on the sidewalls and bottom. The adsorbent material were then drummed and then transferred into Ft. Monmouth's 'Oil Spill Debris' roll-off container for proper disposal. The atmosphere in and around the tank was monitored using an OVM and an Oxygen/Lower Explosive Level (LEL) meter to ensure safe working conditions during cutting and cleaning activities.

The tank was transferred to the ID 27 staging area where the fiberglass tank was cut, placed into a 30 cubic yard roll-off container, and shipped off site as non-hazardous bulk solid waste. Refer to Appendix C for UST disposal certificate.

The Subsurface Evaluator labeled the UST with the following information:

- site of origin
- NJDEP UST Facility ID number
- date of removal
- size of tank
- previous contents of tank

Photographic documentation of the UST excavation activities is included in Appendix D.

2.0 REMEDIAL INVESTIGATION ACTIVITIES

2.1 OVERVIEW

The Remedial Investigation was managed and carried out by U.S. Army DPW personnel. All analyses were performed and reported by Fort Monmouth Environmental Testing Laboratory, a NJDEP-certified testing laboratory. All sampling was performed by a NJDEP Certified Subsurface Evaluator according to the methods described in the NJDEP *Field Sampling Procedures Manual* (August 2005, Updated 15 February 2008). Sampling frequency and parameters analyzed complied with the NJDEP document *Technical Requirements for Site Remediation*, 7:26E-3.9 (December 17, 2007 and revisions dated June 2, 2008) which was the applicable regulation at the date of the closure. All records of the Remedial Investigation activities are maintained by the Fort Monmouth DPW Environmental Office.

The following Parties participated in Closure and Remedial Investigation Activities.

- Ft. Monmouth Directorate of Public Works-Environmental Division
Contact Person: Joe Fallon
Phone Number: (732) 532-2692
- Subsurface Evaluator: Charles Appleby
Employer: US Army, CECOM
Phone Number: (732) 532-6254
NJDEP License No.: 9974
- Analytical Laboratory: Fort Monmouth Environmental Testing Laboratory (FTMEL)
Contact Person: Dean Tardiff
Phone Number: (732) 532-4359
NJDEP Laboratory Certification No.: 13461

2.2 FIELD SCREENING/MONITORING

Field screening was performed by a NJDEP certified Subsurface Evaluator using an OVM and visual observations to identify potentially contaminated material. No impacted soils were encountered during the tank removal procedures. Clean overburden soils were stockpiled for later reuse.

2.3 SOIL SAMPLING

May 15, 2009, post-excavation soil samples collected from a total of four (4) locations along the sidewalls of the UST excavations. Groundwater was encountered at approximately eight (8) feet (bgs) during the tank removal operations. Refer to soil sampling location map in Figure 3. All samples were analyzed for residual #2-home heating oil/diesel fuel and if necessary contingent B/N+10 in accordance with the requirements of Technical Requirements for Site Remediation.

Soil samples were collected using a Geoprobe[®] due to site conditions. The location of an air conditioning unit and the presence of pea gravel made collecting samples by other methodologies impossible. Samples were collected in accordance to the FTMM SOP #: SAM-0202. In accordance with the SOP, the sample was removed from the acetate sleeve and the appropriate six (6) inch interval was submitted for analysis in accordance with the *Field Sampling Procedures Manual (FSPM)*.

The site assessment was performed by TVS personnel in accordance with the NJDEP *Technical Requirements for Site Remediation* and the NJDEP *FSPM*. A summary of sampling activities including parameters analyzed is provided on Table 1. The post-excavation soil samples were collected using stainless steel trowels. After collection, the samples were immediately placed on ice in a cooler and delivered to Fort Monmouth Environmental Testing Laboratory (FMETL) for analysis.

3.0 CONCLUSIONS AND RECOMMENDATIONS

3.1 SOIL SAMPLING RESULTS

The post-excavation soil sample results were compared to the NJDEP health based criterion of 4,800 mg/kg for total organics as diesel fuel (N.J.A.C. 7:26D and revisions dated September 2008). A summary of the analytical results and comparison to the NJDEP soil cleanup standards is provided on Table 2. The analytical data package, including associated quality control data, is provided in Appendix E.

All post-excavation soil samples collected, from the UST remedial excavation contained concentrations of residual diesel fuel below the most stringent NJDEP soil cleanup standards.

3.2 CONCLUSIONS AND RECOMMENDATIONS

The analytical results for all final post-excavation soil samples collected from the UST closure excavation at UST No. 81533-227 were below all applicable NJDEP soil cleanup standards for residual diesel fuel. No further action is proposed in regard to the closure and site assessment of UST 81533-227 at Building 1203.

TABLES

TABLE 1

**SUMMARY OF LABORATORY ANALYSIS
FT. MONMOUTH, BUILDING 1203, UST No.0081533-227
May 15, 2009**

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE DATE	SAMPLE MATRIX	ANALYTICAL PARAMETER	ANALYTICAL METHOD
1203A North wall	9019701	15-May-09	SOIL	TPH	OQA-QAM-25
1203B South wall	9019702	15-May-09	SOIL	TPH	OQA-QAM-25
1203C East wall	9019703	15-May-09	SOIL	TPH	OQA-QAM-25
1203D West wall	9019704	15-May-09	SOIL	TPH	OQA-QAM-25

ABBREVIATIONS:

TPH = Total Petroleum Hydrocarbons, Method NJDEP OQA-QAM-25

TABLE 2

SUMMARY OF LABORATORY ANALYTICAL RESULTS

FT. MONMOUTH, BUILDING 1203, UST No.81533-227

May 15, 2009

TOTAL PETROLEUM HYDROCARBONS (results in mg/kg)

SAMPLE ID	LABORATORY SAMPLE ID	SAMPLE LOCATION	SAMPLE DEPTH (in feet)	MATRIX	TPH RESULTS
1203A	9019701	North Wall	6-6.5'	Soil	ND
1203B	9019702	South Wall	6-6.5'	Soil	ND
1203C	9019703	East Wall	6-6.5'	Soil	ND
1203D	9019704	West Wall	6-6.5	Soil	ND

ABBREVIATIONS:

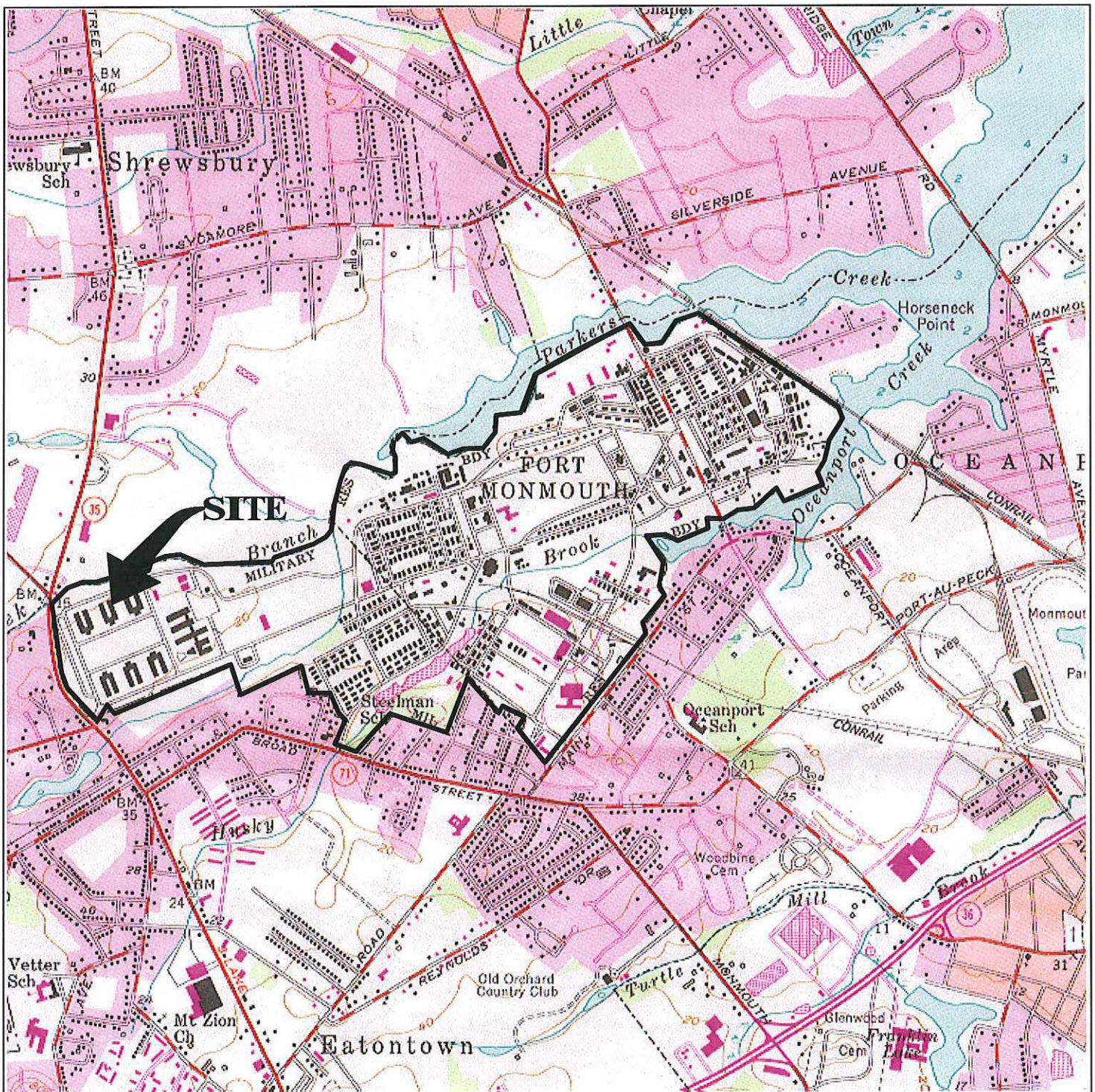
mg/kg = Milligrams per Kilogram = parts per million

ND = Compound Not Detected

Notes:

Gray shading indicates exceedance of NJDEP health based standard of 4,800 mg/kg total #2 fuel oil/diesel contamination

FIGURES



LONG BRANCH, N. J.

40073-C8-TF-024

1954

PHOTOREVISED 1981

DMA 6164 I SE-SERIES V822

NEW JERSEY

QUADRANGLE LOCATION



Figure 1
Site Location Map
Main Post
Fort Monmouth, New Jersey



U.S. Army Garrison Fort
Monmouth Department of Public
Works

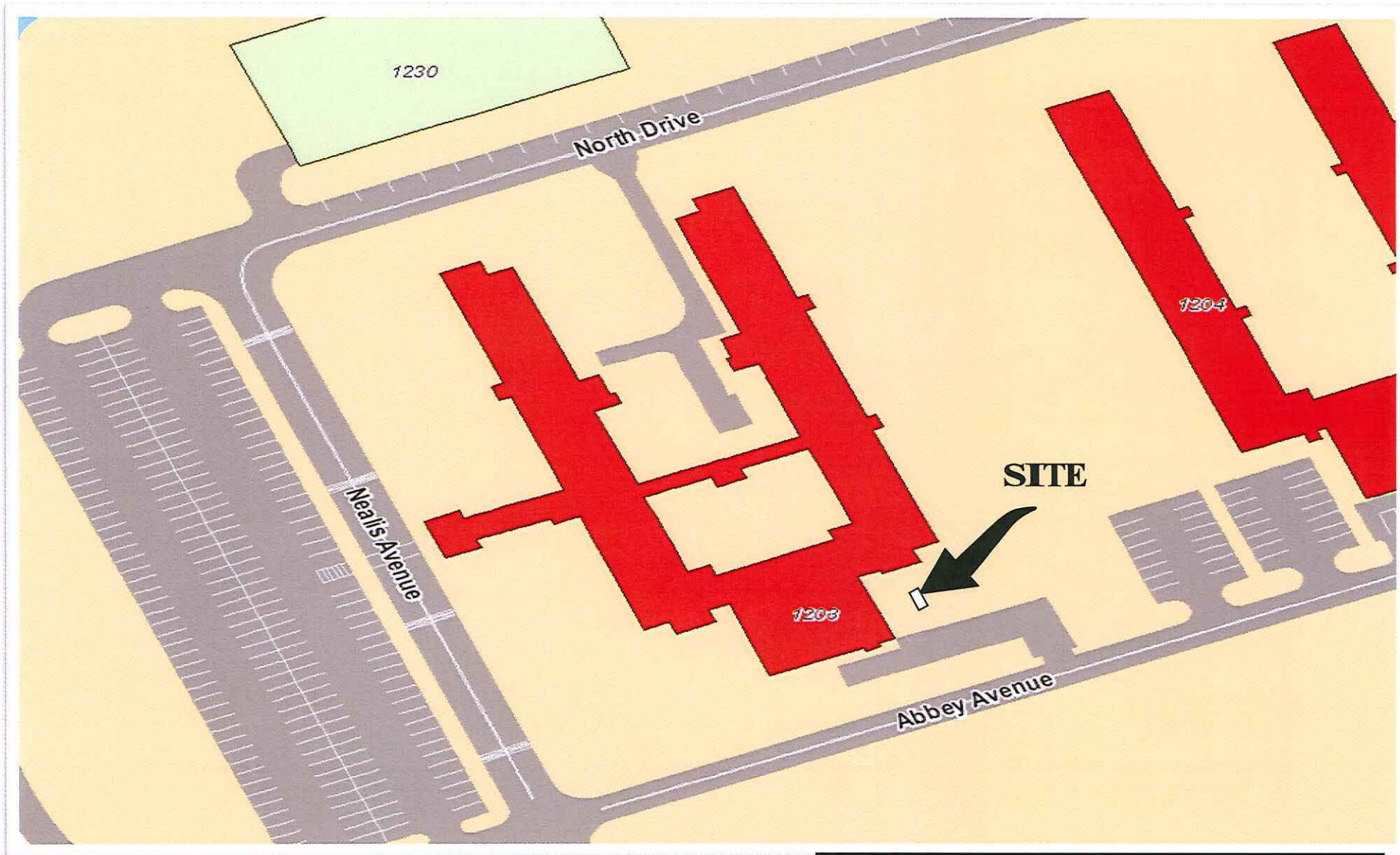


Figure 2
Tank Sampling Location Map
Main Post, Fort Monmouth



U.S. Army Garrison Fort Monmouth Department
of Public Works

APPENDIX A

CERTIFICATIONS



DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT MONMOUTH
286 SANGER AVENUE
FORT MONMOUTH, NEW JERSEY 07703-5101

Directorate of Public Works

13 May 2009

NJ Department of Environmental Protection
Division of Remediation Support
UST Program
Registration and Billing Unit
P.O. Box 028
Trenton, New Jersey 08625-0028

**Re: Updated UST Facility Certification Questionnaire
Removal of UST, TMS# N09-6830
US Army Garrison, Fort Monmouth, Main Post West
Facility ID: 0081533**

Dear Sir/Madam:

Enclosed is a UST Facility Certification Questionnaire which documents the removal of one UST from Fort Monmouth. The removed UST is Tank No. 227. This tank was located at Building 1203 in Fort Monmouth's Main Post West facility.

Note that the NJDEP TMS form, which states the closure approval, states an incorrect Facility ID Number. The correct Facility Identification number is 0081533 not 008153.

Should you have any questions or require any additional information, please contact Mr. Charles Appleby, Environmental Protection Specialist, at 732-532-2692 or email: Charles.Appleby@US.Army.mil

Sincerely,

Joseph Fallon
Chief, Environmental Division

Encl. Completed NJDEP UST Facility Certification Questionnaire
Closure – Notice of Intent, UST, TMS# N09-6830
Email – NJDEP Case Manager Approval to remove UST

cc: Lawrence Quinn, NJDEP Case Manager

UST Reg. ID# 81533 Inc. Copy



NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF REMEDIATION SUPPORT

UST Program • Registration and Billing Unit
PO Box 028, Trenton, N.J. 08625-0028
1-609-633-1464 • www.state.nj.us/dep/srp/bust

STATE USE ONLY

Check In ☐ Yes ☐ NoUNDERGROUND STORAGE TANK
FACILITY CERTIFICATION QUESTIONNAIRE

FACILITY UST # (PROGRAM INTEREST ID):

0081533

Completion of this Registration Questionnaire will satisfy the registration requirements of the Underground Storage of Hazardous Substances Act, N.J.S.A. 58:10A-21 et seq., and the Underground Storage Tank Rules N.J.A.C. 7:14B et. seq.

Check appropriate box

- A. ☐ This is a registration of a proposed or newly installed underground storage tank. (This form must be filed at least 30 days prior to operation)
B. ☐ This is a registration of an existing underground storage tank not presently registered.
C. ☒ This is a correction or amendment to an existing facility registration. (Check type of change below)
D. ☐ There have been no changes to the facility registration since last submittal. (Complete Section A, C & E)

If "C" is checked above, please check the appropriate type of change(s) below

- | | | |
|--|---|---|
| ☐ Facility Name and/or Address Change | ☐ Type of Product(s) Stored | ☐ Financial Responsibility Change (Including Policy Renewal) |
| ☐ Owner Name and/or Address Change | ☐ Substantial Modification(s) (see 14B) | ☐ Sale or Transfer (Complete entire form) |
| ☐ Facility Operator and/or Address Change | ☐ Tank(s) and/or Piping Changes | ☐ Other (please specify) |
| ☐ Owner Contact Person Change | ☒ Closure (Complete Section B Questions 1, 4, 5, 12C) | |

SECTION A - GENERAL FACILITY INFORMATION

1. Facility Name	US Army Garrison Fort Monmouth West		
2. Facility Location			
Address Line 1			
Address Line 2			
City or Municipality	Eatontown Borough		
	manamouth	NJ	07793-
	COUNTY	STATE	ZIP CODE
3. Facility Operator	Directorate of Public Works		
	ORGANIZATION (If applicable, e.g. Company) or INDIVIDUAL		
Contact Person	John McCarthy		
	PERSON	EMULRO ENGINEER	
	732 532 6224	John.mccarty@us.army.mil	
	PHONE NUMBER (INCLUDE AREA CODE & EXT)	E-MAIL ADDRESS	
Operator Address	IMPE - PWE		
(if different than #2)	173 Riverside Ave		
	ADDRESS LINE 1 (NUMBER AND STREET)		
	Fort Monmouth		
	ADDRESS LINE 2 (e.g. PO BOX, SUITE)		
	Fort Monmouth	NJ	07793-
	CITY OR MUNICIPALITY	STATE	ZIP CODE
4. Tank Owner	SAME		
(Organization)			
Contact Person			
	PERSON	TITLE	
	PHONE NUMBER (INCLUDE AREA CODE & EXT)	E-MAIL ADDRESS	
Tank Owner			
Address	ADDRESS LINE 1 (NUMBER AND STREET)		
	ADDRESS LINE 2 (e.g. PO BOX, SUITE)		
	CITY OR MUNICIPALITY	STATE	ZIP CODE

5. Billing Address: Check one below

☐ Same as Tank Owner address listed in Section A4.☒ Same as Facility Operator address listed in Section A3.☐ Other and attach billing address.6. Total number of regulated underground storage tanks at facility (Complete Section B for each tank unless there has been no change since last submittal)7. Total regulated underground storage capacity at facility (gallons) 8. Facility Type: A ☐ State C ☐ County/Municipal E ☐ Charitable / Public School G ☐ Farm (as defined in N.J.S.A. 54:4-23.1 et seq.)
B ☐ Commercial/ Industrial D ☐ Federal F ☐ Residential**NOTE: The facility site plan must be submitted when registering any underground storage tank pursuant to N.J.A.C. 7:14B 2.2.****SECTION B - SPECIFIC TANK INFORMATION**ALL regulated underground storage tanks, including those taken out of operation (UNLESS THE TANK WAS REMOVED FROM THE GROUND PRIOR TO 9/3/86) must be registered. Report all tank/piping status changes. **DO NOT MARK SHADED AREAS**

1. Tank Identification Number	TANK NO.		TANK NO.		TANK NO.		TANK NO.		TANK NO.	
2. CAS Number (Hazardous substances only)										
3. Date Tank Installed										
4. Tank Size (gallons) - Please note that each compartment is considered a separate Tank System										
5. Tank Contents (Mark one "X" for each tank)										
A. Leaded Gasoline										
B. Unleaded Gasoline										
C. Alcohol Enriched Gasoline										
D. Light Diesel Fuel (No. 1-D)										
E. Medium Diesel Fuel (No. 2-D)										
F. Waste Oil										
G. Kerosene (No. 1)										
H. Heating Oil (No. 2) Complete 13C										
I. Heating Oil (No. 4) Complete 13C										
J. Heating Oil (No. 6) Complete 13C										
K. Aviation Fuel										
L. Motor Oil										
M. Lubricating Oil										
N. Automatic Transmission Fluid										
O. Hazardous Waste (Specify ID Number)										
P. Coolant/Antifreeze										
Q. Other (please specify)										
6. Tank & Piping Construction (Mark at least one each for Tank and Piping)	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping	Tank	Piping
A. Bare steel										
B. Cathodically Protected Metal (Mark SA or IC)										
1. Sacrificial Anode (SA)	Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year	
*Date Sacrificial Anode Installed (TANK ONLY)										
2. Impressed Current (IC)	Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year	
*Date Impressed Current Installed (TANK ONLY)										
C. Fiberglass-Coated Steel (TANK ONLY)										
D. Fiberglass-Reinforced Plastic										
E. Internally Lined (TANK ONLY)	Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year		Mo. Day Year	
*Date Internal Lining Installed										
F. Other (Please specify) (Include Brand Name)										
7. Piping Operation (Mark one for each tank system)										
A. Pressurized Piping (PIPING ONLY)										
B. American Suction Piping (PIPING ONLY)										
C. European Suction Piping (PIPING ONLY)										
D. Supply/Return (Heating Oil Piping Only)										
8. Tank & Piping Structure (Mark one for each TANK & PIPING)										
A. Single Wall										
B. Double Wall										
C. Secondary Containment (e.g. Externally Lined)										
9. Type of Monitoring/Defection (Mark all that apply for TANK & PIPING)										
A. Statistical Inventory Reconciliation										
Vendor Name & Phone Number										
B. Manual Tank Gauging (TANK ONLY)										
C. Inventory Control (TANK ONLY)										
D. Interstitial										
E. Tightness Test										
F. Ground Water Observation Wells										
G. Vapor Observation Wells										
H. In-Tank (Auto Monitoring Gauge) (TANK ONLY)										
I. In-Line Electronic Pressure Monitor (PIPING ONLY) See Definition Page 4										
J. Automatic Line Leak Detector (PIPING ONLY) See Definition Page 4										
K. None (TANK & PIPING)										

Tank Identification Number	TANK NO.	TANK NO.	TANK NO.	TANK NO.	TANK NO.
10. Overfill Protection (Mark one X for each tank)	☒	☐	☐	☐	☐
A. Yes					
B. No					
11. Spill Containment Around Fill Pipe (Mark one X for each tank)					
A. Yes					
B. No					
12. Tank Status Information (Mark appropriate choice for each tank)					
A. In-Use					
B. Out of Service (See Definition Page 4)					
Date Taken Out of Service	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year
C. Closed					
1. Removed	☒				
Date Removed	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year
Closure #	05112109				
2. Abandoned-In-Place					
Date Abandoned-In-Place	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year
Closure #	N09-6830				
13. Tank Use Information (Mark if applicable)					
A. Emergency Back-up Generator					
B. Sump (See Definition Page 4)					
C. Heating Oil Tanks If you checked H, I or J under item B5 on Page 2, check one of the following					
1. Product for on-site consumption use					
2. Product for sale or distribution					
14. Other Information (Mark if applicable)					
A. Date of Sale or Transfer	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year	Mo. Day Year
B. Substantial Modification #					
C. ISRA #					
15. Is the tank within a wellhead protection area as defined on Page 4 (Mark for each tank)					
A. Yes					
B. No					

SECTION C - FINANCIAL RESPONSIBILITY

Please note: In addition to new submittals, any change in the Financial Responsibility Assurance Mechanism as per N.J.A.C. 7:14B 2.2 (including policy renewal date) for an existing facility shall be listed below.

Type of Mechanism (i.e. Insurance)

Carrier/Issuing Agency

Effective Date

Expiration Date

Policy Number

Amount of Aggregate Coverage

SECTION D - GENERAL GUIDANCE

- FEE:** (If applicable) Please make check payable to: "Treasurer, State of New Jersey". Registration and Billing Fee Schedule can be found in N.J.A.C. 7:14B-3.
- PENALTY:** Failure by owner or operator of a regulated underground storage tank to comply with any requirement of 7:14B et. seq. may result in penalties set forth in N.J.S.A. 58:10A-12.
- EMERGENCY:** If a discharge or spill occurs, the NJDEP Hotline at (877) 927-6337 must be called **IMMEDIATELY** - 24 hours a day.
- EXEMPTION:** Residential heating oil underground storage tanks are exempt from the rules as per by N.J.S.A. 58:10A-21 et. seq. Please see N.J.A.C. 7:14B-1.4(b) for other exemptions.
- PUBLICATIONS:** Operation and maintenance / record keeping / compliance publications are available on line at www.state.nj.us/dep/srp/bust. Suggested Publications: "Underground and Storage Tank Owner's Self-inspection Checklist" and "Tank Care".
- QUESTIONNAIRE:** Initial facility registrations can be submitted online at www.njdeponline.com (Renewal and modifications need prior DEP pin code approval to submit online).
- MAILING:** UST Registration Certificates are mailed directly to the facility to be displayed prominently as per N.J.A.C. 7:14B-2.6

SECTION E - CERTIFICATION

Must be signed as follows:

- For a corporation, by a person authorized by resolution of the Board of Directors to sign the document.
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively.
- For a municipality, State, Federal or other public agency, by either a principal executive officer or ranking elected official.
- For persons other than indicated above, by the person with legal responsibility for the site.

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

Ms. Barbara Folk
(Typed / Printed Name)

Barbara Folk
(Signature)

Director
(Title)

12 May 2009 008153
(Date) Facility UST #

SECTION F - DEFINITIONS

Section B7 C. **"European" Suction Piping** - Suction piping which has enough slope so that the product in the pipe can drain back into the tank when the suction is released, and which has only one check valve, located directly beneath the pump in the dispensing unit. Any underground storage tank equipped with "European" Suction Piping has no monitoring detection requirements for piping.

Section B9 I. **In-Line Electronic Pressure Monitor** - (Used with pressurized piping only) A monitor which checks for loss of pressure within piping when no product is dispensed. This method may be used once every 30 days or every time the dispenser turns off.

Section B9 J. **Automatic Line Leak Detectors** - (Used with pressurized piping - Must be able to detect a 3 gph leak within 1 hour of its occurrence). Types of detectors are:

1. Flow restrictors and flow shut offs which monitor pressure within piping. When a suspected leak is detected, either restricts the flow of product through the piping well below the 3 gph leak rate it detects, or completely cuts off product flow and shuts down the pump.
2. Continuous alarm systems which constantly monitor piping conditions and trigger an audible or visual alarm if a leak is suspected.

Section B12 B. **Out of Service Storage Tank** - Any underground storage tank system in which hazardous substances are contained or have been contained, but from which hazardous substances are not or have not been introduced or dispensed pending a decision to close the system or begin reuse of the system.

Please Note: Underground storage tank systems which are out of service shall comply with the provisions of N.J.A.C. 7:14B-9-1. The owner or operator of an underground storage tank system which is out of service for a period greater than three months shall follow the guidelines in the current American Petroleum Institute Bulletin #1604. The owner or operator may request that the underground storage tank system remain out of service for a period of more than 12 months without having to permanently close the tank system by complying with the provisions of N.J.A.C. 7:14B-9.1(b) by submitting a Site Investigation (SI) Report at least 30 days before expiration of the 12 month period.

Section B13 B. **Sump** - Any underground storage tank used to collect or contain a hazardous substance for no more than 48 hours.

Section B15 **Wellhead Protection Area** -

1. The area within a 2,000 ft. radius surrounding a public community or public non-community water system well when there is an underground storage tank containing gasoline or non-petroleum hazardous substances located within that area.
2. The area within a 750 ft. radius surrounding a public community or public non-community water system well when there is an underground storage tank containing petroleum products other than gasoline located within that area.



Division of Remediation Support
Bureau of Risk Management, Initial Notice and Case Assignment
PO Box 435
Trenton, NJ 08625-0435
(609) 633-0708

CLOSURE - Notice of Intent Underground Storage Tank System

DEP Received Date: 04/30/2009
Earliest Start of Work Date: 05/14/2009
Expiration Date: 05/05/2010

TMS #: N09-6830
Activity #: UCL090001

Facility ID #: 008153

Facility Name:
US ARMY GARRISON FORT MONMOUTH WEST

Facility Address:
MAIN POST W
BLDG 1203
Eatontown Boro
Monmouth County

Decommission, close and conduct a site investigation for the UST(s) and all associated piping specified in this approval in accordance with the Technical Requirements for Site Remediation, N.J.A.C. 7:26E.

The management of any excavated soils must follow the requirements listed in N.J.A.C. 7:14B-8.2.

Note: The UNDERGROUND STORAGE TANK SERVICES CERTIFICATION ACT, N.J.S.A. 58:10A-24, requires all services performed on an UST system for the purpose of complying with P.L.1986, c.102 to be performed by or under the immediate on-site supervision of a person certified by the Department for that service. The certified person providing that service must be employed by a business that is also certified by the Department for that service.

Contact Person: BARBARA FOLK

Telephone #: (732)427-1523

This Permit must be displayed at the Site during the Approved Activity and must be made available for inspections at all times.

The above listed facility is hereby granted approval to perform the attached activities in accordance with N.J.A.C. 7:14B-1 et. seq.

A handwritten signature in black ink, reading "Rafael Rivera".

Rafael Rivera, Supervisor
Bureau of Risk Management, Initial Notice and Case Assignment

This Permit consists of 2 pages.

APPENDIX B

WASTE MANIFEST

APPENDIX C

UST DISPOSAL CERTIFICATE

B.1203 - 10,000 GAL. UST
(FIBERGLASS) SCRAP RECEIPT

MAZZA
FACILITY ID# 195589
DEP# 1336001136
3230 SHAFTO RD, TINTON FALLS, N.J

Weighed: JIM WEIMER
Deposit: BOB AI BANESE
BILL TO: 558
CHENEGA TECH SERVICES CORP.

Vehicle ID: 1496
Reference: C0703815

Origin: FORT MONMOUTH, MONMOUTH
DATE IN: 05/13/2009 TIME IN: 10:24:20
DATE OUT: 05/13/2009 TIME OUT: 10:35

INBOUND TICKET Number: 02-367388

SCALE 2 GROSS WT.	35400 LB
SCALE 3 TARE WT.	32800 LB
NET WEIGHT	2600 LB

Qty	Description	Amount
1.30	INCOMING BULKY WAST	122.20

RE TAX	3.90
NET CHARGE AMOUNT:	126.10

X_____

APPENDIX D

PHOTO DOCUMENTATION



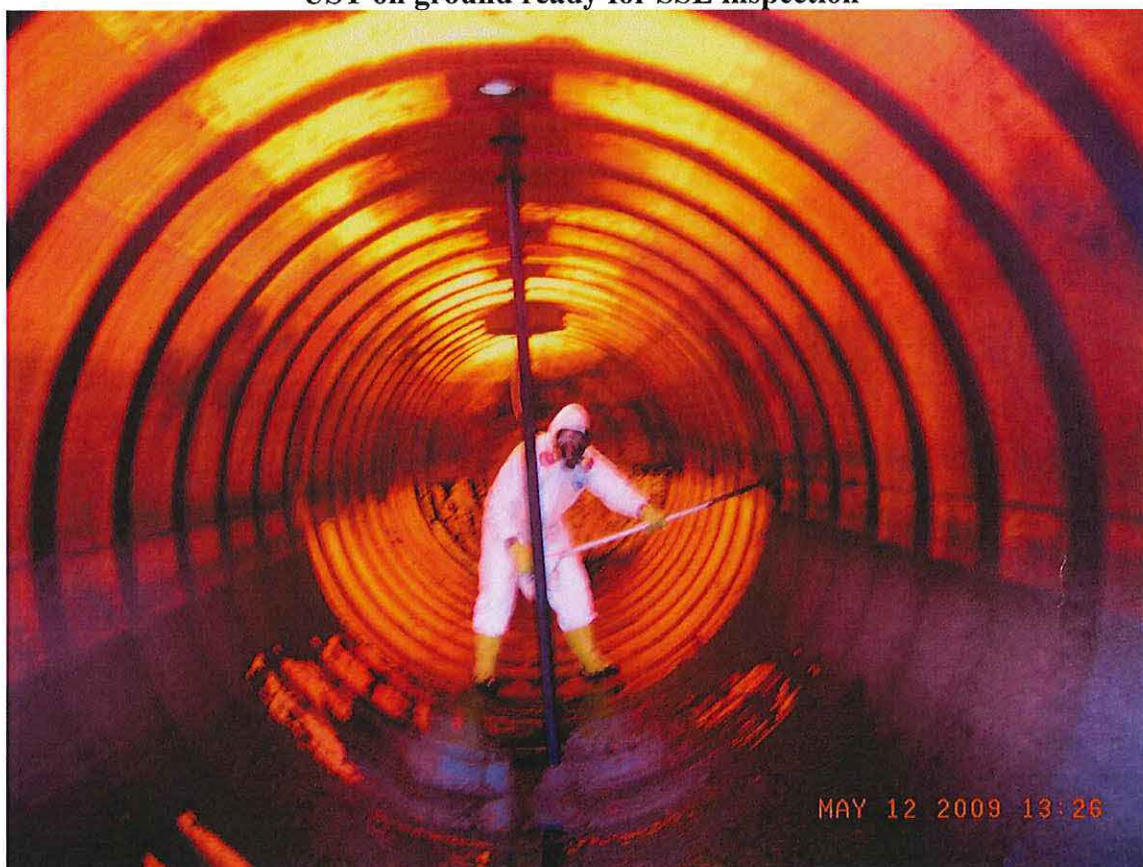
Removed and labeled fiberglass USTs



Fiberglass UST being removed from excavation



UST on ground ready for SSE inspection



UST being cleaned



Exposing top of UST prior to removal



Tank excavation w/tank out of ground

APPENDIX E

SOIL ANALYTICAL DATA PACKAGE

FORT MONMOUTH ENVIRONMENTAL TESTING LABORATORY

DIRECTORATE OF PUBLIC WORKS

PHONE: (732) 532-4359 FAX: (732) 532-6263

WET-CHEM - METALS - ORGANICS - FIELD SAMPLING

CERTIFICATIONS: NJDEP #13461, NYSDOH #11699



ANALYTICAL DATA REPORT Fort Monmouth Environmental Laboratory ENVIRONMENTAL DIVISION Fort Monmouth, New Jersey PROJECT: 08-155522

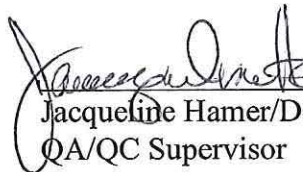
Bldg. 1203 (FBI)/UST # 81533-227

Field Sample Location	Laboratory Sample ID#	Matrix	Date and Time of Collection	Date Received
1203A, North Wall	9019701	Soil	15-May-09 09:20	05/15/09
1203B, South Wall	9019702	Soil	15-May-09 11:30	05/15/09
1203C, East Wall	9019703	Soil	15-May-09 10:00	05/15/09
1203D, West Wall	9019704	Soil	15-May-09 10:30	05/15/09
1203-Duplicate	9019705	Soil	15-May-09 10:00	05/15/09

ANALYSIS:

FORT MONMOUTH ENVIRONMENTAL LAB
TPHC, % SOLIDS

ENCLOSURE:
CHAIN OF CUSTODY
RESULTS

 5/27/09
Jacqueline Hamer/Date
QA/QC Supervisor

The enclosed report relates only to the items tested. The report may not be reproduced, except in full, without written approval of the U.S. Army Fort Monmouth Directorate of Public Works.

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LCS Summary	19
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Laboratory Authentication Statement	33

CHAIN OF CUSTODY

000001



GPS COORDINATES

U.S. ARMY - FT. MONMOUTH, NJ

BUILDING 1203 - UST #81533-227

SOIL SAMPLE GPS POSITIONS & COORDINATES

US STATE PLANE 1983, NJ (NY EAST) 2900, NAD 1983 (CONUS)

(IN US SURVEY FEET)

SAMPLE POINTS

<u>POSITION/DESCRIPTION</u>	<u>Y COORDINATE (NORTHING)</u>	<u>X COORDINATE (EASTING)</u>
1203A NORTH WALL UST	538355.702	614177.199
1203B SOUTH WALL UST	538321.554	614191.323
1203C EAST WALL UST	538347.476	614192.563
1203D WEST WALL UST	538332.874	614175.602

000003

METHOD SUMMARY

000004

Method Summary

NJDEP Method OQA-QAM-025 02/08

Gas Chromatographic Determination of Total Petroleum Hydrocarbons in Soil

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

Twenty-five ml of Methylene Chloride is added to the flask and it is secured on an orbital shaker table. The agitation rate is set to 400 rpm and the sample is shaken for 30 minutes. The flask is removed from the table and the particulate matter is allowed to settle. The extract is transferred to a Teflon capped vial. A second 25-ml of Methylene Chloride is added to the flask and shaken for an additional 30 minutes. The flask is again removed and allowed to settle. The extracts are combined in the vial then transferred to a 1-ml auto-sampler vial.

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

CONFORMANCE/ NON-CONFORMANCE SUMMARY

TPHC CONFORMANCE/NON-CONFORMANCE SUMMARY REPORT

Indicate
Yes, No, N/A

1. Method Detection Limits Provided
2. Method Blank Contamination – If yes, list the sample and the corresponding concentrations in each blank

3. Matrix Spike Results Summary Meet Criteria
(If not met, list the sample and corresponding recovery which falls outside the acceptable range)

4. Duplicate Results Summary Meet Criteria

5. IR Spectra submitted for standards, blanks and samples
6. Chromatograms submitted for standards, blanks and samples if GC fingerprinting was conducted
7. Analysis holding time met
(If not met, list number of days exceeded for each sample)

yes

no

yes

yes

NA

yes

yes

Additional comments: _____

Laboratory Manager:

James J. Hecner

Date:

05/21/09

000007

TPHC

000008

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

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

Project #: 08-155522
Location: BLDG. 1203 (FBI)
ECP:
Work Order:

Analysis: OQA-QAM-025
Matrix: Soil
Inst. ID: GC TPHC INST. #1
Column Type: RTX-5, 0.32mm ID, 30 m
Injection Volume: 1 uL
Blank Conc.: 0.00

Date Received: 15-May-09
Date Extracted: 18-May-09
Extraction Method: Shake
Analysis Complete: 19-May-09
Analyst: Robert Szot

Lab ID	Field ID	Dilution Factor	Weight (g)	% Solid	MDL (mg/kg)	RL (mg/kg)	TPHC Result (mg/kg)	Qualifiers
MB05180901	MB05180901	1.00	15.11	100.00	7	100	0.00	
LCS05180901	LCS05180901	1.00	15.10	100.00	7	100	1040.81	
9019701	1203-A NORTH WALL	1.00	15.02	76.16	9	131	0.00	
9019702	1203-B SOUTH WALL	1.00	15.05	77.30	9	129	0.00	
9019703	1203-C EAST WALL	1.00	15.00	78.70	9	127	0.00	
9019704	1203-D WEST WALL	1.00	15.11	76.77	9	129	0.00	
9019705	1203 DUPLICATE	1.00	15.01	80.16	9	125	0.00	

Qualifiers:

MDL = Method Detection Limit

RL = Reporting Limit

E = Exceeds calibration limit

J = Estimated value, concentration is between MDL and RL

D = Concentration from dilution



600000

Response Factor Report TPHC

Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)

Title : GC TPH Method

Last Update : Thu Apr 30 08:51:56 2009

Calibration Files

5 =T021010.D 10 =T021012.D 20 =T021013.D
 50 =T021011.D 100 =T021009.D

Compound		5	10	20	50	100	Avg		%RSD
1) T	C8	2.539	2.251	2.173	2.078	2.204	2.249	E4	7.74
2) T	C10	2.763	2.361	2.286	2.093	2.238	2.348	E4	10.72
3) T	C12	2.778	2.347	2.271	2.085	2.229	2.342	E4	11.17
4) T	C14	2.730	2.337	2.246	2.067	2.205	2.317	E4	10.83
5) T	C16	2.722	2.329	2.236	2.057	2.196	2.308	E4	10.89
6) T	C18	2.766	2.359	2.259	2.070	2.189	2.329	E4	11.44
7) T	C20	2.924	2.488	2.387	2.194	2.344	2.467	E4	11.20
8) T	C22	2.884	2.467	2.364	2.184	2.325	2.445	E4	10.86
9) T	C24	2.875	2.452	2.361	2.182	2.322	2.438	E4	10.78
10) T	C26	2.845	2.437	2.338	2.179	2.317	2.423	E4	10.45
11) T	C28	2.831	2.430	2.326	2.176	2.326	2.418	E4	10.25
12) T	C30	2.840	2.432	2.316	2.166	2.320	2.415	E4	10.58
13) T	C32	2.807	2.403	2.288	2.141	2.287	2.385	E4	10.63
14) T	C34	2.885	2.481	2.360	2.199	2.340	2.453	E4	10.65
15) T	C36	2.842	2.458	2.341	2.179	2.298	2.424	E4	10.49
16) T	C38	2.743	2.390	2.284	2.122	2.216	2.351	E4	10.22
17) T	C40	3.173	2.527	2.342	2.176	2.252	2.494	E4	16.09
18) T	C42	2.758	2.414	2.332	2.170	2.236	2.382	E4	9.63
19) T	Phytane	2.766	2.359	2.259	2.070	2.175	2.326	E4	11.54
20) T	Pristane	2.924	2.488	2.387	2.194	2.337	2.466	E4	11.24
21) H	TPHC (Total)	2.952	2.460	2.343	2.166	2.338	2.452	E4	12.18
22) S	Chlorobenzene (SURR.)	1.976	1.700	1.656	1.539	1.625	1.699	E4	9.76
23) S	O-Terphenyl (SURR.)	3.026	2.584	2.480	2.284	2.447	2.564	E4	10.91

Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\090519\T021106.D
 Acq On : 20 May 2009 12:35 am
 Sample : CCV022-50
 Misc : TPHC 5/19/09
 IntFile : EVENTS.E

Vial: 19
 Operator: ROBERTS
 Inst : TPHC
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPHC022A.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 10:07:46 2009
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 T	C8	30.988	29.388 E3	5.2	92	-0.01
2 T	C10	31.726	30.238 E3	4.7	91	0.00
3 T	C12	31.741	30.149 E3	5.0	91	0.00
4 T	C14	31.525	29.813 E3	5.4	91	0.00
5 T	C16	31.602	29.693 E3	6.0	91	0.00
6 T	C18	32.159	29.884 E3	7.1	91	0.00
7 T	C20	33.924	31.571 E3	6.9	90	0.00
8 T	C22	33.370	31.395 E3	5.9	91	0.00
9 T	C24	33.163	31.359 E3	5.4	91	0.00
10 T	C26	33.034	31.243 E3	5.4	91	0.00
11 T	C28	32.998	31.399 E3	4.8	92	0.00
12 T	C30	33.028	31.288 E3	5.3	92	0.00
13 T	C32	32.899	30.999 E3	5.8	91	0.00
14 T	C34	33.898	32.001 E3	5.6	91	0.00
15 T	C36	33.636	31.682 E3	5.8	91	0.00
16 T	C38	32.687	30.902 E3	5.5	91	-0.01
17 T	C40	33.886	32.059 E3	5.4	92	-0.02
18 T	C42	32.675	32.068 E3	1.9	93	-0.02
19 T	Phytane	32.159	29.884 E3	7.1	91	0.00
20 T	Pristane	33.924	31.571 E3	6.9	90	0.00
21 H	TPHC (Total)	32.989	31.186 E3	5.5	91	0.00
22 S	Chlorobenzene (SURR.)	23.296	22.262 E3	4.4	93	0.00
23 S	O-Terphenyl (SURR.)	35.248	33.028 E3	6.3	91	0.00

Evaluate Continuing Calibration Report - Not Found

Data File : C:\HPCHEM\1\DATA\090519\T021106.D
 Acq On : 20 May 2009 12:35 am
 Sample : CCV022-50
 Misc : TPHC 5/19/09
 IntFile : EVENTS.E

Vial: 19
 Operator: ROBERTS
 Inst : TPHC
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPHC022A.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 10:07:46 2009
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
----------	-------	------	------	-------	----------

(#) = Out of Range
 T021089.D TPHC022A.M

SPCC's out = 0 CCC's out = 0
 Wed May 20 10:11:03 2009

000011

Data File : C:\HPCHEM\1\DATA\090519\T021106.D
 Acq On : 20 May 2009 12:35 am
 Sample : CCV022-50
 Misc : TPHC 5/19/09
 IntFile : EVENTS.E
 Quant Time: May 20 10:08 2009

Vial: 19
 Operator: ROBERTS
 Inst : TPHC
 Multiplr: 1.00

Quant Results File: TPHC022A.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022A.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 10:07:46 2009
 Response via : Initial Calibration
 DataAcq Meth : TPHC022.M

Volume Inj. :
 Signal Phase :
 Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.26	1113102	47.782 mg/L
Spiked Amount 50.000		Recovery =	95.56%
23) S O-Terphenyl (SURR.)	12.73	1651414	46.851 mg/L
Spiked Amount 50.000		Recovery =	93.70%
Target Compounds			
1) T C8	4.13	1469383	47.418 mg/L
2) T C10	7.44	1511921	47.655 mg/L
3) T C12	9.10	1507446	47.492 mg/L
4) T C14	10.28	1490625	47.284 mg/L
5) T C16	11.29	1484629	46.979 mg/L
6) T C18	11.78	1494209	46.464 mg/L
7) T C20	12.23	1578571	46.532 mg/L
8) T C22	13.00	1569741	47.041 mg/L
9) T C24	13.74	1567929	47.279 mg/L
10) T C26	14.43	1562152	47.289 mg/L
11) T C28	15.06	1569972	47.578 mg/L
12) T C30	15.66	1564424	47.367 mg/L
13) T C32	16.33	1549951	47.113 mg/L
14) T C34	17.15	1600058	47.202 mg/L
15) T C36	18.23	1584078	47.094 mg/L
16) T C38	19.73	1545095	47.270 mg/L
17) T C40	21.85	1602971	47.305 mg/L
18) T C42	24.87	1603383	49.071 mg/L
19) T Phytane	11.78	1494209	46.464 mg/L
20) T Pristane	12.23	1578571	46.532 mg/L
21) H TPHC (Total)	12.00	31186090	945.353 mg/L

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021106.D

Vial: 19

Acq On : 20 May 2009 12:35 am

Operator: ROBERTS

Sample : CCV022-50

Inst : TPHC

Misc : TPHC 5/19/09

Multiplr: 1.00

IntFile : EVENTS.E

Quant Time: May 20 10:08 2009 Quant Results File: TPHC022A.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022A.M (Chemstation Integrator)

Title : GC TPH Method

Last Update : Wed May 20 10:07:46 2009

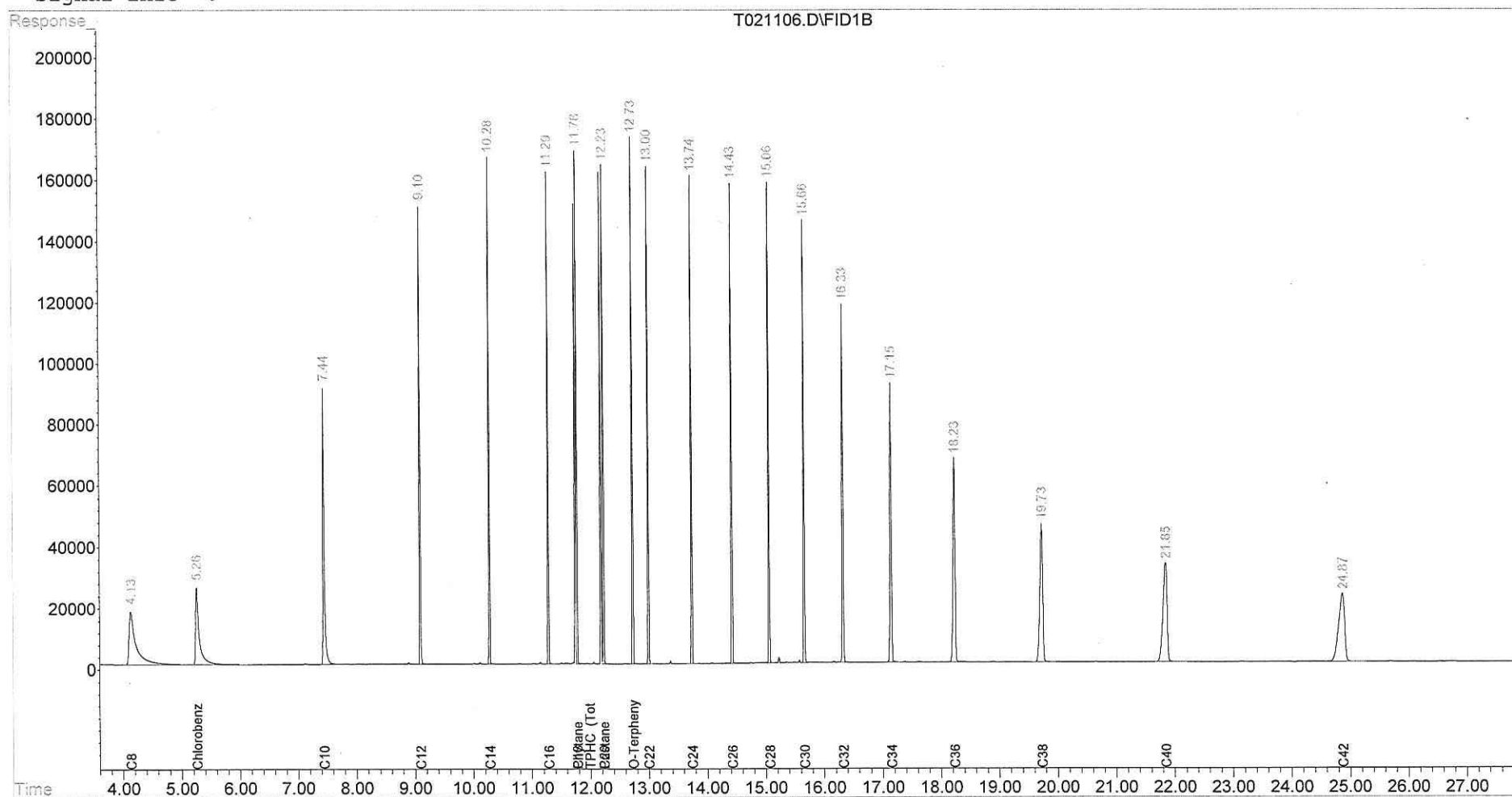
Response via : Multiple Level Calibration

DataAcq Meth : TPHC022.M

Volume Inj. :

Signal Phase :

Signal Info :



Evaluate Continuing Calibration Report

Data File : C:\HPCHEM\1\DATA\090519\T021118.D
 Acq On : 20 May 2009 7:58 am
 Sample : CCV022-50
 Misc : TPHC 5/19/09
 IntFile : EVENTS.E

Vial: 31
 Operator: ROBERTS
 Inst : TPHC
 Multiplr: 1.00

Method : C:\HPCHEM\1\METHODS\TPHC022A.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 10:07:46 2009
 Response via : Multiple Level Calibration

Min. RRF : 0.000 Min. Rel. Area : 50% Max. R.T. Dev 0.50min
 Max. RRF Dev : 25% Max. Rel. Area : 150%

Compound		AvgRF	CCRF	%Dev	Area%	Dev(min)
1 T	C8	30.988	35.020 E3	-13.0	110	0.00
2 T	C10	31.726	35.846 E3	-13.0	108	0.00
3 T	C12	31.741	35.919 E3	-13.2	108	0.00
4 T	C14	31.525	35.485 E3	-12.6	108	0.00
5 T	C16	31.602	35.351 E3	-11.9	108	0.00
6 T	C18	32.159	35.449 E3	-10.2	108	0.00
7 T	C20	33.924	37.610 E3	-10.9	108	0.00
8 T	C22	33.370	37.412 E3	-12.1	108	0.00
9 T	C24	33.163	37.316 E3	-12.5	108	0.00
10 T	C26	33.034	37.246 E3	-12.8	109	0.00
11 T	C28	32.998	37.321 E3	-13.1	109	0.00
12 T	C30	33.028	37.309 E3	-13.0	109	0.00
13 T	C32	32.899	37.008 E3	-12.5	109	0.00
14 T	C34	33.898	38.504 E3	-13.6	110	0.00
15 T	C36	33.636	38.208 E3	-13.6	109	0.00
16 T	C38	32.687	37.157 E3	-13.7	109	0.00
17 T	C40	33.886	38.114 E3	-12.5	110	0.00
18 T	C42	32.675	38.109 E3	-16.6	111	0.01
19 T	Phytane	32.159	35.449 E3	-10.2	108	0.00
20 T	Pristane	33.924	37.610 E3	-10.9	108	0.00
21 H	TPHC (Total)	32.989	37.156 E3	-12.6	109	0.00
22 S	Chlorobenzene (SURR.)	23.296	26.509 E3	-13.8	110	0.00
23 S	O-Terphenyl (SURR.)	35.248	39.300 E3	-11.5	108	0.00

Data File : C:\HPCHEM\1\DATA\090519\T021118.D

Vial: 31

Acq On : 20 May 2009 7:58 am

Operator: ROBERTS

Sample : CCV022-50

Inst : TPHC

Misc : TPHC 5/19/09

Multiplr: 1.00

IntFile : EVENTS.E

Quant Time: May 20 10:08 2009 Quant Results File: TPHC022A.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022A.M (Chemstation Integrator)

Title : GC TPH Method

Last Update : Wed May 20 10:07:46 2009

Response via : Initial Calibration

DataAcq Meth : TPHC022.M

Volume Inj. :

Signal Phase :

Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.27	1325428	56.896 mg/L
Spiked Amount 50.000		Recovery =	113.79%
23) S O-Terphenyl (SURR.)	12.73	1965016	55.748 mg/L
Spiked Amount 50.000		Recovery =	111.50%
Target Compounds			
1) T C8	4.14	1751016	56.507 mg/L
2) T C10	7.45	1792282	56.492 mg/L
3) T C12	9.10	1795969	56.582 mg/L
4) T C14	10.29	1774261	56.281 mg/L
5) T C16	11.29	1767541	55.931 mg/L
6) T C18	11.78	1772471	55.116 mg/L
7) T C20	12.24	1880487	55.432 mg/L
8) T C22	13.00	1870583	56.056 mg/L
9) T C24	13.75	1865801	56.261 mg/L
10) T C26	14.43	1862325	56.376 mg/L
11) T C28	15.07	1866027	56.550 mg/L
12) T C30	15.67	1865474	56.482 mg/L
13) T C32	16.33	1850393	56.245 mg/L
14) T C34	17.16	1925176	56.794 mg/L
15) T C36	18.25	1910391	56.795 mg/L
16) T C38	19.75	1857875	56.839 mg/L
17) T C40	21.87	1905715	56.239 mg/L
18) T C42	24.91	1905468	58.316 mg/L
19) T Phytane	11.78	1772471	55.116 mg/L
20) T Pristane	12.24	1880487	55.432 mg/L
21) H TPHC (Total)	12.00	37155509	1126.305 mg/L

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021118.D

Vial: 31

Acq On : 20 May 2009 7:58 am

Operator: ROBERTS

Sample : CCV022-50

Inst : TPHC

Misc : TPHC 5/19/09

Multiplr: 1.00

IntFile : EVENTS.E

Quant Time: May 20 10:08 2009 Quant Results File: TPHC022A.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022A.M (Chemstation Integrator)

Title : GC TPH Method

Last Update : Wed May 20 10:07:46 2009

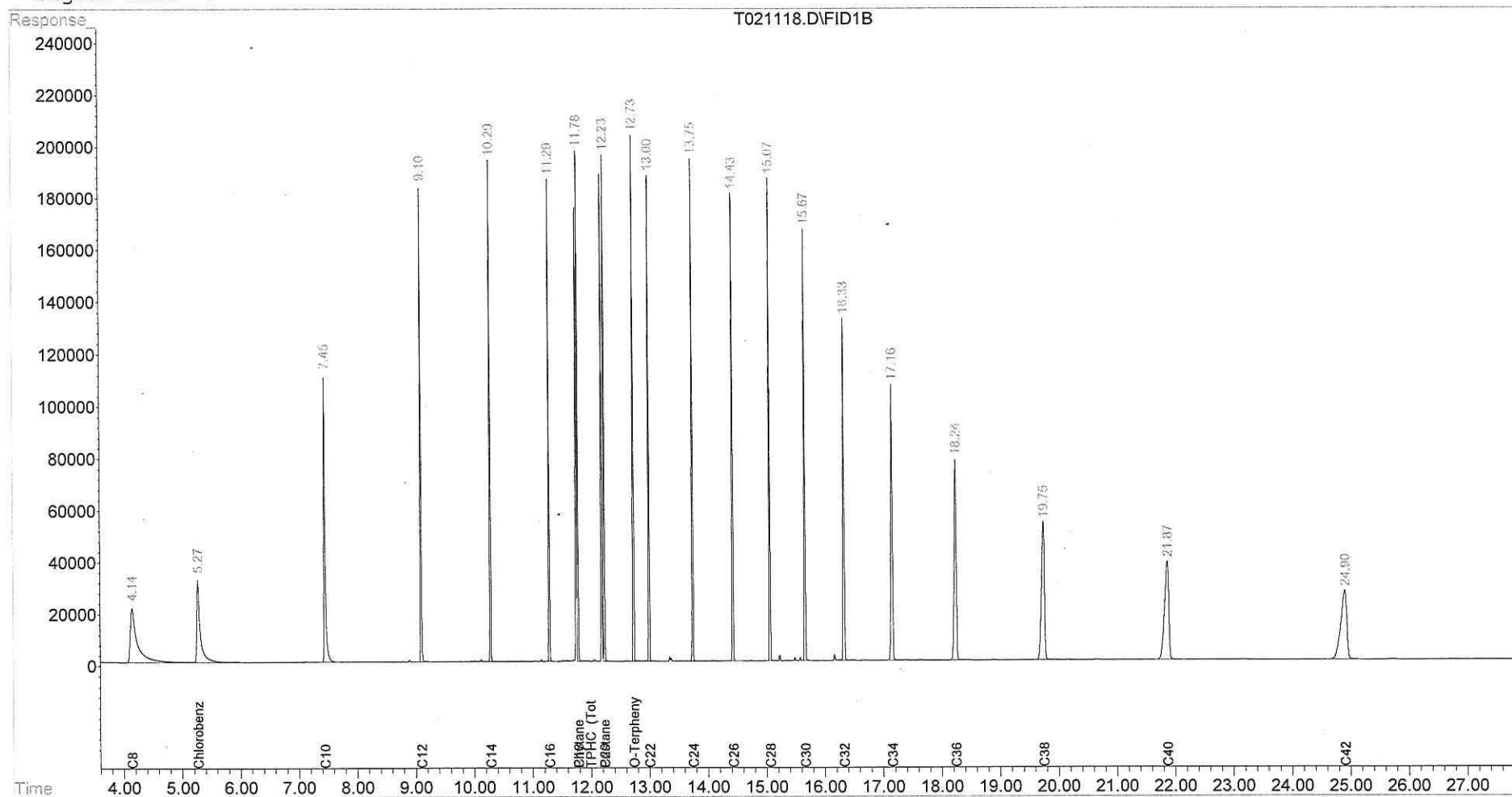
Response via : Multiple Level Calibration

DataAcq Meth : TPHC022.M

Volume Inj. :

Signal Phase :

Signal Info :



000016

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

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

Project #: 08-155522
Location: BLDG. 1203 (FBI)
ECP:
Work Order:

Analysis: OQA-QAM-025
Matrix: Soil
Inst. ID: GC TPHC INST. #1
Column Type: RTX-5, 0.32mm ID, 30 m
Injection Volume: 1 uL

Date Received: 15-May-09
Date Extracted: 18-May-09
Extraction Method: Shake
Analysis Complete: 19-May-09
Analyst: Robert Szot

Lab ID	Surrogate spiked (ppm)	Dilution Factor	Chlorobenzene recovered (ppm)	% Recovery	o-Terphenyl recovered (ppm)	% Recovery
MB05180901	10.00	1.00	10.824	108.24	11.222	112.22
LCS05180901	10.00	1.00	10.041	100.41	10.885	108.85
9019701	10.00	1.00	6.372	63.72	8.775	87.75
9019702	10.00	1.00	8.648	86.48	9.574	95.74
9019703	10.00	1.00	8.710	87.10	9.933	99.33
9019704	10.00	1.00	8.672	86.72	10.023	100.23
9019705	10.00	1.00	7.016	70.16	8.947	89.47
9019705MS	10.00	1.00	8.902	89.02	10.762	107.62
9019705MSD	10.00	1.00	8.875	88.75	10.333	103.33

Surrogate Recovery Limits

Surrogate	Lower Control	Upper Control
	Limit %	Limit %
Chlorobenzene	60	130
o-Terphenyl	62	133

000017

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

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

Project #: 08-155522
Location: BLDG. 1203 (Ft)
ECP:
Work Order:

Analysis: OQA-QAM-025
Matrix: Soil
Inst. ID: GC TPHC INST. #1
Column Type: RTX-5, 0.32mm ID, 30 m
Injection Volume: 1 uL

Date Received: 15-May-09
Date Extracted: 18-May-09
Extraction Method: Shake
Analysis Complete: 19-May-09
Analyst: Robert Szot

Lab ID	Spike Amount (ppm)	Sample Amount (ppm)	Matrix Spike Amount (ppm)	Percent Recovery	QC Limits (%)
9019705MS	1000.00	0.00	1053.08	105.31	55 -129
9019705MSD	1000.00	0.00	1048.55	104.85	55 -129

RPD	0.43	20
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Laboratory Control Standard Summary
U.S. Army, Fort Monmouth Environmental Laboratory
NJDEP Certification #13461

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

Project #: 08-155522
Location: BLDG. 1203 (FE
ECP:
Work Order:

Analysis: OQA-QAM-025
Matrix: Soil
Inst. ID: GC TPHC INST. #1
Column Type: RTX-5, 0.32mm ID, 30 m
Injection Volume: 1 uL

Date Received: 15-May-09
Date Extracted: 18-May-09
Extraction Method: Shake
Analysis Complete: 19-May-09
Analyst: Robert Szot

Lab ID	Date Extracted	Spike Amount (ppm)	Amount Recovered (ppm)	Percent Recovery	QC Limits (%)
LCS05180901	18-May-09	1000.00	1040.81	104.08	55 - 129

Data File : C:\HPCHEM\1\DATA\090519\T021109.D Vial: 22
Acq On : 20 May 2009 2:25 am Operator: ROBERTS
Sample : MB05180901 Inst : TPHC
Misc : TPHC 5/19/09 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 20 8:46 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
Title : GC TPH Method
Last Update : Wed May 20 08:39:34 2009
Response via : Initial Calibration
DataAcq Meth : TPHC022.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.27	252149	10.824 mg/L
Spiked Amount 10.000		Recovery =	108.24%
23) S O-Terphenyl (SURR.)	12.73	395558	11.222 mg/L
Spiked Amount 10.000		Recovery =	112.22%

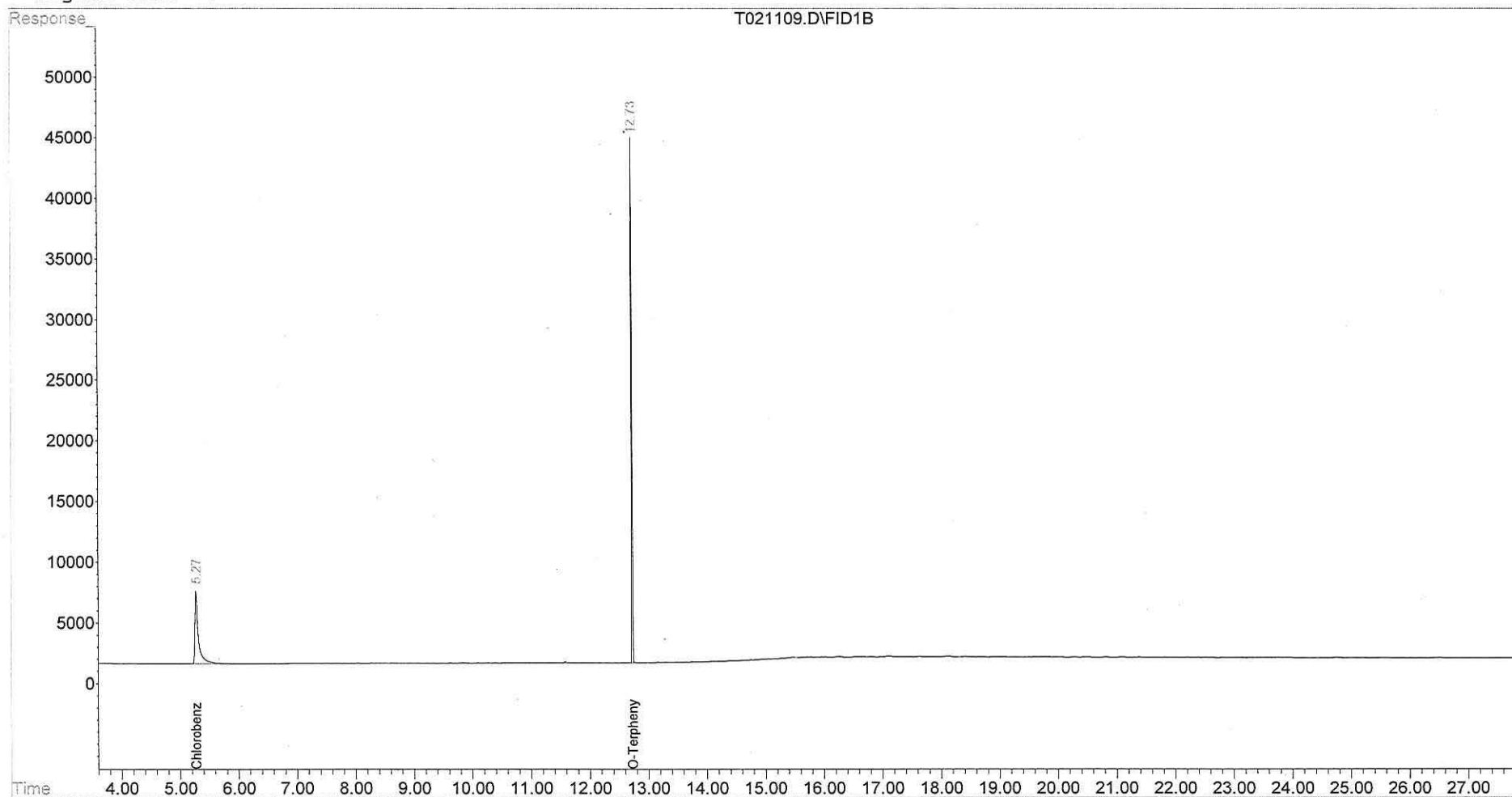
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021109.D Vial: 22
Acq On : 20 May 2009 2:25 am Operator: ROBERTS
Sample : MB05180901 Inst : TPHC
Misc : TPHC 5/19/09 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 20 8:46 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
Title : GC TPH Method
Last Update : Wed May 20 08:39:34 2009
Response via : Multiple Level Calibration
DataAcq Meth : TPHC022.M

Volume Inj. :
Signal Phase :
Signal Info :



Data File : C:\HPCHEM\1\DATA\090519\T021111.D Vial: 24
Acq On : 20 May 2009 3:39 am Operator: ROBERTS
Sample : 9019701 Inst : TPHC
Misc : TPHC 5/19/09 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
Title : GC TPH Method
Last Update : Wed May 20 08:39:34 2009
Response via : Initial Calibration
DataAcq Meth : TPHC022.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.27	148450	6.372 mg/L
Spiked Amount 10.000		Recovery =	63.72%
23) S O-Terphenyl (SURR.)	12.73	309314	8.775 mg/L
Spiked Amount 10.000		Recovery =	87.75%

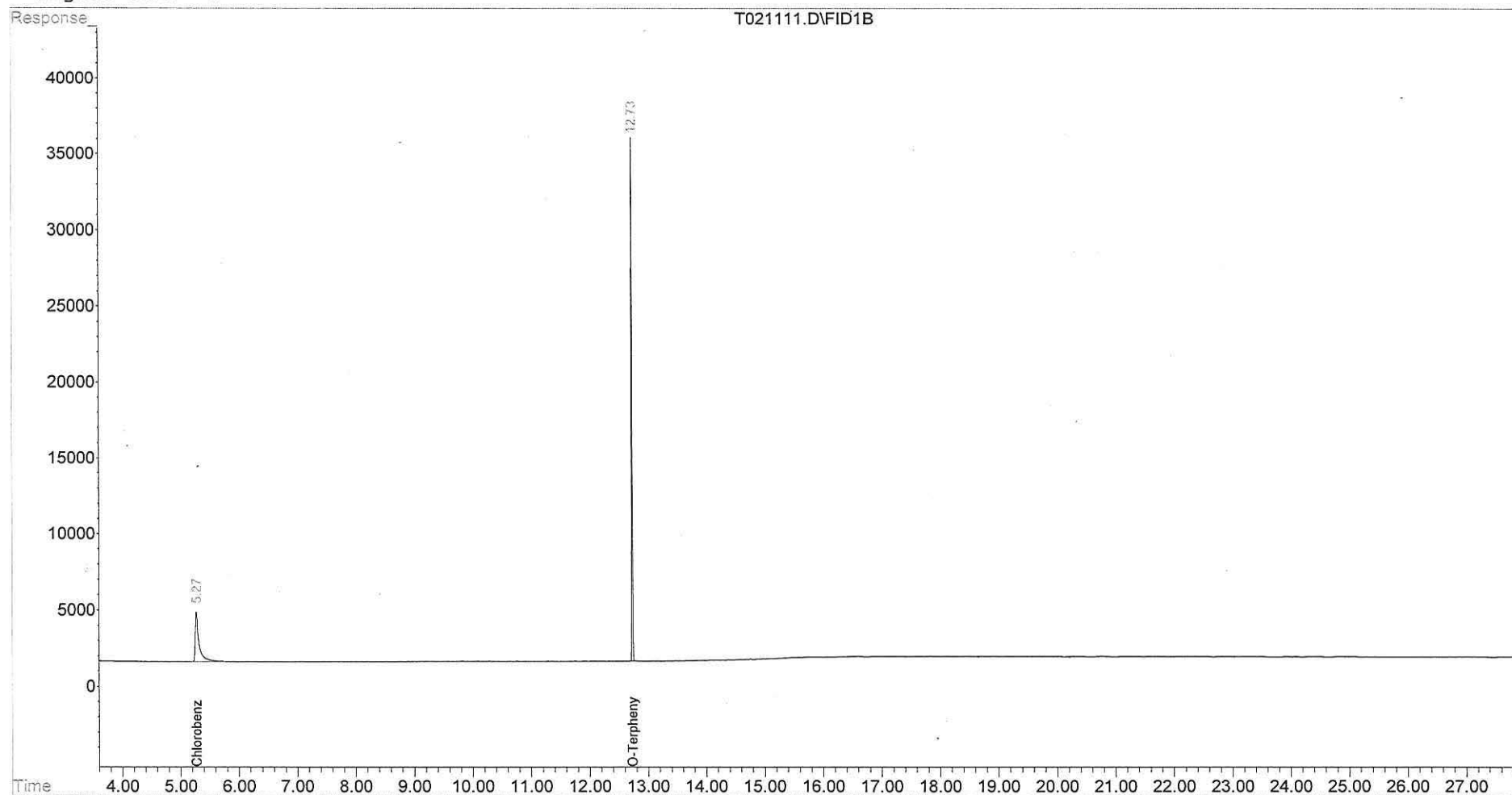
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021111.D Vial: 24
 Acq On : 20 May 2009 3:39 am Operator: ROBERTS
 Sample : 9019701 Inst : TPHC
 Misc : TPHC 5/19/09 Multiplr: 1.00
 IntFile : EVENTS.E
 Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 08:39:34 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHC022.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\090519\T021112.D Vial: 25
Acq On : 20 May 2009 4:16 am Operator: ROBERTS
Sample : 9019702 Inst : TPHC
Misc : TPHC 5/19/09 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
Title : GC TPH Method
Last Update : Wed May 20 08:39:34 2009
Response via : Initial Calibration
DataAcq Meth : TPHC022.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.27	201468	8.648 mg/L
Spiked Amount 10.000		Recovery =	86.48%
23) S O-Terphenyl (SURR.)	12.73	337473	9.574 mg/L
Spiked Amount 10.000		Recovery =	95.74%

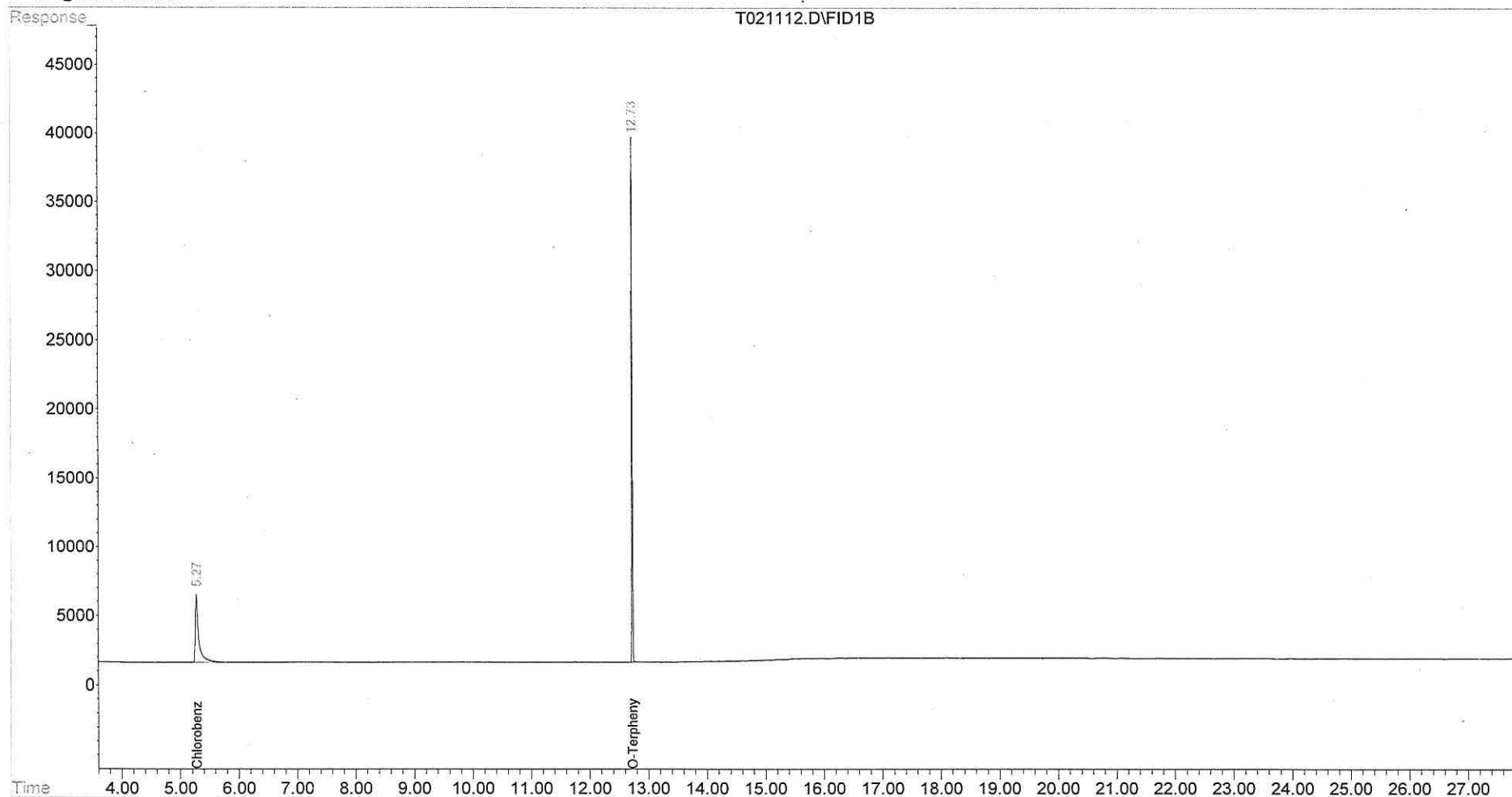
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021112.D Vial: 25
 Acq On : 20 May 2009 4:16 am Operator: ROBERTS
 Sample : 9019702 Inst : TPHC
 Misc : TPHC 5/19/09 Multiplr: 1.00
 IntFile : EVENTS.E
 Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 08:39:34 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHC022.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\090519\T021113.D Vial: 26
Acq On : 20 May 2009 4:52 am Operator: ROBERTS
Sample : 9019703 Inst : TPHC
Misc : TPHC 5/19/09 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
Title : GC TPH Method
Last Update : Wed May 20 08:39:34 2009
Response via : Initial Calibration
DataAcq Meth : TPHC022.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.27	202912	8.710 mg/L
Spiked Amount 10.000		Recovery =	87.10%
23) S O-Terphenyl (SURR.)	12.73	350105	9.933 mg/L
Spiked Amount 10.000		Recovery =	99.33%

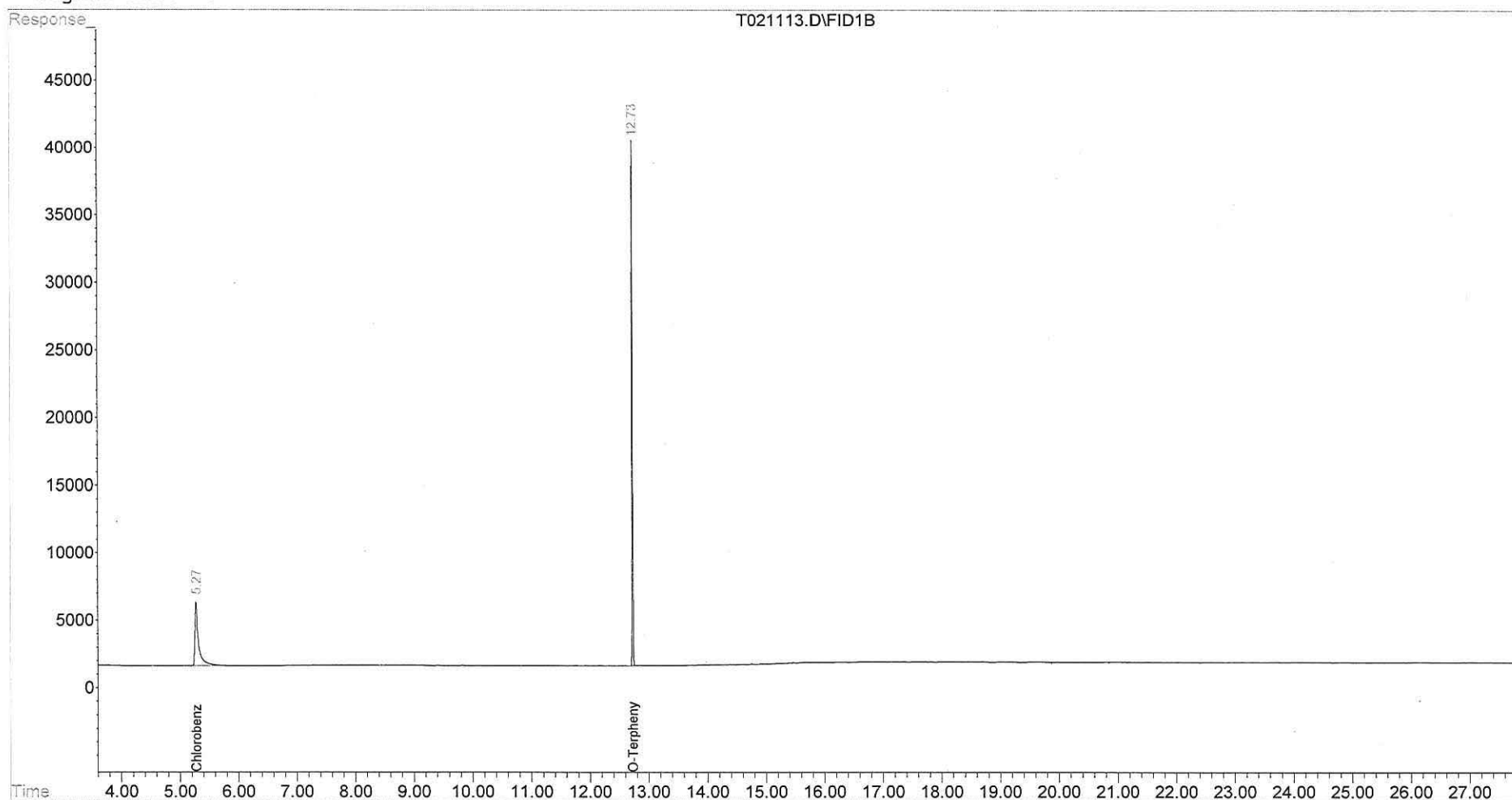
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021113.D Vial: 26
 Acq On : 20 May 2009 4:52 am Operator: ROBERTS
 Sample : 9019703 Inst : TPHC
 Misc : TPHC 5/19/09 Multiplr: 1.00
 IntFile : EVENTS.E
 Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 08:39:34 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHC022.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\090519\T021114.D Vial: 27
Acq On : 20 May 2009 5:29 am Operator: ROBERTS
Sample : 9019704 Inst : TPHC
Misc : TPHC 5/19/09 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
Title : GC TPH Method
Last Update : Wed May 20 08:39:34 2009
Response via : Initial Calibration
DataAcq Meth : TPHC022.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.28	202012	8.672 mg/L
Spiked Amount 10.000		Recovery =	86.72%
23) S O-Terphenyl (SURR.)	12.73	353305	10.023 mg/L
Spiked Amount 10.000		Recovery =	100.23%

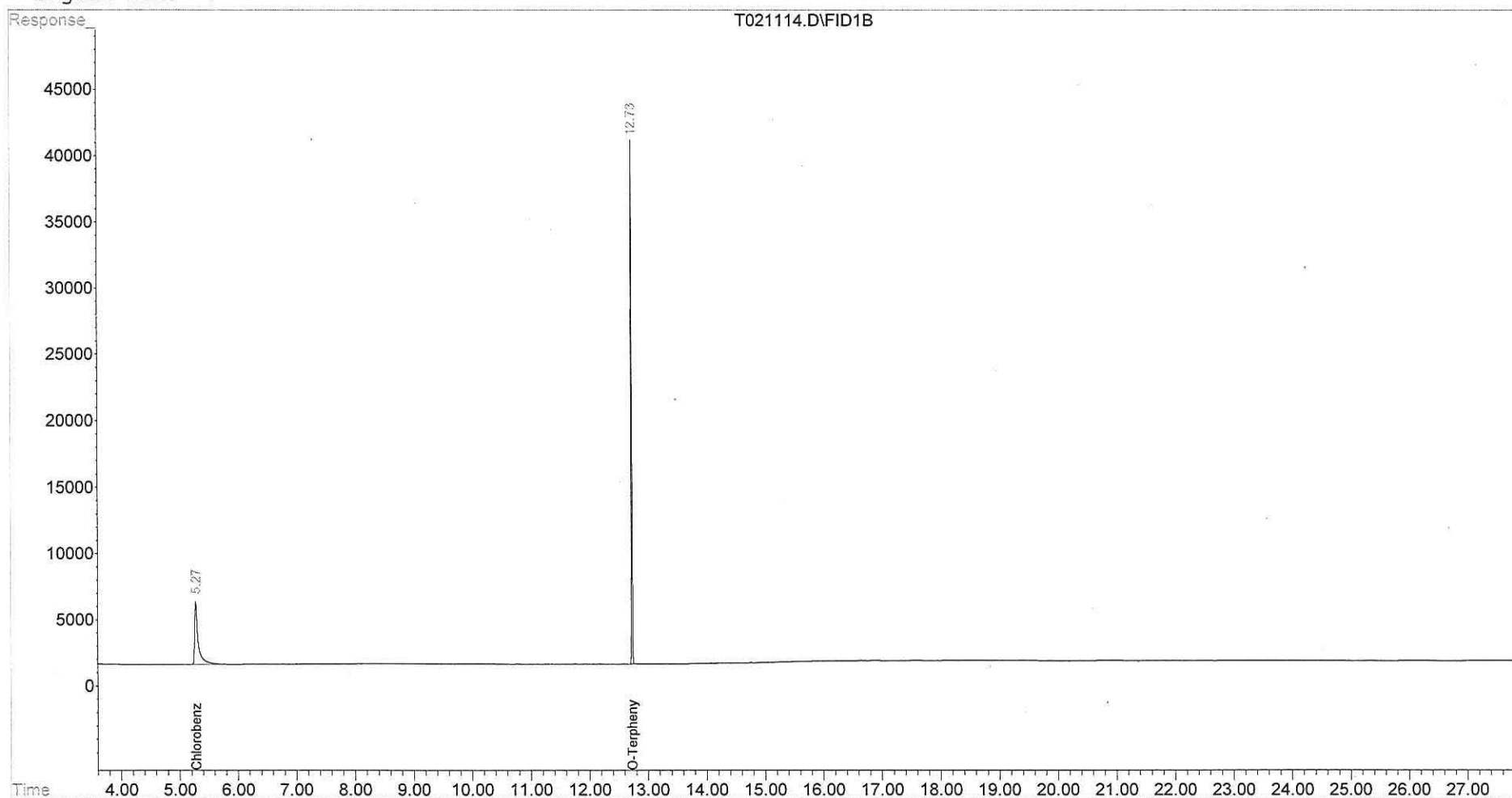
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021114.D Vial: 27
 Acq On : 20 May 2009 5:29 am Operator: ROBERTS
 Sample : 9019704 Inst : TPHC
 Misc : TPHC 5/19/09 Multiplr: 1.00
 IntFile : EVENTS.E
 Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 08:39:34 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHC022.M

Volume Inj. :
 Signal Phase :
 Signal Info :



Data File : C:\HPCHEM\1\DATA\090519\T021115.D Vial: 28
Acq On : 20 May 2009 6:07 am Operator: ROBERTS
Sample : 9019705 Inst : TPHC
Misc : TPHC 5/19/09 Multiplr: 1.00
IntFile : EVENTS.E
Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
Title : GC TPH Method
Last Update : Wed May 20 08:39:34 2009
Response via : Initial Calibration
DataAcq Meth : TPHC022.M

Volume Inj. :
Signal Phase :
Signal Info :

Compound	R.T.	Response	Conc Units

System Monitoring Compounds			
22) S Chlorobenzene (SURR.)	5.27	163445	7.016 mg/L
Spiked Amount 10.000		Recovery =	70.16%
23) S O-Terphenyl (SURR.)	12.73	315365	8.947 mg/L
Spiked Amount 10.000		Recovery =	89.47%

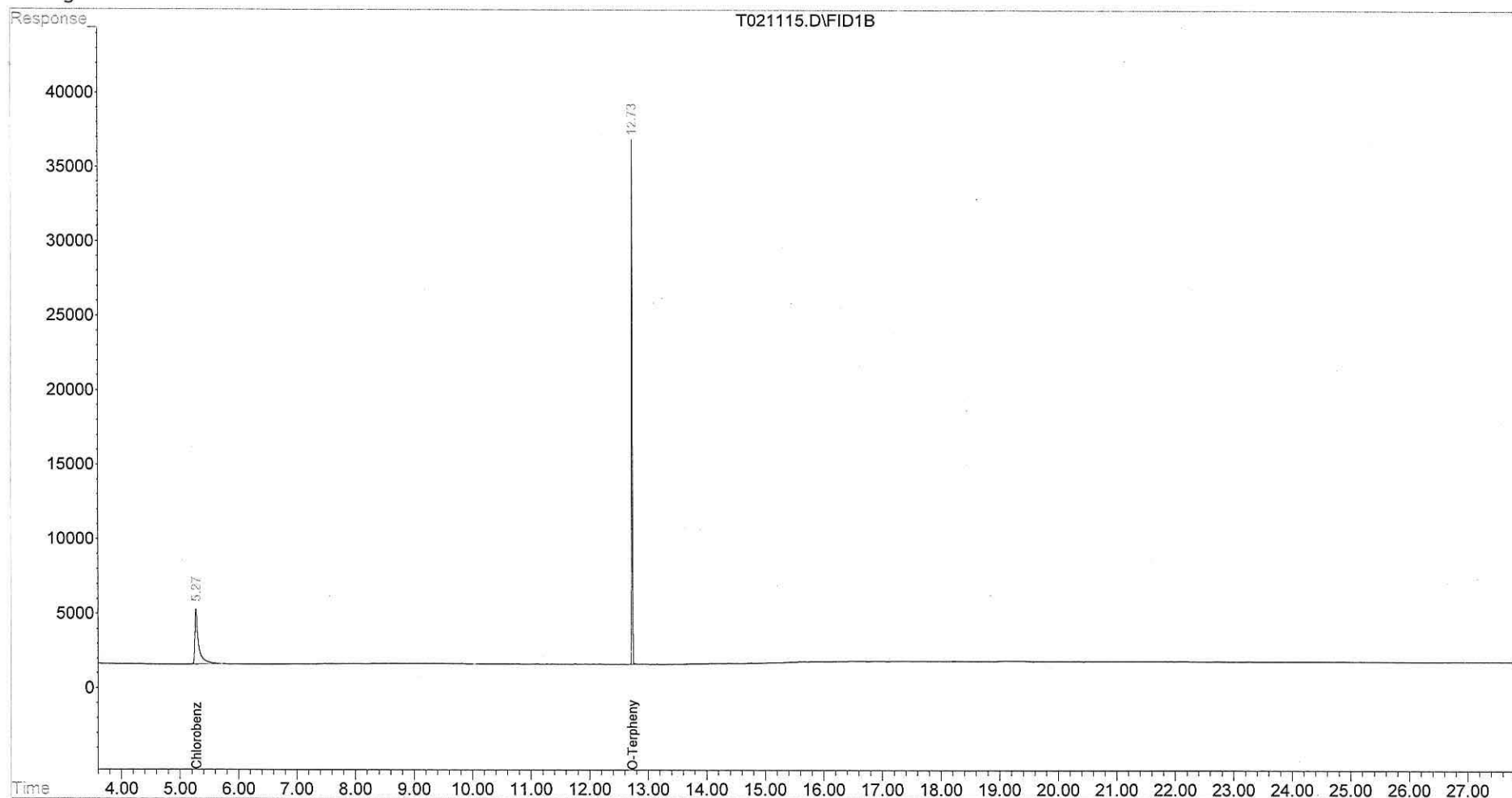
Target Compounds

Quantitation Report

Data File : C:\HPCHEM\1\DATA\090519\T021115.D Vial: 28
 Acq On : 20 May 2009 6:07 am Operator: ROBERTS
 Sample : 9019705 Inst : TPHC
 Misc : TPHC 5/19/09 Multiplr: 1.00
 IntFile : EVENTS.E
 Quant Time: May 20 8:47 2009 Quant Results File: TPHC022.RES

Quant Method : C:\HPCHEM\1\METHODS\TPHC022.M (Chemstation Integrator)
 Title : GC TPH Method
 Last Update : Wed May 20 08:39:34 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : TPHC022.M

Volume Inj. :
 Signal Phase :
 Signal Info :



LABORATORY DELIVERABLES CHECKLIST AND NON-CONFORMANCE SUMMARY

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

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

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

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

Laboratory Manager or Environmental Consultant's Signature

Date: 05/21/09

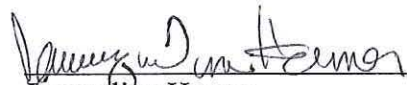
Laboratory Certification # 13461

*Refer to NJAC 7:26E – Appendix A, Section IV – Reduced Data Deliverables – Non-USEPA/CLP Methods for further guidance.

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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.


Jacqueline Hamer
QA/QC Supervisor