

AUG 04 2001

SUPPLEMENTAL SITE INVESTIGATION

ALBANY HILL MINI MART
800 SAN PABLO AVENUE
ALBANY, CALIFORNIA

- 1) Request ambient study or SCM
- 2) Based on conduit study, determine best location for offsite (onsite?) MWS.
- 3) No ORC for now - DVE maybe more effective.

Prepared for:

Mr. Mohinder S. & Dr. Joginder K. Sikand
1300 Ptarmigan Drive, #1
Albany, California

July 31, 2001

ADVANCED ASSESSMENT AND REMEDIATION SERVICES



2380 Salvio Street, Suite 202
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July 31, 2001

Ms. eva chu
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

**Subject: Submittal of Supplemental Site Investigation Report for
 Petroleum Hydrocarbon Contaminated Soil and Groundwater Site
 800 San Pablo Avenue
 Albany Hill Mini Mart, Albany, California**

Dear Ms. chu:

Advanced Assessment and Remediation Services (AARS), is pleased to present this supplemental site investigation report for the above referenced site.

This report has been prepared in general accordance with the Tri-Regional Board Staff Recommendation for Preliminary Investigation and Evaluation of Underground Tank Sites, Addendum to Appendix A, dated August 30, 1991, and the Work Plan dated April 9, 2001, submitted to you. This report summarizes information pertaining to the underground tank removal, preliminary site assessment and supplemental site investigation at the above referenced site.

Please contact Tridib Guha at (925) 363-1999 if you have any questions regarding this report.

Sincerely,

Advanced Assessment and Remediation Services

Tridib K. Guha, R.G., R.E.A.
Principal

Enclosure

cc: Mr. Mohinder S. & Dr. Joginder K. Sikand, Walnut Creek, California
 Mr. Lawrence Oelkers, Sr., Albany, California

TG/AHMMSSLRPT

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SUPPLEMENTAL SITE INVESTIGATION
at
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California

1.0 INTRODUCTION

This report presents the results and findings of the supplemental site investigation conducted by Advanced Assessment and Remediation Services (AARS) at the Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, California. The need for this supplemental site investigation work was based on previous analytical results of soil and groundwater sampling conducted during tank removal, preliminary site investigation, and quarterly groundwater monitoring. Analytical results of the soil and groundwater samples at the site detected high concentrations of petroleum hydrocarbon constituents. This investigative work evaluated the extent of the contaminant plume adjacent to the property.

2.0 SITE CHARACTERISTICS

A brief description of the site location and summary of past activities is presented below.

2.1 Site Description

The project site is located at 800 San Pablo Avenue, Albany, California. The site is set in a commercial development and consists of an occupied two-story store/office building with a concrete slab-on-grade floor with four gasoline pump islands.

The property is bounded by San Pablo Avenue to the east, and commercial development (United Transmission) to the south. An apartment complex residences are located west of the property. Washington Avenue area is located north of the property.

The site is located at an elevation of approximately 45 feet above mean sea level at the foothill of Albany Hill to the west. San Francisco Bay is located approximately 1½ miles southwest of the project site. A site vicinity map and a site plan are presented in Figure 1 and Figure 2 respectively.

2.2 Site History

According to Mr. Sikand (present owner) the site was an automotive repair shop and a gas station, since 1930. Mr. Sikand purchased the property in 1973. At that time three USTs (two 500-gallon regular and one 1000-gallon super) operated at the site. In 1986, the site was remodeled, three old tanks were removed and four new tanks were installed and automotive repair operation was ceased.

In March 1997, five underground fuel storage tanks (two 10,000 gallon gasoline tanks, one 6,000 gallon gasoline tank, one 2,000 gallon diesel tank, and one 750 gallon tank) were excavated and removed by Superior Underground Tank Services (SUTS). The fifth tank was discovered when overexcavation activities uncovered it. Soil samples were collected from excavations. Analytical results indicated that the TPHg and TPHd concentrations up to 3,800 mg/kg and 820 mg/kg

respectively, were present in the soil. BTEX and MTBE constituents were also detected in soil samples. A grab groundwater sample was collected from the pit after the over excavation. Analytical results of groundwater sample indicated elevated concentrations of TPHg, TPHd, BTEX and MTBE.

Previous report issued for this site is:

"Underground Storage Tank Removal Summary Letter Report for Redwood Gasoline Station, 800 San Pablo Avenue, Albany, CA", GeoPlexus, Inc., March 22, 1997.

AARS conducted preliminary site assessment in August 1999, and the report was issued:

"Groundwater Quality Investigation Report, Albany Hill Mini Mart, Albany, CA", September 15, 1999.

AARS completed six quarters of groundwater monitoring and sampling under the direction of Alameda County Environmental Health Department (ACEHD). The groundwater sampling events confirmed the presence of elevated MTBE, TPHg and benzene concentrations in all three monitoring wells. The ACDEH required additional investigations to delineate the extent of the plume.

Mr. Lawrence Oelkers, Sr. (owner of United Transmission Building) informed in a meeting with ACEHD staff and AARS, the drums containing automotive repair waste liquid were stored along the wall in the past. Further conversation with Mr. Mohinder Sikand, AARS learned that ~~during~~ the excavation and installation of 10,000 gallon tank, soil contamination and floating product was noted in that area. However, due to the close proximity of the wall, no over excavation was conducted.

2.3 Regional Geology and Hydrogeology

The site is located on a broad alluvial plain on the east side of San Francisco Bay. The plain is characterized by nearly level topography. The uppermost lithologic member is the San Antonio Formation. The San Antonio sediments were deposited in a complex and ever-changing depositional environment that ranged from alluvial fans to flood plains to lakes to swamps to beaches. Locally, the alluvial deposits consist largely of interfingering lenses of clayey gravel, sandy and silty clays and sand-clay-silt mixtures. Individual units are discontinuous and difficult to correlate over distance.

Groundwater at this site is shallow. Soil borings drilled during July of 1999, encountered groundwater at approximately 12 feet below ground surface (bgs). However, groundwater level may fluctuate with tidal variations. The general groundwater flow direction is toward San Francisco Bay to the southwest. *↳ No, but will vary w/ recharge due to rain water.*

The other two common surficial deposits are Quaternary alluvial deposits and Quaternary artificial fill. The alluvial deposits are irregularly stratified, poorly consolidated materials of mud, silt, sand, and gravel deposited in stream and river beds and on adjoining flood plains. The alluvial deposits vary in thickness from 0 to 40 feet. The Quaternary artificial fill is composed of rock and surficial deposits derived from nearby cuts or quarries.

The Hayward Fault, located west of the site and separated by the Oakland Hills, is the nearest active fault. There are two inactive faults, the Calaveras Fault and the Franklin Fault, located approximately 3 miles east of the site.

The average annual rainfall in this region is approximately 24 inches, occurring mostly in the winter months. The alluvial deposits, which are commonly porous and permeable, may be the winter-bearing zone in this area.

3.0 SCOPE OF WORK

This supplemental site investigation was conducted by AARS in accordance with the requirements and guidelines of the ACEHD and California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) as presented in the work plan dated April 9, 2001. The scope of work included the following tasks:

- Task 1. Review all available site investigation reports and prepare a work plan.
- Task 2. Obtain soil boring drilling permit from Alameda County Public Works Agency (ACPWA).
- Task 3. Drill four soil borings; install four temporary wells.
- Task 4. Collect soil and groundwater samples from temporary wells.
- Task 5. Purge and sample three monitoring wells.
- Task 6. Analyze soil and groundwater samples for petroleum hydrocarbons.
- Task 7. Analyze data and laboratory results.
- Task 8. Prepare this report.

The location of the monitoring wells and temporary wells are presented in Figure 2. The various tasks associated with this site investigations are discussed below:

4.0 FIELD METHODS AND PROCEDURES

To assess the nature and extent of contamination in groundwater, four soil borings were drilled. All four soil borings were converted into temporary wells. Soil and groundwater samples were collected during drilling for laboratory analysis of petroleum hydrocarbon constituents. The procedures and methods used during field activities were in accordance with the requirements and guidelines of the ACEHD and RWQCB. The methods utilized in drilling soil borings, sampling, and laboratory analyses are presented below.

4.1 Soil Borings and Sampling

Prior to commencement of drilling activities, permits for the proposed soil borings/temporary wells were obtained from the ACPWA. The work plan was approved by the ACEHD. Underground Service Alert was informed 72 hours prior to drilling. Also the site was cleared by California Utility Survey (underground utility locator). Copies of the permit and work plan approval letter are presented in Appendix A.

On June 7, 2001, AARS supervised the drilling of four soil borings (SB-1/TW through SB-4/TW).

The drilling activities were performed by Gregg Drilling and Testing, Inc., of Martinez, California, Water Well Drillers License C57 48165. Soil Boring SB-4/TW was hydropunched to approximately 15 feet below ground surface (bgs), by using a Geoprobe. A screen was set and the hole was left open, and groundwater was not encountered. The hole was hydropunched to 20 feet bgs, and left open with a screen for two hours. Without encountering groundwater in SB-4/TW, the borehole was reentered and drilled 20 feet bgs with a limited access drill rig (RHINO D-15) using 6-inch diameter, hollow stem augers. Soil borings SB-1/TW, SB-2/TW and SB-3/TW were drilled 20 feet bgs using 6-inch diameter, hollow stem augers. To minimize the potential cross-contamination, the augers were steam cleaned prior to drilling each boring.

During drilling, soil samples were collected every 5 feet of depth or at any lithologic changes, starting at 5 feet bgs. Grab soil samples were obtained from the hollow stem augers in clean sampling sleeves.

One soil sample was collected from each borehole at a depth of 9 to 10 feet bgs, just above the water table and submitted for laboratory analyses.

The soil borings were lithologically logged in the field using the Unified Soil Classification System. Soil samples were screened in the field using a portable Photo Ionization Detector (PID). Soil type, color, density, moisture content, and depth were recorded on the boring logs (Appendix B).

The soil samples recovered for chemical analyses were immediately sealed with teflon squares, polyethylene caps and plastic tape. The samples were then labeled with sample identification, sample depth, and the date and time of collection. Soil samples were placed immediately in an iced cooler for shipment to North State Environmental Laboratory, under chain-of-custody documents.

4.2 Groundwater Sampling in Temporary Wells

All four soil borings were converted into temporary wells. ~~During drilling the groundwater was encountered at approximately 16 to 17 feet bgs, in all four borings.~~ Therefore, the soil borings were advanced 4 feet below the top of the saturated zone to approximately 20 feet bgs. The water was allowed to stabilize. The temporary wells were constructed using a ten-foot section of two inch diameter 0.010-inch slotted screen (Schedule 40 PVC) threaded to a ten-foot section two inch diameter blank casing (Schedule 40 PVC), were installed in the boreholes. The water was allowed to stabilize and a small volume (approximately two gallons) of water was purged. Following purging, a water sample was collected from each of these temporary wells into three 40-milliliter volatile organic analysis vials with teflon-lined septa (VOA), preserved using hydrochloric acid to a pH of 2.0, and one 1-liter amber glass bottles. The casings were then removed and the borings were completely backfilled to grade with neat cement. The groundwater samples collected for chemical analysis were placed immediately into an iced cooler for shipment to North State Environmental Laboratory, under chain-of-custody documents.

4.3 Groundwater Level Monitoring and Sampling of Monitoring Wells

Groundwater levels in each well were measured to the nearest 0.01 foot on June 7, 2001, from the top of the PVC casing using an electronic sounder tape. Groundwater surface elevation contours, based on interpretation of groundwater level and survey data, are presented in Figure 3. Survey data and water level measurements are presented in Table 1.

Groundwater samples were collected on June 7, 2001, following water level measurements. Purging preceded sampling in order to ensure collection of non-stagnant water. A minimum of three casing volumes were removed from monitoring wells MW-1, MW-2 and MW-3. The purged water from the monitoring wells were clear initially and with continual purging the water turned turbid. During purging of the wells and prior to sampling, pH, specific conductivity, and temperature measurements of purged water were recorded and observed to stabilize, indicating that formation water had entered the well. A groundwater sample was then collected from each well at a minimum 93% total recovery. Groundwater samples were clear at the time of sampling. Sheen was observed only in groundwater samples from MW-1. Also, a very strong gasoline odor was noticed in groundwater samples all three monitoring wells. Field observations during well purging prior to sampling are presented in Appendix C. The groundwater samples were collected in clean containers and transported in an iced cooler to the laboratory for analysis following standard chain of custody procedures.

4.4 Soil Cuttings and Well Development Water Storage and Disposal

Soil cuttings generated during drilling and sampling of the soil borings were transferred into 55-gallon DOT 17H drums, labeled and stored at the site for proper disposal.

All purged water generated from the well purging and sampling, as well as decontamination rinseate, were stored in properly-labeled 55-gallon DOT 17H drums for proper disposal.

5.0 ANALYTICAL METHODS

All soil and groundwater samples were analyzed by North State Environmental Laboratory of South San Francisco, California, a California-certified Laboratory. All chemical analyses of soil and groundwater samples were performed using standard test methods of the United States Environmental Protection Agency (EPA) and the California Department of Health Services (CalDHS), as discussed below.

5.1 Analysis of Soil Samples

A total of four soil samples were collected for chemical analysis, one sample from each soil boring at depths of 10 feet bgs. Soil samples were analyzed for total petroleum hydrocarbon as gasoline (TPHg) using EPA Methods 8015M, benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8020, methyl tertiary butyl ether (MTBE) using EPA Method 8020 and total petroleum hydrocarbon as diesel (TPHd) using EPA Methods 8015M. Results of soil sample analyses are presented in Table 2. The official laboratory reports and chain of custody documents are included in Appendix D.

5.2 Analysis of Groundwater Samples

All groundwater samples were analyzed for TPHg using EPA Method 8015 modified, BTEX/MTBE using EPA Method 8020 and TPHd using EPA Methods 8015M. Groundwater sample from MW-3 was analyzed for ether oxygenates using Method 8260. Results of groundwater analyses are summarized in Table 3. The official laboratory reports and chain of custody documents are included in Appendix D.

6.0 DISCUSSION OF RESULTS

A brief description of site geology and hydrogeology based on the results of the drilling activities is presented below. The results of the laboratory analysis of the soil and groundwater samples collected during this investigation are also discussed below.

6.1 Site Geology

The subsurface lithology in all four soil borings were comprised of a fine-grained alluvial material consisting of stiff clay, poorly sorted clay and silty clay, poorly sorted sand and silty sand to the maximum explored depth of 20 feet bgs. Most of the clays and silty clays are stiff with high plasticity.

6.2 Site Hydrogeology

Groundwater was encountered approximately at 16 feet bgs during drilling and stabilized at 11 feet bgs on June 7, 2001. The groundwater elevations from monitoring wells MW-1 through MW-3, as measured on June 7, 2001, were used to develop the groundwater elevation contour map shown in Figure 3. The groundwater flow direction has been calculated to be to the southeast, with an average gradient of approximately 0.02 foot per foot. The average depth to stabilized groundwater in these wells was approximately 10.50 feet bgs on June 7, 2001, which could vary with seasonal conditions.

6.3 Soil analysis

Analytical results for four soil samples (SB-1/TW@10', SB-2/TW@10', SB-3/TW@9.5', and SB-4/TW@10') found to contain TPHg concentrations ranging from 8.1 to 2300 parts per million (ppm); benzene concentrations ranging from 0.013 to 0.71 ppm; toluene concentrations ranging from 0.041 to 2.9 ppm; ethylbenzene concentrations ranging from 0.2 to 45 ppm; xylenes concentrations ranging from 1.0 to 330 ppm. Only soil sample SB-1/TW@10' was found to contain MTBE concentration above detection limits, 0.018 ppm. The maximum TPHg concentration was detected in SB-2/TW@10', at 2300 ppm.

6.4 Groundwater Analysis

Analytical results for groundwater samples from three monitoring wells (MW-1/GW through MW-3/GW) and four temporary wells (SB-1/TW through SB-4/TW) are presented in Table 3. Table 3 also includes the groundwater sampling results from the previous site investigation. The concentrations of TPHg, benzene and MTBE measured during June 7, 2001, are presented in Figures 5, 6, and 7 respectively. Groundwater samples from all monitoring wells and temporary wells, were found to contain TPHg ranging from 210 to 8900 parts per billion (ppb); MTBE ranging from 26 to 6600 ppb; benzene ranging from 18 to 1400 ppb; toluene ranging from 0.6 to 1900; ethylbenzene ranging from 3 to 280 ppb; and total xylenes ranging from 5 to 1300. TPHd was detected in groundwater samples, concentrations ranging from 80 to 19000 ppb. However, laboratory reported samples do not match diesel pattern. Fuel ether oxygenates analyses by method 8260 for groundwater sample MW-3, confirmed the presence of MTBE at 8300 ppb. All other ether oxygenates were non-detect. The highest concentrations of TPHg, MTBE and benzene were measured in the groundwater samples from SB-2/TW, MW-3/GW and SB-4/TW, respectively.

7.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the present site investigation, the following conclusions are drawn:

- 1) The concentrations of petroleum hydrocarbon in soil sample from SB-2/TW were elevated.
- 2) TPHg and MTBE concentrations in groundwater samples are high and sheen is present;
- 3) the concentrations of benzene in groundwater exceeds maximum contaminant levels (MCLs);
- 4) Maps showing the contours TPHg, benzene and MTBE concentrations in groundwater, developed from the results of groundwater analyses indicates that the dissolved phase petroleum hydrocarbon plume has migrated off-site. The nature and extent of groundwater contaminant plume within the property has been defined. The extent of contamination in shallow groundwater off-site is unknown at this time.

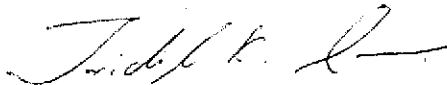
Recommendations are as follows:

- a) Further investigation is needed to determine the extent of off-site migration of contaminant plume. *Install MNS offsite, possibly one by 10K USF*
- b) The effect of horizontal conduits on contaminant migration as preferential pathways should be determined, since the groundwater is shallow.
- c) The plume should be treated with a oxygen-releasing compound (ORC). *Maybe not now DVE might do better*
- d) Groundwater sampling should be continued along with ORC treatment to monitor the progress of remediation with ORC treatment.

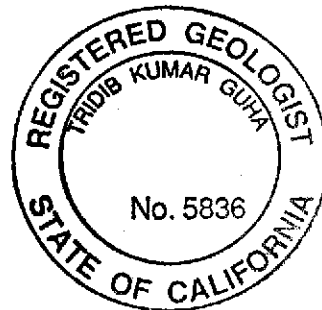
8.0 CERTIFICATION

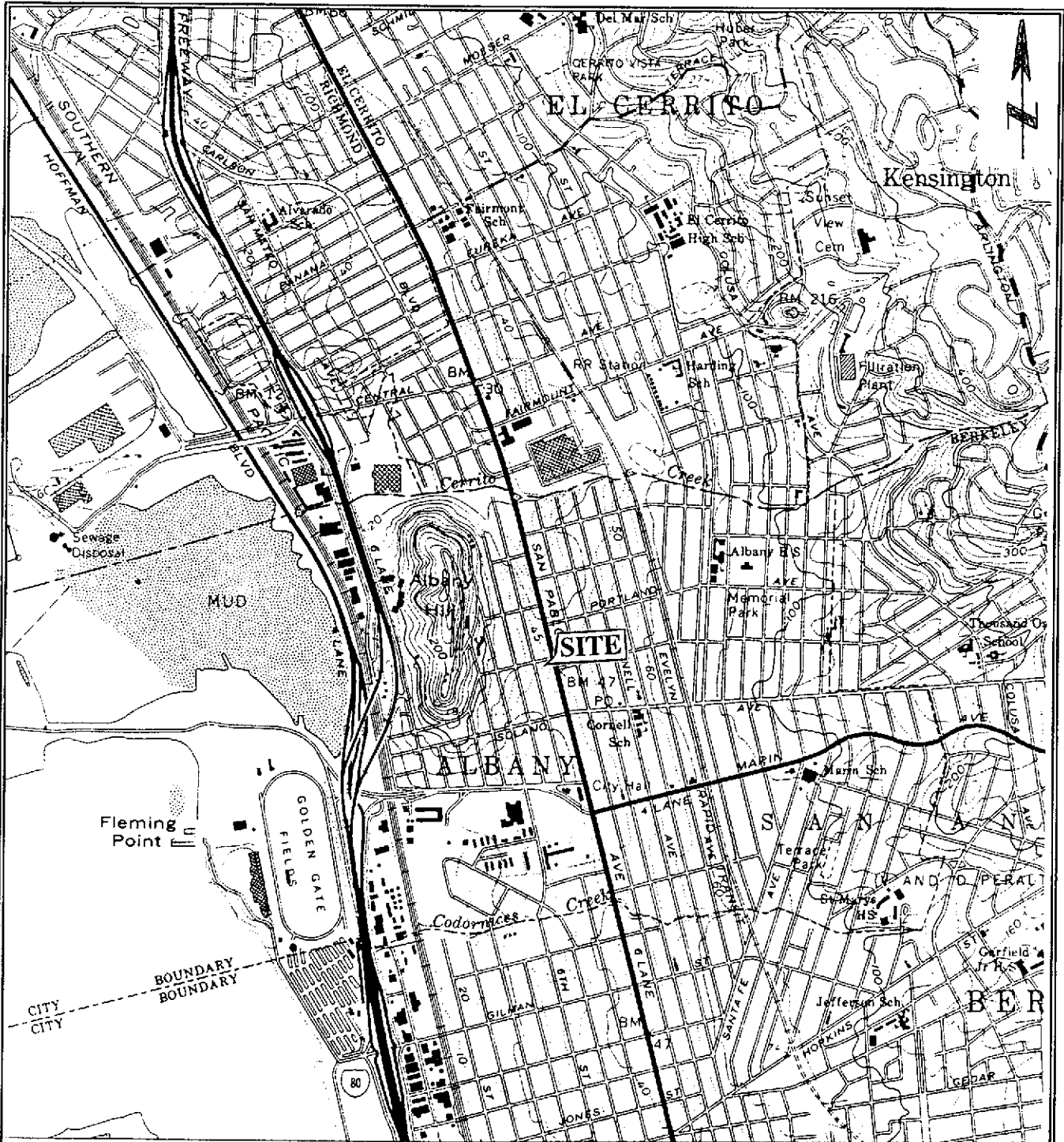
The information provided in this report is based on groundwater and soil sampling activities conducted at the site. All data presented in this report are believed to be accurate. All conclusions or recommendations provided herein are based on our expertise and experience conducting work of a similar nature.

Advanced Assessment and Remediation Services



Tridib K. Guha
Registered Geologist Number 5836





Source: U.S.G.S. Map Richmond Quadrangle
 7.5 Minute Series (Topographic)
 Aerial Photograph taken 1959 Map Edited 1980

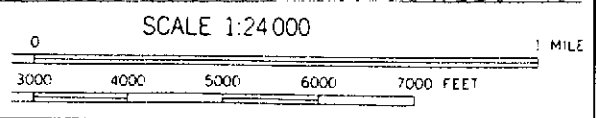


FIGURE 1: SITE VICINITY MAP
 ALBANY HILL MINI MART
 800 San Pablo Avenue
 Albany, California

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 Concord, California

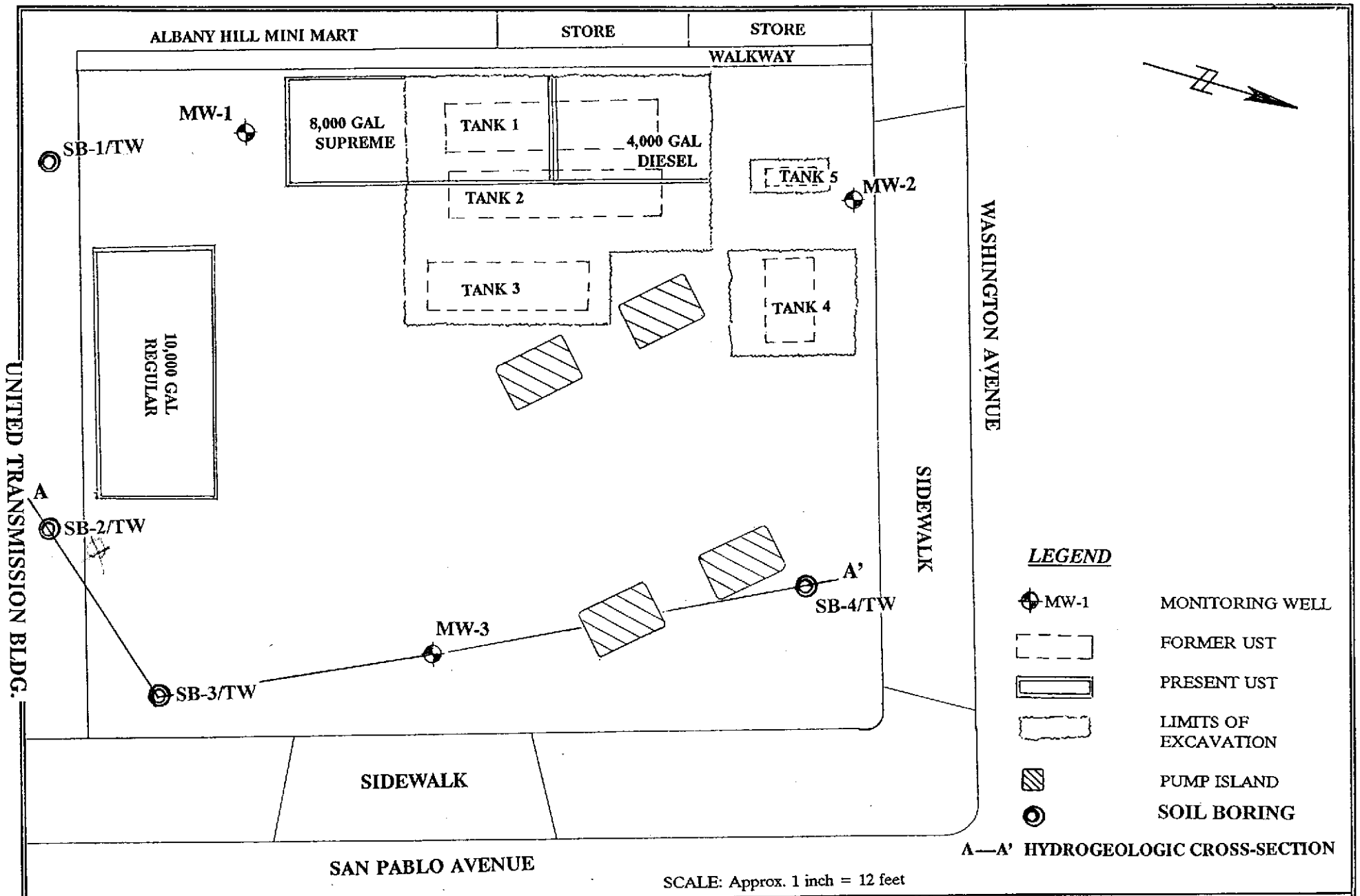
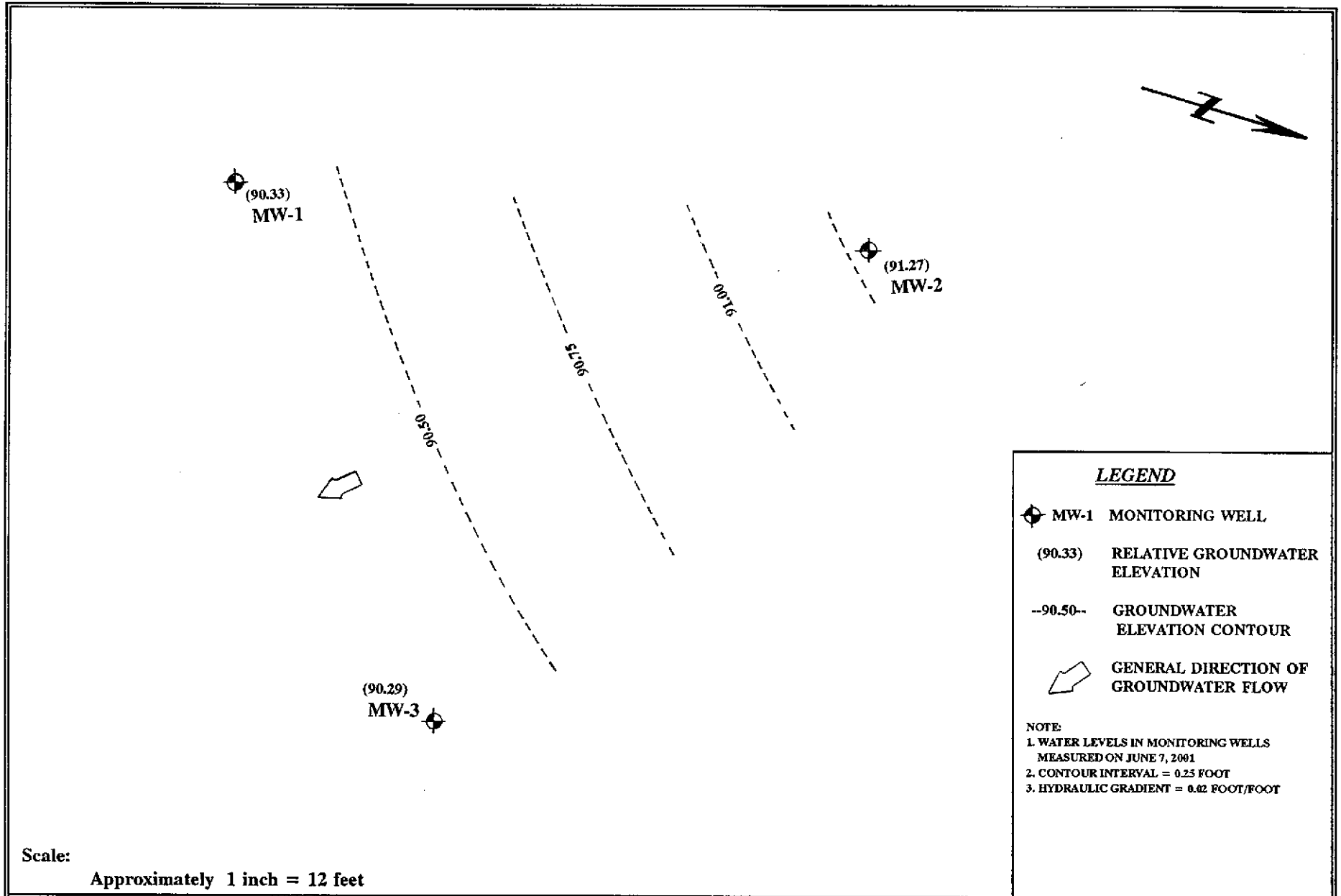




FIGURE 2: SITE PLAN
 ALBANY HILL MINI MART
 800 San Pablo Avenue
 Albany, California

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 Concord, California 94520



Scale:
 Approximately 1 inch = 12 feet

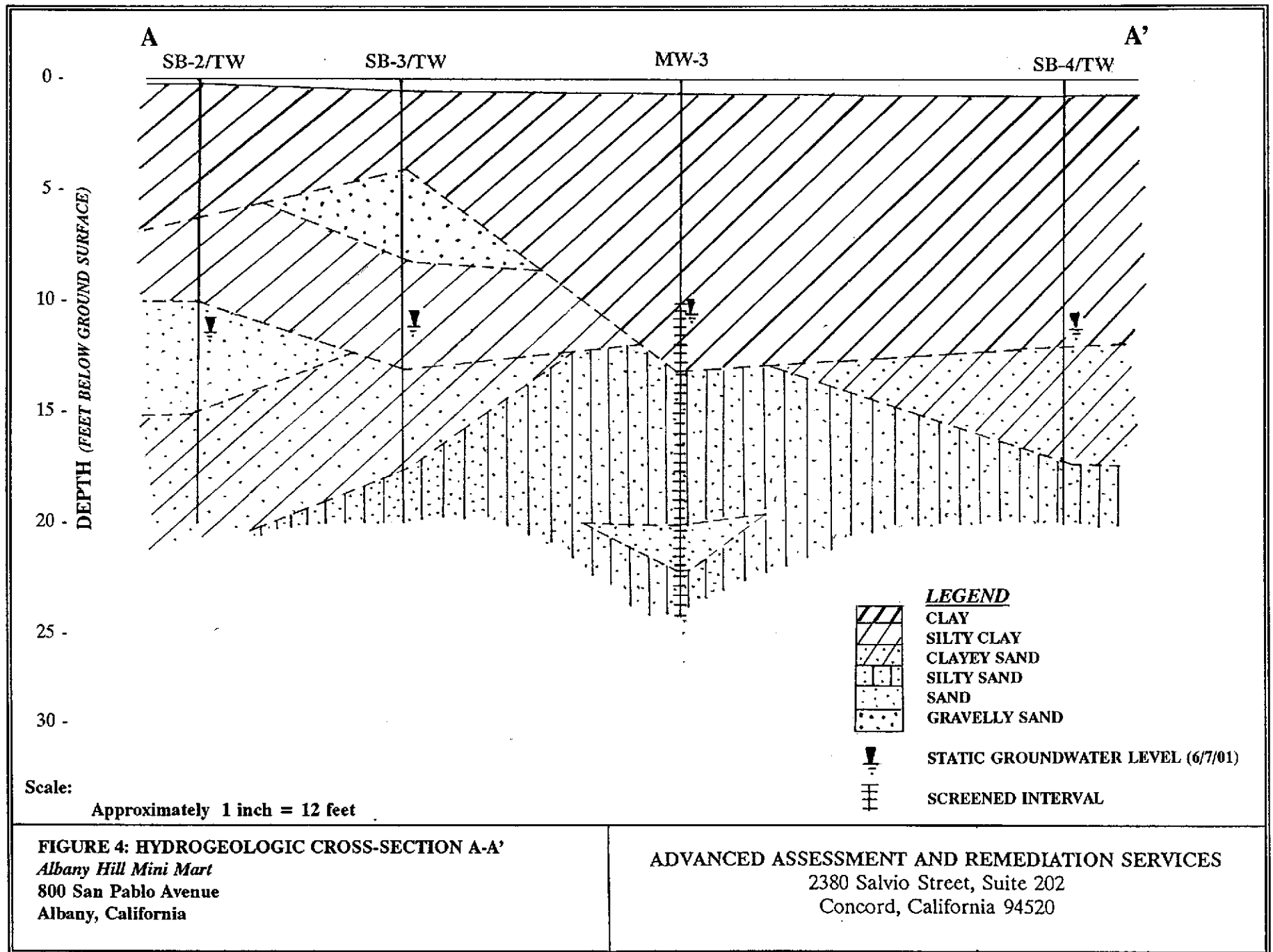
LEGEND

 MW-1 MONITORING WELL
 (90.33) RELATIVE GROUNDWATER ELEVATION
 --90.50-- GROUNDWATER ELEVATION CONTOUR
 GENERAL DIRECTION OF GROUNDWATER FLOW

NOTE:
 1. WATER LEVELS IN MONITORING WELLS MEASURED ON JUNE 7, 2001
 2. CONTOUR INTERVAL = 0.25 FOOT
 3. HYDRAULIC GRADIENT = 0.02 FOOT/FOOT

FIGURE 3: GROUNDWATER SURFACE ELEVATIONS (06/07/01)
Albany Hill Mini Mart
 800 San Pablo Avenue
 Albany, California

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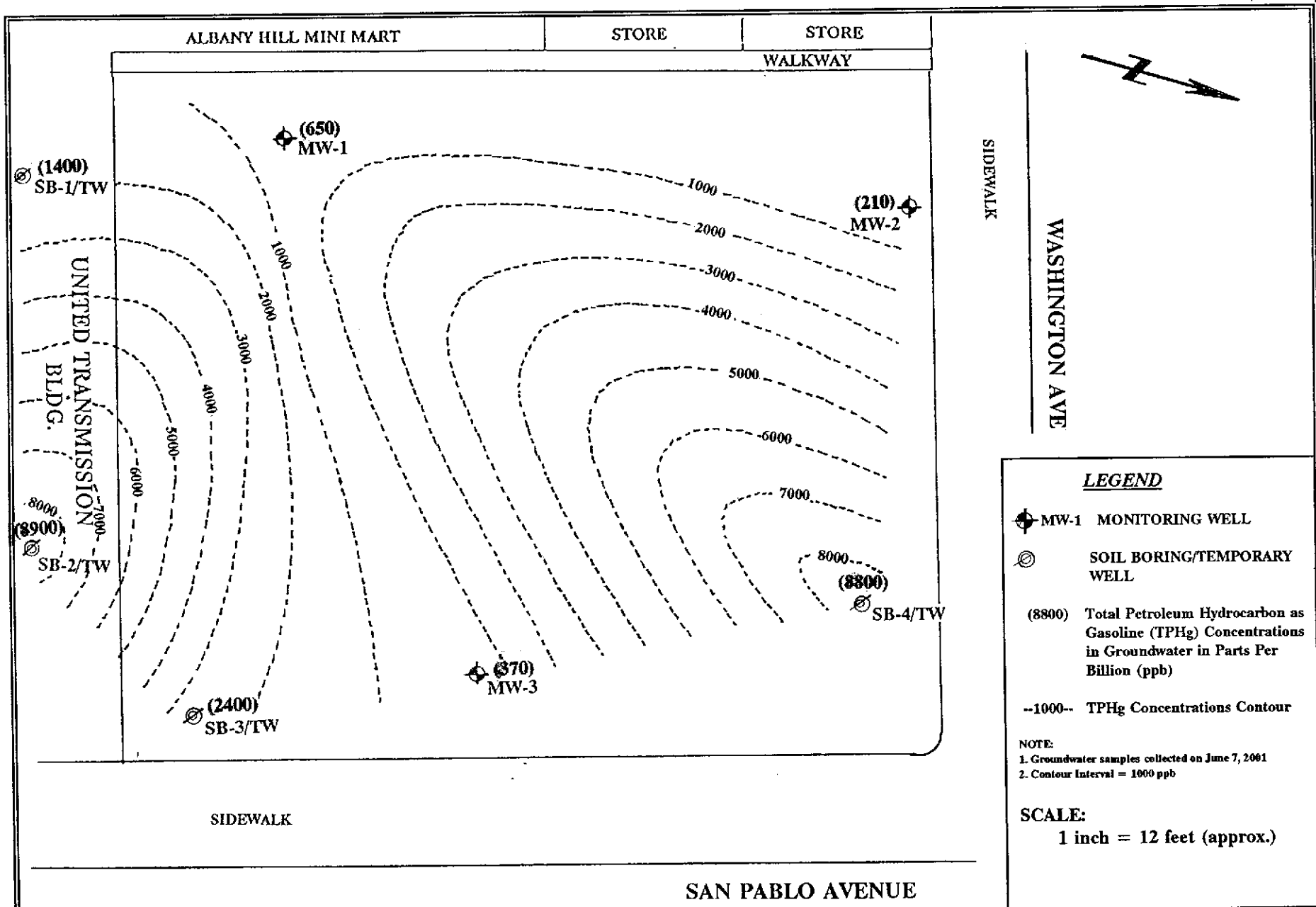


FIGURE 5: TPHg CONCENTRATIONS IN GROUNDWATER
 Albany Hill Mini Mart
 800 San Pablo Avenue
 Albany, California

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 Concord, California 94520

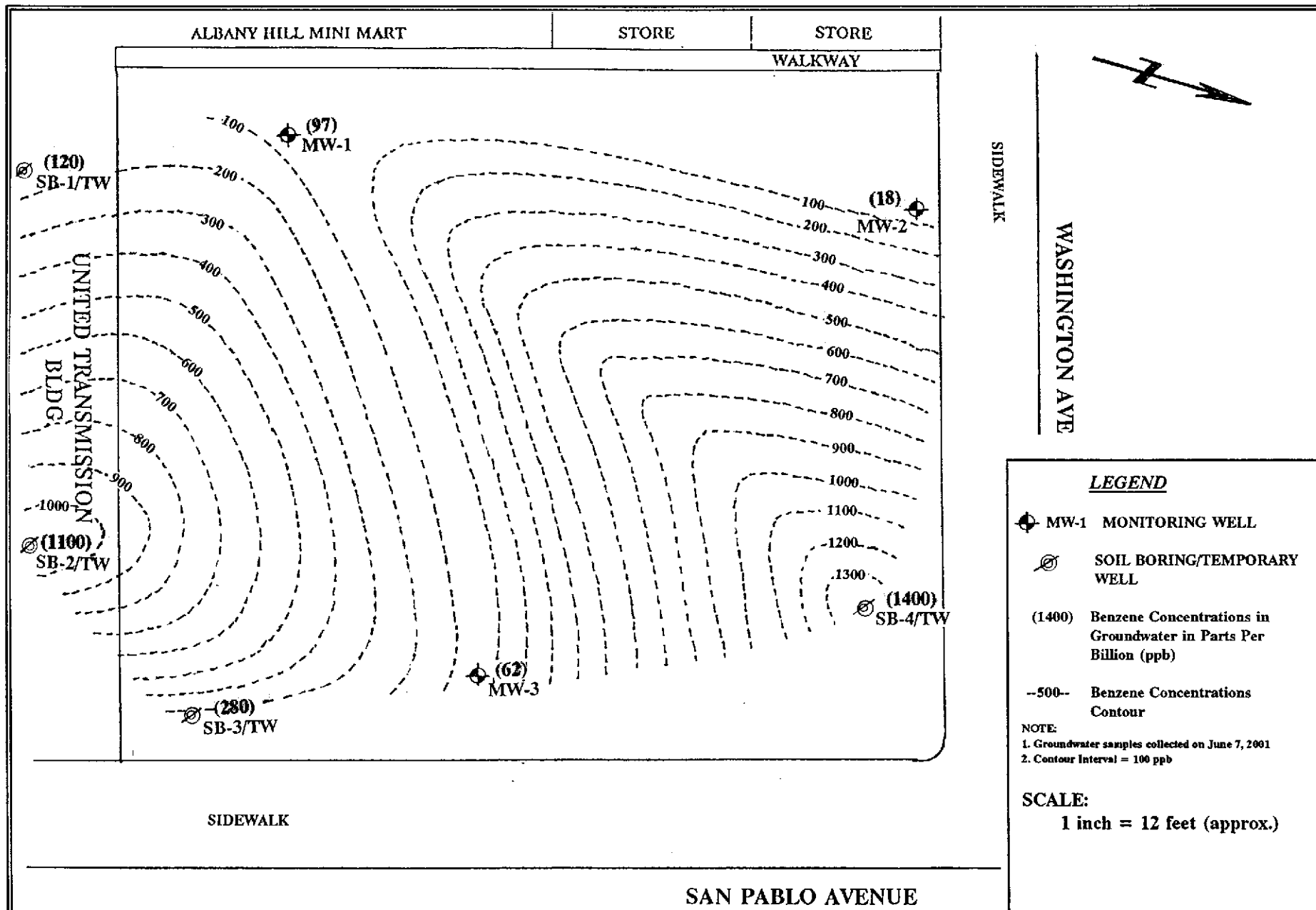


FIGURE 6: BENZENE CONCENTRATIONS IN GROUNDWATER
 Albany Hill Mini Mart
 800 San Pablo Avenue
 Albany, California

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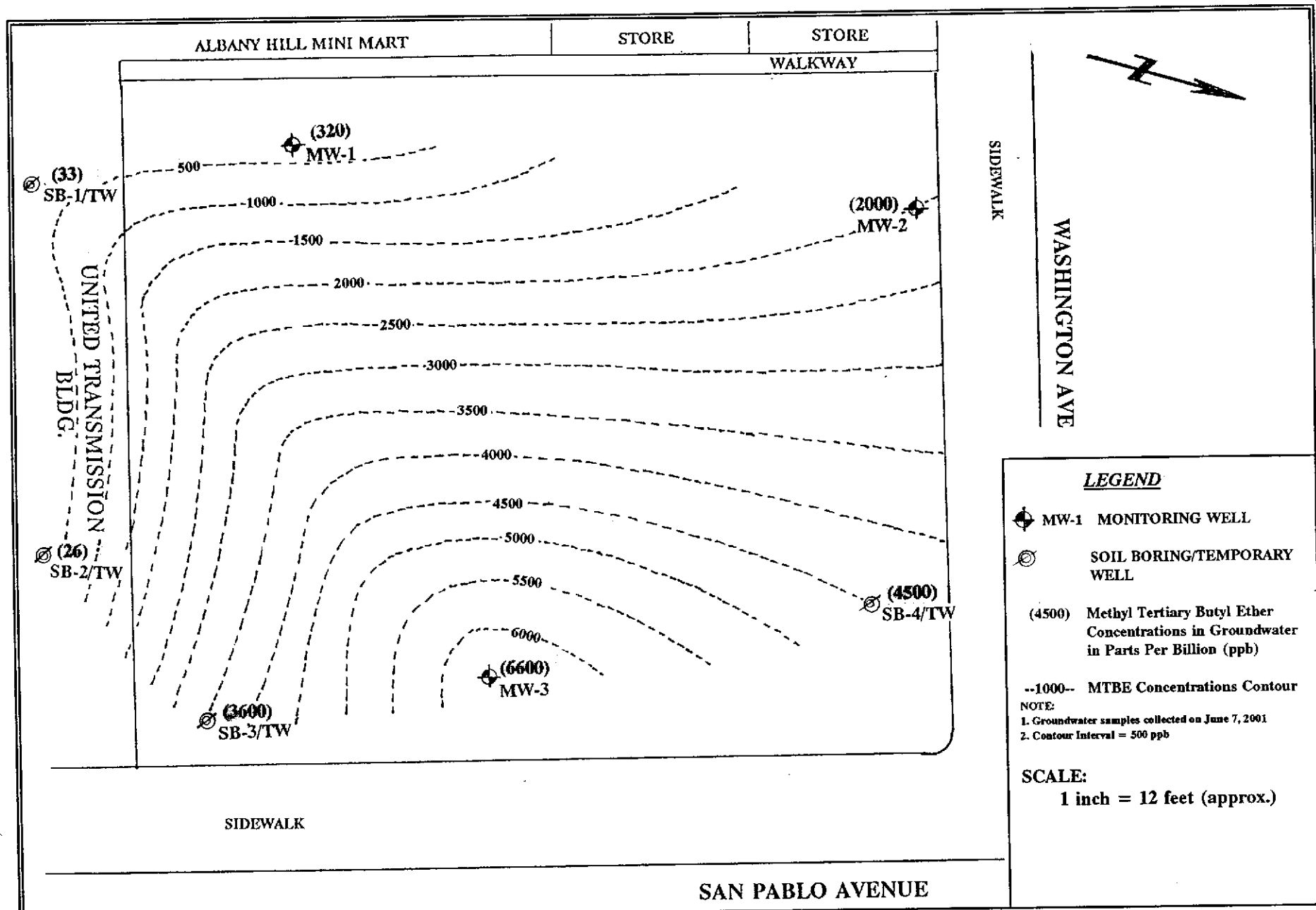


FIGURE 7: MTBE CONCENTRATIONS IN GROUNDWATER
 Albany Hill Mini Mart
 800 San Pablo Avenue
 Albany, California

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TABLE 1: SURVEY AND WATER LEVEL MONITORING DATA
Albany Hill Mini Mart
800 San Pablo Avenue, Albany, California

Well No.	Date of Measurement	Top of Casing Elevation (Feet - Relative)	Depth to Groundwater (Feet)	Product Thickness (Feet)	Groundwater Elevation (Feet - Relative)
MW-1	08-06-99	101.68	11.95	0.00	89.73
	11-05-99	101.68	12.72	0.00	88.96
	02-07-00	101.68	10.34	0.00	91.34
	05-05-00	101.68	10.59	0.00	91.09
	08-03-00	101.68	11.75	0.00	89.93
	11-08-00	101.68	11.67	0.00	90.01
	02-08-01	101.68	11.20	0.00	90.48
	06-07-01	101.68	11.35	0.00	90.33
MW-2	08-06-99	101.57	10.83	0.00	90.74
	11-05-99	101.57	11.66	0.00	89.91
	02-07-00	101.57	9.23	0.00	92.34
	05-05-00	101.57	9.54	0.00	92.03
	08-03-00	101.57	10.69	0.00	90.88
	11-08-00	101.57	10.62	0.00	90.95
	02/08/01	101.57	10.17	0.00	91.40
	06-07-01	101.57	10.30	0.00	91.27
MW-3	08-06-99	100.33	10.58	0.00	89.75
	11-05-99	100.33	11.39	0.00	88.94
	02-07-00	100.33	9.05	0.00	91.28
	05-05-00	100.33	9.29	0.00	91.04
	08-03-00	100.33	10.43	0.00	89.90
	11-08-00	100.33	10.33	0.00	90.00
	02-08-01	100.33	9.94	0.00	90.39
	06-07-01	100.33	10.04	0.00	90.29

Note: A bench mark, with an assumed elevation of 100.00 feet (Above Mean Sea Level), is located at the corner of Washington Avenue and San Pablo Avenue. The bench mark is the top of the southeast bolt (painted white) in the street signal light base; all well elevations are relative to this. The elevations at each well were taken on the top of the well casing.

**TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF SOIL SAMPLING
ALBANY HILL MINI MART
800 San Pablo Avenue
Albany, California**

Sample ID	Date of Sampling	TPHg (mg/kg)	MTBE (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	TPHd (mg/kg)
MW-1/14S	07/28/99	1.8	ND	ND	ND	0.0056	0.012	2.6
MW-1/14S	07/28/99	Polynuclear Aromatic Hydrocarbon Analyses by EPA Method 8100 were non-detect with the detection limit 0.01 mg/kg						
MW-2/14S	07/28/99	ND	ND	ND	ND	ND	ND	ND
MW-3/13S	07/28/99	ND	ND	ND	ND	ND	ND	ND
SB-1/TW@10'	06/07/01	8.1	0.018	0.58	0.62	0.2	1.0	ND
SB-2/TW@10'	06/07/01	2300	ND**	5.3	78	45	330	550*
SB-3/TW@9.5'	06/07/01	61	ND	0.13	0.041	0.79	5.2	27*
SB-4/TW@9'	06/07/01	160	ND	0.71	2.9	1.9	1.2	47*
RL	06/13/01	0.5	0.005	0.005	0.005	0.005	0.010	1

Notes:
 ND- Not Detected NA- Not Analyzed RL- Reporting Limit
 mg/kg- Milligram per kilogram (parts per million)
 TPHg- Total petroleum hydrocarbon as gasoline (EPA method modified 8015)
 TPHd- Total petroleum hydrocarbon as diesel (EPA method modified 8015)
 MTBE- Methyl Tertiary Butyl Ether (EPA method 8020)
 Benzene, toluene, ethylbenzene, and total xylenes (EPA method 8020)
 PAH Polynuclear Aromatic Hydrocarbons (EPA method 8100)
 * Laboratory reported does not match diesel pattern
 ** Confirmed by GC/MS method 8260

**TABLE 3: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING for
TPHg, BTEX, MTBE and TPHd
Albany Hill Mini Mart
800 San Pablo Avenue, Albany, California**

Sample ID	Date of Sampling	TPHg (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	TPHd µg/L
MW-1 GW	08/06/99	1500	ND	4.3	2.9	9.1	28	1200
	08/06/99	Polynuclear Aromatic Hydrocarbon Analyses by EPA method 610 were non-detect with detection limit 1.0 µg/L						
	11/05/99	1800	ND	5.1	3.2	8.9	33	1400
	02/07/00	1100	ND	3.3	1.9	5.6	21	890
	05/07/00	970	ND	2.9	1.7	4.9	18	650
	08/03/00	1200	360	190	43	41	160	270*
	11/08/00	4200	840**	990	200	130	560	230*
	02/08/01	2800	390	630	130	51	250	380*
06/07/01	650	320	97	13	20	62	190	
MW-2 GW	08/06/99	ND	ND	ND	ND	ND	ND	340
	11/05/99	ND	ND	ND	ND	ND	0.7	420
	02/07/00	ND	ND	ND	ND	ND	0.6	310
	05/05/00	ND	ND	ND	ND	ND	ND	280
	08/03/00	460	3300	79	3	43	8	70*
	11/08/00	200	3000	57	2	13	8	120
	02/08/01	290	3100	50	11	0.6	4	80
	06/07/01	210	2000	18	0.6	3	5	80
MW-3 GW	08/06/99	ND	ND	ND	ND	ND	ND	ND
	11/05/99	92	ND	ND	ND	0.6	1.7	54
	02/07/00	120	ND	ND	0.6	0.8	2.2	71
	05/05/00	100	ND	ND	ND	0.7	1.9	68
	08/03/00	910	11000**	220	9	35	16	300*
	11/08/00	990	8000	320	0.8	18	9	200
	02/08/01	990	5200**	180	21	7	24	110
	06/07/01	370	6600**	62	4	8	13	140
06/07/01	Fuel Oxygenates analyses by EPA Method 8260 were non-detect for Ethanol, Di-isopropyl Ether, Tertiary Butyl Alcohol, Ethyl-t-Butyl Ether, t-Amyl Methyl Ether; MTBE 8300 µg/L							
SB-1/TW	06/07/01	1400	33	120	160	48	240	250*
SB-2/TW	06/07/01	8900	26	1100	1900	280	1300	770*
SB-3/TW	06/07/01	2400	3600	280	31	110	340	430*
SB-4/TW	06/07/01	8800	4500**	1400	190	86	230	19000*
RL	06/13/01	50	0.5	0.5	0.5	0.5	1.0	50
<p>Notes:</p> <p>ND- Not Detected RL- Reporting Limit NA- Not Analyzed</p> <p>µg/L- Microgram per liter (parts per billion)</p> <p>TPHg- Total petroleum hydrocarbon as gasoline (EPA method modified 8015)</p> <p>TPHd- Total petroleum hydrocarbon as diesel (EPA method modified 8015)</p> <p>MTBE- Methyl Tertiary Butyl Ether (EPA method 8020)</p> <p>BTEX- Benzene, toluene, ethylbenzene, and total xylenes (EPA method 802E)</p> <p>PAH- Polynuclear Aromatic Hydrocarbon (EPA method 610)</p> <p>Fuel Oxygenates- Ethanol, Di-isopropyl Ether, Tertiary Butyl Alcohol, Ethyl-t-Butyl Ether, t-Amyl Methyl Ether, MTBE (EPA Method 8260)</p> <p>* Does not match diesel pattern</p> <p>** Confirmed by GC/MS method 8260</p>								

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY
DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

RO 0000262

April 13, 2001

Mr. Mohinder Sikand
Dr. Joginder Sikand
1300 Ptarmigan Drive, #1
Walnut Creek, CA 94595

RE: Work Plan Approval for 800 San Pablo Avenue, Albany, CA

Dear Mr. and Dr. Sikand:

I have completed review of Advanced Assessment and Remediation Services' April 2001 *Work Plan for Additional Investigations* prepared for the above referenced site. The proposal to advance four exploratory borings to further characterize the contaminant plume is acceptable. Select soil and grab groundwater samples will be analyzed for TPHg, MTBE and BTEX.

Please coordinate the next groundwater sampling event (in May 2001) with field activities to implement the approved work plan. For the next sampling event, please have groundwater from well MW-3 analyzed for ether oxygenates (TBA, TAME, and ETBE) using Method 8260B.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

email: Tridib Guha



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1095
PHONE (510) 675-3354
FAX (510) 782-3336

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 800 San Pablo Ave.
Albany, CA 94706

PERMIT NUMBER W01-285
WELL NUMBER _____
APN _____

CLIENT
Name Mohinder & Joginder Sikand
Address 300 Farmigan Dr. #201 Phone 925-256-1385
City Walnut Creek Zip 94595

APPLICANT
Name Advanced Assessment and Remediation Svc.
Address 180 Salvino #202 Phone 925-363-1998
City Concord Zip 94520

TYPE OF PROJECT
Well Construction _____ Geotechnical Investigation _____
Cathodic Protection Corrosion _____
Water Supply Contamination _____
Monitoring Well Destruction _____

PROPOSED WATER SUPPLY WELL USE
New Domestic Replacement Domestic
Municipal Irrigation
Industrial Other _____

DRILLING METHOD:
Mud Rotary Air Rotary Auger
Cable Other

DRILLER'S NAME Exploration Geoservices

DRILLER'S LICENSE NO. C 57 484288

WELL PROJECTS
Drill Hole Diameter _____ in. Maximum Depth _____ ft.
Casing Diameter _____ in. Depth _____ ft.
Surface Seal Depth _____ ft. Owner's Well Number: _____

CONTAMINATION
GEOCHEMICAL PROJECTS
Number of Borings 9 Maximum Depth 15 ft.
Hole Diameter 6 in.

ESTIMATED STARTING DATE June 10, 2001
ESTIMATED COMPLETION DATE June 19, 2001

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 72-81.

APPLICANT'S SIGNATURE T. D. G. G. G. DATE 5/14/01

BASE PRINT NAME TRIDIB GUHA Act. 5-3-00

PERMIT CONDITIONS

Circled Permit Requirements Apply

- A. GENERAL
 1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
 2. Submit to ACPWA within 60 days after completion of permitted original Department of Water Resources Well Completion Report.
 3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 30 feet.
- D. GEOCHEMICAL

Backfill bore hole by tremie with cement grout or cement grout/mixcrete. Upper two-thirds feet replaced in kind or with compressed castings.
- E. CATHODIC

Fill hole anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION

See attached requirements for destruction of shallow wells. Send a map of work area. A different permit application is required for wells deeper than 45 feet.
- G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.



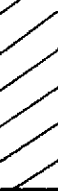
APPROVED [Signature] DATE 5-14-01

LOG OF EXPLORATORY BORING NO. SB-1/TW

Project: Albany Hill Mini Mart
 Drilling Co.: Gregg Drilling
 Start Date: 6/7/01
 End Date: 6/7/01

Drill Method: HSA
 Driller: R. Deason
 Drill Rig: Rhino D-15

Logged By: T. Guha
 Sampler: Split Spoon
 Hole Dia.: 6 inch

LITHOLOGIC DESCRIPTION	USCS CLASS	GRAPHIC LOG	DEPTH	SAMPLE	DRIVEN in	RECOVERY-in	OVA (ppm)	BORING CLOSURE
CONCRETE 2"			0					 <p>Neat Cement</p>
CLAY: greenish gray, moist, very stiff color changes to light greenish gray	CH		-5-				2	
SILTY CLAY: light brown, moist, stiff wet	CL		-10- -15-	■	▼		320 210	
BORE HOLE TERMINATED @ 20 feet			-20- -25- -30-		∇			

ADVANCED ASSESSMENT & REMEDIATION SERVICES
 2380 Salvio Street, Suite 202
 Concord, CA 94520

Note: Borehole was drilled by using hollow stem augers.. A groundwater sample was collected (see text).


Project No.
 00010
 Page 1 of 1

LOG OF EXPLORATORY BORING NO. SB-2/TW

Project: Albany Hill Mini Mart
 Drilling Co.: Gregg Drilling
 Start Date: 6/7/01
 End Date: 6/7/01

Drill Method: HSA
 Driller: R. Deason
 Drill Rig: Rhino D-15

Logged By: T. Guha
 Sampler: Split Spoon
 Hole Dia.: 6 inch

LITHOLOGIC DESCRIPTION	USCS CLASS	GRAPHIC LOG	DEPTH	SAMPLE	DRIVEN in	RECOVERY-in	OVA (ppm)	BORING CLOSURE
CONCRETE 2"			0					 <p style="text-align: center;">Neat Cement</p>
CLAY: dark gray, very moist, very stiff color changes to brown	CH	/ / / / /	-5-				5	
CLAY: light gray with angular gravels, moist, stiff	CL	/ / / / /	-10-	■	▼		650	
SAND: light greenish gray, with angular gravels moist, dense, very strong gasoline odor	SP	-15-		▽		720	
CLAYEY SAND: greenish gray, very moist, dense wet	SC	/ / / / /	-20-					
<i>BORE HOLE TERMINATED @ 20 feet</i>			-25-					
			-30-					

**ADVANCED ASSESSMENT &
 REMEDIATION SERVICES**
 2380 Salvio Street, Suite 202
 Concord, CA 94520

*Note: Borehole was drilled by using hollow stem
 augers.. A groundwater sample was collected (see
 text).*




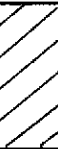
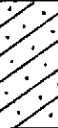

Project No.
 00010
 Page 1 of 1

LOG OF EXPLORATORY BORING NO. SB-3/TW

Project: Albany Hill Mini Mart
 Drilling Co.: Gregg Drilling
 Start Date: 6/7/01
 End Date: 6/7/01

Drill Method: HSA
 Driller: R. Deason
 Drill Rig: Rhino D-15

Logged By: T. Guha
 Sampler: Split Spoon
 Hole Dia.: 6 inch

LITHOLOGIC DESCRIPTION	USCS CLASS	GRAPHIC LOG	DEPTH	SAMPLE	DRIVEN in	RECOVERY-in	OVA (ppm)	BORING CLOSURE
CONCRETE 8"			0					 <p>Neat Cement</p>
CLAY: dark gray, moist, very stiff	CH		-					
GRAVELLY SAND: brown, with little fines slighty moist, medium dense	SW		-5-				25	
CLAY: greenish gray, with angular gravels moist, stiff, strong gasoline odor	CL		-10-	■	■		550	
CLAYEY SAND: light brown, moist, dense wet	SC		-15-		▽		610	
SILTY SAND: brown, with well rounded gravels, dense wet	SM		-20-					
<i>BORE HOLE TERMINATED @ 20 feet</i>			-25-					
			-30-					

ADVANCED ASSESSMENT & REMEDIATION SERVICES
 2380 Salvio Street, Suite 202
 Concord, CA 94520

Note: Borehole was drilled by using hollow stem augers to 15 feet. No groundwater in the hole for 2 hrs. Hole was reentered and drilled to 20 feet. A groundwater sample was collected (see text).





Project No. 00010
 Page 1 of 1

LOG OF EXPLORATORY BORING NO. SB-4/TW

Project: Albany Hill Mini Mart
 Drilling Co.: Gregg Drilling
 Start Date: 6/7/01
 End Date: 6/7/01

Drill Method: HSA
 Driller: R. Deason
 Drill Rig: Rhino D-15

Logged By: T. Guha
 Sampler: Split Spoon
 Hole Dia.: 6 inch

LITHOLOGIC DESCRIPTION	USCS CLASS	GRAPHIC LOG	DEPTH	SAMPLE	DRIVEN in	RECOVERY-in	OVA (ppm)	BORING CLOSURE
CONCRETE 6"			0					
CLAY: dark gray, moist, stiff	CH		-5-				5	 Neat Cement
Color changes to greenish gray, moist, very stiff, strong gasoline odor			-10-	■	▼		710	
CLAYEY SAND: greenish gray, moist, dense	SC		-15-		▽		330	
SILTY SAND: brown, dense, wet	SM		-20-					
BORE HOLE TERMINATED @ 20 feet			-25-					
			-30-					

ADVANCED ASSESSMENT & REMEDIATION SERVICES
 2380 Salvio Street, Suite 202
 Concord, CA 94520

Note: Borehole was hydropunched to 15 feet, set screen. No groundwater in the hole for 2 hrs. Hole was reentered and hydropunched to 20 feet, set screen. No groundwater for 1 hr. Hole was redrilled with HSA to 20 feet. A groundwater sample was collected (see text).

Project No.
 00010
 Page 1 of 1

UNIFIED SOIL CLASSIFICATION SYSTEM

ASTM D2488-84

MAJOR DIVISIONS			SYMBOLS	TYPICAL NAMES
COARSE GRAINED SOILS OVER 50% > No. 200 SIEVE SIZE	GRAVELS MORE THAN 1/2 OF COARSE FRACTION > NO. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	Well graded gravels or gravel-sand mixtures, little or no fines
			GP	Poorly graded gravels or gravel-sand mixtures, little or no fines
		GRAVELS WITH OVER 12% FINES	GM	Silty gravels, gravel-sand mixtures
			GC	Clayey gravels, gravel-sand-clay mixtures
	SANDS MORE THAN 1/2 OF COARSE FRACTION < NO. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	Well graded sands or gravelly sands, little or no fines
			SP	Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH OVER 12% FINES	SM	Silty sands, sand-silt mixtures
			SC	Clayey sands, sand-clay mixtures
FINE GRAINED SOILS OVER 50% < No. 200 SIEVE SIZE	SILTS & CLAYS LIQUID LIMIT 50% OR LESS	ML	Inorganic silty and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity	
		CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays	
		OL	Organic silts and organic silty clays of low plasticity	
	SILTS & CLAYS LIQUID LIMIT GREATER THAN 50%	MH	Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
		CH	Inorganic clays of high plasticity, fat clays	
		OH	Organic clays of medium to high plasticity, organic silty clays, organic silts	
		Pt	Peat and other highly organic soils	
HIGHLY ORGANIC SOILS				

SYMBOLS KEY

	Driven Interval
	Bulk or Classification Sample
	Laboratory Sample
	Undisturbed Samp. for Classification
	First encountered groundwater level
	Static groundwater level
(IOYR 4/4) Munsell soil color 1990 edition	

GRAIN SIZE CHART

CLASSIFICATION	RANGE OF GRAIN SIZES	
	U.S. Standard Sieve Size	Grain Size in Millimeters
BOULDERS	Above 12"	Above 305
COBBLES	12" to 3"	305 to 76.2
GRAVEL coarse fine	3" to No. 4	76.2 to 4.76
	3" to 3/4"	76.2 to 19.1
	3/4" to No. 4	19.1 to 4.76
SAND coarse medium fine	No. 4 to No. 200	4.76 to 0.074
	No. 4 to No. 10	4.76 to 2.00
	No. 10 to No. 40	2.00 to 0.420
	No. 40 to No. 200	0.420 to 0.074
SILT & CLAY	Below No. 200	Below No. 0.074

ADVANCED ASSESSMENT & REMEDIATION SERVICES
 2380 Salvio Street, Suite 202
 Concord, CA 94520

SOIL CLASSIFICATION CHART AND KEY TO BORING LOG

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME: Albany Hill Mini Mart PROJECT NUMBER: 99005

SITE ADDRESS: 800 San Pablo Avenue, Albany, CA

WELL NUMBER: ~~W-1~~ WELL CASING DIA.: DATE: 6/7/01

Stagnant Volume Calculation

Total Well Depth (ft) - Initial Depth to Water = Water Column Height (ft) - Time: 7:58
 24 - 11.35 = 12.65

Water column Height (ft) x Gallons/Linear Foot = Stagnant Volume (Gallons)
 12.65 x 0.17 = 2.15

(Gallons/Linear Foot: 2" dia. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5)

Groundwater Inspection

Floating Product (ft. or in.): NONE Sheen/Iridescence: YES Odor: ~~YES~~

Time	Volume Purged (gal)	Temperature (degrees F)	pH	Conductivity μ S	Color/Turbidity/Other
10:00	0	66.7	6.79	2291	CLEAR
10:10	2	66.5	6.83	2309	SLIGHTLY TURBID BROWNISH
10:20	5	66.4	6.87	2367	" " "
10:30	7	66.4	6.91	2379	" " "

Purged Water Containment

Purge Method Used:

7 gals stored in 1 55 gal (drums); Any previous drums? 1 Capacity 55

Groundwater Sampling Water Level Recovery (Depth to groundwater in feet)

(P) After purging: 12.38 (I) Initially: 11.35 (S) Before sampling: 11.42 Time: 11:58

(P-S)/P-I x 100 = 100 % Total Recovery: 93% SAMPLE TIME 12:00

Sample Containers (How many? Preservatives?)

1 liter amber glass: 1; 40 ml VOA: 3; 500 ml polypropylene: X

REMARKS:

SAMPLER: TRIDIB GUHA

(Print)

SIGNATURE: *[Signature]*

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME: Albany Hill Mini Mart PROJECT NUMBER: 99005

SITE ADDRESS: 800 San Pablo Avenue, Albany, CA

WELL NUMBER: ~~MM-2~~ WELL CASING DIA.: 2" DATE: 6/7/01

Stagnant Volume Calculation

Total Well Depth (ft) - Initial Depth to Water = Water Column Height (ft) - Time: 7:54
 24 10.30 13.70

Water column Height (ft) x Gallons/Linear Foot = Stagnant Volume (Gallons)
 13.70 0.17 2.33

(Gallons/Linear Foot: 2" dia. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5)

Groundwater Inspection

Floating Product (ft. or in.): NONE Sheen/Iridescence: NONE Odor: YES

Time	Volume Purged (gal)	Temperature (degrees F)	pH	Conductivity μ S	Color/Turbidity/Other
8:15	0	68.2	7.02	1182	CLEAR
8:25	2	67.9	7.01	1197	SLIGHTLY TURBID BROWNISH
8:35	5	67.8	7.01	1208	" " "
8:45	7	67.9	7.00	1201	" " "

Purged Water Containment

Purge Method Used:

7 gals stored in 1 55 gal (drums); Any previous drums? 1 Capacity 5

Groundwater Sampling

Water Level Recovery (Depth to groundwater in feet)

(P) After purging: 11.31 (I) Initially: 10.30 (S) Before sampling: 10.32 Time: 11:43

(P-S)/P-I x 100 = 100 % Total Recovery: 98% SAMPLE TIME 11:45

Sample Containers (How many? Preservatives?)

1 liter amber glass: 1; 40 ml VOA: 3; 500 ml polypropylene: X

REMARKS:

SAMPLER: TRIDIB GUHA

(Print)

SIGNATURE: *[Signature]*

GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME: Albany Hill Mini Mart PROJECT NUMBER: 99005
 SITE ADDRESS: 800 San Pablo Avenue, Albany, CA
 WELL NUMBER: MW-3 WELL CASING DIA: 2" DATE: 6/7/01

Stagnant Volume Calculation

Total Well Depth (ft) - Initial Depth to Water = Water Column Height (ft) - Time: 7:56
 24 10.04 13.96

Water column Height (ft) x Gallons/Linear Foot = Stagnant Volume (Gallons)
 13.96 0.17 2.37

(Gallons/Linear Foot: 2" dia. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5)

Groundwater Inspection

Floating Product (ft. or in.): NONE Sheen/Iridescence: NONE Odor: YES

Time	Volume Purged (gal)	Temperature (degrees F)	pH	Conductivity µS	Color/Turbidity/Other
9:00	0	68.0	7.02	1409	CLEAR
9:10	2	68.1	7.04	1469	SLIGHTLY TURBID GRAY
9:20	5	68.0	7.03	1501	" " "
9:30	7	68.0	7.04	1487	" " "

Purged Water Containment

Purge Method Used:

7 gals stored in 1 55 gal (drums); Any previous drums? 1 Capacity 55

Groundwater Sampling

Water Level Recovery (Depth to groundwater in feet)

(P) After purging: 11.01 (I) Initially: 10.04 (S) Before sampling: 10.08 Time: 12:08

(P-S)/(P-I) x 100 = 100 % Total Recovery: 95%

SAMPLE TIME 12:10

Sample Containers (How many? Preservatives?)

1 liter amber glass: 1; 40 ml VOA: 3; 500 ml polypropylene: X

REMARKS:

SAMPLER: TRIDIB GUHA
 (Print)

SIGNATURE: *Tridib Guha*



CERTIFICATE OF ANALYSIS

Lab Number: 01-0815
Client: Advanced Assessment & Remd.
Project: ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 06/19/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel Range Hydrocarbons by Method 8015M

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains three sample entries (01-0815-01, 01-0815-02, 01-0815-03) with various analyte results.

*Does not match diesel.**Confirmed by GC/MS method 8260.



CERTIFICATE OF ANALYSIS

Lab Number: 01-0815
Client: Advanced Assessment & Remd.
Project: ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 06/19/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel Range Hydrocarbons by Method 8015M

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains data for three samples (01-0815-03, 01-0815-04, 01-0815-05) and their respective analytes.

*Does not match diesel.**Confirmed by GC/MS method 8260.



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0815
Client: Advanced Assessment & Remd.
Project: ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 06/19/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel Range Hydrocarbons by Method 8015M

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains three sample entries (01-0815-06, 01-0815-07, 01-0815-08) with various analyte results.

*Does not match diesel.**Confirmed by GC/MS method 8260.



C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0815
Client: Advanced Assessment & Remd.
Project: ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 06/19/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel Range Hydrocarbons by Method 8015M

Table with 6 columns: Analyte, Method, Result, Unit, Date Sampled, Date Analyzed. Contains three sample entries (01-0815-08, 01-0815-09, 01-0815-10) and their respective chemical analysis results.

*Does not match diesel. **Confirmed by GC/MS method 8260.



North State Environmental Laboratory

CA ELAP#1753

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 01-0815
Client: Advanced Assessment & Remd.
Project: ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 06/19/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 01-0815-11	Client ID: SB-4/TW@9'			06/07/2001	SOIL
Gasoline	8015M	160	mg/Kg		06/13/2001
Benzene	8020	0.71	mg/Kg		
Ethylbenzene	8020	1.9	mg/Kg		
MTBE	8020	ND<0.125	mg/Kg		
Toluene	8020	2.9	mg/Kg		
Xylenes	8020	1.2	mg/Kg		
Diesel	8015M	*47	mg/Kg		06/13/2001



CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number: 01-0815
Client: Advanced Assessment & Remd.
Project: ALBANY HILL MINI MART/800 SAN PABLO AVE.

Date Reported: 06/19/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020
Diesel Range Hydrocarbons by Method 8015M

Table with 7 columns: Analyte, Method, Reporting Limit, Unit, Blank, Avg MS/MSD Recovery, RPD. Rows include Gasoline, Benzene, Toluene, Ethylbenzene, Xylenes, MTBE, Diesel, etc.

ELAP Certificate NO:1753

Reviewed and Approved

Handwritten signature of John A. Murphy

John A. Murphy, Laboratory Director



North State Environmental Laboratory

CA ELAP# 1753

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Job Number: 01-0815

Date Sampled : 06/07/2001

Client : Advanced Assessment & Remd.

Date Analyzed: 06/13/2001

Project : ALBANY HILL MINI MART/800 SAN PABLO

Date Reported: 06/19/2001

Volatile Organics by GC/MS Method 8260

Laboratory Number	01-0815-03	
Client ID	MW-3/GW	
Matrix	WATER	
Analyte	ug/L	Recovery Limit
Ethanol	ND<100	
Methyl-t-Butyl Ether	8300	
Di-isopropyl Ether	ND<1	
tertiary Butyl Alcohol	ND<50	
Ethyl-t-Butyl Ether	ND<1	
t-Amyl Methyl Ether	ND<1	
SUR-Dibromofluoromethane	114% Rec	60-150
SUR-Toluene-d8	101% Rec	70-130
SUR-4-Bromofluorobenzene	102% Rec	70-130



C E R T I F I C A T E O F A N A L Y S I S

Job Number: 01-0815 Date Sampled : 06/07/2001
Client : Advanced Assessment & Remd. Date Analyzed: 06/13/2001
Project : ALBANY HILL MINI MART/800 SAN PABLO Date Reported: 06/19/2001

Volatile Organics by GC/MS Method 8260
Quality Control/Quality Assurance Summary

Table with columns: Laboratory Number, Client ID, Matrix, Analyte, Results, %Recoveries, RPD, Recovery Limit, RPD Limit. Lists various analytes like Ethanol, Methyl-t-Butyl Ether, etc., with their respective results and recovery percentages.

Reviewed and Approved

John A. Murphy
Laboratory Director



North State Environmental Analytical Laboratory

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080

Phone: (650) 266-4563 Fax: (650) 266-4560

01-0815

Chain of Custody / Request for Analysis

Lab Job No.: _____ Page 1 of 1

Client: <i>ADVANCED ASSESSMENT & REMED. SVCS.</i>	Report to: <i>TRIDIB GUHA</i>	Phone: <i>925-363-1999</i>	Turnaround Time 5 DAYS
Mailing Address: <i>2380 SALVIO ST. #202 CONCORD, CA 94520</i>	Billing to:	Fax: <i>925-363-1998</i>	
		PO# / Billing Reference:	
			Sampler: <i>T. GUHA</i>

Project / Site Address: <i>ALBANY HILL MIHIMART 800 SAN PABLO AVE ALBANY, CA</i>					Analysis Requested			Comments / Hazards
Sample ID	Sample Type	Container No. / Type	Pres.	Sampling Date / Time	<i>TPH8/320X/MTBG</i>	<i>TPH2</i>	<i>FUEL OXYGENS. TRA, TAME, ETBE</i>	
<i>1 MW-1/GW</i>	<i>WATER</i>	<i>3 VOA, 1 L. AMB</i>	<i>11.2 L. IN VOLS</i>	<i>6/7/01 12:00</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>SEND CHROMATOGRAMS WITH FINAL REPORT</i>
<i>2 MW-2/GW</i>		<i>3 VOA, 1 L. AMB</i>		<i>6/7/01 11:45</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>3 MW-3/GW</i>		<i>5 VOA, 1 L. AMB</i>		<i>6/7/01 12:10</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>4 SB-1/TW</i>		<i>3 VOA, 1 L. AMB</i>		<i>6/7/01 12:50</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>5 SB-2/TW</i>		<i>3 VOA, 1 L. AMB</i>		<i>6/7/01 13:30</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>6 SB-3/TW</i>		<i>3 VOA, 1 L. AMB</i>		<i>6/7/01 10:20</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>7 SB-4/TW</i>	<i>WATER</i>	<i>3 VOA, 1 L. AMB</i>		<i>6/7/01 11:40</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>8 SB-1/TW@10'</i>	<i>SOIL</i>	<i>1 BRASS TUBE</i>		<i>6/7/01 12:35</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>9 SB-2/TW@10'</i>		<i>1 BRASS TUBE</i>		<i>6/7/01 13:20</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>10 SB-3/TW@9.5'</i>		<i>1 BRASS TUBE</i>		<i>6/7/01 9:35</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
<i>11 SB-4/TW@9'</i>	<i>SOIL</i>	<i>1 BRASS TUBE</i>		<i>6/7/01 8:30</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	

Relinquished by: <i>Tridib Guha</i>	Date: <i>6/7/01</i> Time: <i>1:57 PM</i>	Received by: <i>[Signature]</i>	Lab Comments <i>Sample received in good condition</i>
Relinquished by:	Date: _____ Time: _____	Received by:	
Relinquished by:	Date: _____ Time: _____	Received by:	

Quantitation Report

Data File : C:\HPCHEM\2\DATA\06131N09.D\FID1A.CH
Acq On : 13 Jun 2010 12:34 pm
Sample : 01-0815-01
Misc : water 5ml
IntFile : TRY1.E

Vial: 9
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

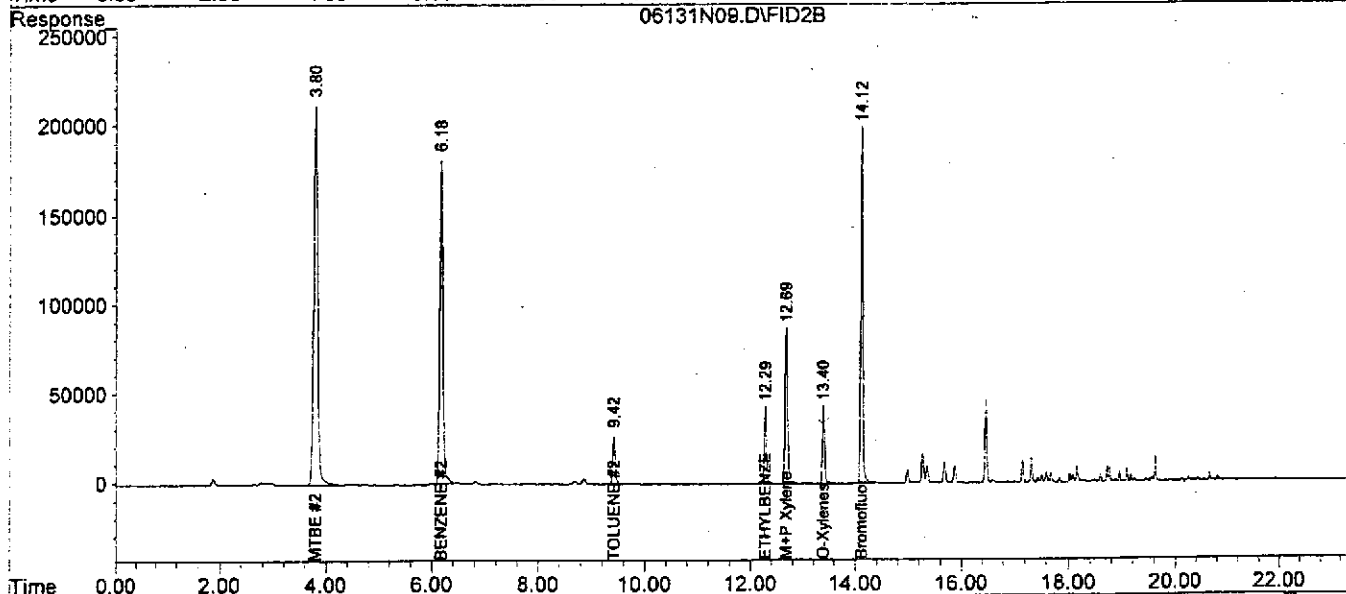
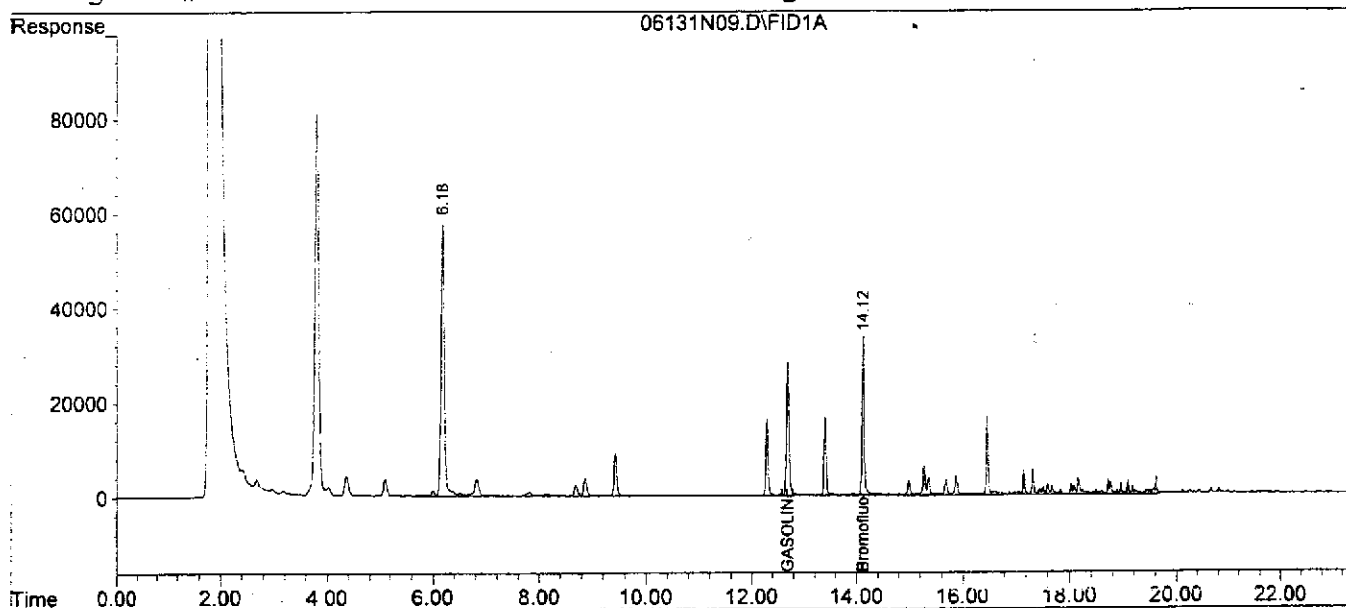
Data File : C:\HPCHEM\2\DATA\06131N09.D\FID2B.CH
Acq On : 13 Jun 10 12:34 pm
Sample : 01-0815-01
Misc : water 5ml
IntFile : AUTOINT1.E

Vial: 9
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

Quant Time: Jun 13 12:57 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Wed Feb 21 12:23:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\2\DATA\06131N10.D\FID1A.CH
 Acq On : 13 Jun 2010 1:05 pm
 Sample : 01-0815-02
 Misc : water 5ml
 IntFile : TRY1.E

Vial: 10
 Operator: ec
 Inst : GC/MS Ins
 Multiplr: 1.00

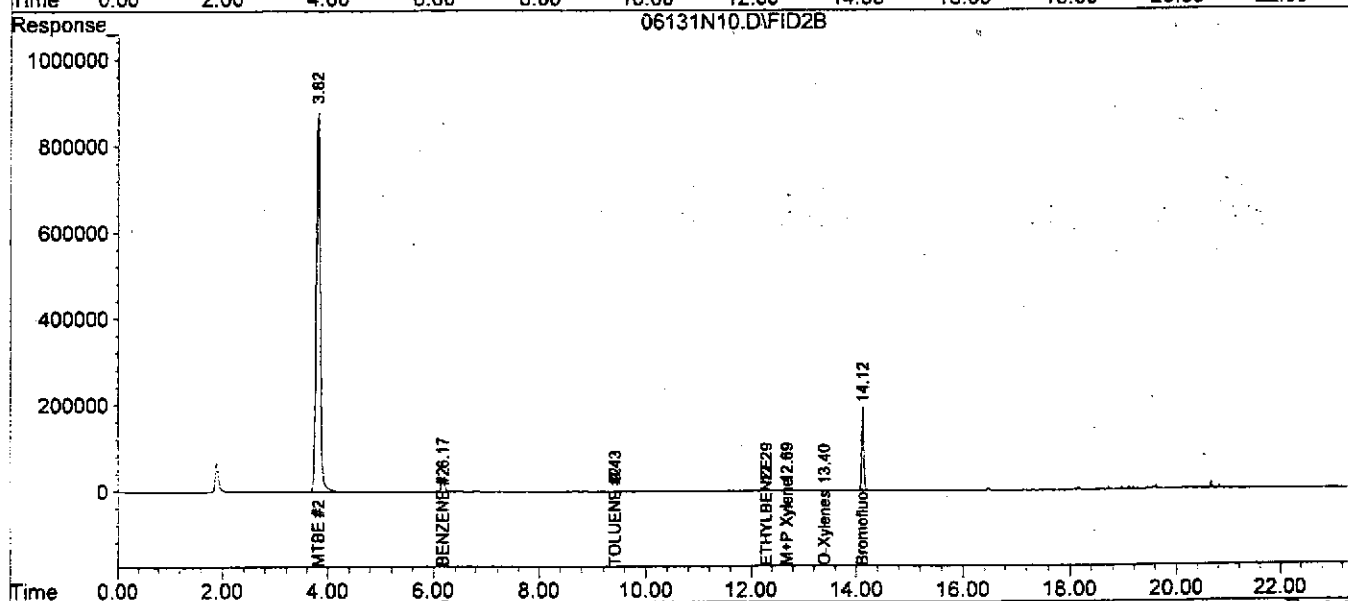
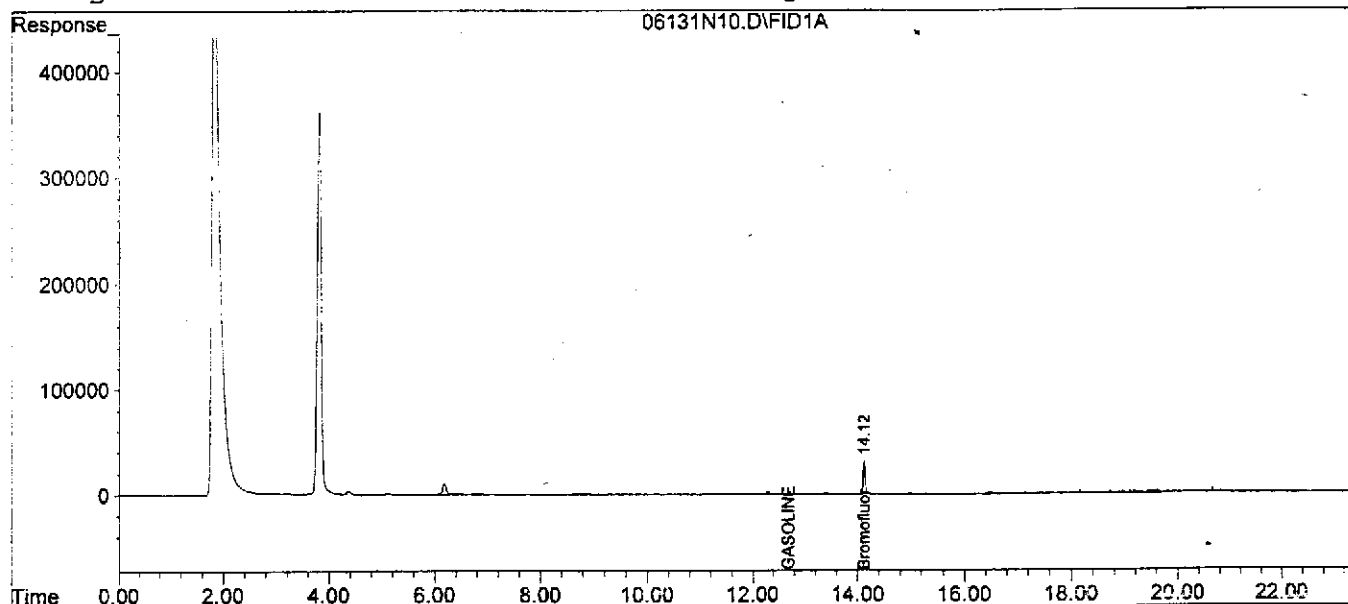
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 Acq On : 13 Jun 10 1:05 pm
 Sample : 01-0815-02
 Misc : water 5ml
 IntFile : AUTOINT1.E

Vial: 10
 Operator: ec
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Time: Jun 13 13:29 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)
 Title : Gasoline Aromatics (BTEX-MTBE)
 Last Update : Wed Feb 21 12:23:00 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
 Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
 Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\2\DATA\06131N11.D\FID1A.CH
Acq On : 13 Jun 2010 1:36 pm
Sample : 01-0815-03
Misc : water 5ml
IntFile : TRY1.E

Vial: 11
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

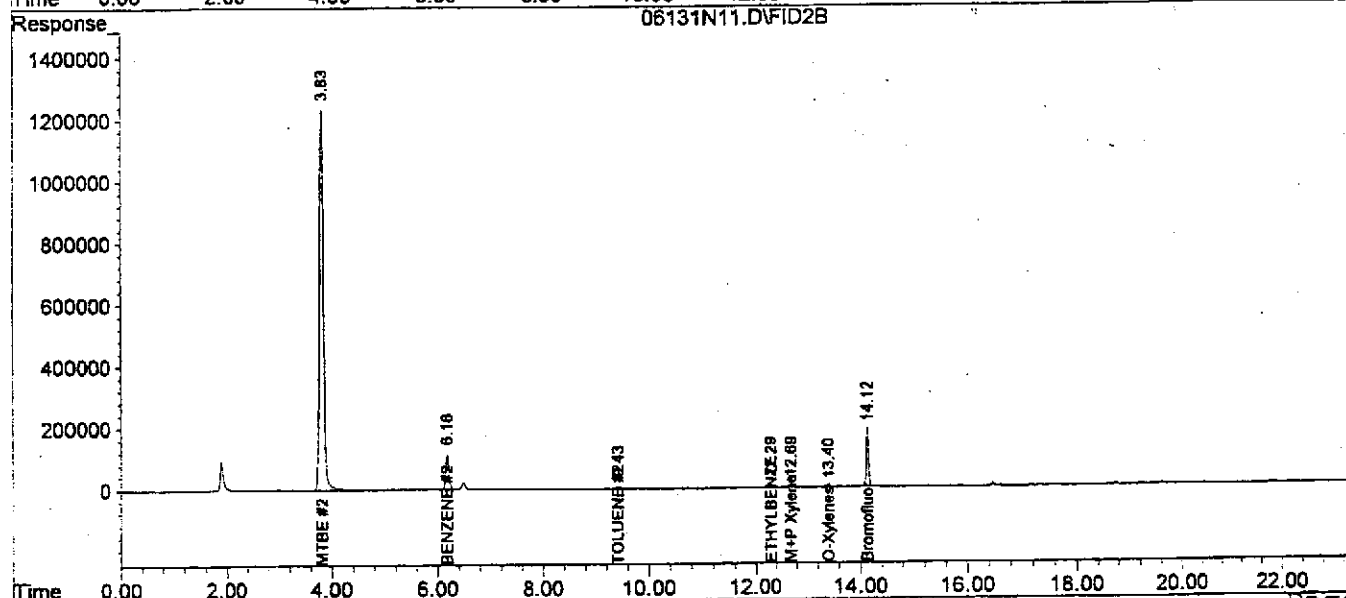
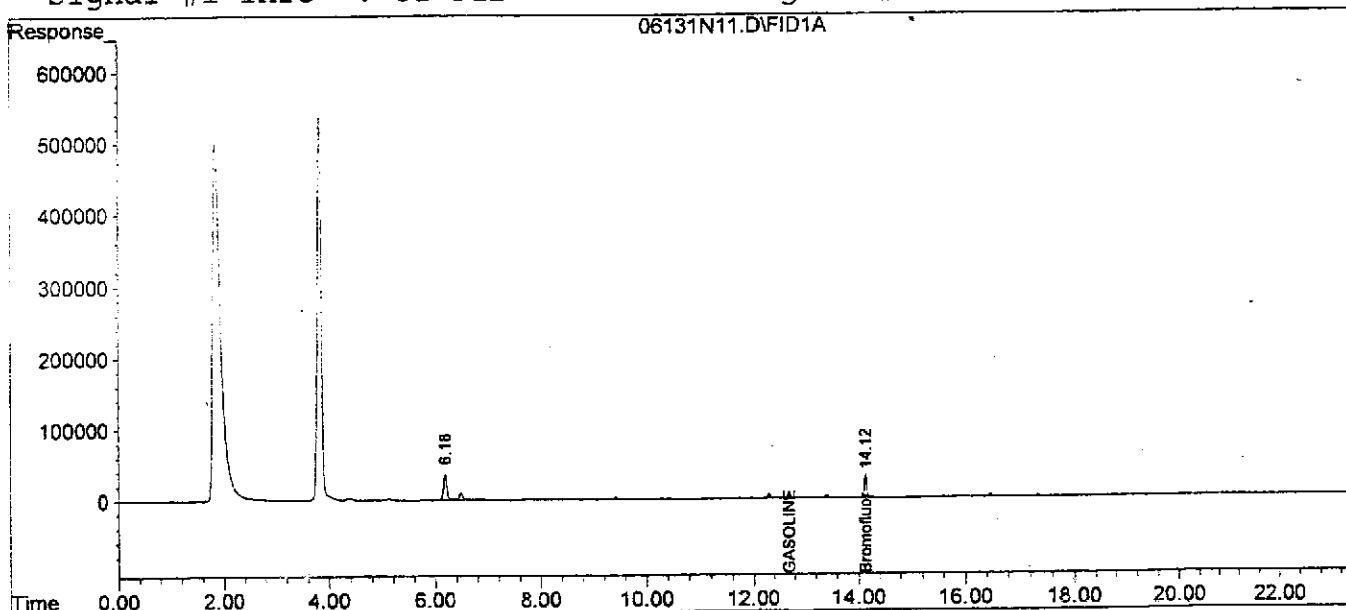
Data File : C:\HPCHEM\2\DATA\06131N11.D\FID2B.CH
Acq On : 13 Jun 10 1:36 pm
Sample : 01-0815-03
Misc : water 5ml
IntFile : AUTOINT1.E

Vial: 11
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

Quant Time: Jun 13 14:00 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Wed Feb 21 12:23:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\2\DATA\06131N12.D\FID1A.CH
Acq On : 13 Jun 2010 2:07 pm
Sample : 01-0815-04
Misc : water 5ml
IntFile : TRY1.E

Vial: 12
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

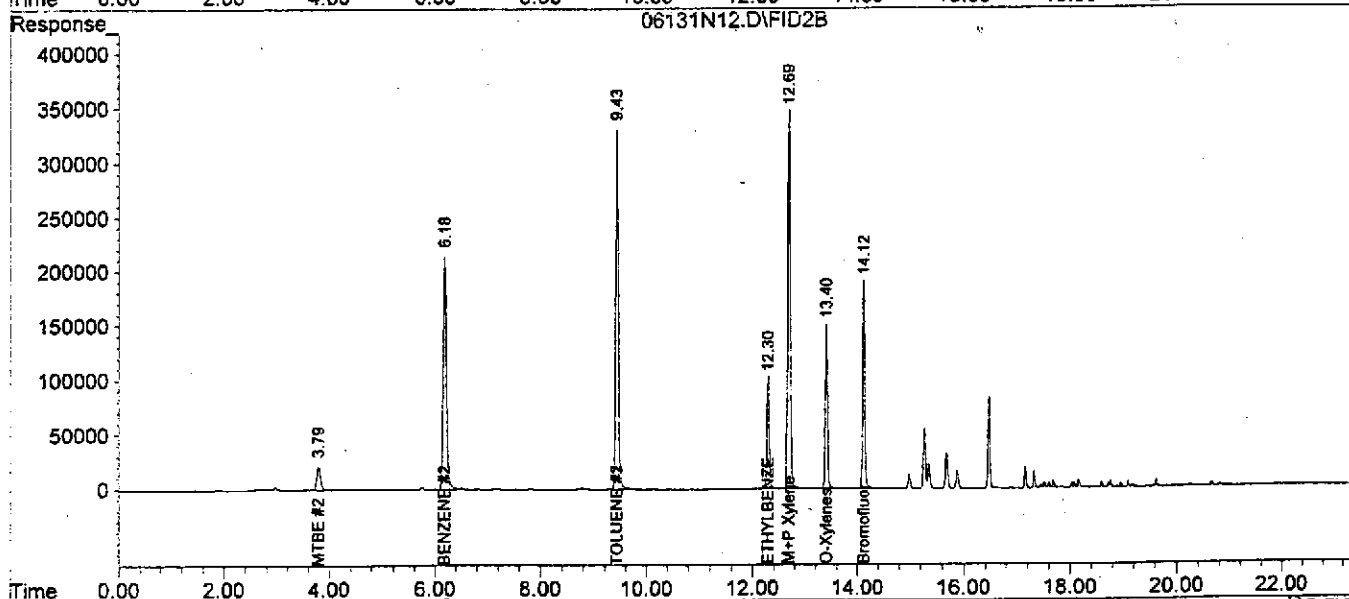
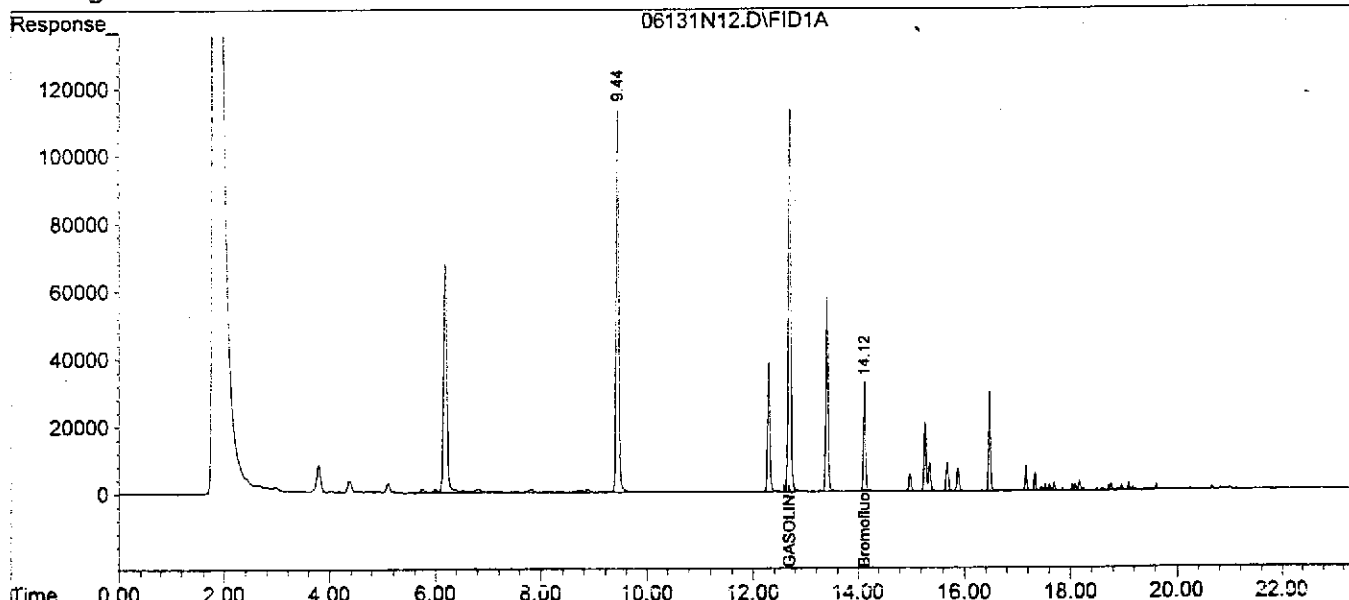
Data File : C:\HPCHEM\2\DATA\06131N12.D\FID2B.CH
Acq On : 13 Jun 10 2:07 pm
Sample : 01-0815-04
Misc : water 5ml
IntFile : AUTOINT1.E

Vial: 12
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

Quant Time: Jun 13 14:31 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Wed Feb 21 12:23:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\2\DATA\06131N13.D\FID1A.CH
Acq On : 13 Jun 2010 2:39 pm
Sample : 01-0815-05
Misc : water 5ml
IntFile : TRY1.E

Vial: 13
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

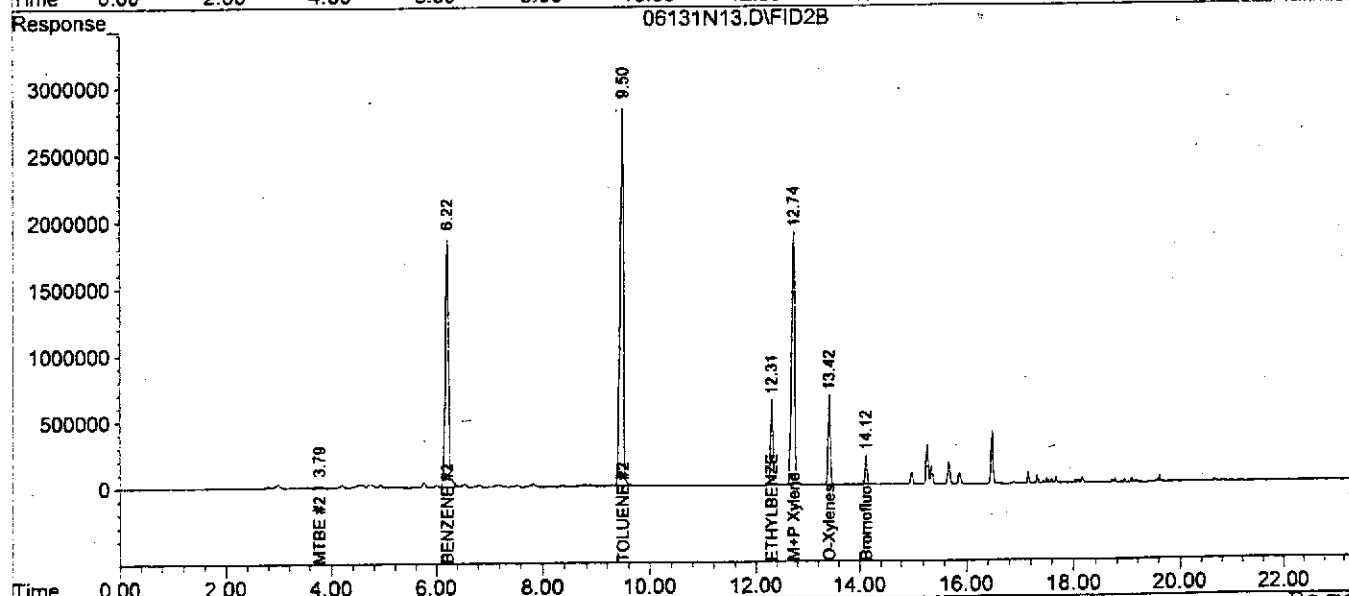
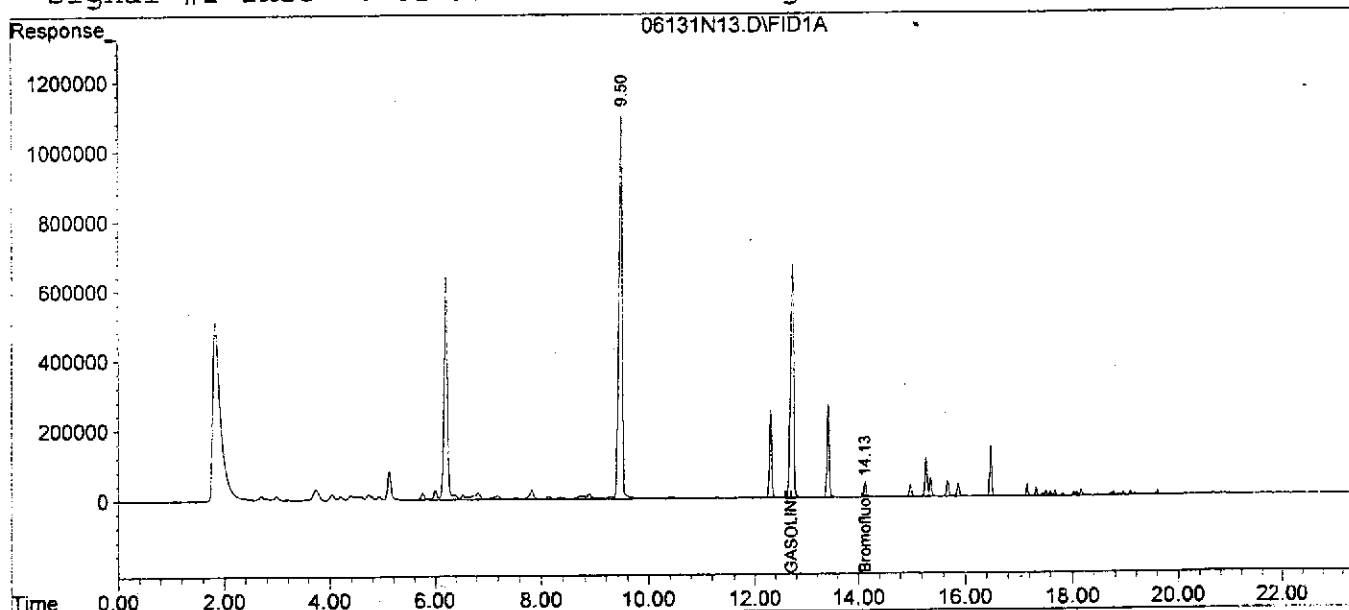
Data File : C:\HPCHEM\2\DATA\06131N13.D\FID2B.CH
Acq On : 13 Jun 10 2:39 pm
Sample : 01-0815-05
Misc : water 5ml
IntFile : AUTOINT1.E

Vial: 13
Operator: ec
Inst : GC/MS Ins
Multiplr: 1.00

Quant Time: Jun 13 15:02 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Wed Feb 21 12:23:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\2\DATA\06131N14.D\FID1A.CH
 Acq On : 13 Jun 2010 3:10 pm
 Sample : 01-0815-06
 Misc : water 5ml
 IntFile : TRY1.E

Vial: 14
 Operator: ec
 Inst : GC/MS Ins
 Multiplr: 1.00

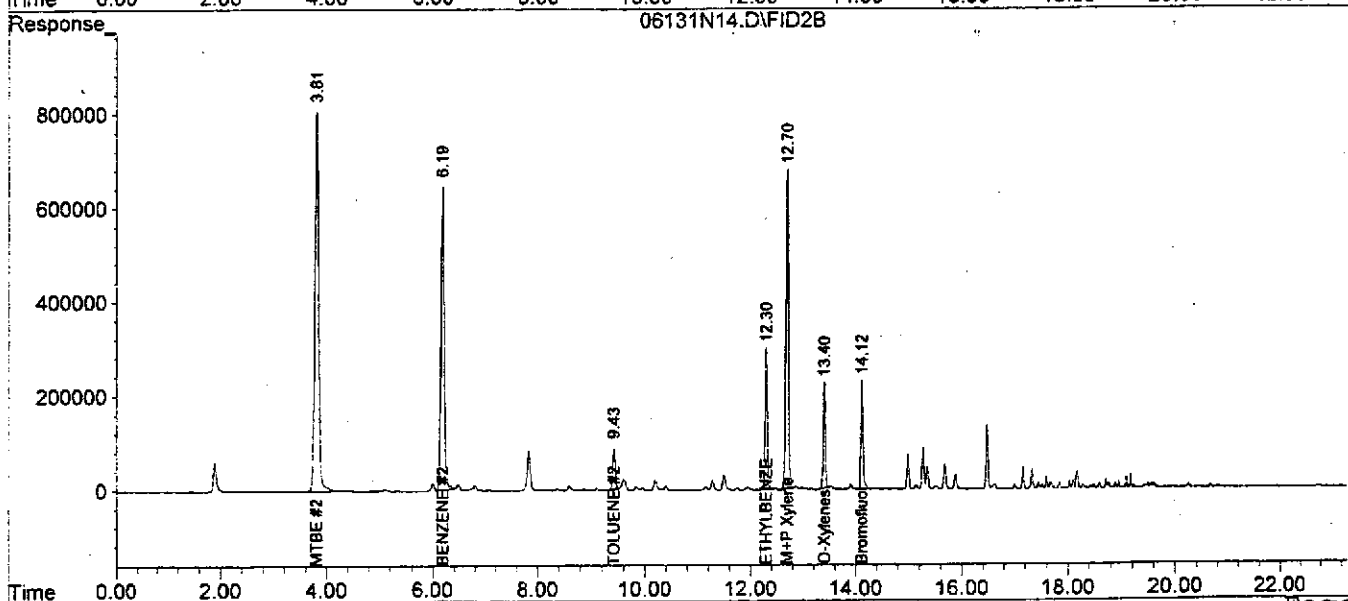
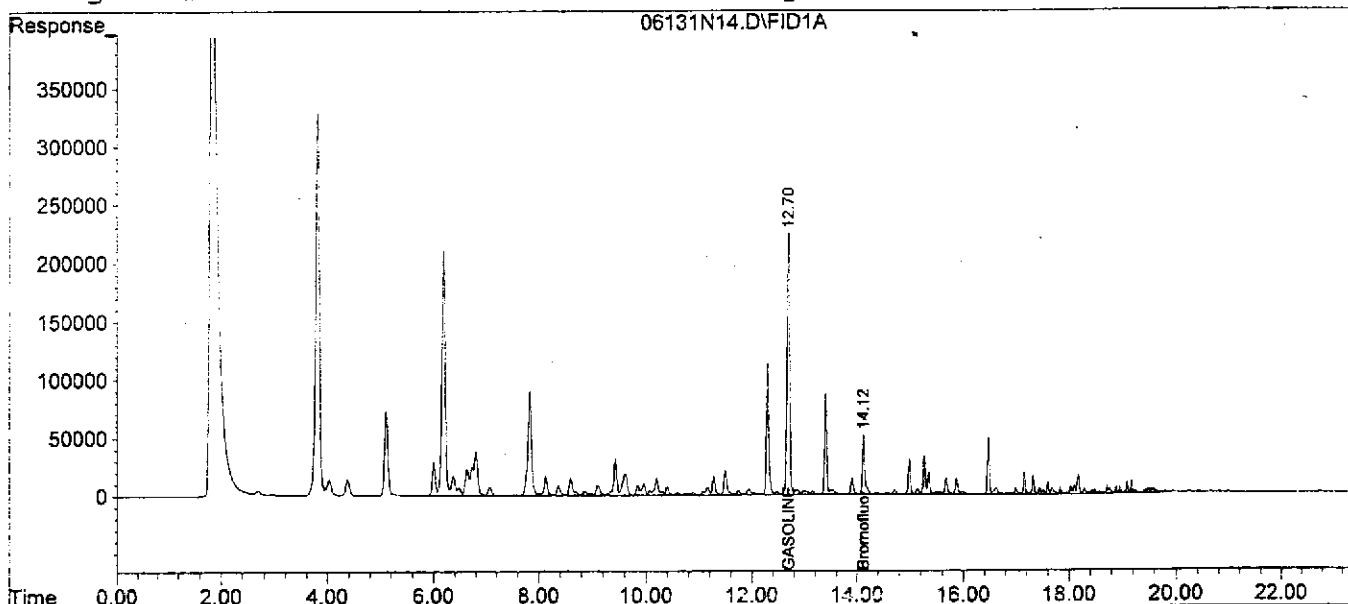
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 Acq On : 13 Jun 10 3:10 pm
 Sample : 01-0815-06
 Misc : water 5ml
 IntFile : AUTOINT1.E

Vial: 14
 Operator: ec
 Inst : GC/MS Ins
 Multiplr: 1.00

Quant Time: Jun 13 15:33 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)
 Title : Gasoline Aromatics (BTEX-MTBE)
 Last Update : Wed Feb 21 12:23:00 2001
 Response via : Multiple Level Calibration
 DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
 Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
 Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\2\DATA\06131N15.D\FID1A.CH
Acq On : 13 Jun 2010 3:41 pm
Sample : 01-0815-07
Misc : water 1ml
IntFile : TRY1.E

Vial: 15
Operator: ec
Inst : GC/MS Ins
Multiplr: 5.00

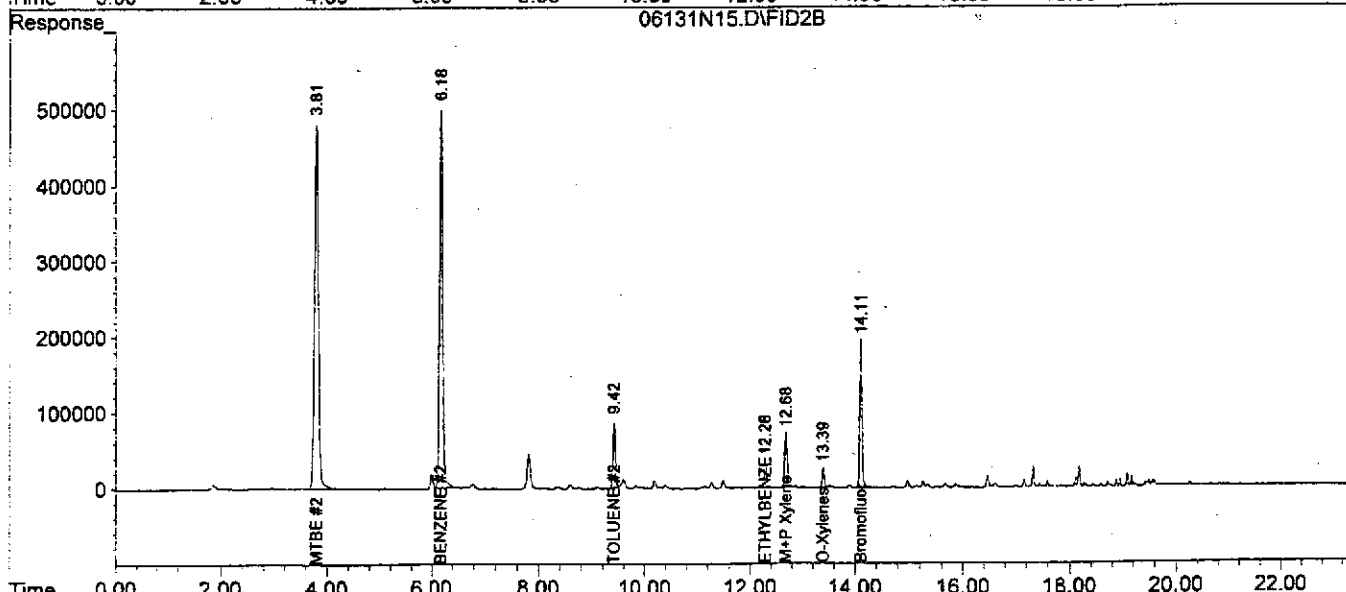
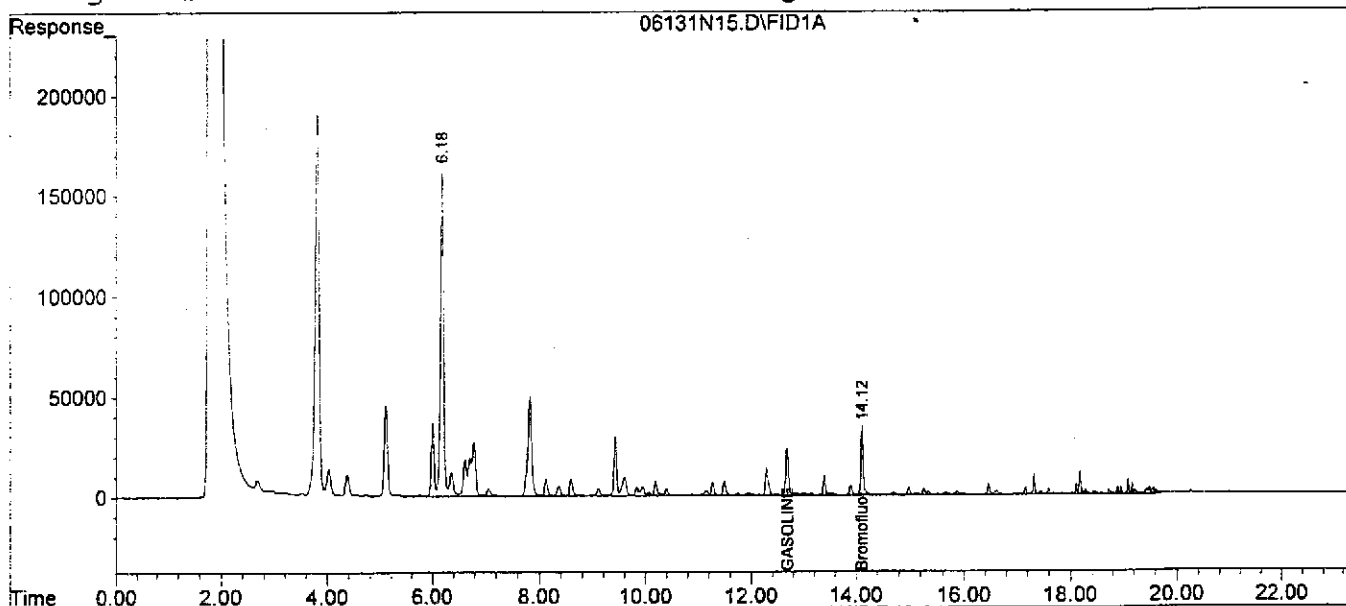
Data File : C:\HPCHEM\2\DATA\06131N15.D\FID2B.CH
Acq On : 13 Jun 10 3:41 pm
Sample : 01-0815-07
Misc : water 1ml
IntFile : AUTOINT1.E

Vial: 15
Operator: ec
Inst : GC/MS Ins
Multiplr: 5.00

Quant Time: Jun 13 16:04 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Wed Feb 21 12:23:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\1\DATA\06131Y25.D\FID1A.CH
Acq On : 13 Jun 2010 11:22 pm
Sample : 01-0815-08
Misc : soil 1.0g
IntFile : events1.e

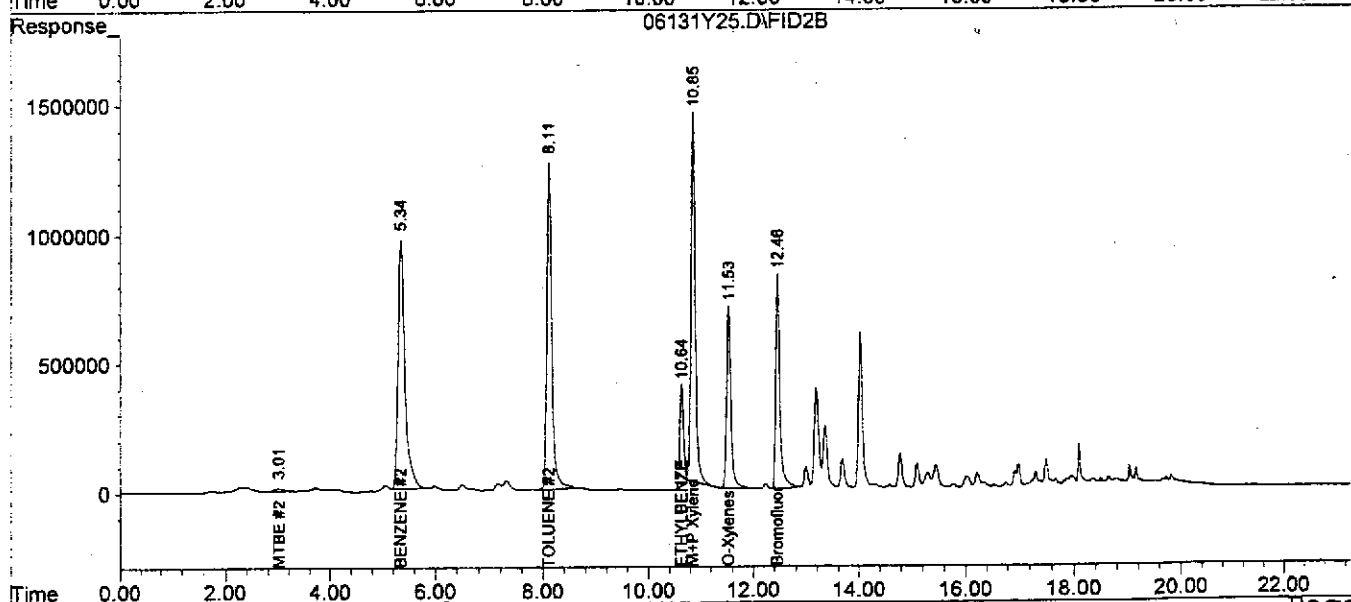
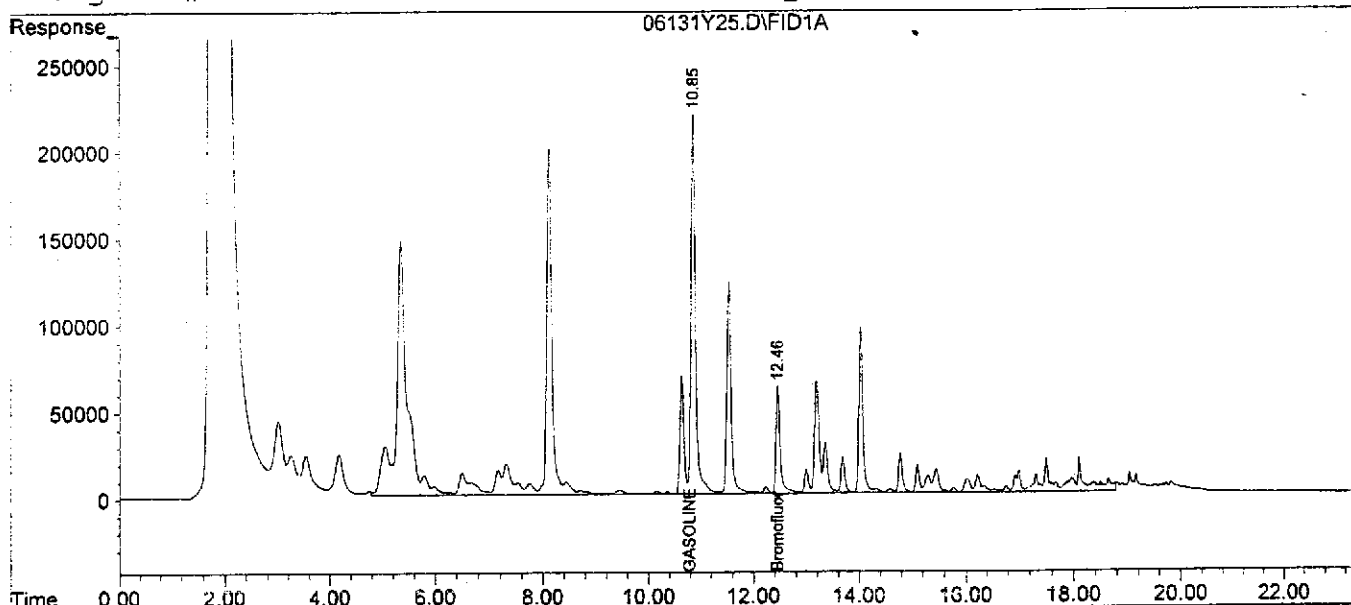
Vial: 15
Operator: ec
Inst : Gas-BTEX
Multiplr: 5.00

Data File : C:\HPCHEM\1\DATA\06131Y25.D\FID2B.CH
Acq On : 13 Jun 10 11:22 pm
Sample : 01-0815-08
Misc : soil 1.0g
IntFile : AUTOINT1.E
Quant Time: Jun 13 23:45 19101

Vial: 15
Operator: ec
Inst : Gas-BTEX
Multiplr: 5.00

Quant Method : C:\HPCHEM\1\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Mon Jun 04 09:43:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\1\DATA\06131Y26.D\FID1A.CH
Acq On : 13 Jun 2010 11:59 pm
Sample : 01-0815-09
Misc : soil 100 ul (5x)
IntFile : events1.e

Vial: 16
Operator: ec
Inst : Gas-BTEX
Multiplr: 250.00

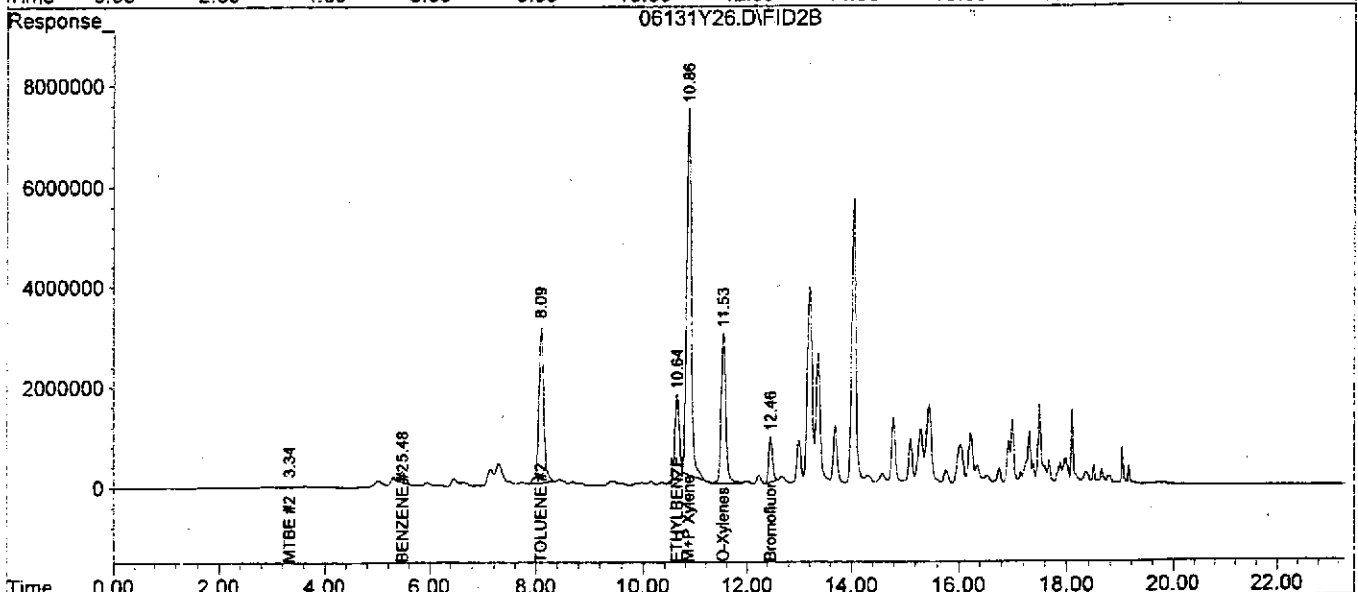
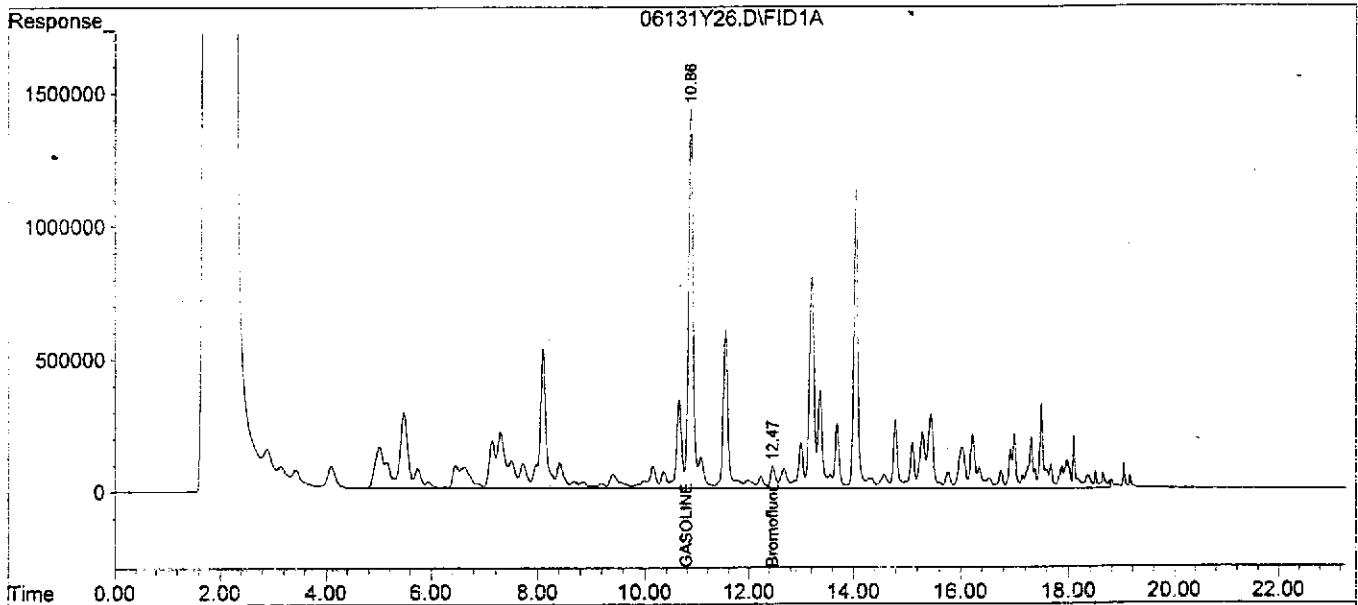
Data File : C:\HPCHEM\1\DATA\06131Y26.D\FID2B.CH
Acq On : 13 Jun 101 11:59 pm
Sample : 01-0815-09
Misc : soil 100 ul (5x)
IntFile : AUTOINT1.E

Vial: 16
Operator: ec
Inst : Gas-BTEX
Multiplr: 250.00

Quant Time: Jun 14 0:23 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\1\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Mon Jun 04 09:43:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\1\DATA\06131Y27.D\FID1A.CH
Acq On : 14 Jun 2010 12:37 am
Sample : 01-0815-10
Misc : soil 0.25g
IntFile : events1.e

Vial: 1
Operator: ec
Inst : Gas-BTEX
Multiplr: 20.00

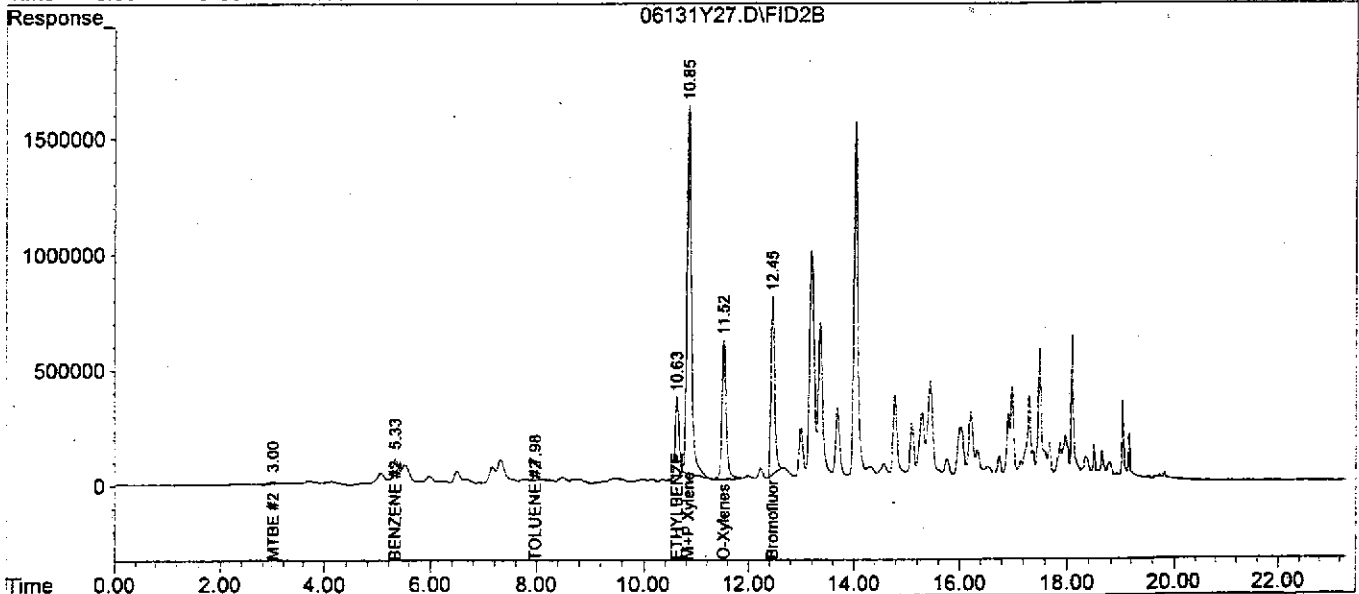
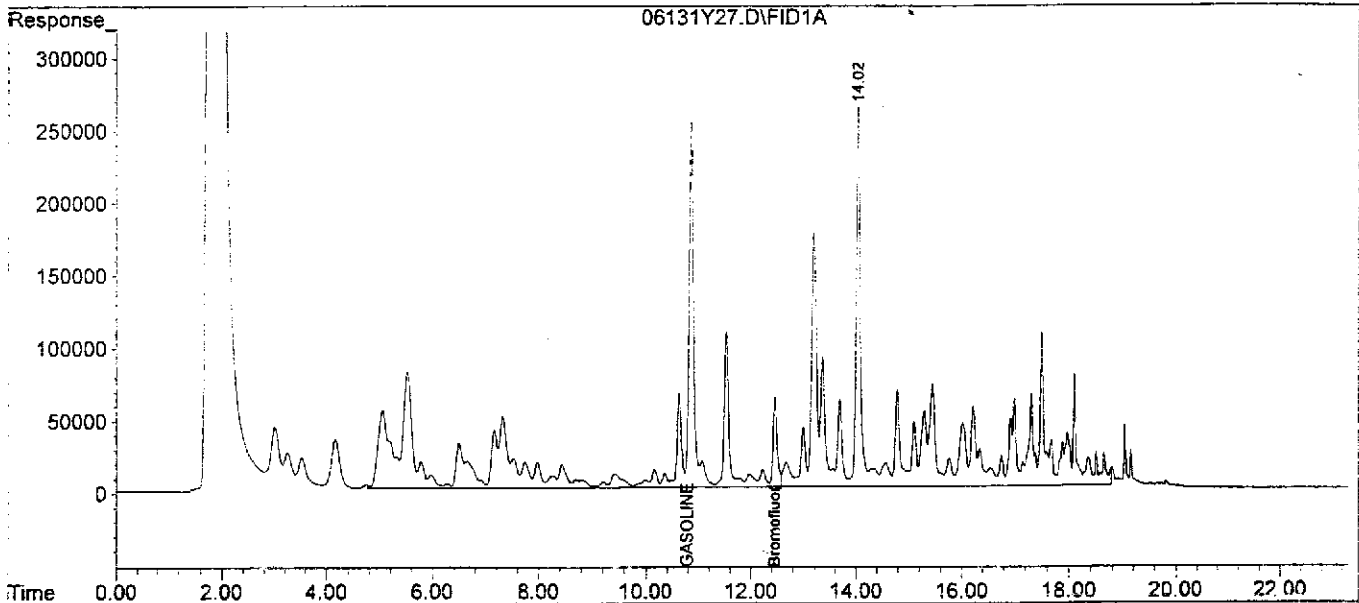
Data File : C:\HPCHEM\1\DATA\06131Y27.D\FID2B.CH
Acq On : 14 Jun 10 12:37 am
Sample : 01-0815-10
Misc : soil 0.25g
IntFile : AUTOINT1.E

Vial: 1
Operator: ec
Inst : Gas-BTEX
Multiplr: 20.00

Quant Time: Jun 14 1:00 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\1\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Mon Jun 04 09:43:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



Quantitation Report

Data File : C:\HPCHEM\1\DATA\06131Y28.D\FID1A.CH
Acq On : 14 Jun 2010 1:14 am
Sample : 01-0815-11
Misc : soil 100ul (5x)
IntFile : events1.e

Vial: 2
Operator: ec
Inst : Gas-BTEX
Multiplr: 250.00

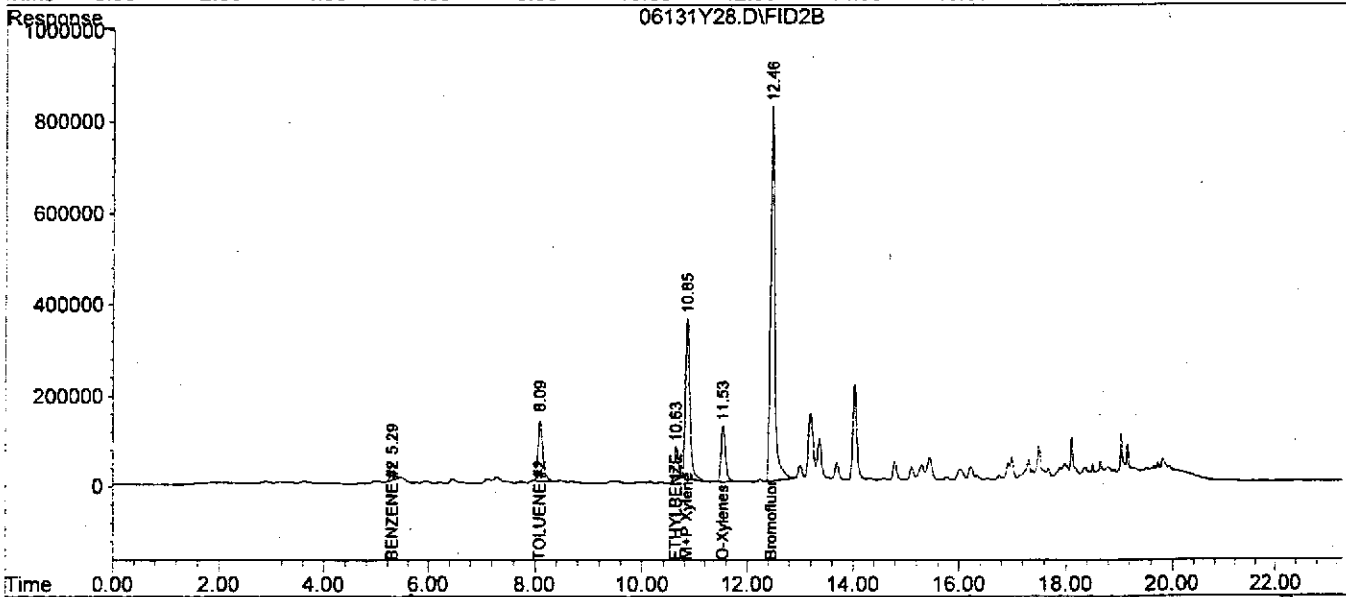
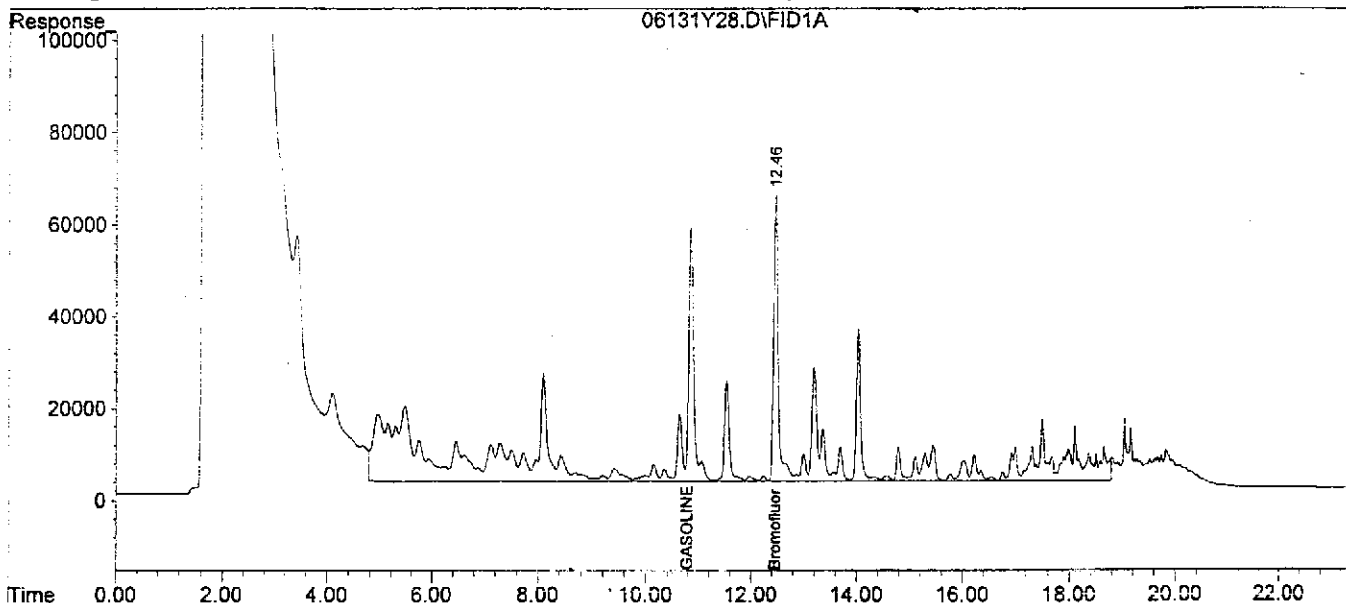
Data File : C:\HPCHEM\1\DATA\06131Y28.D\FID2B.CH
Acq On : 14 Jun 10 1:14 am
Sample : 01-0815-11
Misc : soil 100ul (5x)
IntFile : AUTOINT1.E

Vial: 2
Operator: ec
Inst : Gas-BTEX
Multiplr: 250.00

Quant Time: Jun 14 1:38 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\1\METHODS\GBX.M (Chemstation Integrator)
Title : Gasoline Aromatics (BTEX-MTBE)
Last Update : Mon Jun 04 09:43:58 2001
Response via : Multiple Level Calibration
DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume
Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm
Signal #1 Info : OI FID Signal #2 Info : OI PID



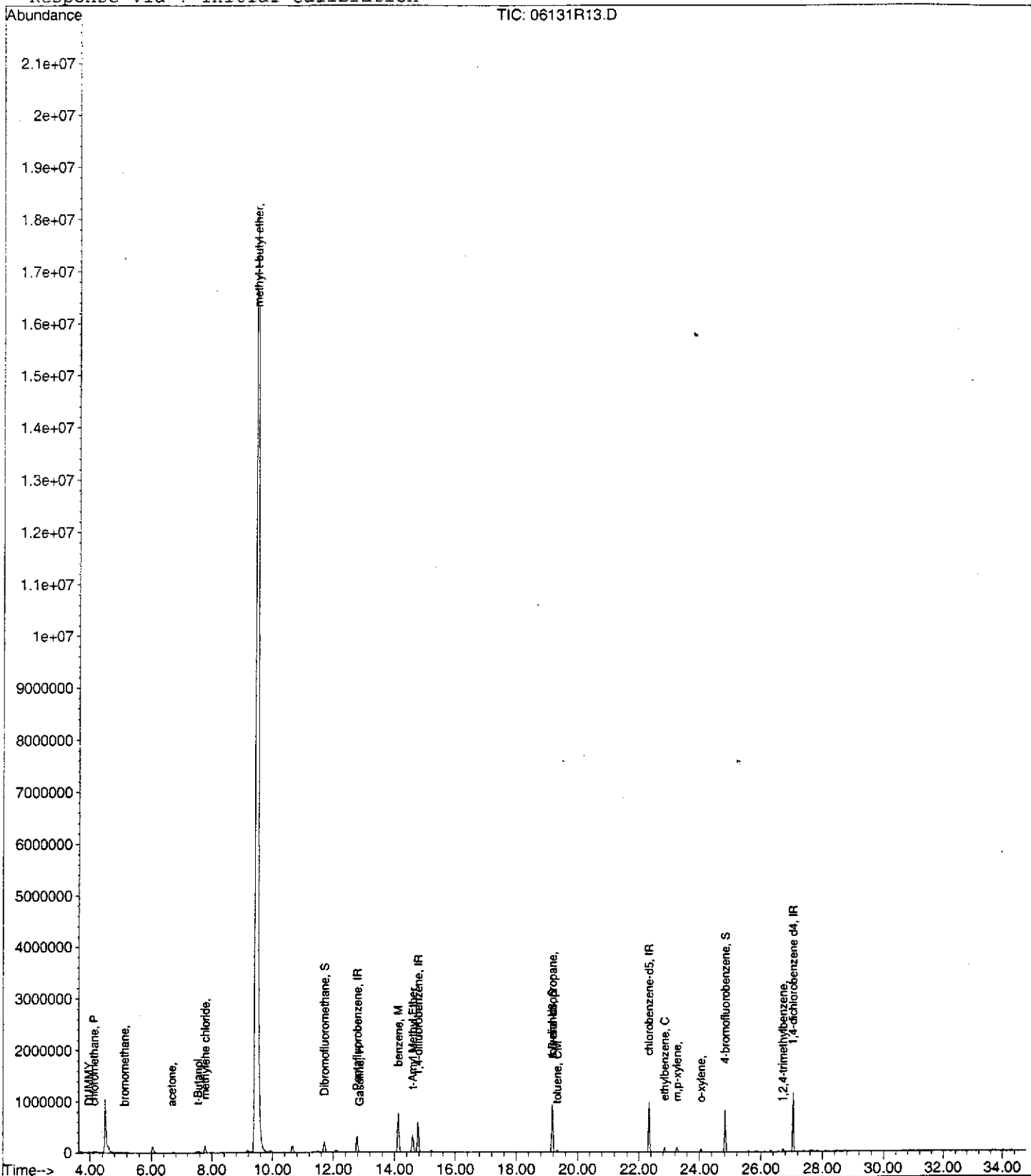
Quantitation Report

Data File : C:\HPCHEM\1\DATA\06131R13.D
Acq On : 13 Jun 2001 7:13 pm
Sample : 01-0815-03 mlistw
Misc : water 5m
MS Integration Params: RTEINT.P
Quant Time: Jun 20 9:15 19101

Vial: 13
Operator: my
Inst : GC/MS Ins
Multiplr: 1.00

Quant Results File: 8260.RES

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
Title : gasoline
Last Update : Tue Jun 19 15:50:13 2001
Response via : Initial Calibration



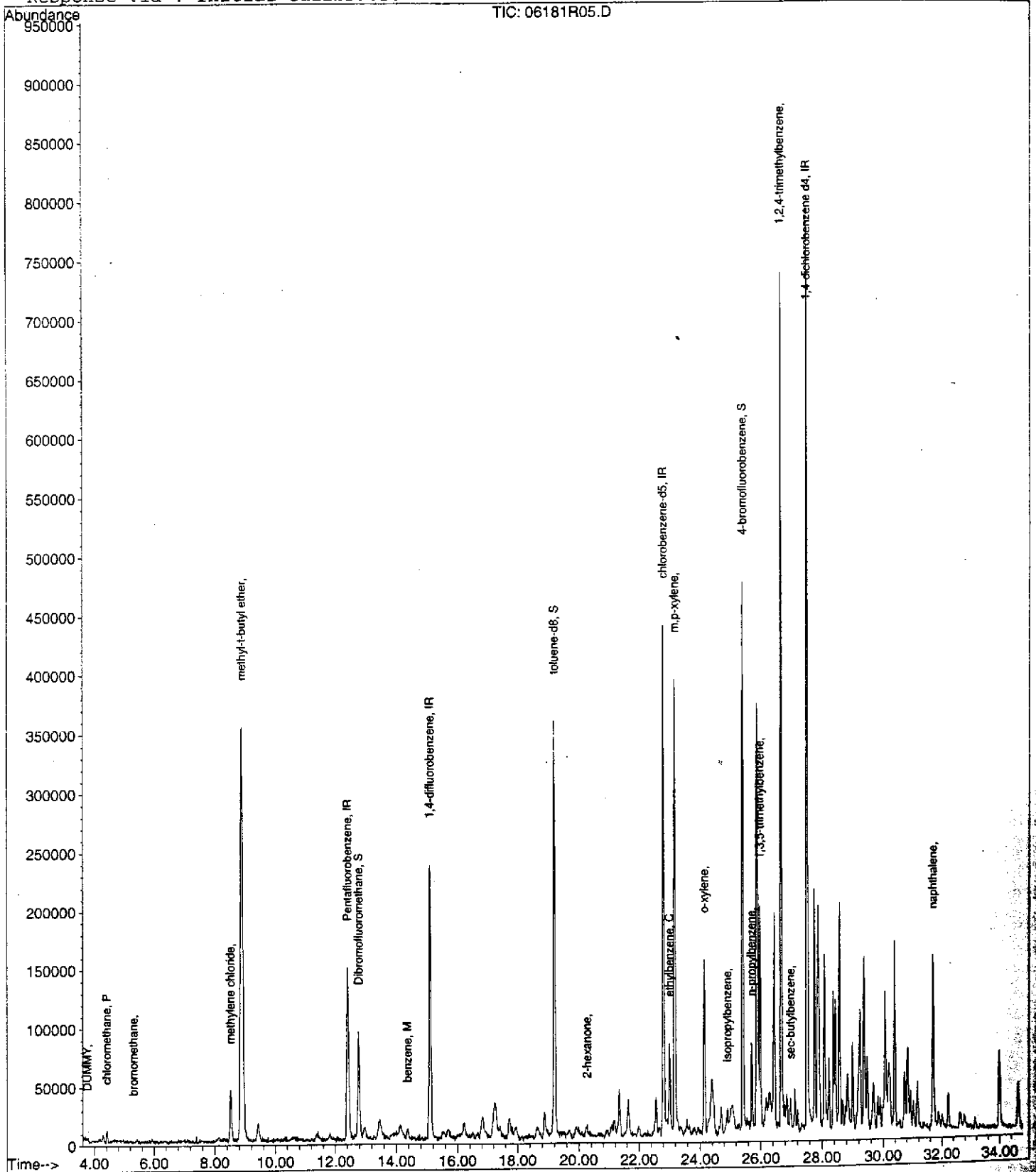
Quantitation Report

Data File : C:\HPCHEM\1\DATA\06181R05.D
Acq On : 18 Jun 2001 3:15 pm
Sample : 01-0815-03r mlist
Misc : water 100 ul
MS Integration Params: RTEINT.P
Quant Time: Jun 18 15:50 19101

Vial: 5
Operator: ss
Inst : GC/MS Ins
Multiplr: 50.00

Quant Results File: 8260.RES

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
Title : gasoline
Last Update : Thu Mar 01 15:52:09 2001
Response via : Initial Calibration



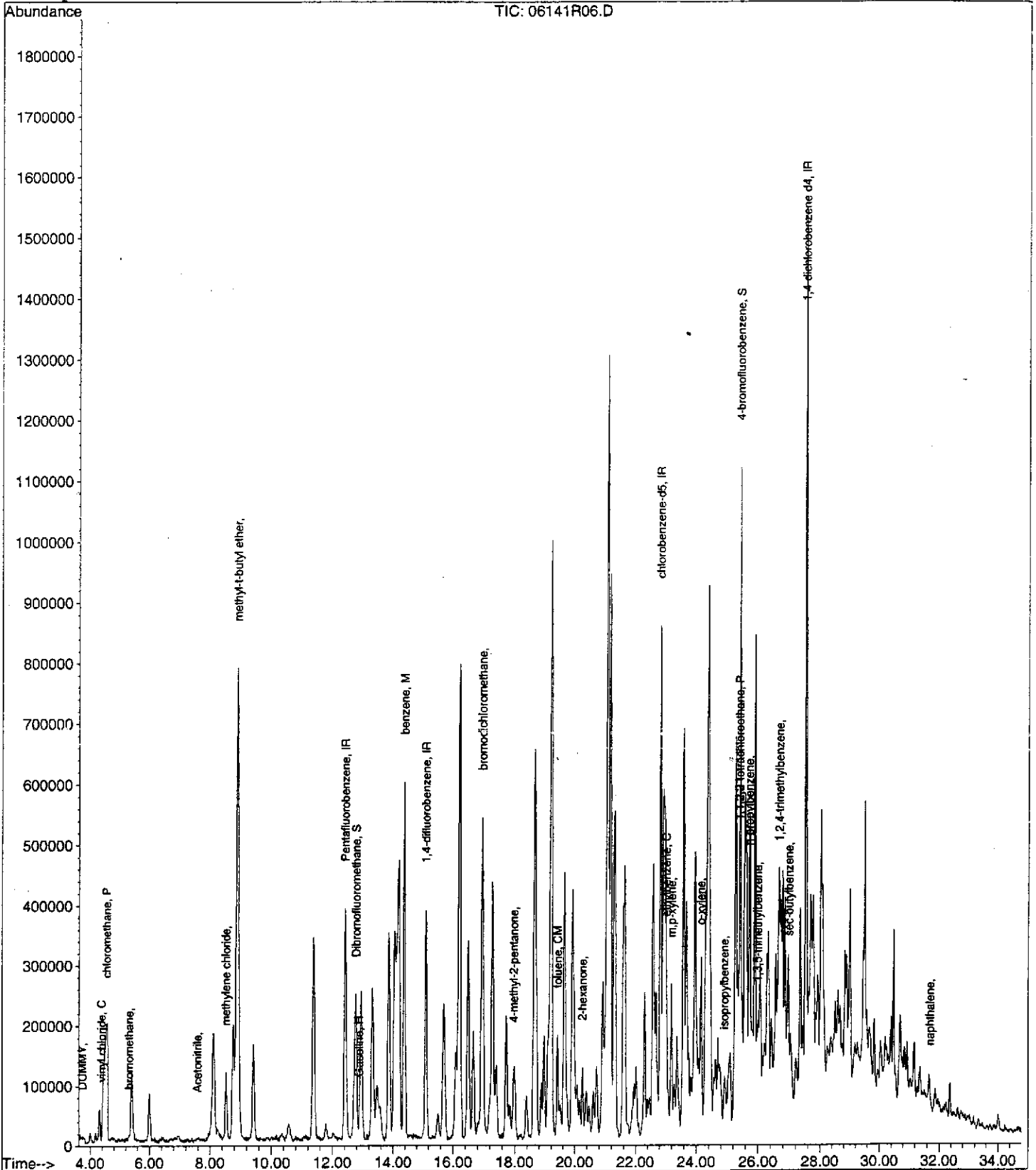
Quantitation Report

Data File : C:\HPCHEM\1\DATA\06141R06.D
Acq On : 14 Jun 2001 12:34 pm
Sample : 01-0815-07 confirm.
Misc : water 250uL
MS Integration Params: RTEINT.P
Quant Time: Jun 14 13:09 19101

Vial: 6
Operator: my
Inst : GC/MS Ins
Multiplr: 20.00

Quant Results File: 8260.RES

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
Title : gasoline
Last Update : Thu Mar 01 15:52:09 2001
Response via : Initial Calibration



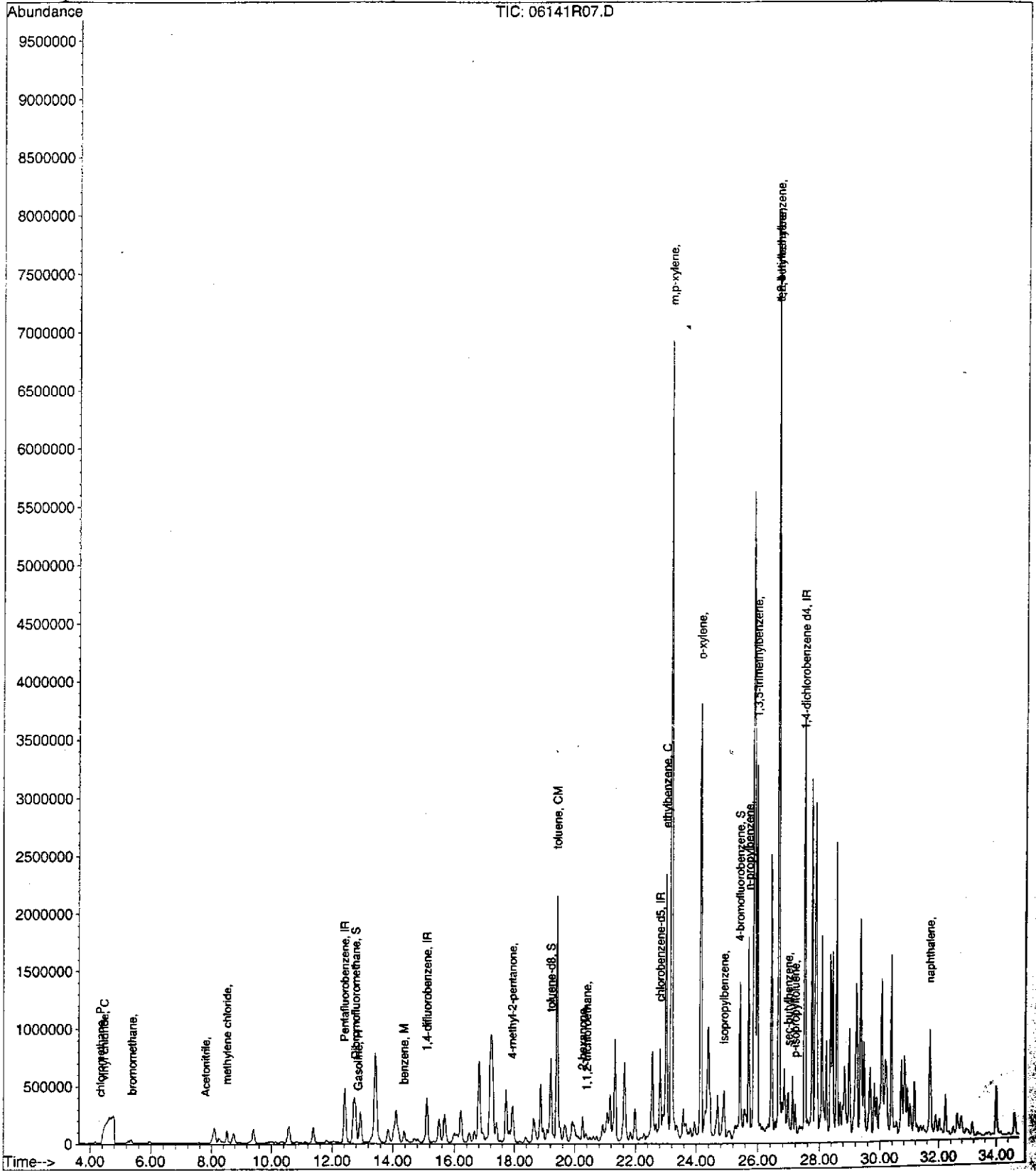
Quantitation Report

Data File : C:\HPCHEM\1\DATA\06141R07.D
 Acq On : 14 Jun 2001 1:23 pm
 Sample : 01-0815-09 confirm.
 Misc : soil 100uL (5X)
 MS Integration Params: RTEINT.P
 Quant Time: Jun 14 13:58 19101

Vial: 7
 Operator: my
 Inst : GC/MS Ins
 Multiplr: 250.00

Quant Results File: 8260.RES

Method : C:\HPCHEM\1\METHODS\8260.M (RTE Integrator)
 Title : gasoline
 Last Update : Thu Mar 01 15:52:09 2001
 Response via : Initial Calibration



Quantitation Report

Data File : E:\HPCHEM\1\DATA\06161X07.D
Acq On : 6-16-01 6:45:54 PM
Sample : 01-0815-01
Misc : water 1L:10mL
IntFile : EVENTS.E
Quant Time: Jun 16 19:19 2001

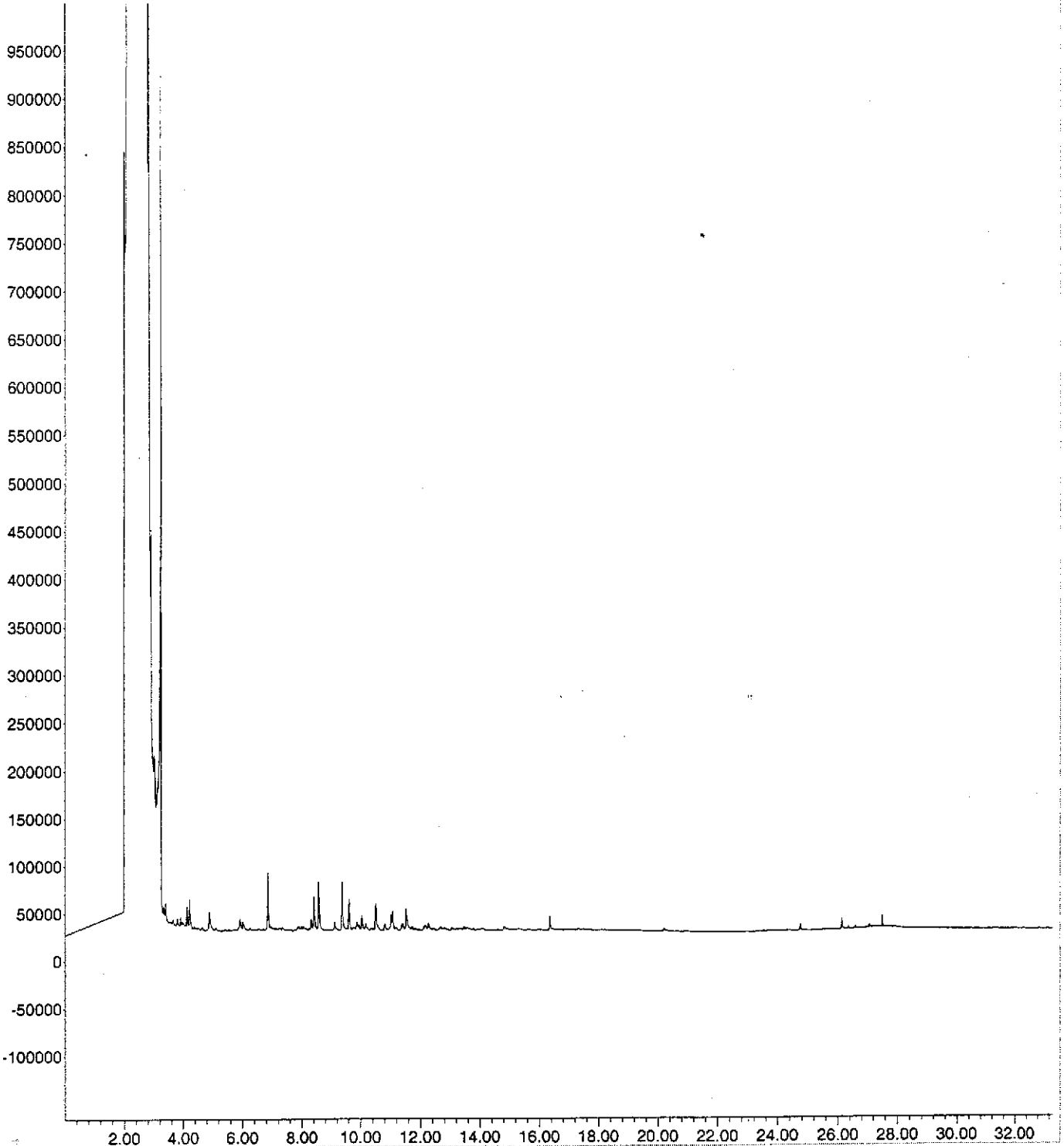
Vial: 7
Operator: my.
Inst : GC/MS Ins
Multiplr: 0.01

Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 24 14:33:16 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06161X07.D\FID1B



Quantitation Report

Data File : E:\HPCHEM\1\DATA\06161X08.D

Vial: 8

Acq On : 6-16-01 7:33:44 PM

Operator: my.

Sample : 01-0815-02

Inst : GC/MS Ins

Misc : water 1L:10mL

Multiplr: 0.01

IntFile : EVENTS.E

Quant Time: Jun 16 20:07 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)

Title :

Last Update : Tue Apr 24 14:33:16 2001

Response via : Multiple Level Calibration

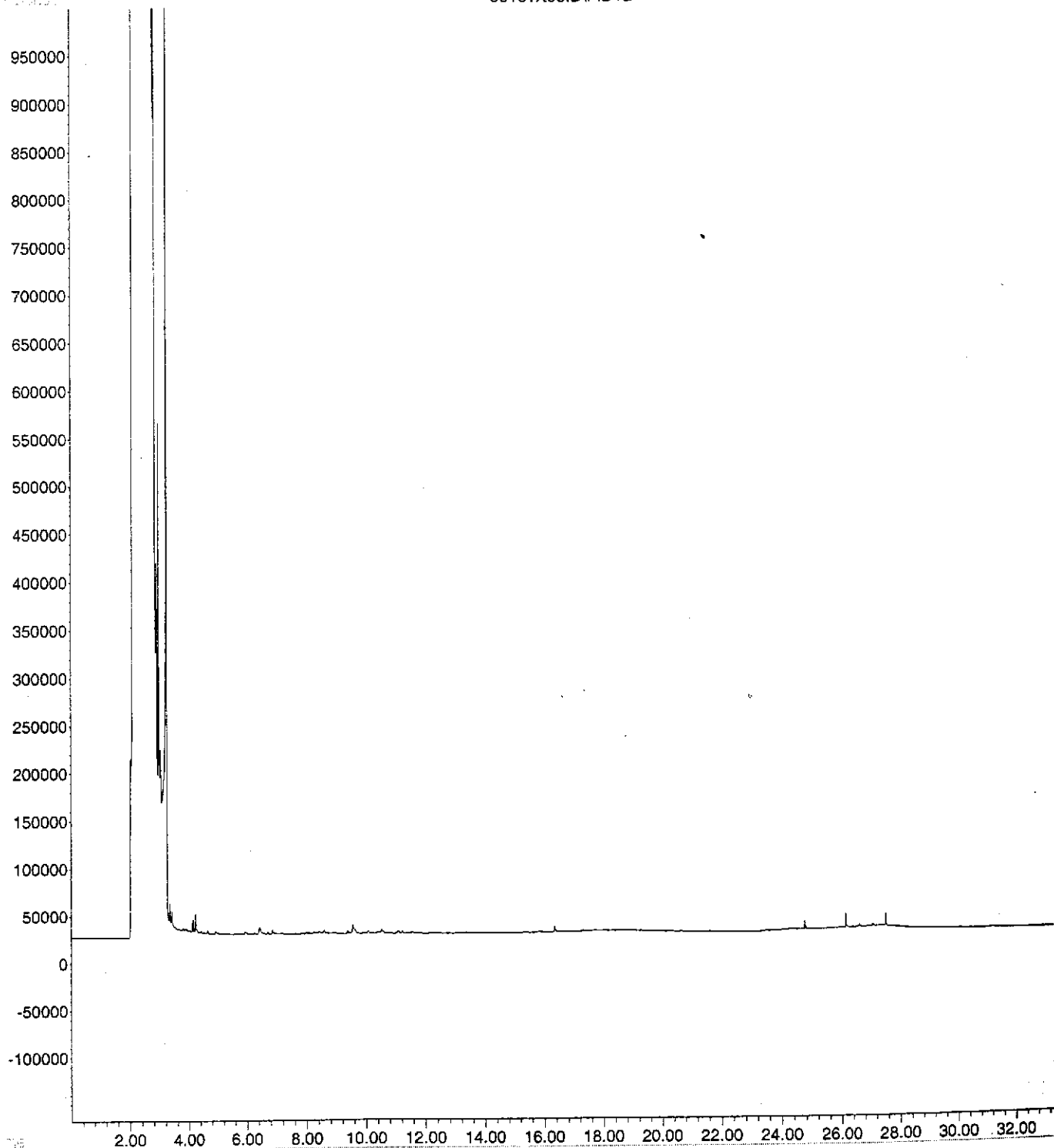
DataAcq Meth : TPH.M

Volume Inj. :

Signal Phase :

Signal Info :

06161X08.D\FID1B



Quantitation Report

Data File : E:\HPCHEM\1\DATA\06161X09.D
Acq On : 6-16-01 8:21:11 PM
Sample : 01-0815-03
Misc : water 1L:10mL
IntFile : EVENTS.E
Quant Time: Jun 16 20:54 2001

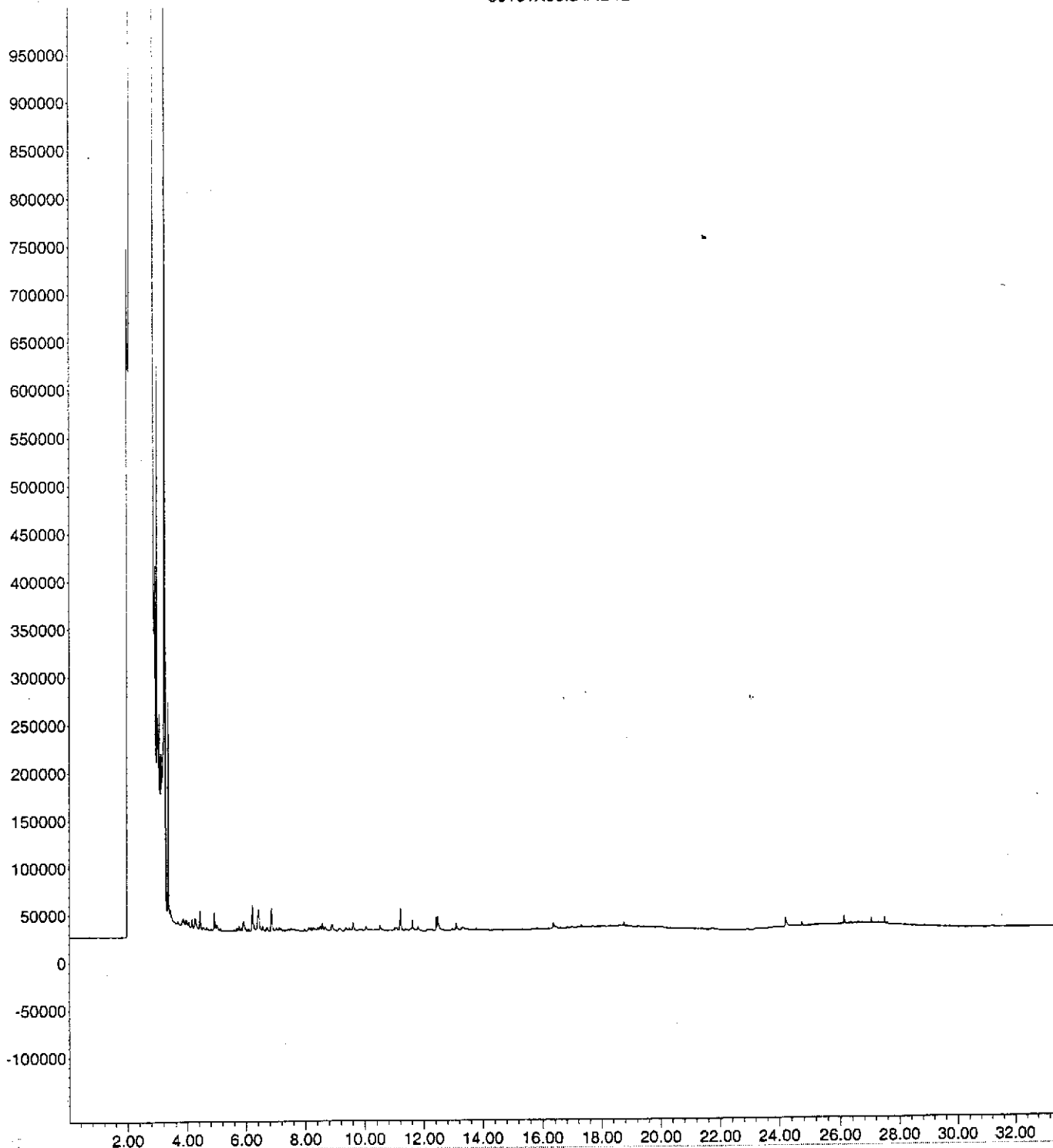
Vial: 9
Operator: my
Inst : GC/MS Ins
Multiplr: 0.01

Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 24 14:33:16 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06161X09.D\FID1B



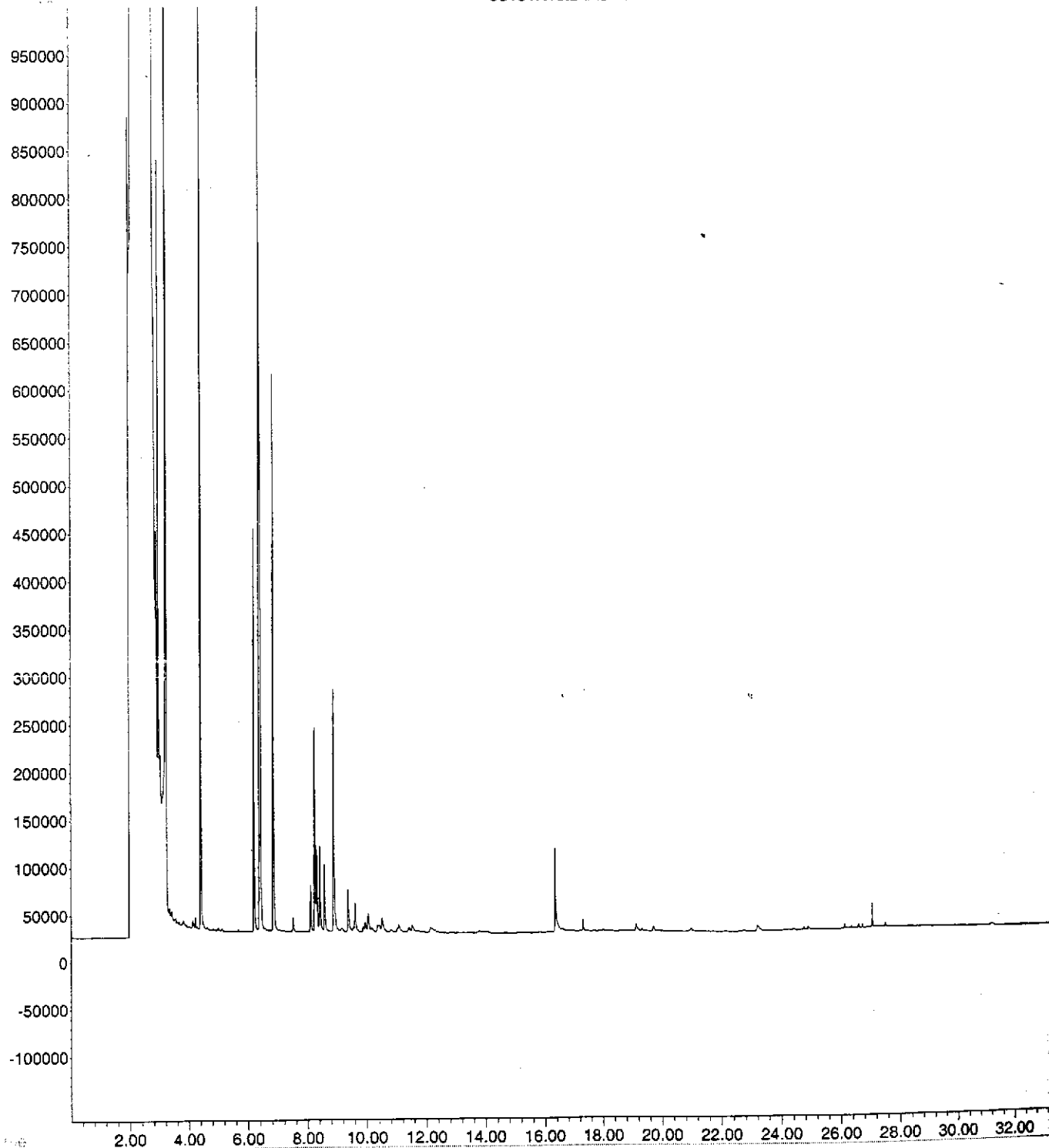
Quantitation Report

Data File : E:\HPCHEM\1\DATA\06161X10.D Vial: 10
Acq On : 6-16-01 9:08:03 PM Operator: my_
Sample : 01-0815-04 Inst : GC/MS Ins
Misc : water 1L:10mL Multiplr: 0.01
IntFile : EVENTS.E
Quant Time: Jun 16 21:41 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 24 14:33:16 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06161X10.D\FID1B



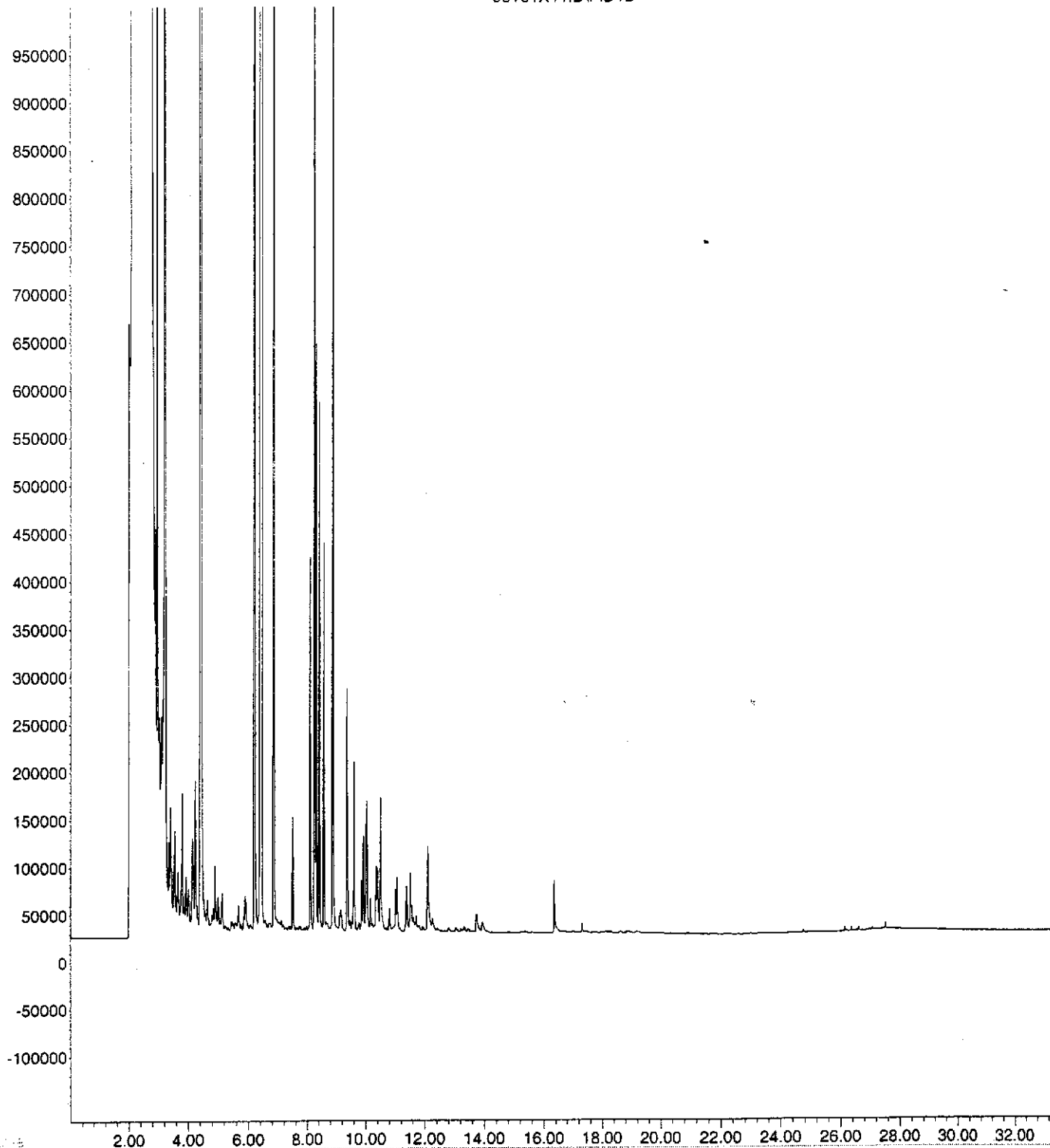
Quantitation Report

Data File : E:\HPCHEM\1\DATA\06161X11.D Vial: 11
Acq On : 6-16-01 9:54:21 PM Operator: my
Sample : 01-0815-05 Inst : GC/MS Ins
Misc : water 1L:10mL Multiplr: 0.01
IntFile : EVENTS.E
Quant Time: Jun 16 22:27 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 24 14:33:16 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06161X11.D\FID1B



Quantitation Report

Data File : E:\HPCHEM\1\DATA\06161X12.D
Acq On : 6-16-01 10:40:52 PM
Sample : 01-0815-06
Misc : water 1L:10mL
IntFile : EVENTS.E
Quant Time: Jun 16 23:14 2001

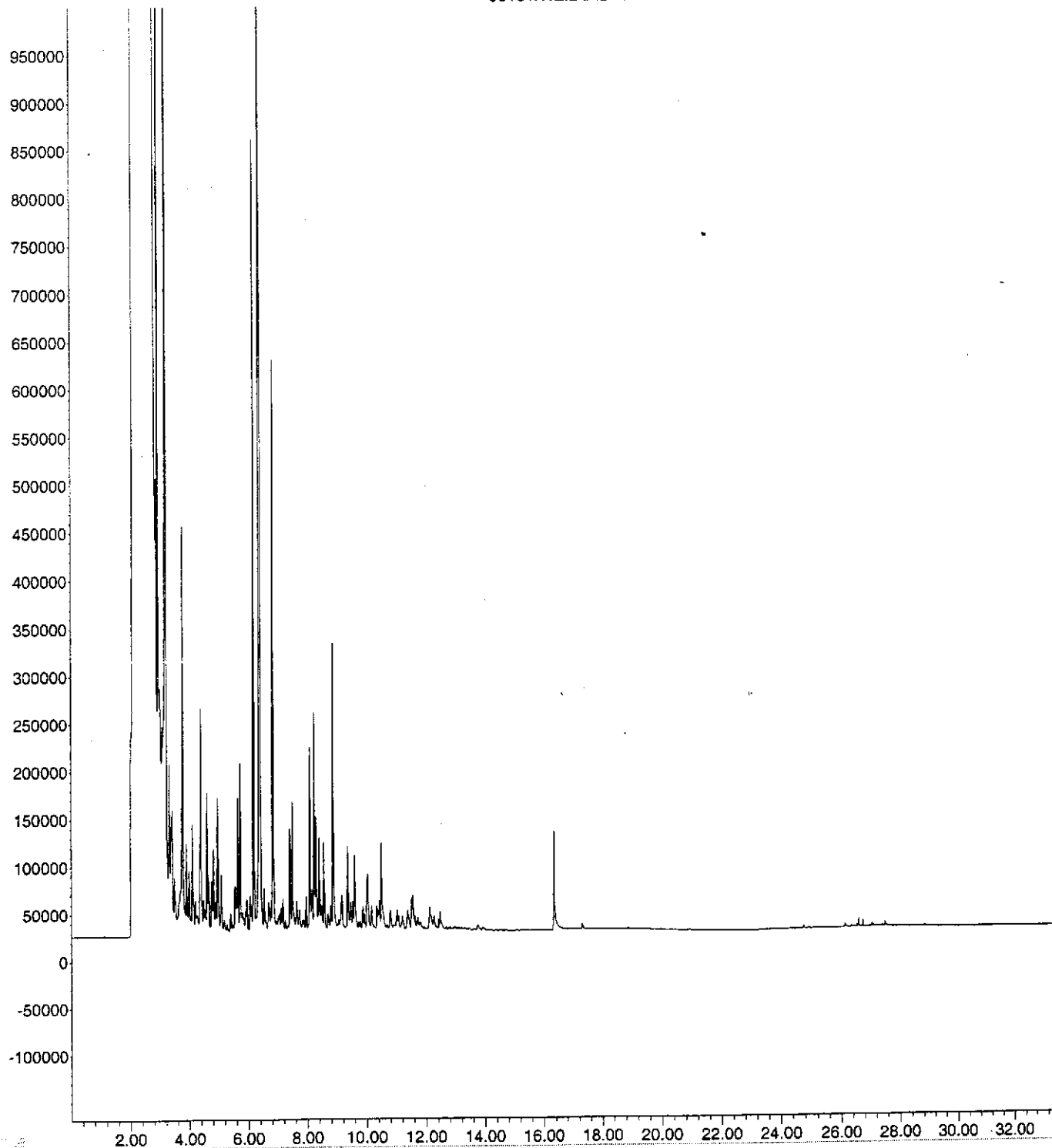
Vial: 12
Operator: my.
Inst : GC/MS Ins
Multiplr: 0.01

Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 24 14:33:16 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06161X12.D\FID1B



Quantitation Report

Data File : E:\HPCHEM\1\DATA\06161X13.D
Acq On : 6-16-01 11:26:58 PM
Sample : 01-0815-07
Misc : water 1L:10mL
IntFile : EVENTS.E
Quant Time: Jun 17 0:00 2001

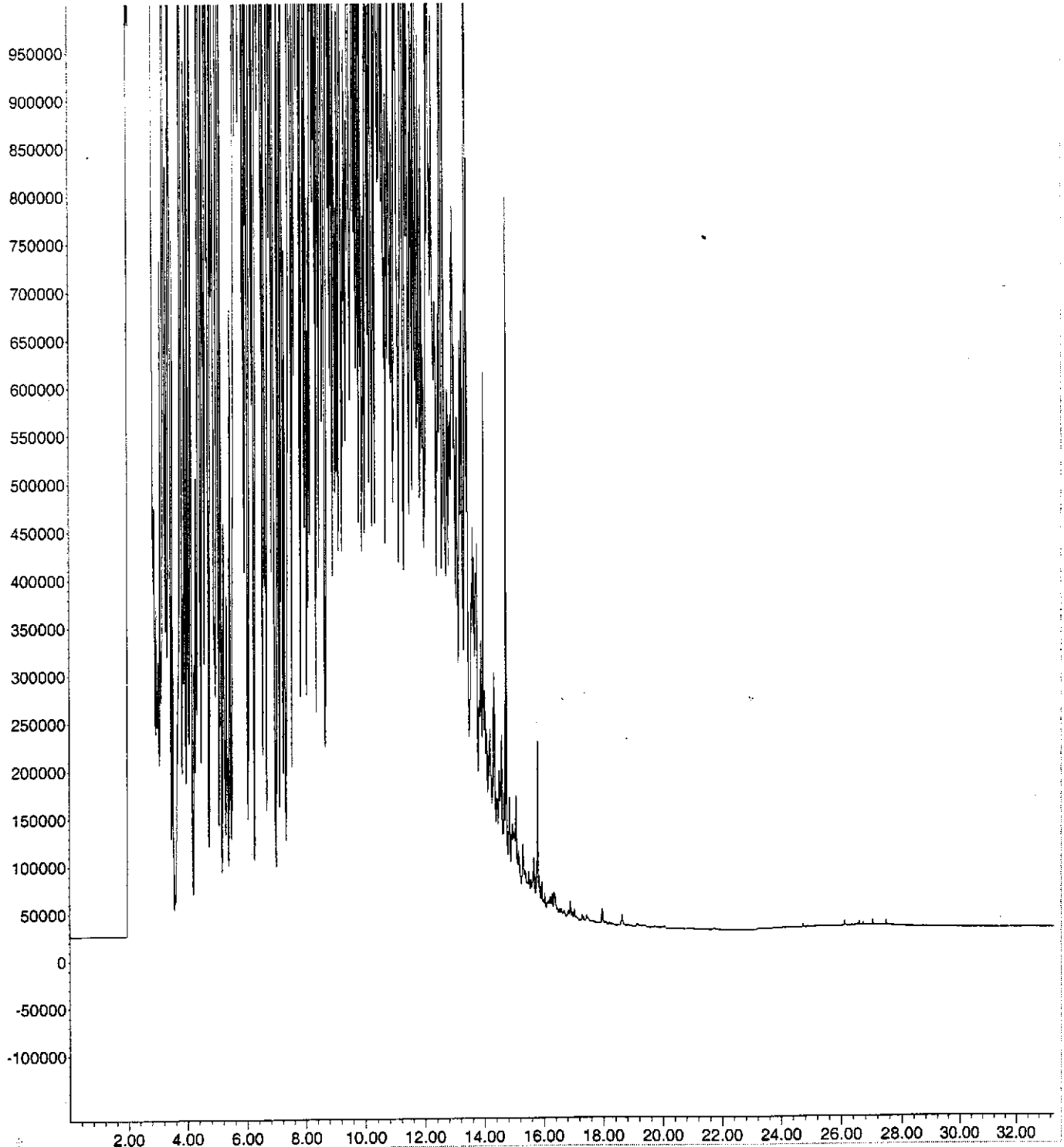
Vial: 13
Operator: my
Inst : GC/MS Ins
Multiplr: 0.01

Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\1\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Tue Apr 24 14:33:16 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06161X13.D\FID1B



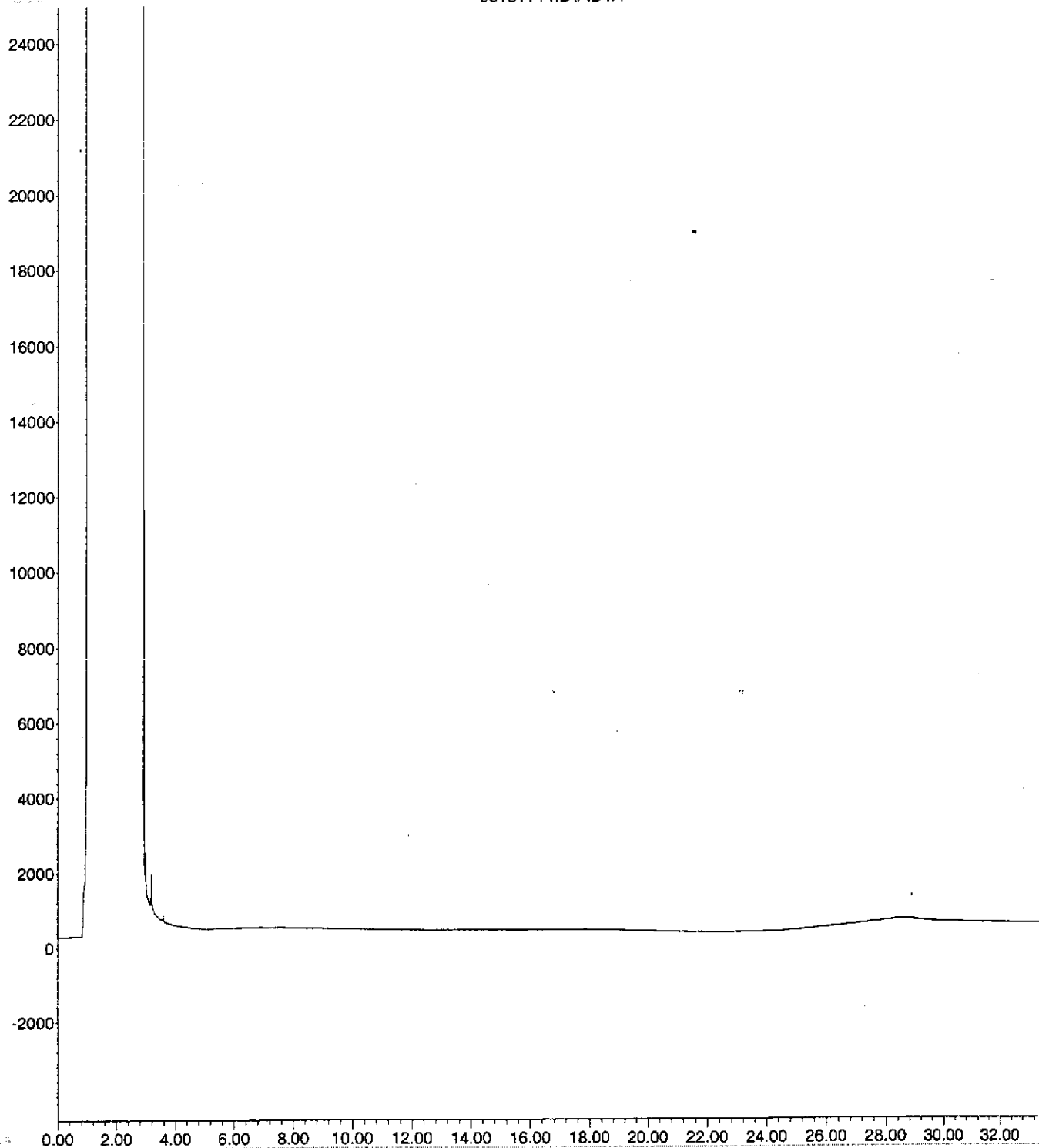
Quantitation Report

Data File : E:\HPCHEM\2\DATA\06131T14.D Vial: 14
Acq On : 13 Jun 2001 6:38 pm Operator: my-
Sample : 01-0815-08 Inst : GC/MS Ins
Misc : soil Multiplr: 0.50
IntFile : EVENTS.E
Quant Time: Jun 13 19:11 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\2\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Fri Apr 06 07:49:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06131T14.D\FID1A



Quantitation Report

Data File : E:\HPCHEM\2\DATA\06131T15.D
Acq On : 13 Jun 2001 7:23 pm
Sample : 01-0815-09
Misc : soil 100ul(10X)
IntFile : EVENTS.E
Quant Time: Jun 13 19:56 2001

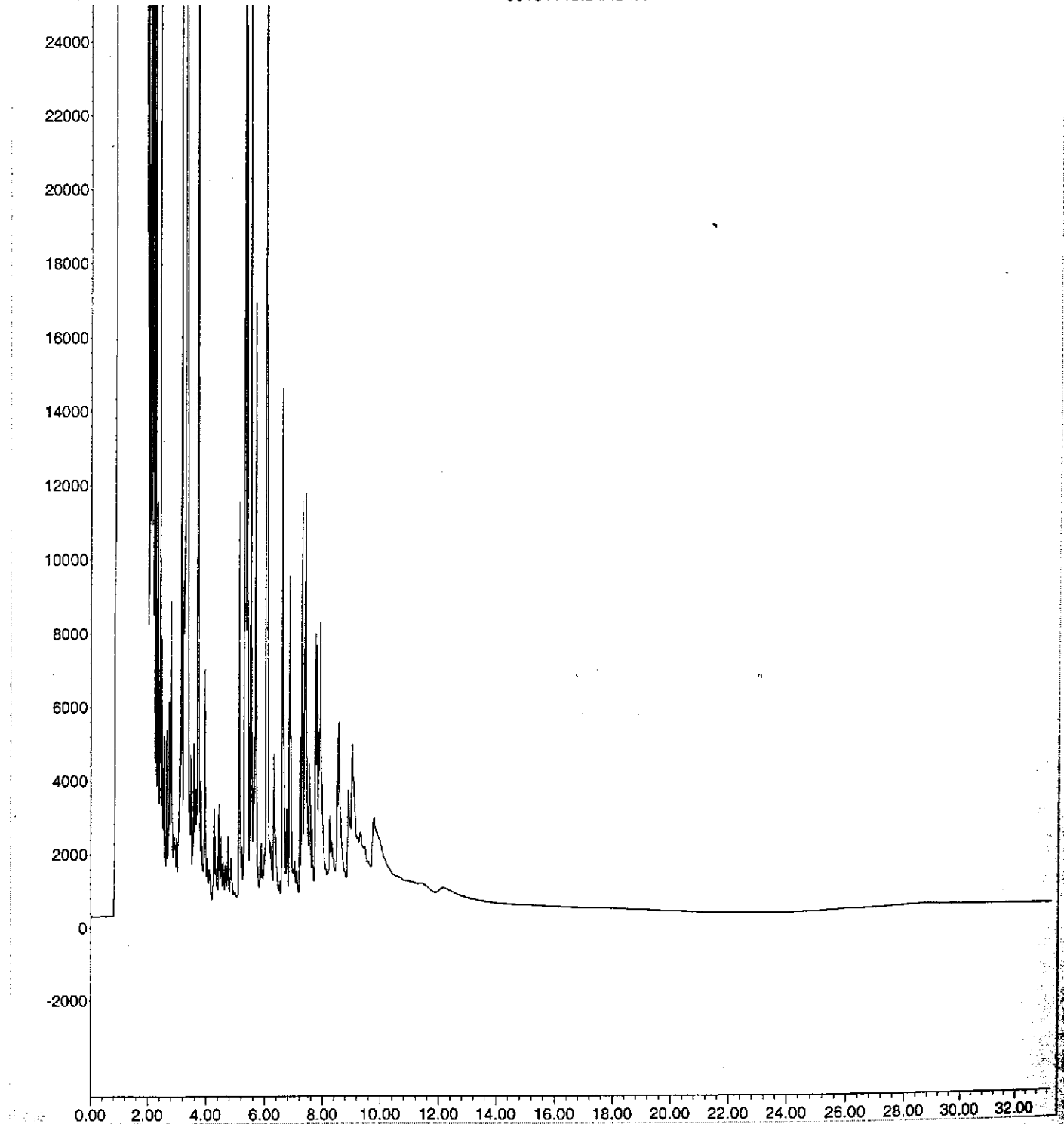
Vial: 15
Operator: my
Inst : GC/MS Ins
Multiplr: 5.00

Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\2\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Fri Apr 06 07:49:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06131T15.D\FID1A



Quantitation Report

Data File : E:\HPCHEM\2\DATA\06131T16.D

Vial: 16

Acq On : 13 Jun 2001 8:07 pm

Operator: my

Sample : 01-0815-10

Inst : GC/MS Ins

Misc : soil

Multiplr: 0.50

IntFile : EVENTS.E

Quant Time: Jun 13 20:41 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\2\METHODS\TPH.M (Chemstation Integrator)

Title :

Last Update : Fri Apr 06 07:49:00 2001

Response via : Multiple Level Calibration

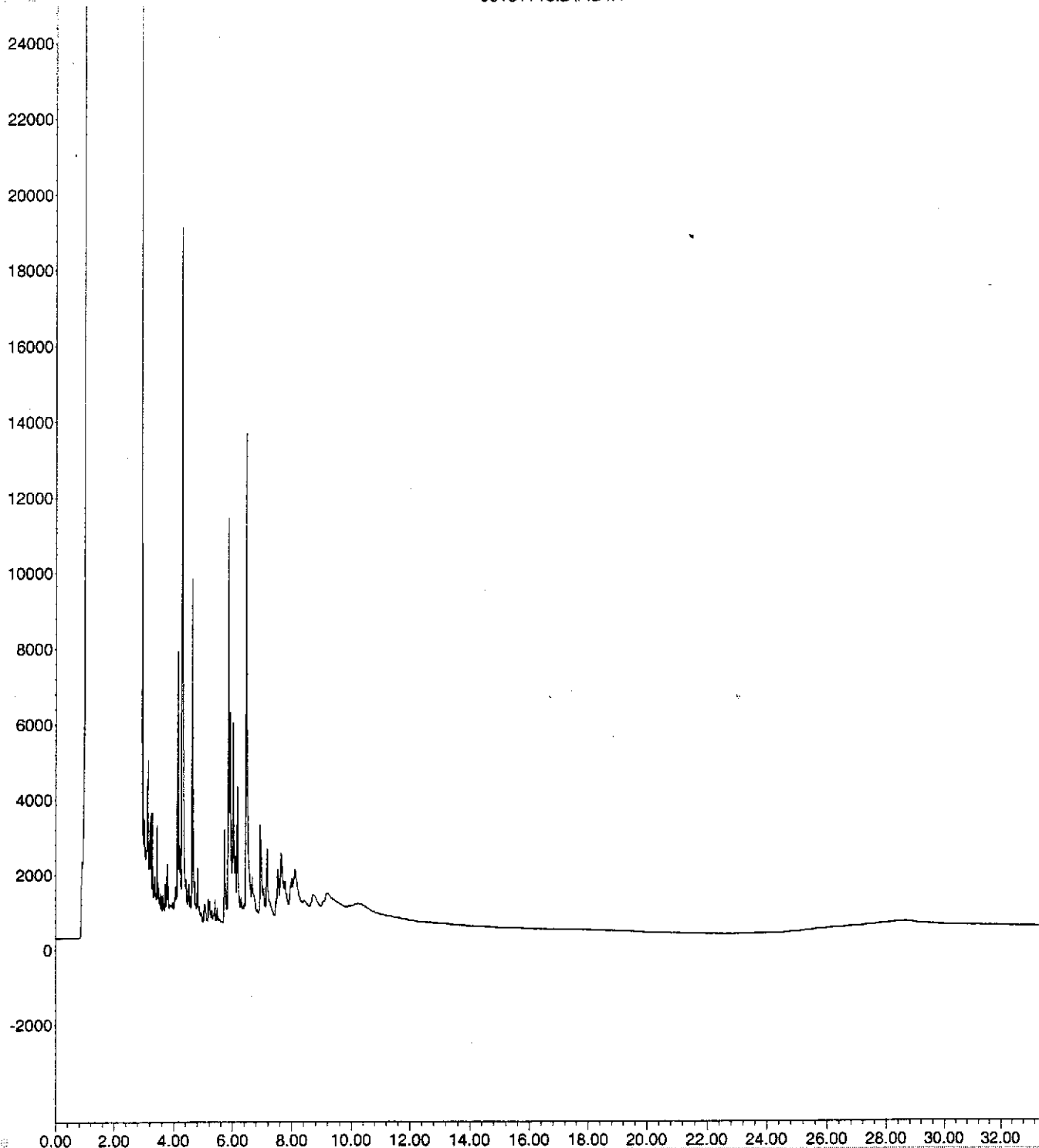
DataAcq Meth : TPH.M

Volume Inj. :

Signal Phase :

Signal Info :

06131T16.D\FID1A



Quantitation Report

Data File : E:\HPCHEM\2\DATA\06131T17.D Vial: 17
Acq On : 13 Jun 2001 8:51 pm Operator: my
Sample : 01-0815-11 Inst : GC/MS Ins
Misc : soil Multiplr: 0.50
IntFile : EVENTS.E
Quant Time: Jun 13 21:25 2001 Quant Results File: TPH.RES

Quant Method : E:\HPCHEM\2\METHODS\TPH.M (Chemstation Integrator)
Title :
Last Update : Fri Apr 06 07:49:00 2001
Response via : Multiple Level Calibration
DataAcq Meth : TPH.M

Volume Inj. :
Signal Phase :
Signal Info :

06131T17.D\FID1A

