
LAW OFFICES OF
TOMMY A. CONNER

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September 25, 1996

By Facsimile

Barney Chan
Alameda County Health
Care Services
1131 Harbor Bay Parkway
Alameda, CA 95402

Brian Kelleher
Kelleher & Associates
P. O. Box 850
Cupertino, CA 95014

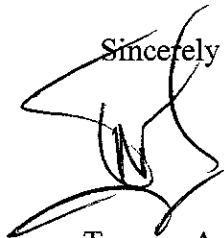
Gary Rogers
2657 Bailey Court
Fremont, CA 94536

Re: Hausauer/3927 East 14th Street

Gentlemen:

Enclosed is ATC's Soil and Groundwater Investigation report.
Please call if you have any questions.

Sincerely yours,

A handwritten signature in black ink, appearing to read 'Tommy A. Conner', with a stylized flourish at the end.

Tommy A. Conner

cc By Facsimile without enclosure
William L. Nagle
A Nick Shamiyah
James D. Mayol

ENVIRONMENTAL PROTECTION
SEP 19 1996 3:01
ATC ENVIRONMENTAL INC.

19 September 1996
61137.0001

#4610

Alameda County
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502

Attention: Mr. Barney Chan

SUBJECT: SOIL AND GROUNDWATER INVESTIGATION, 3927 EAST 14TH STREET,
OAKLAND, CALIFORNIA

Dear Mr. Chan:

ATC Environmental Inc. is pleased to submit this report, on behalf of the Law Offices of Tommy Conner and Ruben Hausauer, documenting a subsurface investigation conducted at 3927 East 14th Street in Oakland, California (site). The field investigation portion of this project was conducted on 10 and 22 August 1996. Three soil borings were drilled, and two groundwater monitoring wells were installed, in the vicinity of the former underground storage tank at the site.

If you have any questions regarding this report, please feel free to contact either of the undersigned at (408) 474-0280 at your convenience.

Sincerely,
ATC ENVIRONMENTAL INC.

Andrew Willerton / AH

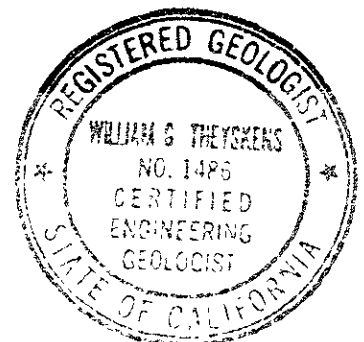
ANDREW WILLERTON
Senior Staff Geologist

*No longer
works for
ATC 9/24/96*

William G. Theyskens

WILLIAM G. THEYSKENS, CEG 1486, CHG 245
Branch Manager

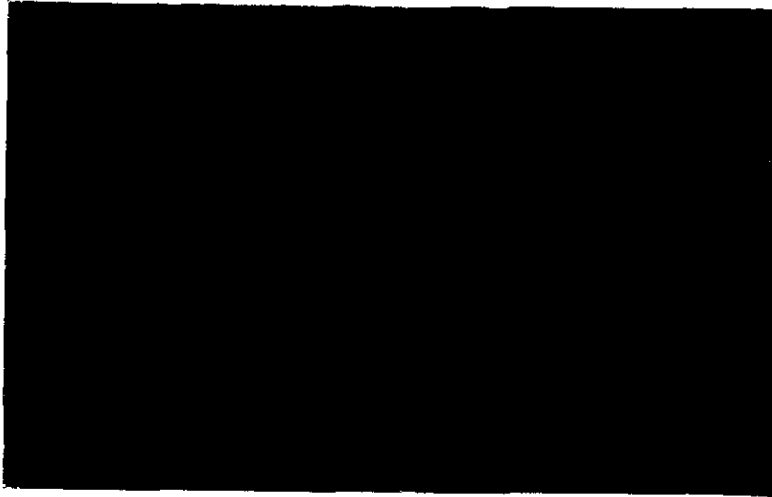
cc: Tommy Conner, The Law Offices of Tommy Conner



ENVIRONMENTAL
PROTECTION

SEP 23 PM 3: 01

ATC ENVIRONMENTAL INC.



Prepared for:

MR. RUBEN HAUSAUER

c/o

THE LAW OFFICES OF TOMMY CONNER

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by:

ATC ENVIRONMENTAL INC.

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19 September 1996

SOIL AND GROUNDWATER INVESTIGATION

3927 EAST 14TH STREET

OAKLAND, CALIFORNIA

Andrew Willerton / vtl

ANDREW WILLERTON

Senior Staff Geologist

William G. Theyskens

WILLIAM G. THEYSKENS

Senior Project Geologist

CEG 1486, CHG 245



Project No. 61137.0001

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**SOIL AND GROUNDWATER INVESTIGATION
3927 EAST 14TH STREET
OAKLAND, CALIFORNIA**

1.0 INTRODUCTION

This report presents the procedures, findings and conclusions of a subsurface investigation performed at 3927 East 14th Street, Oakland, California (site, Figure 1). ATC Environmental Inc. prepared a workplan for additional site characterization dated 6 August 1996. The workplan was submitted to the Alameda County Department of Environmental Health and approved by Mr. Barney Chan in a letter dated 8 August 1996.

The field investigation portion of this project was conducted on 10 and 22 August 1996 at the request of the Law Offices of Tommy A. Conner. Soil boring and monitoring well installation was conducted simultaneously with tank removal at the site by others to permit monitoring of the tank removal operations and soil sampling during tank removal. The work included drilling and sampling of three soil borings, collection and analysis of groundwater samples from two of the borings, and the installation of two groundwater monitoring wells in two of the three borings, in the vicinity of the former underground storage tank (UST). This investigation was conducted in response to a request from the Alameda County Department of Environmental Health (ACDEH) for additional site characterization.

2.0 OBJECTIVE

The objective of the scope of work performed during this investigation was to assess the presence and extent of petroleum hydrocarbons in soil and groundwater in the vicinity of a reportedly previously closed- in-place UST at the site.

3.0 SCOPE OF WORK

The scope of work developed to meet the objective included the following tasks:

- Task 1 Workplan preparation;
- Task 2 Mobilization;
- Task 3 Field Investigation;
- Task 4 Laboratory analysis;
- Task 5 Groundwater monitoring;
- Task 6 Data evaluation, report preparation, and project management.

4.0 SITE DATA

4.1 Site Setting

The site is located at 3927 East 14th Street at 40th Avenue in the city of Oakland, California. Land surface elevation of the site is approximately 25 feet above mean sea level (USGS, 1980). The site is located in an area of residential and commercial activity and is bounded on the west by residential structures, on the east and south by auto repair shops, and on the north by residential structures. (Figure 2). The site is currently occupied by New Genico, an auto shop and starter/alternator rebuilding shop.

4.2 Previous Investigations

One 550-gallon underground storage tank (UST), reportedly used for waste oil storage, was located beneath the sidewalk in front of New Genico on 40th Avenue. The UST had reportedly been filled with concrete in approximately 1984.

Two soil borings were drilled at the site in September 1993 by John P. Cummings and Associates, and the results of this investigation were presented in a report dated 30 September 1993, entitled "Report on the Site Investigation, 3927 E. 14th Street, Oakland, California". The two borings (B-1, B-2) were slant drilled to depths of approximately 11 feet, and soil samples were collected at depths of 4 and 7 feet in each boring. Groundwater was reportedly not encountered in either boring. The soil samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), and TPH as diesel (TPHd) in general accordance with EPA Method 8015M; Total Oil and Grease (TOG) in general accordance with gravimetric method 5520 D&F; benzene, toluene, ethylbenzene and xylenes (BTEX compounds) in general accordance with EPA Method 8020; Halogenated hydrocarbons in general accordance with EPA method 8240, and Cadmium (Cd), Chromium (Cr), Lead (Pb), Nickel (Ni) and Zinc (Zn) using Inductively Coupled Argon Plasma (ICAP) or Atomic Absorption (AA). The report indicated that benzene, TPHd and Halogenated Hydrocarbons were not reported in any of the soil samples analyzed. TPHg was reported at concentrations up to 360 milligrams per kilogram (mg/kg), TOG was reported in one sample at a concentration of 150 mg/kg. Cr, Pb, Ni and Zn were reported in all of the samples analyzed for the investigation.

One additional soil boring and one groundwater monitoring well were installed at the site. The date of installation of this well was not available. The results from this investigation were presented in a report prepared by John P. Cummings and Associates dated 4 July 1994. This report indicated that TPHg, TPHd and TOG were reported in the groundwater sample collected from MW-1 at concentrations of 10,000 µg/kg, 3,300 µg/kg, and 5,500 µg/kg, respectively.

A workplan for additional site characterization dated 17 March 1996 was prepared by John P. Cummings and Associates. The scope of work in the workplan was not performed.

4.3 Geology and Hydrogeology

Work conducted by ATC indicates that the site is underlain by a sandy clay to a depth of approximately 7 to 10 feet below the ground surface (BGS). This sandy clay is underlain by a

clayey gravel in all of the borings drilled during this investigation to the maximum depth explored of 16-1/2 feet BGS. Groundwater was first encountered at a depth of approximately 12 feet BGS during drilling on 10 August 1996. After approximately 15 minutes groundwater had risen to approximately 8-1/2 feet BGS. The groundwater flow direction was interpreted to generally mimic the topography in the vicinity of the site, suggesting a groundwater flow to the south or southwest. Measurement of the groundwater flow direction and hydraulic gradient on 22 August 1996 indicate that the groundwater flow direction is to the south or southwest at approximately 0.033 ft/ft. Groundwater elevation data is presented in Table 1. A summary of field procedures is presented in Appendix A.

5.0 FIELD INVESTIGATION

5.1 Health and Safety Plan

The Health and Safety Plan is an integral part of our hazardous materials practice. It is based on our understanding of the potentially hazardous materials that may be present at the site and safety concerns involved with personnel working at the site. It is intended to minimize the likelihood that exposure of ATC Environmental Inc. personnel and subcontractors to potentially hazardous materials and unsafe conditions will occur during field work. The Health and Safety Plan was reviewed with field personnel prior to the commencement of field activities. A copy of the Health and Safety Plan has been retained on file at ATC Environmental Inc.

5.2 Permitting and Utility Locating

Drilling permits were obtained before beginning the field work from the Alameda County Flood Control and Water Conservation District. In addition, excavation encroachment permits were obtained from the City of Oakland. The proposed soil boring/monitoring well locations were cleared by an underground utilities locating service so that utilities were not impacted by the drilling program. Underground Service Alert was also notified of the proposed drilling activities.

5.3 Soil Borings

The scope of work as presented in the workplan dated 6 August 1996 and as performed on 10 August 1996 included the installation of temporarily-cased borings (TCBs) in the interpreted downgradient and crossgradient groundwater flow direction from the UST at the site. Groundwater samples collected from the TCBs were screened using a state-certified mobile laboratory. Based on the results of the initial groundwater screening, TCBs were drilled either closer to or further from the UST at the site. Soil boring and monitoring well installation at the site was performed concurrently with tank pull operations performed by others to minimize disruption to the New Genico business operations.

Three soil borings (BB, BBB, A) were drilled at the site on 10 August 1996. The borings were drilled using limited access hollow stem auger drilling equipment. Drilling services were provided by Gregg Drilling of Concord, California. On-site laboratory services were provided by On Site Environmental Laboratories Inc. (On Site) of Fremont, California.

The soil borings were located as shown in Figure 2. Boring BB was drilled approximately 100 feet southwest of well MW1 in 40th Avenue to provide information on soil and groundwater conditions in the interpreted downgradient direction of the former UST. Boring BBB was drilled approximately 150 feet southwest of well MW1 and was converted into groundwater monitoring well MW2. Boring A was drilled approximately 50 feet northwest of well MW-1 and was converted into groundwater monitoring well MW3. Soil samples were collected at five foot intervals to the approximate maximum depth explored of 16-1/2 feet BGS. Sampling at these depths was designed to provide information on the subsurface lithology and to assess the presence of potentially hazardous substances in the subsurface at the boring locations. Samples were collected by drive sample methods using a California modified split barrel sampler lined with brass tubes. The borings were logged using drill cuttings and soil samples collected during drilling. Work was performed under the supervision of a State-certified engineering geologist from ATC.

After drilling and soil sampling was terminated at a depth of 16-1/2 feet BGS in boring BB, a temporary casing was placed in the boring to facilitate groundwater sample collection. The groundwater sample was collected using a Voss disposable bailer, and the sample was transported directly to the On Site mobile laboratory for analysis. Analysis of the groundwater sample for Total Petroleum Hydrocarbons (TPH) as gasoline (TPHg) and benzene, toluene, ethylbenzene and xylenes (BTEX) indicated that TPHg was reported at a concentration of 18,000 micrograms per liter (ug/L) and benzene was reported at a concentration of 340 ug/L. Based on these benzene results, boring BB was grouted to the surface and boring BBB was drilled approximately 50 feet further southwest along 40th Avenue. After drilling and soil sampling was terminated at a depth of approximately 16-1/2 feet in boring BBB, a groundwater sample was collected from within the hollow stem augers. Analysis of the groundwater sample for TPHg and BTEX by On Site's mobile lab indicated that TPHg and benzene were reported at concentrations of 18,000 ug/L and 150 ug/L, respectively. Based on these benzene results, boring BBB was converted into groundwater monitoring well MW2.

After drilling and soil sampling was terminated at a depth of 16-1/2 feet BGS in boring A, a groundwater sample was collected from within the hollow stem augers. The groundwater sample was collected using a Voss disposable bailer, and the sample was transported directly to the On Site mobile laboratory for analysis. Analysis of the groundwater sample for TPHg and BTEX indicated that TPHg was reported at a concentration of 4,100 ug/L, and benzene was not detected at a concentration greater than the detection limit of 2 ug/L. Based on these analytical results, a groundwater monitoring well (MW3) was installed at this location.

Selected soil samples collected from the borings during the investigation were also submitted for analysis to the mobile laboratory. Chain of custody documentation was used to record sample handling and transport from the time of sample collection to delivery of the samples to the laboratory for analysis. Procedures used to drill and log the borings and collect soil samples are presented in Appendix A. Boring logs and monitoring well construction details are also presented in Appendix B.

5.4 Tank Pull Operations

The 550-gallon tank located at the site, beneath the sidewalk along 40th Avenue, was reportedly filled with concrete approximately 12 to 14 years ago. Semco HK2 Inc. was at the site on 10

August 1996 to excavate and remove the tank from the site. ATC field personnel were present at the time of the tank excavation and removal to observe the procedures and to collect soil samples from the walls and floor of the tank excavation. The tank excavation has been documented in a report by Semco dated 12 September 1996. Prior to removal of the tank from the excavation, it was noted that the tank had not been filled with concrete as previously reported and that there was approximately 8 inches of a viscous oily liquid present in the tank. A sample of the viscous oily liquid was collected by Semco and sub-sampled by ATC. ATC subsequently sent this sample with chain of custody documentation to Friedman & Bruya Inc. in Seattle, Washington for fingerprint characterization by capillary gas chromatography using a flame ionization detector and electron capture detector. Friedman & Bruya are a state-certified hazardous waste laboratory that specializes in hydrocarbon identification and characterization.

5.5 Conditions Encountered

Soils encountered during drilling on 10 August 1996 included a clay to depths ranging from approximately 6-1/2 feet BGS in the boring for well MW3 to approximately 10-1/2 feet BGS in boring BB and the boring for well MW2. This clay was underlain by a clayey gravel in each of the three borings to the maximum depth explored of 16-1/2 feet BGS. Groundwater was encountered in each of the three borings at approximately 12 feet BGS, and later stabilized at a depth of approximately 8-1/2 feet BGS.

5.6 Monitoring Well Development and Sampling

Monitoring wells MW-2 and MW-3 were developed, and monitoring well MW-1 was purged and sampled, on 22 August 1996. Well development and purging was accomplished by removing groundwater from the well to remove fine-grained sediment that may have accumulated in the well casing and to increase hydraulic communication with the aquifer material. Temperature, conductivity, and pH were measured and used to assess if sufficient development has occurred. All development water was stored on-site in 55-gallon barrels. Following approximately 80 percent recovery of the groundwater level in the wells, the monitoring wells were sampled. The groundwater sample was collected using a disposable Voss disposable bailer. The sample was placed into laboratory-provided containers appropriate for the respective analyses to be performed. The containers were labeled and stored on ice in an insulated chest pending delivery to the laboratory for analysis. The procedures used to develop, purge and sample the groundwater monitoring wells are presented in Appendix A. Groundwater sampling forms are presented in Appendix C.

6.0 LABORATORY ANALYSIS

6.1 Analytical Program

Five (5) soil samples, including one from boring BB, three from the boring for well MW2 and one from the boring for well MW3, were retained for analysis either by the On Site mobile laboratory or at On Site Environmental Laboratories Inc.'s stationary laboratory in Fremont, California. These samples were analyzed for total petroleum hydrocarbons as gasoline (TPHg) in general accordance with EPA Method 8015M, and for benzene, toluene, ethylbenzene and xylenes (BTEX) in general accordance with EPA Method 8020. Additionally, five (5) soil samples (NW1, SW1,

EW1, WW1 and Tank pit 10') were retained for analysis for TPHg, BTEX, and TPH diesel (TPHd) in general accordance with EPA Method 8015M and for TPH motor oil (TPHmo) in general accordance with EPA Method 8015M. Soil analytical results are presented in Table 2. Certified analytical reports and chain of custody documentation are presented in Appendix D.

Groundwater samples collected during the field work performed on 10 August 1996 were analyzed for TPHg and BTEX utilizing the On Site mobile laboratory. Groundwater samples collected on 22 August 1996 were sent to Chromalab Inc. of Pleasanton, California, for analysis for TPHg, TPHd, TPHmo and BTEX on a standard turnaround basis. Groundwater analytical results are presented in Table 3.

One sample of the viscous oily liquid contents of the UST (TC1) was collected and sent to Friedman & Bruya Inc. in Seattle, Washington, for fingerprint characterization by capillary gas chromatography using a flame ionization detector and electron capture detector.

6.2 Analytical Results

6.2.1 Soil

Laboratory analysis of soil samples collected during this investigation indicates that TPHmo, TPHd, TPHg and BTEX compounds were reported in all of the soil samples collected from the walls and bottom of the tank excavation. TPHmo was reported in concentrations ranging from 1,600 mg/kg to 5,000 mg/kg. TPHd and TPHg were reported in these samples at concentrations ranging from 560 mg/kg to 1,700 mg/kg for TPHd and 260 mg/kg to 940 mg/kg for TPHg. Benzene was reported in concentrations ranging from 0.11 mg/kg to 0.36 mg/kg in the tank excavation samples.

TPHg and BTEX compounds were not reported in any of the soil samples collected from the soil borings drilled during this investigation with the exception of TPHg reported at a concentration of 2.3 mg/kg in the sample collected from a depth of 10-1/2 feet in the boring for well MW2, and benzene reported at a concentration of 0.0071 mg/kg in the sample collected from a depth of 16-1/2 feet in the boring for well MW2.

6.2.2 Groundwater

Laboratory analysis of groundwater samples collected during this investigation indicates that TPHg and BTEX compounds were reported in the groundwater samples collected from all three of the wells at the site. TPHg was reported at concentrations of 7,400 ug/L, 6,300 ug/L and 1,300 ug/L in wells MW1, MW2 and MW3, respectively. Benzene was reported at concentrations of 1,200 ug/L, 170 ug/L and 3.1 ug/L in wells MW1, MW2 and MW3, respectively. TPHmo and TPHd were reported in the groundwater sample collected from well MW-2 at concentrations of 2,100 ug/L and 7,400 ug/L, respectively. TPHmo and TPHd were not reported in the samples collected from wells MW1 and MW3 at concentrations greater than the detection limit.

6.2.3 UST Contents

Analysis of the viscous oily liquid sample collected from the UST at the site prior to its excavation by gas chromatography (GC) using the flame ionization detector (FID) indicates the presence of medium and high boiling point compounds. The patterns displayed by these peaks are reported by the laboratory to be "indicative of highly evaporated gasoline or naphtha, and diesel or home heating oil, as well as motor oil or other lubricating oil". The GC/ECD trace showed the possible presence of chlorinated solvents. In discussion with Brad Benson of Friedman & Bruya (Benson, 1996) it was indicated that the sample looked like a waste oil, and probably was made up of 60% to 70% heavier hydrocarbons and approximately 20% to 30% gasoline. Of the heavier hydrocarbons, Mr. Benson estimated that 10% was diesel. The Friedman & Bruya report is included in Appendix D.

7.0 DISCUSSION

ATC Environmental Inc. performed the field work portion of this investigation on 10 August 1996. Three soil borings (BB, MW2, MW3) were drilled at the site in the vicinity of the former UST. Soils encountered during drilling included a sandy clay to depths ranging from approximately 6-1/2 feet to 10-1/2 feet BGS, underlain by a clayey gravel to the maximum depth explored of 16-1/2 feet BGS in each of the borings drilled and sampled during this investigation.

Soil samples collected from the tank excavation at the site and retained for analysis either by the On Site mobile laboratory or at the On Site Environmental Laboratories Inc. stationary laboratory indicated that TPHmo was reported in concentrations up to 5,000 mg/kg, TPHd was reported in concentrations up to 1,700 mg/kg, and TPHg was reported in concentrations up to 940 mg/kg. Benzene was reported in concentrations up to 0.36 mg/kg in the tank excavation samples. According to Mr. Brad Benson of Friedman & Bruya (Benson, 1996), the sample of the UST's contents looked like a waste oil, and probably was made up of 60% to 70% heavier hydrocarbons and approximately 20% to 30% gasoline. Of the heavier hydrocarbons, Mr. Benson estimated that 10% was diesel. Based on the analytical results of the soil samples collected from the UST excavation, it is the judgment of ATC Environmental Inc. that elevated concentrations of TPHmo (up to 5,000 mg/kg), TPHd (up to 1,700 mg/kg) and somewhat elevated concentrations of TPHg (up to 940 mg/kg) and BTEX are present in soil proximate to the former on site UST.

Of the soil samples collected from the borings and analyzed in the laboratory, the only constituents reported were TPHg (2.3 mg/kg) in sample B2-2-10.5 (MW2 at a depth of 10.5 feet BGS), and benzene in sample B2-3-16.5 (MW2 at a depth of 16.5 feet BGS).

Of the water samples collected during this investigation and analyzed for TPHmo and TPHd, only the sample collected from well MW2 was reported to contain concentrations of these constituents (2,100 ug/L and 7,400 ug/L, respectively). It is the judgment of ATC that the likely source of the TPHmo and TPHd reported in the water sample collected from MW2 is not the on-site former UST location because neither of these constituents were reported in the groundwater sample collected from MW1, which is located immediately adjacent to the former UST location. It is the judgment of ATC that an off-site source of TPHmo and TPHd likely exists that is impacting the groundwater proximate to MW2.

Of the groundwater samples collected from the temporarily cased borings (TCBs) prior to construction of the monitoring wells and analyzed by On Site Laboratories mobile laboratory, all were reported to contain TPHg. The concentrations of TPHg in water samples collected from TCB BB and TCB BBB (second run, as the first run was very silty) were identical (18,000 ug/L) and approximately 4.5 times higher than in the water sample collected from TCB A (4,100 ug/L). TCB BBB is located approximately 50 feet further downgradient than TCB BB. TCB BB and TCB BBB were reported to contain benzene concentrations of 340 ug/L and 110 ug/L/150 ug/L (first run/second run), respectively. No benzene was reported in the groundwater sample collected from TCB A. This data suggested that the westerly extent of benzene in groundwater lies between permanent groundwater monitoring wells MW1 and MW3 (constructed at TCB A).

Groundwater samples collected from the three permanent groundwater monitoring wells (MW1, MW2 and MW3) were reported to contain 7,400 ug/L, 6,300 ug/L and 1,300 ug/L TPHg, respectively. Benzene was reported in MW1, MW2 and MW3 at concentrations of 1,200 ug/L, 170 ug/L and 3.1 ug/L, respectively. This suggests similar concentrations of TPHg in the well proximate to the former UST location and the well approximately 150 feet downgradient from MW1. Concentrations of benzene in MW2, however, were only 14% of that in MW1. This suggests that the benzene plume has migrated less than the TPHg plume, or that a secondary source of TPHg may exist that has contributed TPHg to groundwater proximate to MW2. The western extent of the benzene plume would effectively be placed proximate to MW3. Concentrations of TPHg in MW3 were approximately 17.5% of those reported in MW1. Concentrations of benzene in MW3 were 0.25% of that in MW1.

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8.0 CONCLUSIONS

Based on the information presented in this report, the professional judgment of ATC Environmental Inc., and current regulatory guidelines, the following conclusions have been drawn.

- o The on-site UST, rather than being closed in place as previously reported by others, contained a viscous oily liquid.
- o The tank contents were reported to be “indicative of highly evaporated gasoline or naphtha, and diesel or home heating oil, as well as motor oil or other lubricating oil”. The GC/ECD trace showed the possible presence of chlorinated solvents. It was also indicated that the sample looked like a waste oil, and probably was made up of 60% to 70% heavier hydrocarbons and approximately 20% to 30% gasoline. Of the heavier hydrocarbons, it was estimated that 10% was diesel.
- o Elevated concentrations of TPHmo (up to 5,000 mg/kg), TPHd (up to 1,700 mg/kg) and somewhat elevated concentrations of TPHg (940 mg/kg or less) and BTEX are present in soil proximate to the former on-site UST.
- o An off-site source of TPHmo and TPHd likely exists and is impacting the groundwater proximate to MW2.
- o The westerly extent of benzene in groundwater is proximate to groundwater monitoring well MW3.

- o The benzene plume has either migrated less than the TPHg plume, or a secondary source of TPHg exists that is contributing TPHg to groundwater proximate to MW2.
- o The groundwater flow direction on site is to the south or southwest at a gradient of approximately 0.033 ft/ft.

9.0 RECOMMENDATIONS

Based on the data presented in this report, current regulatory guidelines, and the professional judgment of ATC Environmental Inc., the following recommendation is presented:

- o Exchange the most recent analytical data with Motor Partners.
- o Perform monthly groundwater gauging concurrent with Motor Partners to more firmly establish the groundwater flow direction and gradient.
- o Perform another sampling round concurrent with Motor Partners' next sampling event.
- o Collect a sample(s) from the Motor Partners' groundwater monitoring well located downgradient of, and closest to, the Motor Partners' source(s), and have Friedman & Bruya perform fingerprint analyses on the sample(s).

10.0 REFERENCES

ATC Environmental Inc., 1996, Proposal to conduct a soil and groundwater investigation at 3927 East 14th Street in Oakland, California; Dated 1 August 1996.

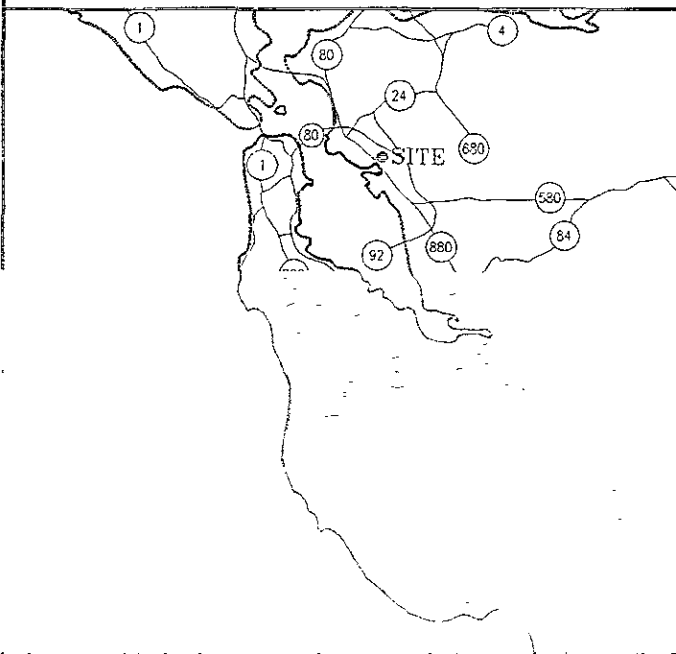
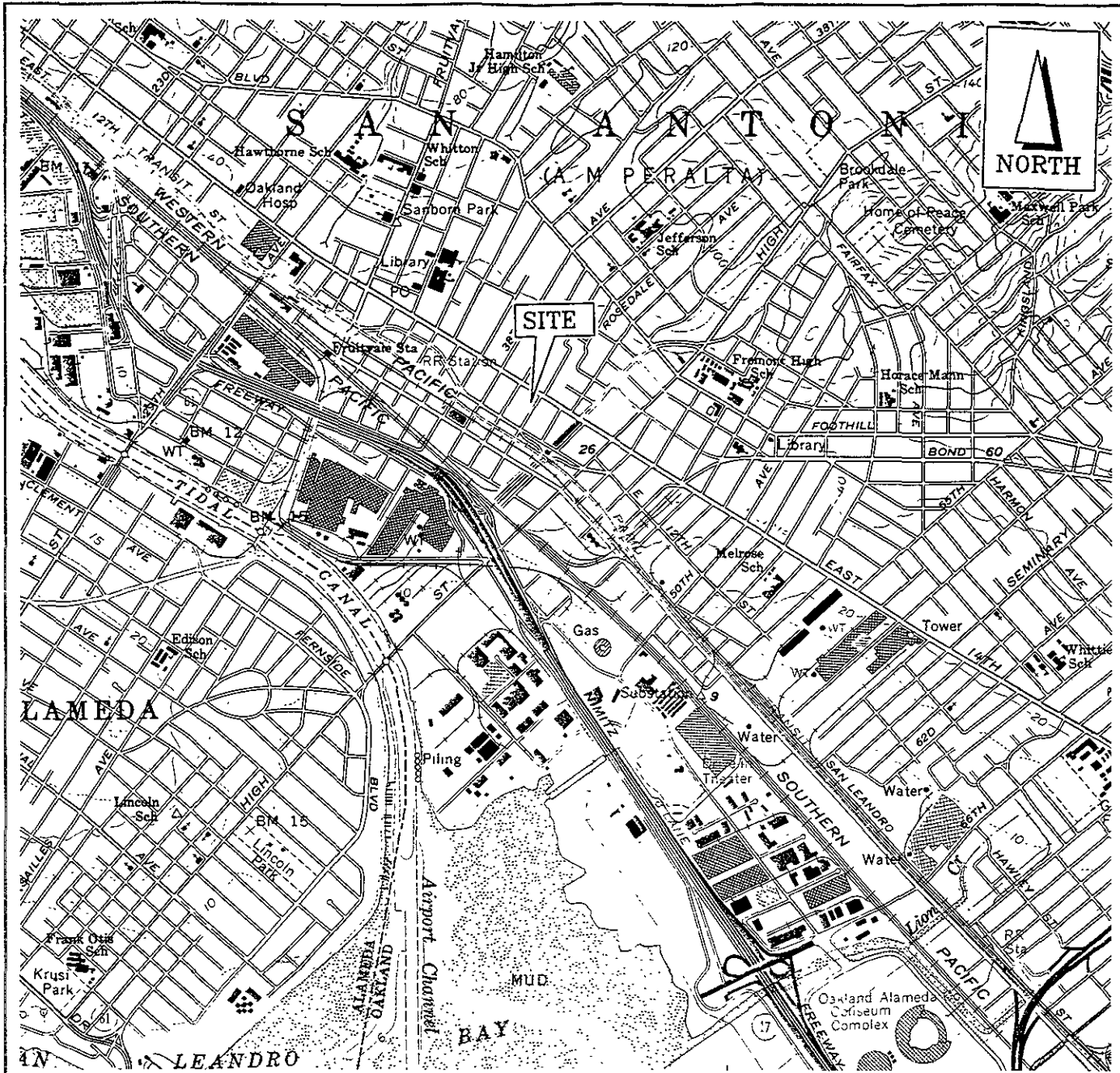
Benson, Brad, 1996, employee of Friedman & Bruya, telephone conversation dated 12 September 1996.

Cummings, John P., 1993, Report on the Tank Site Investigation, 3927 E. 14th Street, Oakland, California; Dated 30 September 1993.

Cummings, John P., 1994, Groundwater Monitoring, 3927 E. 14th Street, Oakland, California; Dated 4 July 1994.

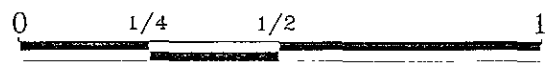
United States Geological Survey, 1959, Oakland East, California, Quadrangle, 7.5-minute series (topographic); 1959, photorevised 1980, scale 1:24,000.

USGS, See United States Geological Survey.



NOTES:

- 1) BASE MAP FROM USGS OAKLAND EAST, CALIFORNIA QUADRANGLE, 7.5-MINUTE SERIES (TOPOGRAPHIC), 1959 UPDATED 1980. 7.5-MINUTE SERIES (TOPOGRAPHIC), 1993.
- 2) ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE



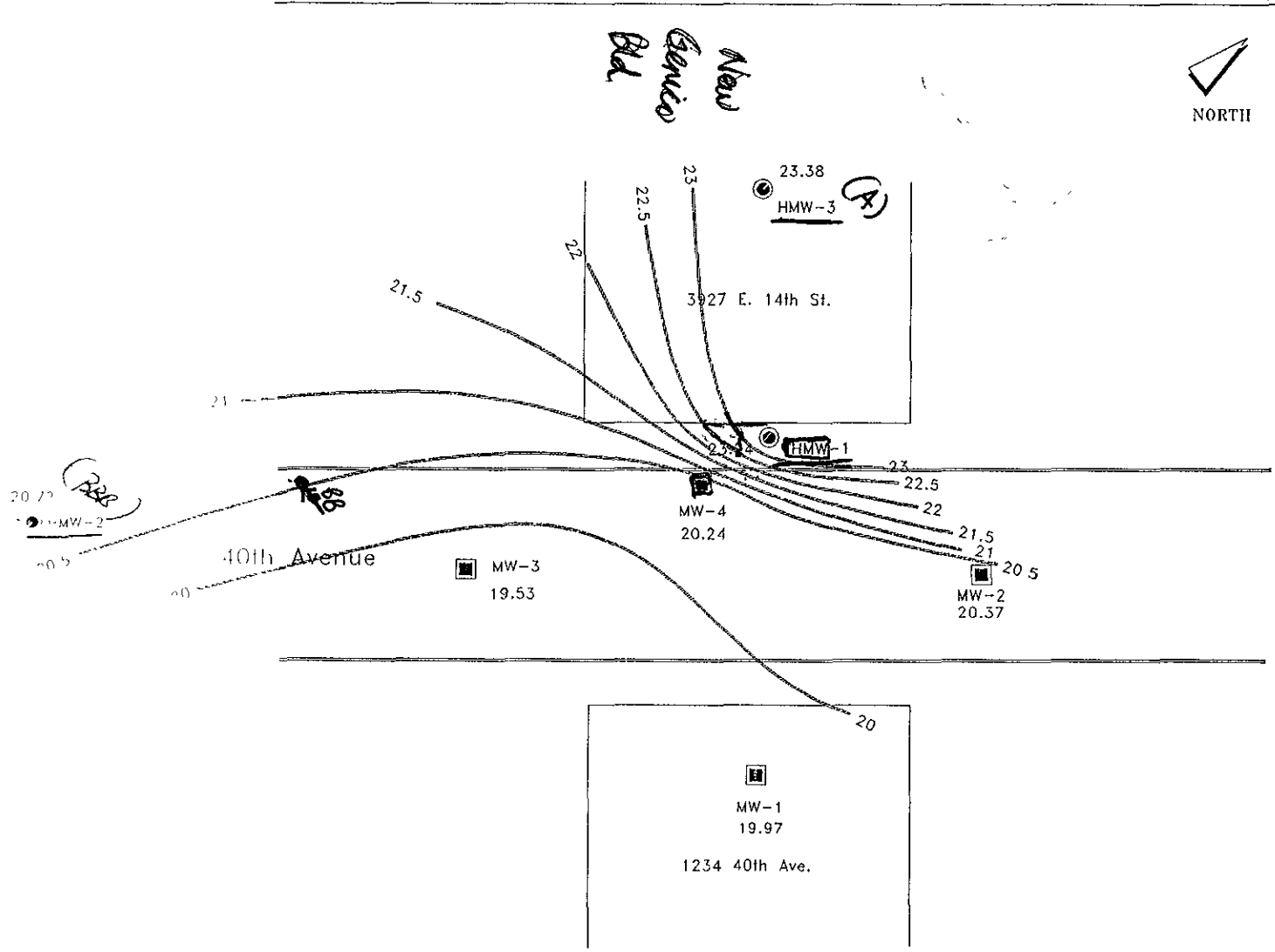
SCALE, MILES

ATC ENVIRONMENTAL INC.

SITE LOCATION MAP

3927 F 14TH STREET
OAKLAND, CALIFORNIA

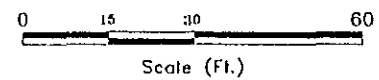
PROJECT NO. 61137.000: FIGURE 1



EXPLANATION

- Groundwater elevation (22 August 1996)
- 23.38 Groundwater Monitoring Well HMW-3 (3927 E. 14th St.)
- Groundwater Monitoring Well (1234 40th Ave.)
- MW-1
- Groundwater elevation contours, 22 August 1996

Notes:
 1. Base Map developed from survey map provided by Kier & Wright



ATC ENVIRONMENTAL INC.
 SITE MAP
 3927 E. 14th Street
 Oakland, California
 Project No. 61137.0001 | Figure 2

Table 1
Groundwater Elevation Data
3927 E. 14th Street
Oakland, California

Well No.	Date	Well Elevation (MSL)	Depth to Water	Groundwater Elevation
MW1	22 August 1996	31.25	8.01	23.24
MW2	22 August 1996	29.43	8.71	20.72
MW3	22 August 1996	31.48	8.10	23.38

MSL = Mean Sea Level
Well elevations measured from top of casing.

Table 3
Summary of Groundwater Analytical Results
3927 E. 14th Street
Oakland, California

Sample Identification	Sample Date	TPHmo (ug/L)	TPHd (ug/L)	TPHg (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)
BB	10-Aug-96	NA	NA	18,000	340	73	51	230
BBB (1)	10-Aug-96	NA	NA	43,000	110	40	51	350
BBB (2)	10-Aug-96	NA	NA	18,000	150	51	49	330
A	10-Aug-96	NA	NA	4,100	ND	ND	ND	36
H MW 1	22-Aug-96	ND	ND	7,400	1,200	170	530	490
H MW 2	22-Aug-96	2,100	7,400*	6,300	170	57	370	120
H MW 3	22-Aug-96	ND	ND	1,300	3.1	5.9	7.6	12

ug/L = micrograms per liter

TPHd = Total petroleum hydrocarbons as diesel, analyzed in general accordance with EPA Method 8015M.

TPHg = Total petroleum hydrocarbons as gasoline, analyzed in general accordance with EPA Method 8015M.

TPHmo = Total petroleum hydrocarbons as motor oil, analyzed in general accordance with EPA Method 8015M.

BGS = Below the Ground Surface

ND = Not detectable in concentrations greater than the detection limit.

* = Laboratory notes that the concentration for diesel is estimated, due to overlapping fuel patterns. Hydrocarbons reported as motor oil does not match the pattern of the motor oil standard.

(1) = First run with abundant silt

(2) = Second run

APPENDIX A

SUMMARY OF FIELD PROCEDURES

SUMMARY OF FIELD PROCEDURES

The procedures used during preparation for field work and to drill borings, collect soil samples, install monitoring wells, and develop and sample groundwater monitoring wells, are as follows:

Preparation/Mobilization

- o A Health and Safety Plan (HASP) was prepared. The HASP is an integral part of our hazardous materials practice. It is based on our understanding of the potentially hazardous materials that may be present at the site and safety concerns involved with personnel working at the site. It is intended to minimize the likelihood that exposure of ATC Environmental Inc. personnel and subcontractors to potentially hazardous materials and unsafe conditions that may occur during field work.
- o Underground Service Alert (USA) was notified of the locations of the proposed intrusive activities. The field investigation was performed after using a private underground utility locating service to locate underground utilities in the immediate vicinity of proposed boring locations, and alternate boring locations.
- o Monitoring encroachment permits and excavation permits were obtained from the city of Oakland. Monitoring well construction permits were obtained from Alameda County Water District (ACWD).

Drilling/Soil Sampling

- o All drilling and sampling equipment was either steam-cleaned or washed using a non-phosphate detergent, rinsed in two tapwater rinses, and final-rinsed using deionized water, in general accordance with Regional Water Quality Control Board (RWQCB) guidelines, to minimize the likelihood of cross-contamination.
- o The borings were advanced to depths of approximately 16-1/2 feet below the ground surface (BGS) surface using a hollow stem auger drill rig. Soil samples were collected in 6-inch-long stainless steel liners located inside California modified split spoon samplers.
- o Following retrieval of the sampler, selected samples were removed from the sampler, the ends covered with Teflon sheets or aluminum foil, and capped with plastic end caps. Each sample was labeled with the sample number, depth of collection, date, and project number.
- o Soil descriptions, sample type and depth, and related drilling information were recorded on a boring log under the supervision of a State-certified engineering geologist from ATC Environmental Inc., using the Unified Soil Classification System (USCS).
- o Soil samples were collected at approximate 5-foot intervals and at the approximate soil/water interface in the borings, in general accordance with RWQCB guidelines.

- o Samples retained for possible laboratory analysis were placed in Ziploc bags and stored on ice in an insulated chest.
- o Selected samples were analyzed for total petroleum hydrocarbons as motor oil (TPHmo) , TPH as diesel (TPHd), TPH as gasoline (TPHg) with quantification of benzene, toluene, xylene, ethylbenzene, and MTBE in general accordance with U.S. Environmental Protection Agency (USEPA) Method Nos. 5030/8015 modified and 5030/8020.
- o Soil in sample liners that were not selected for submission to the laboratory for potential analysis were used to describe the stratigraphy encountered and/or to measure VOCs.
- o Backfill material consisted of cement grout. The backfill material was installed to the approximate ground surface.
- o Soil removed during the installation of the soil borings and cleaning water were placed into DOT-approved 55-gallon drums. The drums were labeled with the contents, date, well number, and job number for storage at the site.

Monitoring Well Groundwater Sampling

- o Field activities and equipment utilization were recorded on field report forms.
- o Groundwater depth and depth to bottom measurements were made from a designated reference point on the top of the casing (TOC), using a Solinst fluid level meter and was recorded. The probe was rinsed using deionized water rinse prior to use.
- o A translucent Voss disposable bailer equipped with a bottom-emptying device was used to sample groundwater and to allow for observations of a sheen or floating product, if present.
- o Following the development of a minimum of five casing volumes of water, or recovery to 80 percent of the original groundwater level if the well was developed dry, a groundwater sample was collected within the monitoring well.
- o The groundwater sample was collected using a translucent Voss disposable bailer. Nylon rope was used to lower the bailer into the well. The nylon rope was discarded after sampling from the well.
- o The groundwater sample was collected and placed into laboratory-supplied containers containing preservatives.
- o Groundwater was discharged from the bailer via a bottom-emptying device. Discharge to the containers was limited to minimize bubbling and sample agitation. The container was filled to the top to minimize the headspace.
- o One groundwater sample was collected from the monitoring well. The samples was placed into laboratory-provided containers appropriate for the respective analyses to be performed,

labeled, and stored on ice, along with a laboratory-provided trip blank, in an insulated chest pending delivery to the laboratory for analysis.

- o Chain-of-custody procedures were used to document sample handling and transport from the time of sample collection to delivery, within 24 hours of sampling, to a State-certified hazardous waste laboratory for analysis.
- o Samples were analyzed for TPHmo, TPHd, and TPHg with quantification of benzene, toluene, xylene, ethylbenzene, and MTBE in general accordance with EPA Method Nos. 5030/8015 modified and 5030/8020.

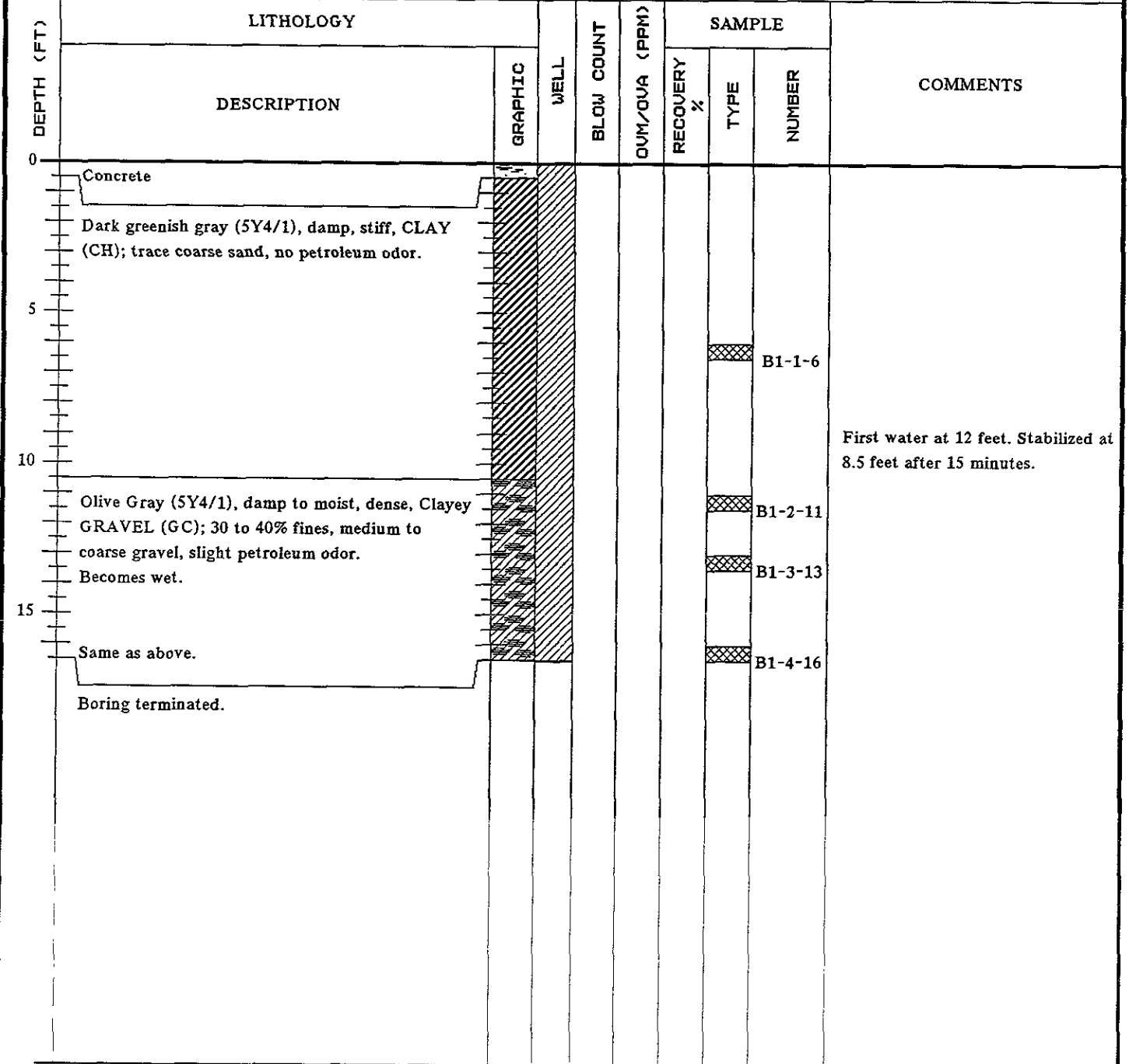
Waste Disposal

- o Soil waste generated during the drilling operations was stored on-site in labeled 55-gallon drums pending receipt of laboratory results. Disposal of the soil in accordance with current regulatory guidelines, based on the laboratory results, is not the responsibility of ATC Environmental Inc., and in most cases is the responsibility of the client.
- o Water recovered from the well was stored on-site in a labeled 55-gallon drum. Disposal of the purgewater in accordance with current regulatory guidelines, based on the laboratory results, is not the responsibility of ATC Environmental Inc., and in most cases is the responsibility of the client.

APPENDIX B
BORING LOGS
WELL CONSTRUCTION LOGS

PROJECT ▷ Oakland		ATC	PROJECT NUMBER ▷ 61137.0001	
LOGGED BY ▷ DREW WILLERTON			START DATE ▷ 10 August 1996	
CHECKED BY ▷ WILLIAM THEYSKENS			COMPLETION DATE ▷ 10 August 1996	
GROUND SURFACE ELEVATION DATUM (FT-MSL) ▷			DRILLING COMPANY ▷ GREGG DRILLING	
DRILLING EQUIPMENT ▷ MARL MST HOLLOW STEM AUGER				
BORING DEPTH (FT) ▷ 16.5		WELL DEPTH (FT) ▷ N/A	WATER DEPTH (FT)-Initial: Completion:	
WELL MATERIALS ▷ N/A			WELL SCREEN INTERVAL (FT) ▷ N/A TO N/A	
WELL CASING ELEVATION (FT-MSL) ▷ N/A			OVM/OVA ▷ N/A	

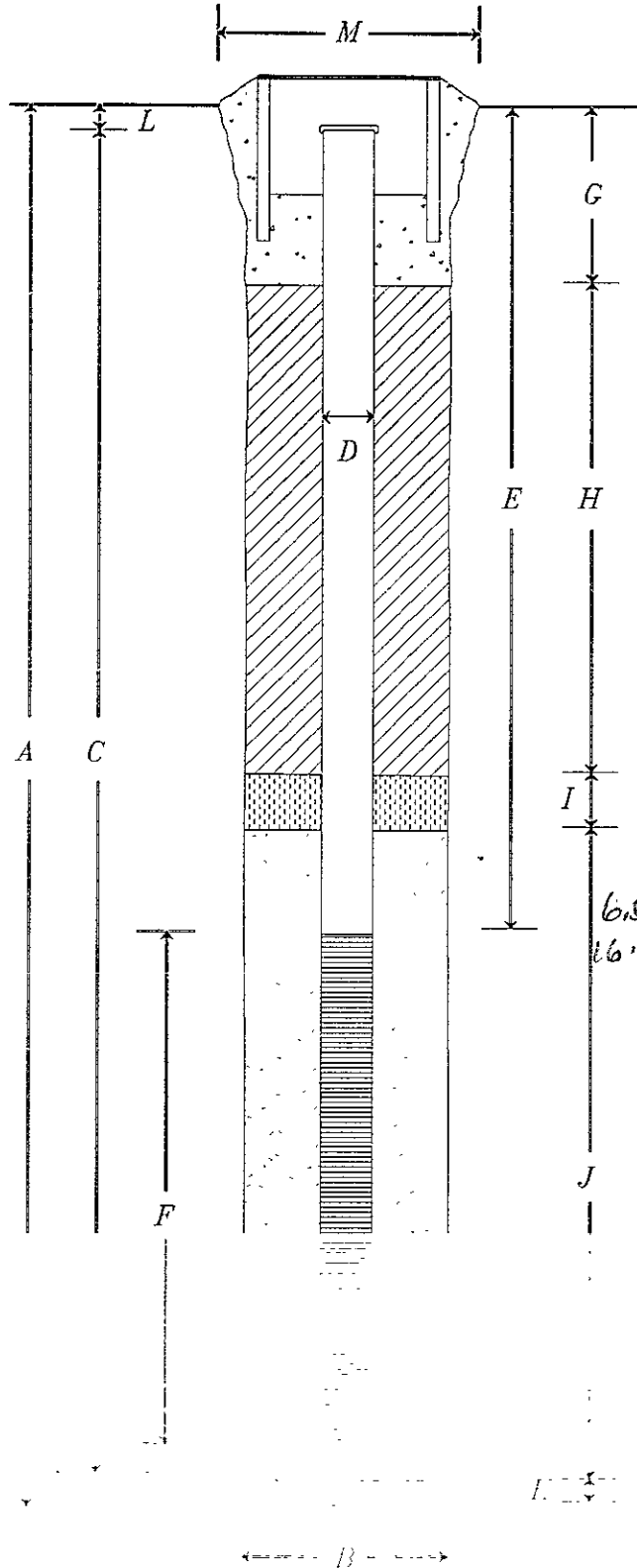
BACKFILL MATERIAL ▷ **CEMENT**



SINGLE COMPLETION WELL DETAILS

PROJECT NUMBER: 61137.0001
 PROJECT NAME: 3927 E. 14TH
 COUNTY: ALAMEDA
 WELL PERMIT NO.: 96586

BORING/WELL NO.: BBB/MW2
 TOP OF CASING ELEV.: 29.43
 GROUND SURFACE ELEV.: 29.85
 DATUM: MEAN SEA LEVEL



EXPLORATION BORING

A. Total Depth 16.5 ft.
 B. Boring Diameter 8 in.
 Drilling Method HOLLOW STEM AUGER

WELL CONSTRUCTION

C. Casing Length 16 ft.
 Material SCHEDULE 40 PVC
 D. Diameter 2 in.
 E. Depth to Top of Perforations 6.5 ft.
 F. Perforated Length 10 ft.
 Perforated Interval from 6.5 to 16.5 ft.
 Perforation Type MACHINE SLOT
 Perforation Size 0.020 INCH
 G. Surface Cap 5 ft.
 Cap Material CONCRETE
 H. Backfill 5 ft.
 Backfill Material CEMENT GROUT
 I. Plug 1 ft.
 Plug Material BENTONITE PELLETS
 J. Gravel Pack 10.5 ft.
 Material #3 LONESTAR SAND
 K. Bottom Plug NA ft.
 Material NA
 L. Top of Casing Depth .42 ft.
 V. Protection Cover Length 12 in.

PROJECT ▷ Oakland		ATC	PROJECT NUMBER ▷ 61137.0001	
LOGGED BY ▷ DREW WILLERTON			START DATE ▷ 10 August 1996	
CHECKED BY ▷ WILLIAM THEYSKENS			COMPLETION DATE ▷ 10 August 1996	
GROUND SURFACE ELEVATION DATUM (FT-MSL) ▷			DRILLING COMPANY ▷ GREGG DRILLING	
DRILLING EQUIPMENT ▷ MARL M5T HOLLOW STEM AUGER				
BORING DEPTH (FT) ▷ 17.0		WELL DEPTH (FT) ▷ 17.0		WATER DEPTH (FT)-Initial: Completion:
WELL MATERIALS ▷ #3 SAND W/SCH 40 PVC 0.020			WELL SCREEN INTERVAL (FT) ▷ 7 TO 17	
WELL CASING ELEVATION (FT-MSL) ▷ 31.48			OVM/OVA ▷ N/A	
BACKFILL MATERIAL ▷ N/A				

DEPTH (FT)	LITHOLOGY		WELL	BLOW COUNT	OVM/OVA (PPM)	SAMPLE			COMMENTS
	DESCRIPTION	GRAPHIC				RECOVERY %	TYPE	NUMBER	
0	Concrete								
0-5	Olive gray (5Y3/2) with light tan mottling, damp, very stiff, Sandy CLAY (CL); 10 to 20% fine to medium grained sand, no petroleum odor.								
5-10	Dark greenish gray (5GY4/1), moist, dense, Clayey GRAVEL (GC); 10 to 20% very fine sand, no petroleum odor.							MW3-1-6	
10-15	Greenish black (5GY2/1), moist to wet, dense, Clayey GRAVEL (GC); 20 to 30% fines, strong petroleum odor. Increasing sand, no to faint "sweet" odor. Becomes wet.							MW3-2-11	
15-17	Boring terminated.							MW3-3-16	

APPENDIX C
GROUNDWATER SAMPLING FORMS

WELL DEVELOPMENT LOG

WELL NO. MMW2

PROJECT NAME <u>14TH ST. OAKLAND</u>	DEPTH TO BOTTOM <u>17.5'</u>
PROJECT NUMBER <u>61137.0001</u>	DEPTH TO WATER <u>8.71'</u>
DATE <u>8/22/90</u>	CASING DIAMETER <u>2"</u>
PAGE <u>1 of 1</u>	CASING VOLUME <u>7.26A PURGE VOL</u>
	DEVELOPMENT METHOD _____

TIME	CUMULATIVE VOLUME OF WATER PURGED	pH	ELECTRICAL CONDUCTIVITY	TEMP.	COMMENTS
9:10					STARTED SURGING MMW2
9:25					STOPPED SURGING
11:40					STARTED BITING
11:50	5 GA	6.97	1.23	75.9	CLOUDY/SILTY
12:00	10	7.06	0.80	74.6	CLOUDY
12:15	15	6.96	0.84	76.5	SLUDGY/CLEARING
12:35	20	7.00	0.81	80.7	CLEARING/CLOUDY
12:50	25	6.96	0.83	79.0	SUBTLY CLOUDY
1:15					SAMPLED

SAMPLE COLLECTED YES NO SAMPLE NUMBER _____ RECEIVING LABORATORY _____

ESTIMATED WELL CASING VOLUME = $3.14 \times 7.5 \times (\text{height of water [ft]} \times (\text{radius of well [ft]})^2 = 3.14 \times 7.5 \times [] \times []^2 =$

WELL DEVELOPMENT LOG

WELL NO. MMW 3

PROJECT NAME _____	DEPTH TO BOTTOM <u>17.40</u>
PROJECT NUMBER _____	DEPTH TO WATER _____
DATE _____	CASING DIAMETER <u>2</u>
PAGE _____ of _____	CASING VOLUME _____
	DEVELOPMENT METHOD <u>BAIL</u>

TIME	CUMULATIVE VOLUME OF WATER PURGED	pH	ELECTRICAL CONDUCTIVITY	TEMP.	COMMENTS
0945					STARTED SURGING
1000					ENDED SURGING
1230					BEGIN PURGE
1350	10 GA	7.08	.83	77	SILTY
1405	20 GA	8.02	.76	74.2	"
1420	30 GA	6.69	.64	73.3	"
1440	40	6.77	.74	73.8	CLEARING
1500	50 GA	6.72	.77	73.9	"
	60				
1530					SAMPLED

SAMPLE COLLECTED YES NO SAMPLE NUMBER _____ RECEIVING LABORATORY: _____

ESTIMATED WELL CASING VOLUME = $3.14 \times 7.5 \times (\text{height of water (ft)}) \times (\text{radius of well (ft)})^2 = 3.14 \times 7.5 \times [] \times []^2 =$



APPENDIX D

**SOIL AND GROUNDWATER LABORATORY ANALYTICAL REPORTS
AND CHAIN OF CUSTODY DOCUMENTATION**

LABORATORY ANALYTICAL REPORT

Date sampled :	8/10/96	Project Mgr :	Andrew Willerton
Date received :	8/10/96	Client :	ATC Environmental
Date analyzed :	8/10/96	Project :	3927 E.14th Oakland
Date reported :	8/10/96	Project # :	61137.0001
Report # :	2C087_s.rpt	Units :	ug/Kg
Lab. ID # :	2C087	Matrix :	Soil

Field ID Number		B2-2-10.5	B2-3-16	B1-4-16	B2-3-16.5	B3-3-16
Lab ID Number		2C087-02	2C087-03	2C087-12	2C087-13	2C087-14
Target Compounds	DL					
Benzene	5	ND	ND	ND	7.1	ND
Toluene	5	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND
Xylene (total)	5	ND	ND	ND	ND	ND
TPH as gasoline	1000	2300	ND	ND	ND	ND
1,2-Dichloroethane-d4	surr.	95%	100%	102%	99%	99%
Toluene-d8		100%	100%	102%	100%	101%
4-Bromofluorobenzene		99%	99%	101%	100%	102%
Dilution factor (DF)		1	1	1	1	1

Notes :

- ND - Analytes not detected at, or above the stated detection limit
- DL - Detection limit
- DF - Dilution Factor
- PQL - Practical Quantitation Limit - Multiply DL by the DF to obtain the PQL for a specific sample
- E - exceed upper calibration limit
- J - estimated value

Harold Vöigt
Laboratory director

AUG 21 1996
Date

Analytical Laboratory Report
TPH-E Diesel, TPH-E Motor Oil
EPA Method 8015 Modified

Date Sampled: 8/10/96
Date Received: 8/10/96
Report Number: 6C146D.RPT
Lab Number: 6C146
Date Reported: 8/13/96

Proj Mgr: Andrew Willerton
Client: ATC Environmental
Project: 3927 E. 14th Oakland
Project #: 61137.0001
Units Soil: mg/Kg

Lab ID No.	Field ID No.	Date Extracted	Date Analyzed	TPH-E Diesel	TPH-E Motor Oil	TPH-E Sur. %	TPH-E DF	Matrix
-01	NW1	8/12/96	8/12/96	560	1600	D	20	Soil
-02	EW1	8/12/96	8/12/96	890	2800	D	20	Soil
-03	SW1	8/12/96	8/12/96	1500	4800	D	20	Soil
-04	WW1	8/12/96	8/12/96	1700	5000	D	5	Soil
-05	TANK PIT 10'	8/12/96	8/12/96	610	1800	73	1	Soil
-06	SP1-4	8/12/96	8/12/96	930	3300	D	20	Soil

Reporting Limits SOIL mg/Kg	1.0	1.0
Reporting Limits WATER ug/L	50	50

NOTES:
 NR - Not requested
 NC - Not confirmed
 COC - Chain of custody
 ND - Analytes not detected at, or above the reporting limit
 Sur. % - Percent surrogate recovery
 mg/Kg - Milligrams per kilogram (PPM)
 ug/L - Micrograms per liter (PPB)
 PQL - Practical Quantitation Limit Equals detection limit times the dilution factor
 D - Surrogate was diluted out
 M - Matrix effects
 DF - Dilution Factor
 * - Sample chromatogram does not match standard chromatogram.
 TPH-E Diesel - Total petroleum hydrocarbons extractable quantitated as Diesel
 TPH-E Motor Oil - Total petroleum hydrocarbons extractable quantitated as Motor Oil

PROCEDURES:
 TPH-E - This analysis was performed using EPA Method 8015 Mod and EPA Method 3550B

CERTIFICATION:
 California Department of Health Services ELAP
 O.S. Environmental Laboratory 2550 Biscuit Canyon, Fremont, CA 94538-1151

Paula Vajta
 Laboratory Director

8/20/96
 Date

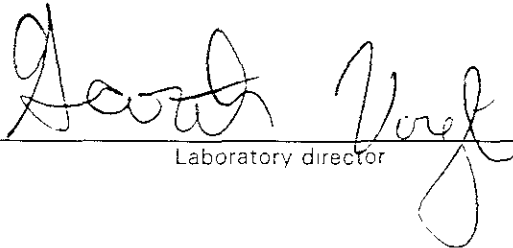
LABORATORY ANALYTICAL REPORT

Date sampled :	8/10/96	Project Mgr :	Andrew Willerton
Date received :	8/10/96	Client :	ATC Environmental
Date analyzed :	8/10/96	Project :	3927 E.14th Oakland
Date reported :	8/10/96	Project # :	61137.0001
Report # :	2C087_w.rpt	Units :	ug/L
Lab. ID # :	2C087	Matrix :	Water

Field ID Number Lab ID Number		BB 2C087-01	BBB ** 2C087-04		A 2C087-05
Target Compounds	DL				
Benzene	2	340	110	150	ND
Toluene	2	73	40	51	ND
Chlorobenzene	2	51	51	49	ND
Ethylbenzene	2	230	350 E	330	36
Xylene (total)	2	70	96	90	4.8
TPH as gasoline	50	18000	43000	18000	4100
1,2-Dichloroethane-d4	surr.	100%	95%	98%	97%
Toluene-d8		103%	109%	101%	104%
4-Bromofluorobenzene		103%	100%	99%	104%
Dilution factor (DF)		5	1	10	1

Notes :

- ND - Analytes not detected at, or above the stated detection limit
- DL - Detection limit
- DF - Dilution Factor
- PQL - Practical Quantitation Limit - Multiply DL by the DF to obtain the PQL for a specific sample
- E - exceed upper calibration limit
- J - estimated value
- ** - First run (dil. = 1) of the sample BBB had lots of silt



Laboratory director



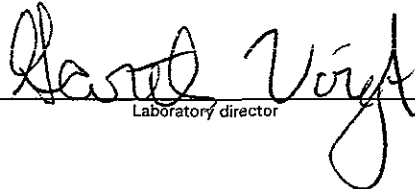
Date

LABORATORY QC REPORT
VOLATILE ORGANICS BY GC/MS EPA 8240

Date sampled :	8/10/96	Project Mgr :	Andrew Willerton
Date received :	8/10/96	Client :	ATC Environmental
Date analyzed :	8/10/96	Project :	3927 E.14th Oakland
Date reported :	8/10/96	Units :	ug/Kg
Report # :	2C087_s.qac	Matrix :	Soil
Lab. ID # :	2C087-03	Sample ID :	B2-3-16

Field ID Number Lab ID Number	M.Blank	SPIKE LEVEL	LCS	LCS recovery	SAMPLE	SPIKE LEVEL	MS	MS recovery	MSD	MSD recovery	RPD	
Target Compounds	DL											
1,1-Dichloroethene	5	ND	125	117.3	94%	ND	125	133.8	107%	126.5	101%	5.6%
Benzene	5	ND	125	130.9	105%	4.5	125	136.6	106%	133.9	104%	2.0%
Trichloroethene	5	ND	125	130.0	104%	ND	125	129.5	104%	130.1	104%	0.4%
Toluene	5	ND	125	129.5	104%	1.9	125	131.2	103%	129.7	102%	1.1%
Chlorobenzene	5	ND	125	129.5	104%	2.3	125	131.6	105%	131.2	105%	0.3%
Ethylbenzene	5	ND										
Xylene TOTAL	5	ND										
TPH as gasoline	1000	ND				-		-		-		
1,2-Dichloroethane-d4	surr.	102%		100%		100%		100%		100%		
Toluene-d8		101%		99%		100%		102%		101%		
4-Bromofluorobenzene		102%		99%		99%		101%		100%		
Dilution factor (DF)		1		1		1		1		1		

Notes :
 ND - Analytes not detected at, or above the stated detection limit
 DL - Detection limit
 DF - Dilution Factor
 QC limits - Recovery 70% - 130%
 RPD - 25%


 Laboratory director

8/20/96
 Date

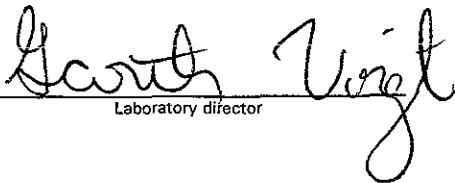
LABORATORY QC REPORT
VOLATILE ORGANICS BY GC/MS EPA 8240

Date sampled : 8/10/96
Date received : 8/10/96
Date analyzed : 8/10/96
Date reported : 8/10/96
Report # : 2C087_w.qac
Lab. ID # : 2C087-05

Project Mgr : Andrew Willerton
Client : ATC Environmental
Project : 3927 E.14th Oakland
Units : ug/L
Matrix : Water
Sample ID : A

Field ID Number Lab ID Number	M.Blank	SPIKE LEVEL	LCS	LCS recovery	SAMPLE	SPIKE LEVEL	MS	MS recovery	MSD	MSD recovery	RPD	
Target Compounds	DL											
1,1-Dichloroethene	2	ND	50	46.65	93%	ND	250	255.6	102%	228.8	92%	11.1%
Benzene	2	ND	50	51.27	103%	1.3	250	274.5	109%	262.7	105%	4.4%
Trichloroethene	2	ND	50	47.90	96%	8.9	250	280.3	109%	268.2	104%	4.4%
Toluene	2	ND	50	49.40	99%	4.4	250	271.9	107%	264.4	104%	2.8%
Chlorobenzene	2	ND	50	49.20	98%	ND	250	268.7	107%	261.6	105%	2.7%
Ethylbenzene	2	ND				39.6		32.2		32.0		
Xylene TOTAL	2	ND				6.9		5.6		6.1		
TPH as gasoline	50	ND				-		-		-		
1,2-Dichloroethane-d4	surr.			102%		106%		95%		99%		95%
Toluene-d8				101%		101%		101%		101%		101%
4-Bromofluorobenzene				102%		105%		101%		100%		101%
Dilution factor (DF)		1		1		5		5		5		

Notes :
ND - Analytes not detected at, or above the stated detection limit
DL - Detection limit
DF - Dilution Factor
QC limits - Recovery 70% - 130%
RPD - 25%


Laboratory director


Date

QC DATA REPORT
TPH-E
EPA Method 8015 Modified

Date Analyzed: 8/12/96
Date Extracted: 8/12/96
Report Number: 0812D.QAC

Proj Mgr: Andrew Willerton
Client: ATC Environmental
Project: 61137.0001
Matrix: Soil
Units: mg/Kg

Parameter	Blank Result mg/Kg	Spike Level mg/Kg	LCS Result mg/Kg	LCS Recov. %	Sample Result mg/Kg	MS Result mg/Kg	MS Recov. %	MSD Result mg/Kg	MSD Recov. %	RPD %
TPH-E diesel	ND	67.0	50.0	75						
TPH-E mo	ND	37.0	36.0	97						
sur %rec dies.	111	-	-	97						
sur %rec mo	-	-	-	75						

DEFINITION OF TERMS:

ND - Analytes not detected at, or above the reporting limit
MS - Matrix Spike
MSD - Matrix Spike Duplicate
RPD - Relative Percent Difference $(MS - MSD) / ((MS + MSD)/2) \times 100$
LCS - Laboratory Control Spike
LCSD- Laboratory Control Spike Duplicate

LABORATORY QC CRITERIA

Parameter	Acceptable % Recoveries		
TPH-E	65%	to	135%
%RPD	0%	to	35%

Daily Project Report

(To be kept with the daily project data files)

Project: *ATC 10th St. Sahland*

Date: *2/10/96*

ONSITE Analysts/Technicians: *YLY*

Project Status (Circle One): Analyze Samples Standby Mob/Demob

3 water samples & 5 soils were analyzed on-site

Normal Hours and Overtime Hours Worked:

Normal Hours *10*
Overtime Hours *?*
Reason for Overtime

Sample Volume and Matrix

Samples Received and Matrix *15 soil, water, product (3 waters, 11 soils, 1 product)*

Time Last Samples Received

Client Issues Raised:

ONSITE Action Plan:

5500 Boscell Common
Fremont, CA 94538
Tel. (510) 490-8571 Fax (510) 490-8572

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

PROJECT NO		PROJECT NAME/SITE				ANALYSIS REQUESTED										COC #:
61137.0001		Oak View														
PROJECT MANAGER NAME		THEYSIENS														PAGE 1 of 2
SAMPLER NAME		WILLER-10N														P.O. #: 20087
SAMPLE IDENTIFICATION	DATE	TIME	PRES	LAB ID #	NO. OF CONTAINERS	SAMPLE TYPE	BTEX (8020)	TPHg (8015)	TPHd (8015m)	TPHm (8015) TPHmo	8010	8240	8260	REMARKS		
SW1	8/10/96				1	S	✓	✓	✓	✓				- 01		
SW2 NW1							✓	✓	✓	✓				- 02		
XEW1							✓	✓	✓	✓				- 03		
WW1							✓	✓	✓	✓				- 04		
TANK P11 10'							✓	✓	✓	✓				- 10		
SP1							✓	✓	✓	✓				} COMPOSITE - 11		
SP2						✓	✓	✓	✓							
SP3							✓	✓	✓	✓						
SP4							✓	✓	✓	✓						
B1 3/ 16							✓	✓	✓	✓				- 12		
B2 - 3 16.5							✓	✓	✓	✓				- 13		
B3 2 16							✓	✓	✓	✓				- 14		
RELINQUISHED BY	DATE	TIME	RECEIVED BY:	LABORATORY:	PLEASE SEND RESULTS TO:											
<i>[Signature]</i>	8/10/96	1520	<i>Michael J...</i>	Ousite Env.												
RELINQUISHED BY	DATE	TIME	RECEIVED BY:	TURN AROUND TIME:	PLEASE SEND INVOICE TO:											
RELINQUISHED BY	DATE	TIME	RECEIVED BY:	RECEIPT CONDITION :												

ATC ENVIRONMENTAL INC.

Chain of Custody

2380 Qume Drive, Suite C
 San Jose, CA 95131
 Tel: (408) 474-0280
 Fax: (408) 434-6662

Project Name **3927 E. 14TH OAKLAND**
 Project Number **6137001**
 ATC Environmental Inc Contact **WILBERTON**
 Laboratory Name **OU-SITE**

Turn Around Time
 Standard 5 to 10 Business Days
 Priority Rush Business Day(s)
20087

Sample Number	Location	Date	Time	Matrix			Preservative	No. of Containers	Type of Containers	TPH as gas/BTEX, EPA	TPH as diesel, EPA 8015M	VOCs, EPA 8010	VOCs, EPA 8240	VOCs, EPA 8020	VOCs, EPA 8010/8020	SVOCs, EPA 8270	TRPH, SM 5520F	TOG, SM 5520B	Title 22 Metals, EPA	PP (13) Metals, EPA	Pesticides Only, EPA 8080	
				Soil	Water	Other																
BB		8/10/96	8:30		✓			3	VOA	✓												
W B2-2-10.5		"	7:10	✓				1	BRASS	✓												
XI B2/W4-10		"	9:30	✓				1	"	✓												
XI B2/B3		"	10:00		✓			3	VOA	✓												
A		"	13:45		✓			1	VOA	✓												

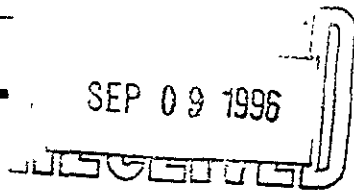
Remarks -01
 -02
 -03
 -04
 -05

Relinquished by sampler <i>[Signature]</i>	Date 8-10-96	Time 11:52	Received by
Relinquished by	Date	Time	Received by
Relinquished by	Date	Time	Received by laboratory <i>Michael Surovsky / [Signature]</i> Date 8/10/96 Time

CHROMALAB, INC.

Environmental Services (SDB)

SEP 09 1996



August 30, 1996

Submission #: 9608331

ATC ENVIRONMENTAL

Atten: Bill Theyskens

Project: 14TH STREET, OAKLAND
Received: August 23, 1996

Project#: 61137.001

re: One sample for TEPH analysis.
Method: EPA METHOD 8015 (Mod)

Client Sample ID: MW 1

Spl#: 97408
Sampled: August 23, 1996

Matrix: WATER
Run#: 2906

Extracted: August 29, 1996
Analyzed: August 30, 1996

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	51	N.D.	75.0	1
MOTOR OIL	N.D.	510	N.D.	--	1

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

August 30, 1996

Submission #: 9608331

ATC ENVIRONMENTAL

Atten: Bill Theyskens

Project: 14TH STREET, OAKLAND
Received: August 23, 1996

Project#: 61137.001

re: One sample for TEPH analysis.
Method: EPA METHOD 8015 (Mod)


Client Sample ID: MW 2


Spl#: 97410
Sampled: August 23, 1996

Matrix: WATER
Run#: 2906

Extracted: August 29, 1996
Analyzed: August 30, 1996

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	7400	100	N.D.	75.0	2
<i>Note: Estimated concentration for Diesel, due to overlapping fuel patterns. Hydrocarbon reported as Motor oil does not match the pattern of our Motor oil standard.</i>					
MOTOR OIL	2100	1000	N.D.	--	2


Bruce Havlik
Chemist


Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

August 30, 1996

Submission #: 9608331

ATC ENVIRONMENTAL

Atten: Bill Theyskens

Project: 14TH STREET, OAKLAND
Received: August 23, 1996

Project#: 61137.001

re: One sample for TEPH analysis.
Method: EPA METHOD 8015 (Mod)

Client Sample ID: MW 3

Spl#: 97411

Matrix: WATER


Extracted: August 29, 1996


Sampled: August 23, 1996

Run#: 2906

Analyzed: August 30, 1996

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	50	N.D.	75.0	1
MOTOR OIL	N.D.	500	N.D.	--	1


Bruce Havlik
Chemist


Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

August 30, 1996

Submission #: 9608331

ATC ENVIRONMENTAL

Atten: Bill Theyskens

Project: 14TH STREET, OAKLAND

Project#: 61137.001

Received: August 23, 1996

re: 4 samples for Gasoline and BTEX compounds analysis.

Method: EPA 5030/8015M/8020


Matrix: WATER

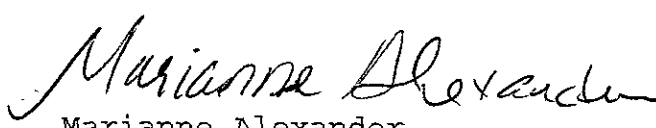
Sampled: August 23, 1996

Run#: 2882

Analyzed: August 29, 1996

Spl#	CLIENT SPL ID	Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
97408	MW 1	7400	1200	170	530	490
97410	MW 2	6300	170	57	370	120
97411	MW 3	1300	3.1	5.9	7.6	12
97413	TB-1	N.D.	N.D.	N.D.	N.D.	N.D.
Reporting Limits		50	0.50	0.50	0.50	0.50
Blank Result		N.D.	N.D.	N.D.	N.D.	N.D.
Blank Spike Result (%)		86.6	95.9	92.6	88.8	86.0


June Zhao
Chemist


Marianne Alexander
Gas/BTEX Supervisor

CHROMALAB, INC.
SAMPLE RECEIPT CHECKLIST

Client Name ATC Date/Time Received 8/23/95 1203
 Project 61137.0001 Received by J. Lindberg
 Reference/Subm # 29393/9608331 Carrier name _____
 Checklist completed by: CK 8/26/96 Logged in by CK 8/26/96
 Signature _____ Date _____ Initials / Date _____
 Matrix 4/20

- Shipping container in good condition? NA ___ Yes ___ No ___
- Custody seals present on shipping container? Intact ___ Broken ___ Yes ___ No ___
- Custody seals on sample bottles? Intact ___ Broken ___ Yes ___ No ___
- Chain of custody present? Yes No ___
- Chain of custody signed when relinquished and received? Yes No ___
- Chain of custody agrees with sample labels? Yes No ___
- Samples in proper container/bottle? Yes No ___
- Samples intact? Yes No ___
- Sufficient sample volume for indicated test? Yes No ___
- VOA vials have zero headspace? NA ___ Yes No ___
- Trip Blank received? NA ___ Yes ___ No
- All samples received within holding time? Yes No ___
- Container temperature? 8.4°C
- pH upon receipt <2 pH adjusted _____ Check performed by: CK NA ___

Any NO response must be detailed in the comments section below. If items are not applicable, they should be marked NA.

Client contacted? _____ Date contacted? _____
 Person contacted? _____ Contacted by? _____

Regarding? _____

Comments: pH for volatiles analysis
Checked by Chemist

Corrective Action: _____

331/97408-97413

29393

ATC ENVIRONMENTAL INC.

SUBM #: 9608331 REP: GC
 CLIENT: NOACCOUNT
 DUE: 08/30/96
 REF #: 29393

2380 Qume Drive, Suite C
 San Jose, CA 95131
 Tel: (408) 474-0280
 Fax: (408) 434-6662

Project Name 14th STREET, OAKLAND										Turn Around Time Standard 5 to 10 Business Days <input checked="" type="checkbox"/> Priority Rush Business Day(s) <input type="checkbox"/>																		
Project Number 61137.0001																												
ATC Environmental Inc Contact THEYSIKENS																												
Laboratory Name CHROMALAB																												
Sample Number	Location	Date	Time	Matrix			Preservative	No. of Containers	Type of Containers	TPH as Gas/BTEX, EPA 8020	TPH as diesel, EPA 8015M	VOCs, EPA 8010	VOCs, EPA 8240	VOCs, EPA 8020	VOCs, EPA 8010/8020	SVOCs, EPA 8270	TRPH, SM 5520F	TOG, SM 5520B	Title 22 Metals, EPA	PP (13) Metals, EPA	Pesticides Only, EPA 8080	TPHs 8015M	TPHMO 8015M					
				Soil	Water	Other																						
✓ MW1		8/22	1620		✓		HCl	3	AMBER, VOA	✓	✓											✓	✓					
✓ MW2		"	1515		✓		HCl	3	" "	✓	✓											✓	✓					
✓ MW3		"	1530		✓		HCl	3	" "	✓	✓											✓	✓					
✓ TB-1		8/22			✓		"	1	VOA	✓												✓	✓					
Remarks																												
Relinquished by sampler <i>Andrew Williams</i>			Date 8/22/96		Time 1203		Received by <i>Jeff Linder</i>																					
Relinquished by			Date		Time		Received by																					
Relinquished by <i>Jeff Linder</i>			Date 8-23-96		Time 2015		Received by Laboratory <i>James Park</i>					Date 8/23/96		Time 2015														

ATC ENVIRONMENTAL INC.

Chain of Custody

2380 Qume Drive, Suite C
 San Jose, CA 95131
 Tel: (408) 474-0280
 Fax: (408) 434-6662

Project Name <u>1101 STREET, OAKLAND</u>										Turn Around Time Standard 5 to 10 Business Days <input checked="" type="checkbox"/> Priority Rush ___ Business Day(s) <input type="checkbox"/>															
Project Number <u>611370001</u>																									
ATC Environmental Inc Contact <u>THEYSKENS</u>																									
Laboratory Name <u>CHROMIAB</u>																									
Sample Number	Location	Date	Time	Matrix			Preservative	No. of Containers	Type of Containers	TPH as gas/BTEX, EPA 8020	TPH as diesel, EPA 8015M	VOCs, EPA 8010	VOCs, EPA 8240	VOCs, EPA 8020	VOCs, EPA 8010/8020	SVOCs, EPA 8270	TRPH, SM 5520F	TOG, SM 5520B	Title 22 Metals, EPA	PP (13) Metals, EPA	Pesticides Only, EPA 8080	TPHS 8015M	TPHM 8015M	Remarks	
				Soil	Water	Other																			
WW1		8/22	1620		✓		HCl	3	AMBER VM	✓	✓											✓	✓		
WW2		"	1515		✓		HCl	3	" "	✓	✓											✓	✓		
WW3		"	1530		✓		HCl	3	" "	✓	✓											✓	✓		
TB-1		8/28			✓		"	1	VOA	✓												✓	✓		
Relinquished by sampler <u>[Signature]</u>										Date	8/22/96	Time	1203	Received by <u>[Signature]</u>											
Relinquished by _____										Date		Time		Received by _____											
Relinquished by _____										Date		Time		Received by laboratory					Date		Time				

CHROMALAB, INC.

Environmental Service (SDE)

FAX COVER SHEET

To: DREW WILKINSON

Company: ATC

Fax Number: (408) 434-6662

From: MIKE VERONA

Phone Number 510-484-1919

Fax Number 510-484-1096

Date: 09/03/96 Time: _____

Number of Pages: Cover + 12

Message:

CHROMATOGRAMS

Software Version: 4.0<00043>
 Sample Name : 08331/MW1
 Sample Number: 97408
 Operator :

Time : 8/30/96 00:53
 Study :

Instrument : HP3890 Channel : A A/D mV Range : 10000
 Inlet Sampler :
 Inlet Vial : 0/0

Interface Serial # : 4244271869 Data Acquisition Time: 8/30/96 00:16
 Run Time : 0.00 min.
 Hold Time : 36.33 min.
 Sampling Rate : 5.0000 pts/sec

Data File : D:\3400DIESEL\M829014.RAW
 Report File : D:\3400DIESEL\M829014.RPT
 Inlet Method : C:\TC4\M829-24 from D:\3400DIESEL\M829014.RPT
 Outlet Method : C:\TC4\M829-24
 Inlet Method : C:\TC4\M829-24
 Inlet Method : C:\TC4\M829-24
 Source File : C:\TC4\DATA\M82996.SFO

Inlet Volume : 1 ul Area Reject : 0.000000
 Inlet Amount : 1.0000 Dilution Factor : 1.00

3400 DIESEL REPORT

Ret. Time [min]	Area [mV*s]	EL	Raw Amount	Component Name	Diesel ppm
4.000	3922162.13	*BV	24.6288		24.6288
4.561	14941947.81	*VV	93.8258		93.8258
5.367	617790.77	*VV	3.8793		3.8793
5.654	1237799.66	*VB	7.7725		7.7725
5.859	2523708.57	*BV	15.8473		15.8473
6.102	16174972.61	*VV	101.5678		101.5678
7.026	16316034.56	*VV	102.4542		102.4542
8.114	17944381.90	*VV	112.6792		112.6792
8.664	8436905.48	*VV	52.9783		52.9783
8.819	1218010.15	*VV	7.6546		7.6546
8.894	2101899.98	*VV	19.1985		19.1985
9.089	246338.33	*VV	1.5468		1.5468
9.172	278961.66	*VV	1.7517		1.7517
9.314	203283.25	*VV	1.2764		1.2764
9.460	763234.88	*VV	4.7926		4.7926
9.692	565411.38	*VB	3.5567		3.5567
9.773	53888.00	*BV	0.3384		0.3384
9.895	793548.97	*VV	4.9830		4.9830
10.004	195427.62	*VV	0.8504		0.8504
10.072	66743.80	*VV	0.4191		0.4191
10.173	948417.99	*VV	2.1878		2.1878
10.267	108115.14	*VV	0.6789		0.6789
10.362	1518699.80	*VV	9.5964		9.5964
10.604	1108147.26	*VB	6.9585		6.9585
10.825	87196.00	*BV	0.5472		0.5472
10.884	89300.86	*VV	0.5608		0.5608
11.003	111774.77	*VV	0.7019		0.7019
11.222	266000.79	*VV	1.6703		1.6703
11.444	190950.61	*VV	1.1990		1.1990
11.568	115919.59	*VV	0.7279		0.7279
11.688	45195.01	*VV	0.2828		0.2828
11.808	121012.84	*VV	0.7599		0.7599
11.929	54549.94	*VV	0.3425		0.3425
12.009	40433.35	*VV	0.2539		0.2539
12.115	129379.88	*VV	0.8124		0.8124
12.313	179181.92	*VV	1.1251		1.1251
12.491	956194.15	*VV	2.2363		2.2363
12.784	36314.08	*VB	0.2280		0.2280
12.970	25247.62	*BV	0.1585		0.1585
13.140	6011.38	*VB	0.0377		0.0377
13.321	49556.29	*BV	0.3112		0.3112
13.445	9264.35	*VV	0.0582		0.0582
13.561	28699.91	*VV	0.1802		0.1802
13.764	5701.51	*VB	0.0609		0.0609
14.006	148658.04	*BV	0.9335		0.9335
14.330	43632.63	*VV	0.2740		0.2740
14.472	58904.56	*VV	0.3661		0.3661
14.709	15279.78	*VB	0.0939		0.0939
15.084	41654.59	*BV	0.2616		0.2616
15.344	10176.86	*VV	0.0639		0.0639

gas

Time [min]	Area [µV*s]	BL	Raw Amount	Component Name	Diesel ppm
15.407	14640.08	VV	0.0919		0.0919
15.544	32569.31	VV	0.2045		0.2045
15.643	30328.01	VV	0.1904		0.1904
15.741	27495.62	VV	0.1727		0.1727
15.846	17564.61	VV	0.1103		0.1103
16.063	19772.57	VV	0.1242		0.1242
16.166	11000.68	VV	0.0691		0.0691
16.266	32778.55	VV	0.2058		0.2058
16.483	3434.45	VV	0.0216		0.0216
16.584	22087.62	VV	0.1387		0.1387
16.784	2213.04	VV	0.0139		0.0139
16.867	3130.83	VB	0.0323		0.0323
16.986	5745.50	SV	0.0361		0.0361
17.086	4185.64	VV	0.0263		0.0263
17.186	2819.48	VV	0.0177		0.0177
17.383	9514.86	VB	0.0597		0.0597
17.668	5165415.73	VB	21.9900	OTV	21.9900
17.924	47352.00	SV	0.2973		0.2973
18.081	110892.96	VV	0.6963		0.6963
18.343	103126.27	VV	0.6476		0.6476
18.627	34548.17	VV	0.2169		0.2169
18.987	6619.16	VV	0.0416		0.0416
19.083	6088.40	VV	0.0382		0.0382
19.206	10997.63	VV	0.0691		0.0691
19.308	12404.81	VV	0.0779		0.0779
19.512	8555.26	VV	0.0537		0.0537
19.588	8350.59	VV	0.0537		0.0537
19.687	13505.26	VV	0.0848		0.0848
19.824	7164.59	VB	0.0450		0.0450
20.066	26762.74	VV	0.1681		0.1681
20.248	87815.33	VV	0.5514		0.5514
20.510	30753.41	VV	0.1931		0.1931
20.884	8377.83	VV	0.0526		0.0526
20.990	3861.50	VV	0.0249		0.0249
21.191	11255.56	VV	0.0707		0.0707
21.290	2627.80	VV	0.0165		0.0165
21.388	7953.33	VV	0.0499		0.0499
21.573	5045.53	VV	0.0317		0.0317
21.674	2188.10	VV	0.0137		0.0137
21.789	4281.78	VV	0.0269		0.0269
22.133	16165.19	VV	0.1141		0.1141
22.228	7362.72	VB	0.0462		0.0462
99890128.23				616.7403	616.7403

Component Report
 Expected Retention (Calibration File)
 All components were found

Reviewed by
AS
 8/30/96

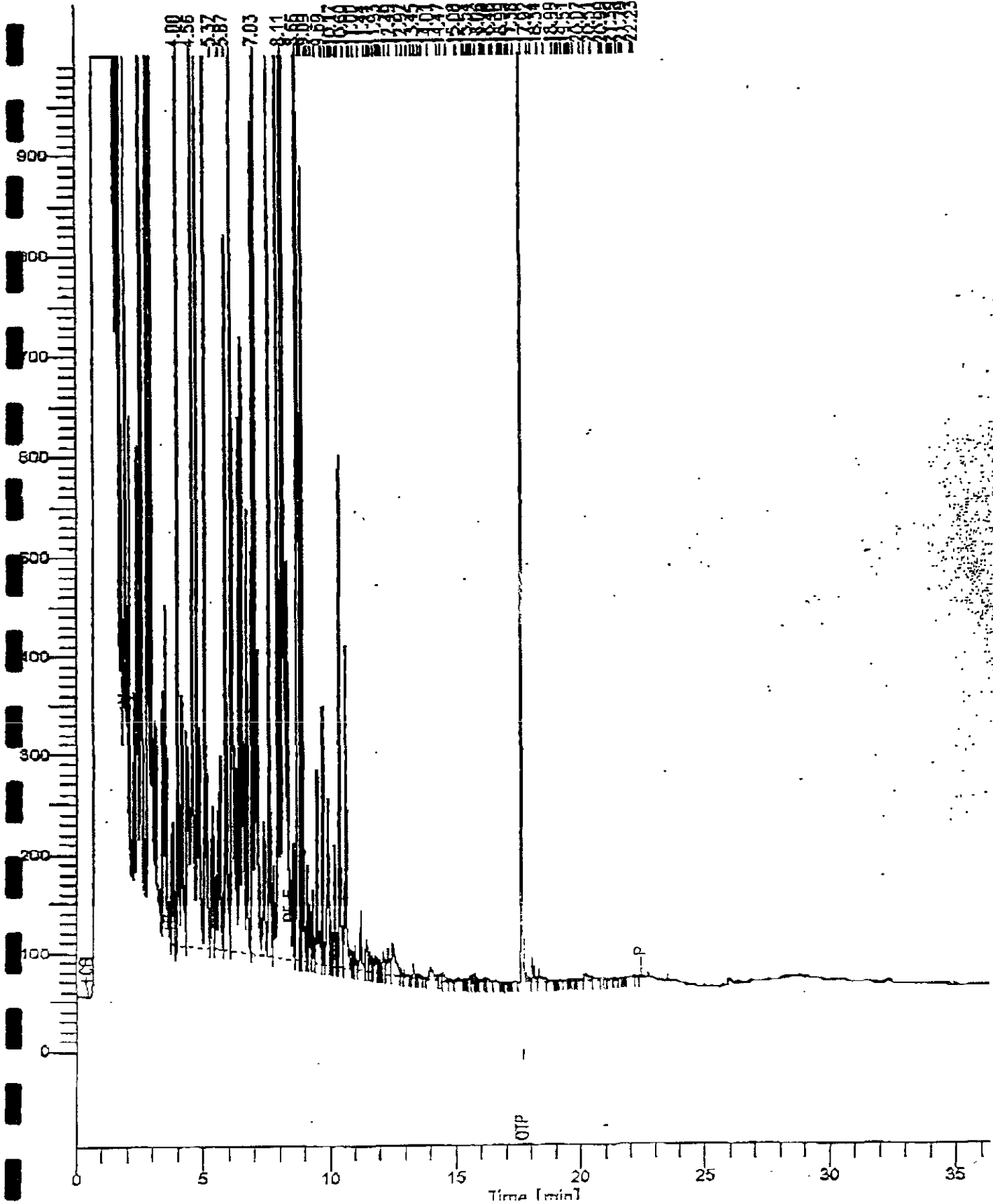
diesel analysis

Sample Name : 08331/MW1
 Lab Name : D:\3400\DATA\HR29014.raw
 Method : 1 HDI29-24
 Inj. Time : 0.00 min
 Alt Factor : 0.0

End Time : 36.33 min
 Plot Offset : 0 mV

Sample #: 97408
 Date : 8/30/96 00:53
 Time of Injection: 8/30/96 00:16
 Low Point : 0.00 mV
 High Point : 1000.00 mV
 Plot Scale: 1000.0 mV

Page 1 of 1



Source Version: 4.0000000

Sample Name : 8331/MW3-ZX

Time : 8/30/96 14:31

Sample Number: 87410-ZX

Study :

Operator :

Instrument : HP8990

Channel : A

A/D MV Range : 10000

Injection Volume : 0.0
Injection Concentration : 0.0

Interface Serial # : 4244271969 Data Acquisition Time: 8/30/96 14:15

Integration Time : 0.00 min.
Integration Step : 36.33 min.
Integration Rate : 5.0000 pts/sec

Raw Data File : D:\3400DIESEL\M830006.RAW
 Result File : D:\3400DIESEL\M830006.RST
 Method : C:\TC4\HDI99-24 from D:\3400DIESEL\M830006.RST
 Method : C:\TC4\HDI99-24
 Method : C:\TC4\HDI99-24
 Sequence File : C:\TC4\DATA\M083096.SEQ

Sample Volume : 1 ul
Sample Amount : 1.0000

Area Reject : 0.000000
Dilution Factor : 1.00

3400 DIESEL REPORT

PK	Time [min]	Area [uV's]	SL	Raw Amount	Component Name	Diesel DEM
1	3.804	257452.00	*BB	1.6166		1.6166
2	4.014	1179115.22	*SV	7.4041		7.4041
3	5.074	8901935.05	*VV	55.8984		55.8984
4	5.397	2798979.96	*VB	17.4564		17.4564
5	5.881	1147765.48	*BV	7.2072		7.2072
6	6.106	7729149.52	*VB	48.4964		48.4964
7	7.033	5976316.78	*BV	37.3274		37.3274
8	8.117	6916057.99	*VV	50.8697		50.8697
9	8.549	66291.65	*VV	0.4163		0.4163
0	8.671	4736464.29	*VB	29.7419		29.7419
1	8.830	476414.00	*SV	2.9916		2.9916
2	8.906	662406.33	*VV	4.1595		4.1595
3	9.099	153830.24	*VV	0.9660		0.9660
4	9.183	281698.77	*VV	1.7689		1.7689
5	9.313	278391.37	*VV	1.7481		1.7481
6	9.479	129418.07	*VV	0.8127		0.8127
7	9.709	544790.98	*VV	3.4209		3.4209
8	9.867	426174.57	*VV	2.6761		2.6761
9	10.014	165476.56	*VV	1.0391		1.0391
0	10.186	254645.37	*VV	1.5990		1.5990
1	10.291	473909.78	*VV	2.9758		2.9758
2	10.373	1035927.88	*VB	6.5024		6.5024
3	10.544	101488.00	*SV	0.6373		0.6373
4	10.615	863856.59	*VV	5.4245		5.4245
5	10.754	632479.57	*VV	3.9778		3.9778
6	11.025	439122.25	*VV	2.7574		2.7574
7	11.121	77207.48	*VV	0.4848		0.4848
8	11.214	329257.04	*VV	2.0612		2.0612
9	11.299	660991.75	*VV	4.1450		4.1450
0	11.418	846589.10	*VV	1.5484		1.5484
1	11.502	455728.86	*VV	2.8617		2.8617
2	11.637	635492.15	*VV	3.9905		3.9905
3	11.781	509747.07	*VV	3.1632		3.1632
4	11.933	235228.36	*VV	1.4771		1.4771
5	12.054	348941.37	*VV	2.1723		2.1723
6	12.121	287321.39	*VV	1.8042		1.8042
7	12.318	429465.06	*VV	2.6968		2.6968
8	12.439	237575.56	*VV	1.4918		1.4918
9	12.557	419060.33	*VV	2.5998		2.5998
0	12.688	788980.15	*VV	4.9543		4.9543
1	12.825	196281.74	*VV	1.2325		1.2325
2	12.911	330392.39	*VV	2.0759		2.0759
3	13.099	275752.51	*VV	1.7315		1.7315
4	13.106	264108.55	*VV	1.6584		1.6584
5	13.194	355546.48	*VV	2.2926		2.2926
6	13.336	375325.03	*VV	2.3568		2.3568
7	13.483	157481.60	*VV	0.9889		0.9889
8	13.597	407896.91	*VV	2.5613		2.5613
9	13.794	1214103.59	*VV	7.6238		7.6238
0	14.001	794939.70	*VV	4.9917		4.9917

Result File : H83D006.RST, Printed On 8/30/96 14:31

page 2

Time [min]	Area [pv-u]	SL	RAW Amount	Component Name	Diesel ppm
14.290	224125.83	VV	1.4074		1.4074
14.332	123117.43	VV	0.8043		0.8043
14.395	239585.20	VV	1.5044		1.5044
14.450	187437.34	VV	1.1771		1.1771
14.527	180884.72	VV	1.1358		1.1358
14.612	430395.93	VV	2.7057		2.7057
14.754	209355.90	VV	1.2770		1.2770
14.839	102054.06	VV	2.5246		2.5246
15.070	277628.54	VV	1.7433		1.7433
15.254	89731.83	VV	0.5635		0.5635
15.374	126529.81	VV	2.0504		2.0504
15.491	368601.97	VV	2.3146		2.3146
15.656	84456.38	VV	0.5303		0.5303
15.734	177075.57	VV	1.1119		1.1119
15.874	129138.03	VV	0.8109		0.8109
15.976	87486.32	VV	0.5494		0.5494
16.075	40354.80	VV	0.2534		0.2534
16.177	93913.07	VV	0.5897		0.5897
16.278	142889.83	VV	0.9035		0.9035
16.415	32103.55	VV	0.3272		0.3272
16.555	168581.86	VV	1.0586		1.0586
16.652	102721.87	VV	0.6450		0.6450
16.737	142352.04	VV	0.8933		0.8933
16.894	57866.03	VV	0.3634		0.3634
16.972	141710.04	VV	0.8898		0.8898
17.106	64729.42	VV	0.4065		0.4065
17.259	39411.17	VV	0.2475		0.2475
17.389	28775.85	VB	0.1807		0.1807
17.515	5896.00	BB	0.0370		0.0370
17.678	2507336.98	BB	15.7445		15.7445
17.754	71548.09	BU	0.3038	ONE	0.3038
17.837	42452.66	VV	0.2666		0.2666
18.095	39887.92	VV	0.2505		0.2505
18.257	22622.24	VV	0.1421		0.1421
18.338	71983.21	VV	0.4520		0.4520
18.516	50732.27	VV	0.3186		0.3186
18.640	64355.83	VV	0.4041		0.4041
18.789	27525.25	VV	0.6124		0.6124
18.835	30509.24	VV	0.1922		0.1922
19.018	106588.00	VV	0.6692		0.6692
19.235	98640.08	VV	0.6194		0.6194
19.360	108008.11	VV	0.6782		0.6782
19.476	34736.21	VV	0.2181		0.2181
19.628	144268.73	VV	0.9059		0.9059
19.779	243852.54	VV	1.5313		1.5313
20.066	218225.11	VV	1.3704		1.3704
20.179	87561.44	VV	0.5498		0.5498
20.242	272242.00	VV	1.7095		1.7095
20.520	108469.83	VV	0.6811		0.6811
20.700	147451.90	VV	0.9259		0.9259
20.860	92919.45	VV	0.5835		0.5835
20.921	61982.01	VV	0.3881		0.3881
21.035	79633.21	VV	0.5000		0.5000
21.099	42263.66	VV	0.2654		0.2654
21.207	123044.74	VV	0.7726		0.7726
21.400	50877.38	VV	0.3195		0.3195
21.541	85528.75	VV	0.5622		0.5622
21.694	97209.34	VV	0.6104		0.6104
21.817	74952.07	VV	0.4707		0.4707
22.002	29994.79	VV	0.1883		0.1883
22.079	28356.44	VV	0.1781		0.1781
22.157	26224.91	VV	0.1647		0.1647
22.238	17834.46	VB	0.1121		0.1121
22.415	14863.00	BB	0.0933		0.0933

64629942.70

405.7517

405.7517

Using Component Report
Report

Expected Retention (Calibration File)

All components were found

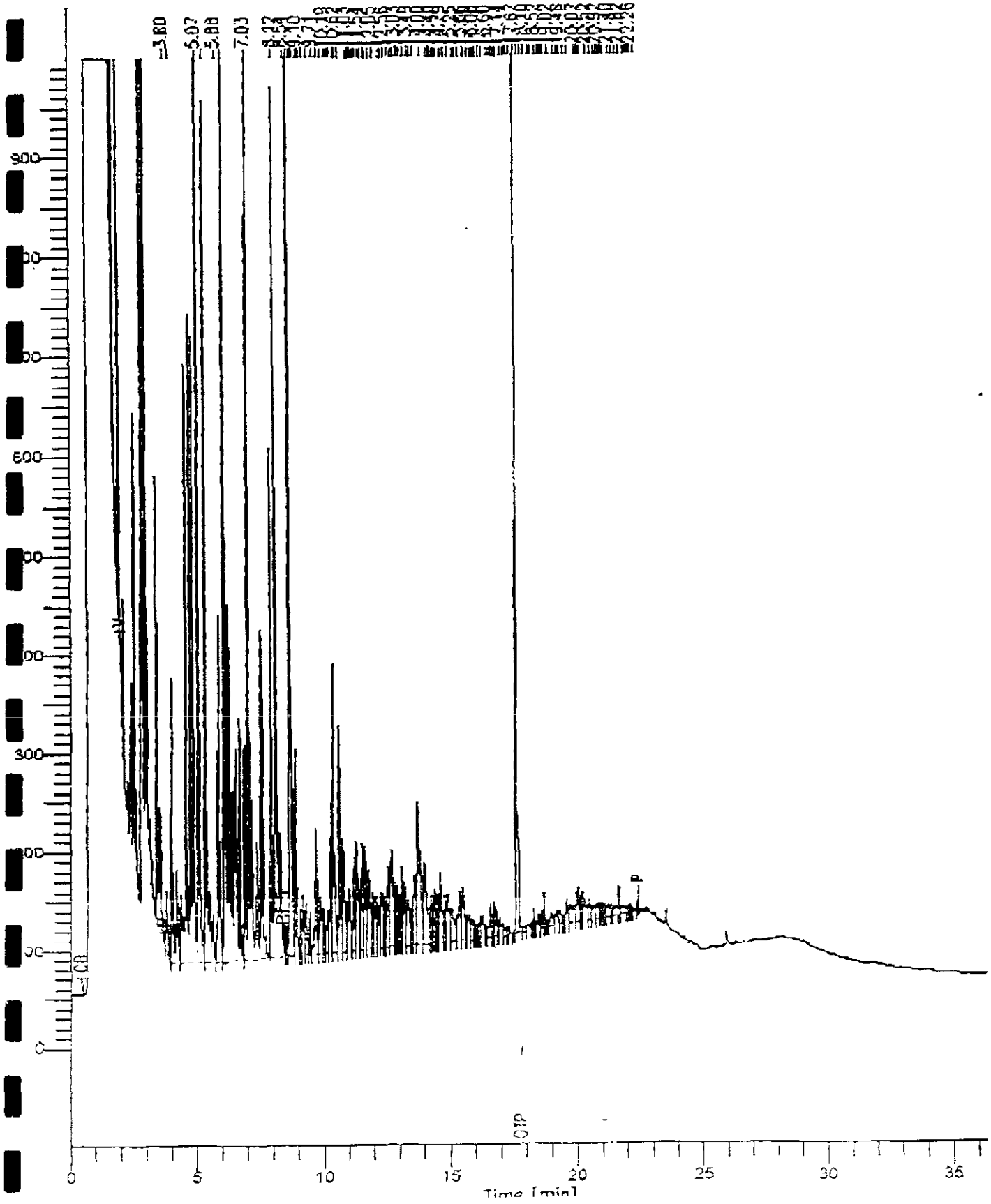
diesel analysis

pl Name : 8331/MR2-ZX
 Name : D:\34000\22\2220006.caw
 Mod : HDI9-74
 st : 0.00 min
 Le : 0.0

End Time : 36.33 min
 Plot Offset: 0 mV

Sample #: 87410-ZX
 Date : 8/30/96 14:51
 Time of Injection: 8/30/96 14:13
 Low Point : 0.00 mV
 Plot Scale: 1000.0 mV

Page 1 of 1
 High Point : 1000.00 mV



Software Version: 4.040004AY
Sample Name : 8331/PW2-2X
Sample Number : 87410-02
Time : 8/30/96 15:23
Study :

Document : HPS200 Channel : A A.D mv Range : 10000
Amplifier :
Signal : 0/0

Injection Serial # : 4244271289 Data Acquisition Time: 8/30/96 14:15
Inj. Time : 0.00 min.
Inj. Volume : 36.32 ul.
Inj. Rate : 5.0000 ul/sec

Raw Data File : D:\3400DIES\HPS20006.RAW
Report File : D:\TEMP\HPS20006.RST
Method : C:\TC4\HDIES-14 from D:\TEMP\HPS20006.RST
Method : C:\TC4\HDIES-14.MTH
Method : C:\TC4\HDIES-14.MTH
Method : C:\TC4\HDIES-14.MTH
Sequence File : C:\TC4\DATA\H082096.SEQ

Sample Volume : 1 ul Area Reject : 0.000000
Sample Amount : 1.0000 Dilution Factor : 1.00

DEFAULT REPORT

PK	Time [min]	Area [UV*sec]	Weight [UV]	Area [a]	Norm. [a]	Area BL	Area/Height [sec]
3.904	802019.00	106129.84	0.66	0.66	0.66	*BV	7.5263
4.014	1984518.00	320076.40	1.61	1.61	1.61	*VV	6.0912
5.074	10797008.00	1.458+06	2.90	2.90	2.90	*VV	7.4824
5.237	3769780.00	901494.96	2.10	2.10	2.10	*VV	4.1750
6.281	1580686.00	383620.31	1.39	1.39	1.39	*VV	4.2810
6.106	9413332.00	1.37+06	7.75	7.75	7.75	*VV	5.5468
7.033	8171506.00	963690.95	6.74	6.74	6.74	*VV	6.4794
8.117	6133712.00	914670.03	5.06	5.06	5.06	*VE	6.7059
8.542	4411610.00	66722.95	0.36	0.36	0.36	*EV	6.4687
8.671	52127948.00	1.82+06	4.21	4.21	4.21	*VE	2.8715
8.950	6725668.00	187017.57	0.96	0.96	0.96	*EV	2.6016
9.900	10201772.00	247492.64	0.94	0.94	0.94	*VV	4.1220
9.099	396634.00	86079.14	0.33	0.33	0.33	*VV	4.6078
9.183	587478.00	101676.94	0.46	0.46	0.46	*VV	6.4882
9.314	691344.00	91346.03	0.57	0.57	0.57	*VV	7.5584
9.479	433632.00	80250.60	0.36	0.36	0.36	*VV	5.2087
9.709	1126832.00	167105.32	0.93	0.93	0.93	*VV	6.7432
9.867	916882.00	36432.84	0.76	0.76	0.76	*VV	9.3145
10.014	365194.00	87614.48	0.30	0.30	0.30	*VV	4.1453
10.166	610924.00	89342.45	0.50	0.50	0.50	*VV	7.1551
10.291	774216.00	157968.16	0.64	0.64	0.64	*VV	4.9011
10.373	1463732.00	333937.47	1.20	1.20	1.20	*VV	4.3546
10.544	3063380.00	80486.67	0.25	0.25	0.25	*VV	3.8068
10.615	1246582.00	273067.53	1.03	1.03	1.03	*VV	4.5651
10.754	1105174.00	157607.82	0.91	0.91	0.91	*VV	7.0122
11.035	8322518.00	107034.42	0.77	0.77	0.77	*VV	9.7122
11.121	1207618.00	74478.55	0.17	0.17	0.17	*VV	2.7903
11.214	590440.00	139263.97	0.49	0.49	0.49	*VV	4.2397
11.293	1042184.00	154015.78	0.86	0.86	0.86	*VV	6.7404
11.418	449974.00	109123.18	0.37	0.37	0.37	*VV	4.1226
11.542	732018.00	151825.18	0.60	0.60	0.60	*VV	4.7597
11.623	1055364.00	149587.21	0.97	0.97	0.97	*VV	7.0544
11.751	9523768.00	125777.80	0.79	0.79	0.79	*VV	7.8229
11.903	470642.00	100640.00	0.39	0.39	0.39	*VV	4.6411
12.004	6833514.00	99821.39	0.56	0.56	0.56	*VV	6.9068
12.114	6715514.00	99821.39	0.52	0.52	0.52	*VV	6.7566
12.141	6715514.00	99821.39	0.72	0.72	0.72	*VV	6.4896
12.171	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1486
12.201	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.6426
12.231	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.261	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.291	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.321	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.351	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.381	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.411	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.441	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.471	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.501	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.531	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.561	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.591	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.621	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.651	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.681	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.711	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.741	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.771	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.801	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.831	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.861	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.891	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.921	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.951	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
12.981	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.011	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.041	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.071	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.101	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.131	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.161	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.191	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.221	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.251	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.281	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.311	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.341	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.371	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.401	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.431	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.461	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.491	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.521	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.551	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.581	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.611	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.641	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.671	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.701	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.731	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.761	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.791	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.821	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.851	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.881	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.911	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.941	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
13.971	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116
14.001	6715514.00	99821.39	0.40	0.40	0.40	*VV	5.1116

Name : 2371/MW
Number : 97411

Time : 8/30/96 14:05
Study :

Channel : 2 Wavelength Range : 10000

Date Acquired : 8/30/96 10:39
Scan Rate : 0.0000 sec/scan

Volume : 1.01
Amount : 1.0000
Dilution Factor : 1.00

3400 DIESEL REPORT

Time (min)	Area (A.U.)	El.	Raw Amount	Component Name	Signal (ppm)
7.350	1234409.93	UV	7.7513		7.7513
7.578	1514489.42	UV	12.0218		12.0218
9.962	370883.43	UV	3.4843		3.4843
6.120	515626.48	UV	5.7747		5.7747
6.502	1156402.73	UV	7.2620		7.2620
7.021	2207228.22	UV	11.9682		11.9682
7.348	1334733.91	UV	8.5698		8.5698
8.107	1276154.51	UV	20.5721		20.5721
8.393	321874.00	UV	2.0212		2.0212
8.724	1423756.48	UV	8.9719		8.9719
8.996	1016026.54	UV	6.2926		6.2926
9.087	227199.16	UV	1.4541		1.4541
9.196	192699.00	UV	1.1529		1.1529
9.296	428739.93	UV	1.4213		1.4213
9.400	212157.06	UV	0.9407		0.9407
9.511	119114.04	UV	0.7433		0.7433
9.621	104826.48	UV	1.5141		1.5141
9.731	371304.53	UV	0.9347		0.9347
10.074	12027.12	UV	0.4223		0.4223
10.171	212771.72	UV	1.4333		1.4333
10.281	126156.01	UV	0.8788		0.8788
10.477	23416.04	UV	0.3373		0.3373
10.621	75185.64	UV	0.4725		0.4725
10.733	29628.33	UV	0.2426		0.2426
10.804	55532.88	UV	0.2512		0.2512
11.021	42184.13	UV	0.1406		0.1406
11.233	45009.79	UV	0.2826		0.2826
11.351	11877.51	UV	0.1406		0.1406
11.461	11202.04	UV	0.1088		0.1088
11.571	4774.92	UV	0.0500		0.0500
11.681	9434.18	UV	0.0898		0.0898
11.791	2111.18	UV	0.0111		0.0111
11.901	2115.13	UV	0.0111		0.0111
12.011	1115.13	UV	0.0111		0.0111
12.121	1115.13	UV	0.0111		0.0111
12.231	1115.13	UV	0.0111		0.0111
12.341	1115.13	UV	0.0111		0.0111
12.451	1115.13	UV	0.0111		0.0111
12.561	1115.13	UV	0.0111		0.0111
12.671	1115.13	UV	0.0111		0.0111
12.781	1115.13	UV	0.0111		0.0111
12.891	1115.13	UV	0.0111		0.0111
13.001	1115.13	UV	0.0111		0.0111
13.111	1115.13	UV	0.0111		0.0111
13.221	1115.13	UV	0.0111		0.0111
13.331	1115.13	UV	0.0111		0.0111
13.441	1115.13	UV	0.0111		0.0111
13.551	1115.13	UV	0.0111		0.0111
13.661	1115.13	UV	0.0111		0.0111
13.771	1115.13	UV	0.0111		0.0111
13.881	1115.13	UV	0.0111		0.0111
13.991	1115.13	UV	0.0111		0.0111

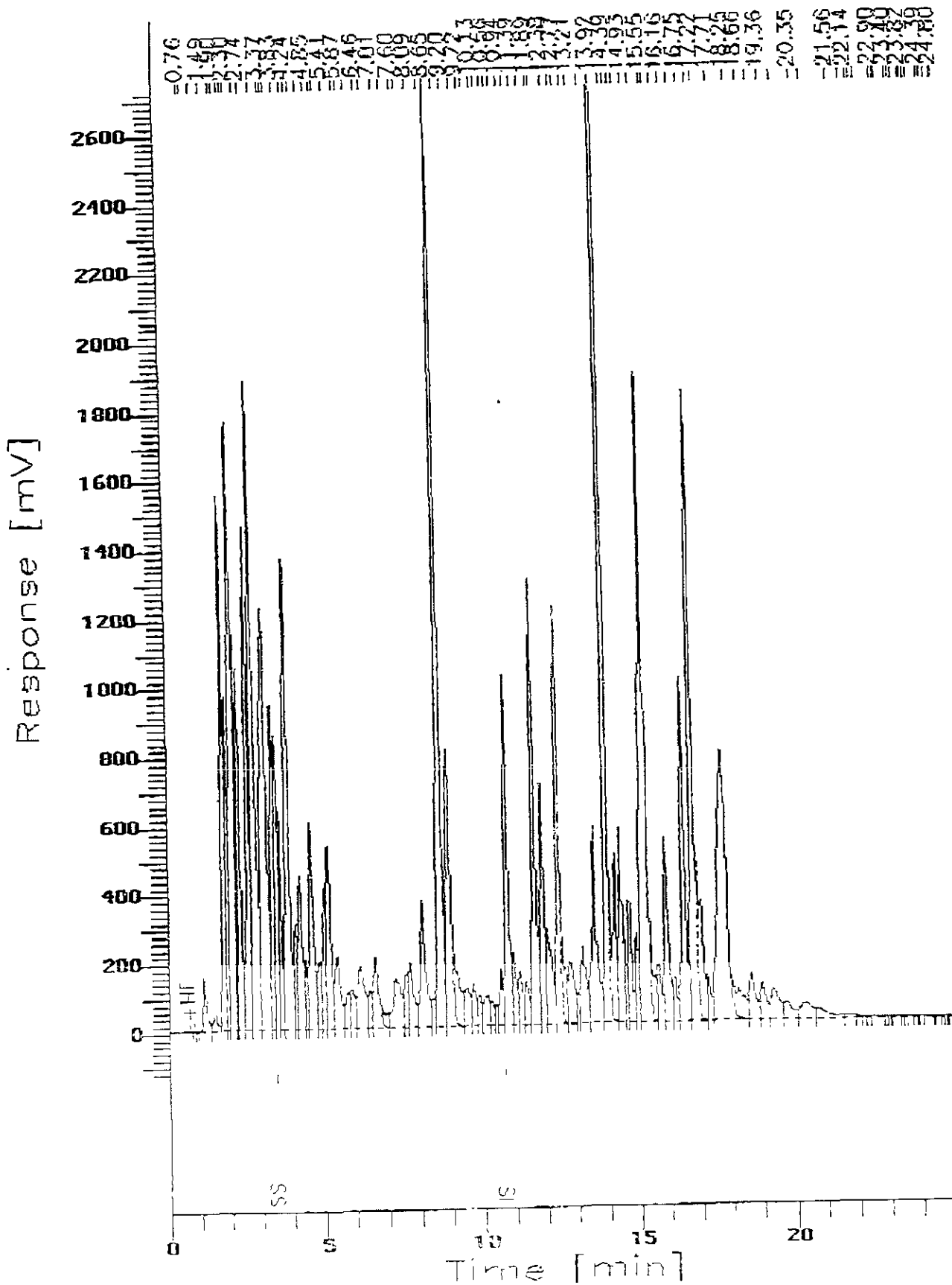
Gasoline Chromatogram

Sample Name : 9608331/MS-2
 File Name : nc:\G83302.raw
 Method : 1BTX11E.ins
 Start Time : 0.00 min
 Scale Factor : 1

End Time : 25.00 min
 Plot Offset: -127 mV

Sample #: 97910
 Date : 8/30/96 12:36
 Line of Injection: 8/30/96 12:10
 Low Point : -126.53 mV
 High Point : 2729.59 mV
 Plot Scale: 2856 mV

Page 1 of 1



Gasoline Chromatogram

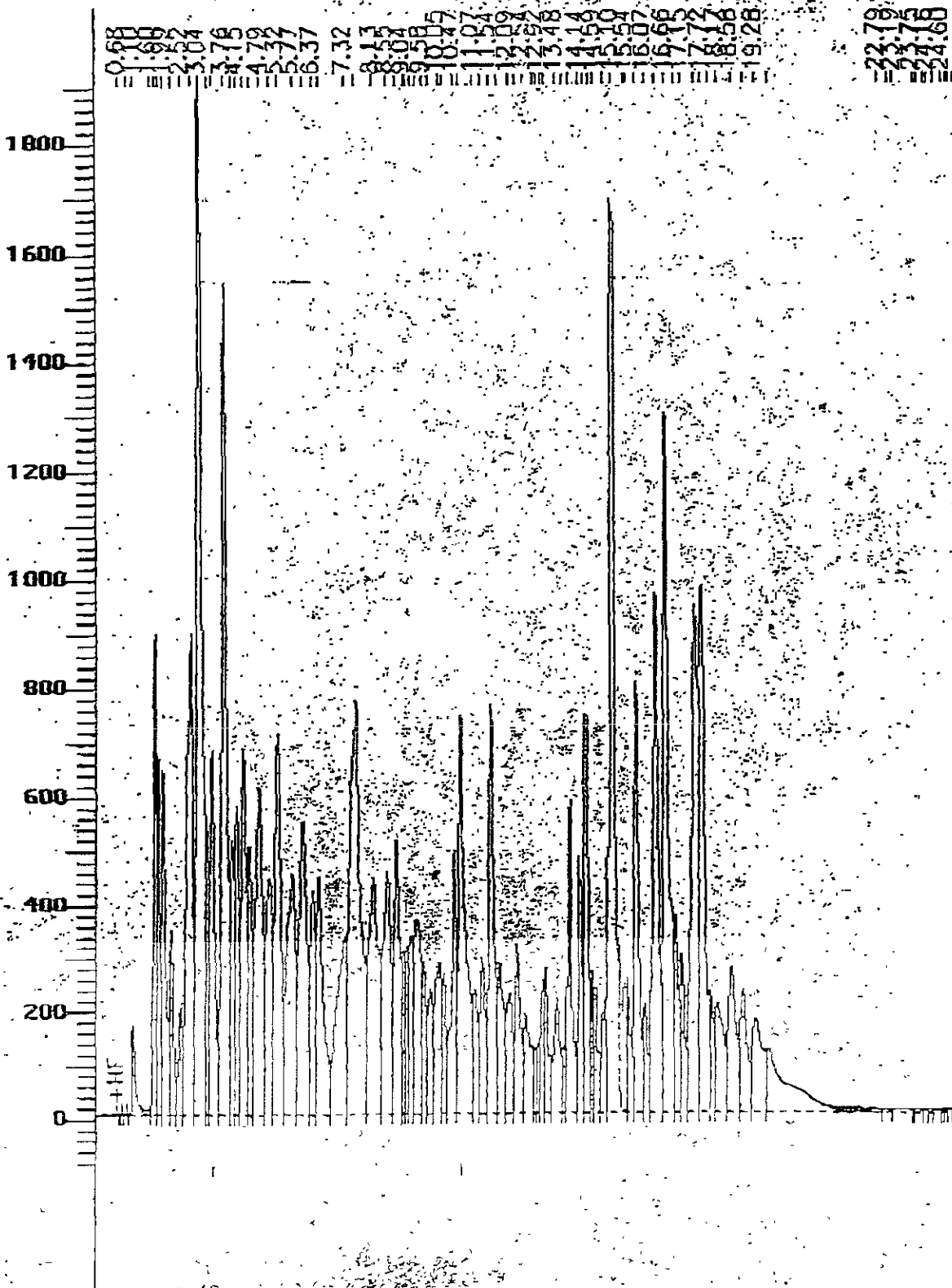
Sample Name : 9608331/00 3
 Filename : n:\1692020.raw
 Method : 18TEMP1E.ins
 Start Time : 0.00 min
 Scale Factor : 1

End Time : 25.00 min
 Plot Offset : -96 mV

Sample #: 97411
 Date : 9/28/96 09:25
 Line of Injection : 8/28/96 01-51
 Low Point : -65.53 mV
 High Point : 1906.97 mV
 Plot Scale : 1993 mV

Page 1 of 1

Response [mV]

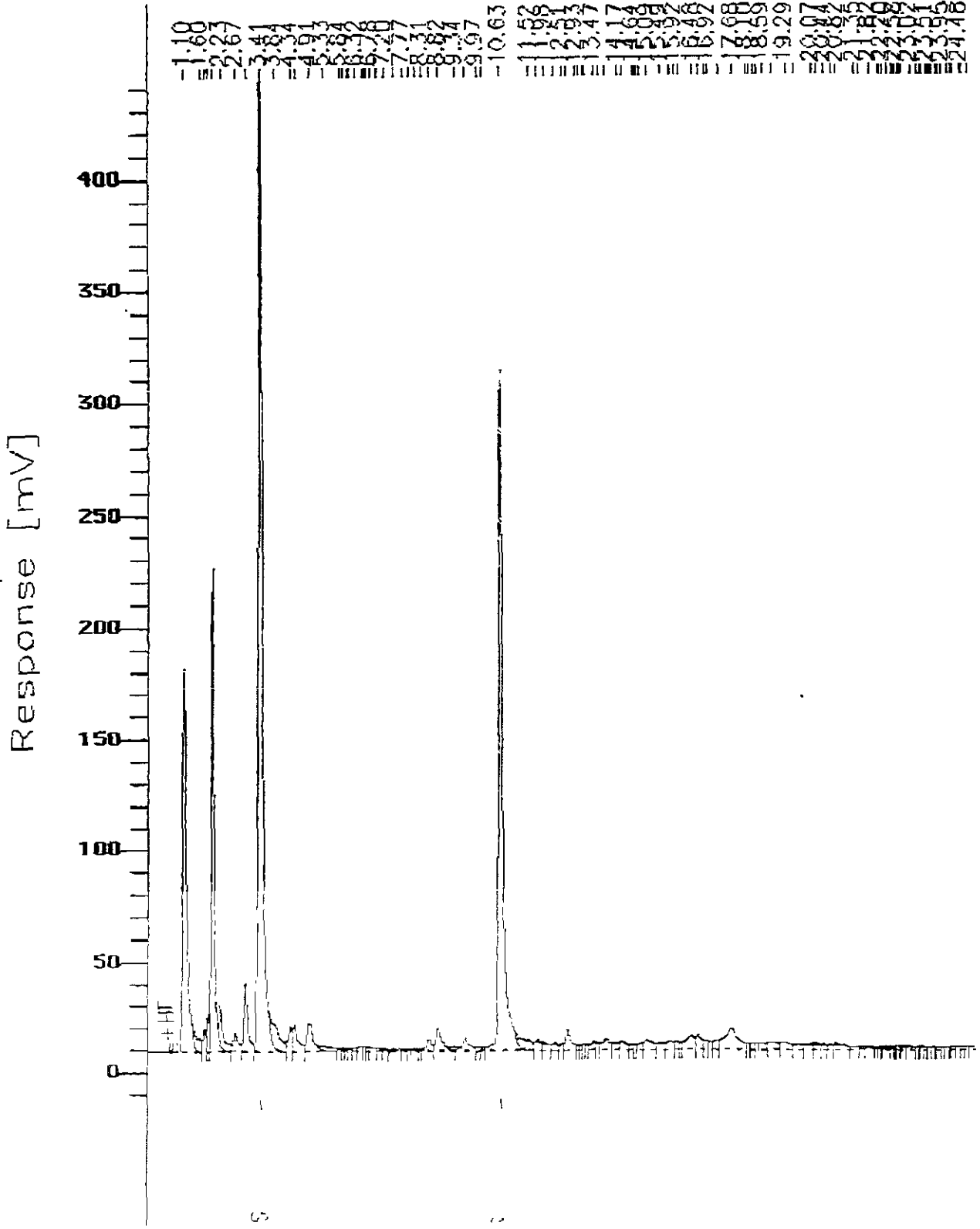


Gasoline Chromatogram

Sample Name : 9608331/TU-1
 FileName : n:\1082021.raw
 Method : 181EX11E.ins
 Start Time : 0.00 min
 Scale Factor : 1

Sample #: 97413
 Date : 8/29/96 09:33
 Time of Injection: 8/29/96 12:33
 Low Point : -12.04 nV
 High Point : 495.54 nV
 End Time : 25.00 min
 Plot Offset: -13 nV
 Plot Scale: 458 nV

Page 1 of 1



FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D
Beth M. Albertson, M.S.
Bradley T. Benson
Kelley D. Wilt

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044

August 27, 1996

Drew Willerton, Project Manager
ATC Enviromental, Inc.
2380 Cume Drive, Suite C
San Jose, CA 95131

Dear Mr. Willerton:

Enclosed are the results from the testing of material submitted on August 14, 1996 from your 61137.0001, 3927 E. 14th Street, Oakland project.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.



Bradley T. Benson
Chemist

keh

Enclosures

FAX: (408) 434-6662

NAA0827R.DOC

Date of Report: August 27, 1996
Date Received: August 14, 1996
Project: 61137.0001, 3927 E. 14th Street, Oakland
Date Samples Extracted: August 14, 1996

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR FINGERPRINT CHARACTERIZATION
BY CAPILLARY GAS CHROMATOGRAPHY
USING A FLAME IONIZATION DETECTOR (FID)
AND ELECTRON CAPTURE DETECTOR (ECD)**

Sample ID

GC Characterization

TC1

The GC trace using the flame ionization detector (FID) showed the presence of medium and high boiling compounds. The patterns displayed by these peaks are indicative of highly evaporated gasoline or naphtha and diesel or home heating oil, as well as motor oil or other lubricating oil.

The medium boiling compounds appeared as a regular pattern of peaks eluting from *n*-C₉ to *n*-C₂₀ showing a maximum near *n*-C₁₄.

The high boiling compounds appeared as a regular pattern of peaks eluting from *n*-C₁₉ to beyond *n*-C₃₂ showing a maximum near *n*-C₂₆. The GC/ECD trace showed the possible presence of chlorinated solvents.

The large peak seen near 25 minutes on the GC/FID trace is pentacosane, added as a quality assurance check for this GC analysis. There is a second surrogate present that is seen on the GC/ECD trace at about 26 minutes which is dibutyl chlorendate.

Date of Report: August 27, 1996
Date Received: August 14, 1996
Project: 61137.0001, 3927 E. 14th Street, Oakland
Date Samples Extracted: August 19, 1996
Date Extracts Analyzed: August 23, 1996

**RESULTS FROM THE ANALYSIS OF THE PRODUCT SAMPLE
FOR TOTAL SULFUR**
Results Reported as $\mu\text{g/g}$ (ppm)

<u>Sample ID</u>	<u>Total Sulfur</u>
TC1	260
Method Blank	<100

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: August 27, 1996

Date Received: August 14, 1996

Project: 61137.0001, 3927 E. 14th Street, Oakland

QUALITY ASSURANCE RESULTS
FOR SULFUR BY
INDUCTIVELY COUPLED PLASMA (ICP)

Laboratory Code: 71514 (Duplicate)

Analyte:	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference
Sulfur	ug/g (ppm)	260	210	21

Laboratory Code: 71514 (Matrix Spike)

Analyte:	Reporting Units	Spike Level	Sample Result	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Sulfur	ug/g (ppm)	400	260	89	96	50-150	8

Laboratory Code: Spike Blank

Analyte:	Reporting Units	Spike Level	% Recovery MS	% Recovery MSD	Acceptance Criteria	Relative Percent Difference
Sulfur	ug/g (ppm)	400	97	101	80-120	4

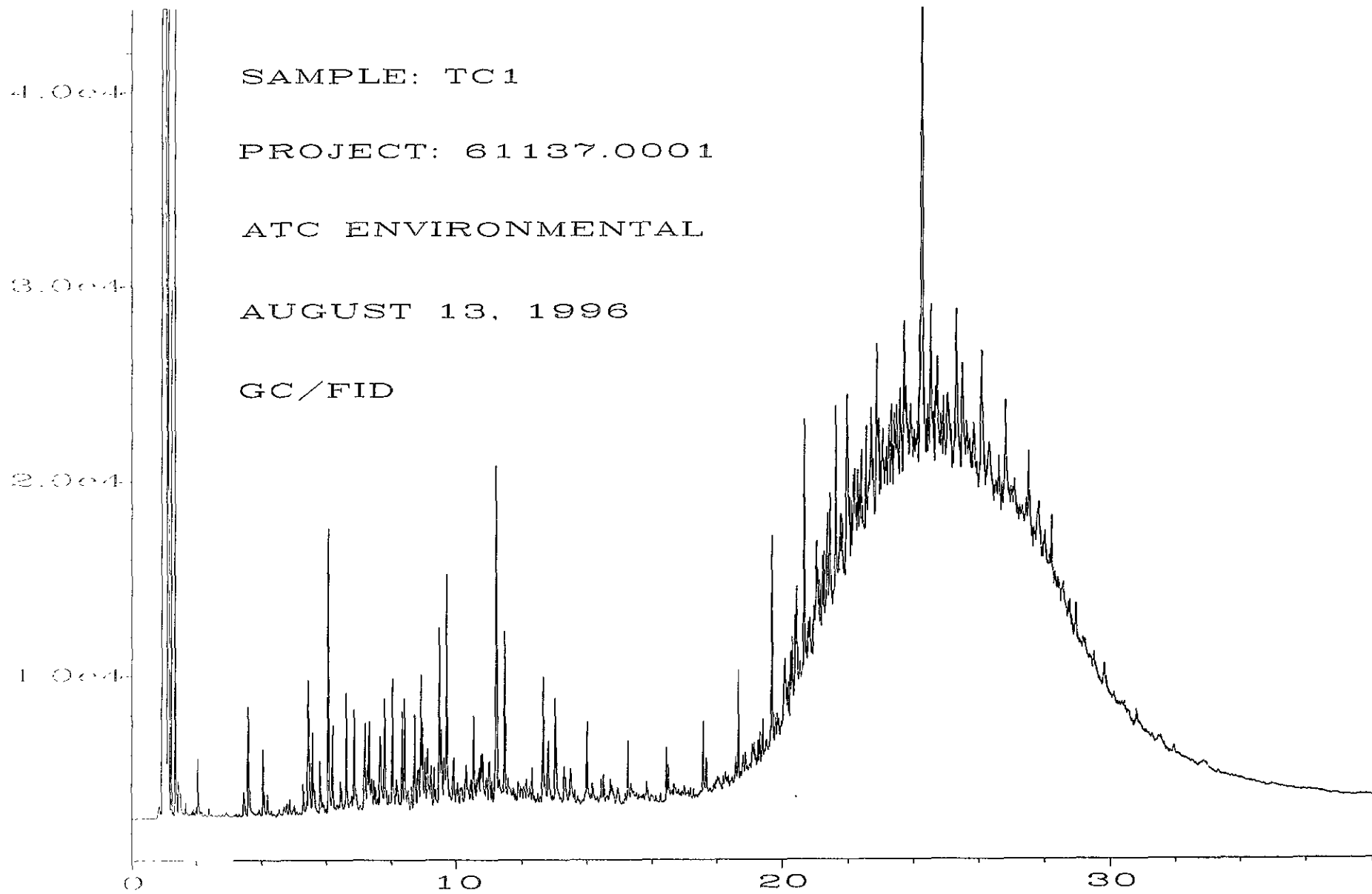


Fig. 1 in C:\HPCHEM\4\DATA\08-13-96\033F2001.D

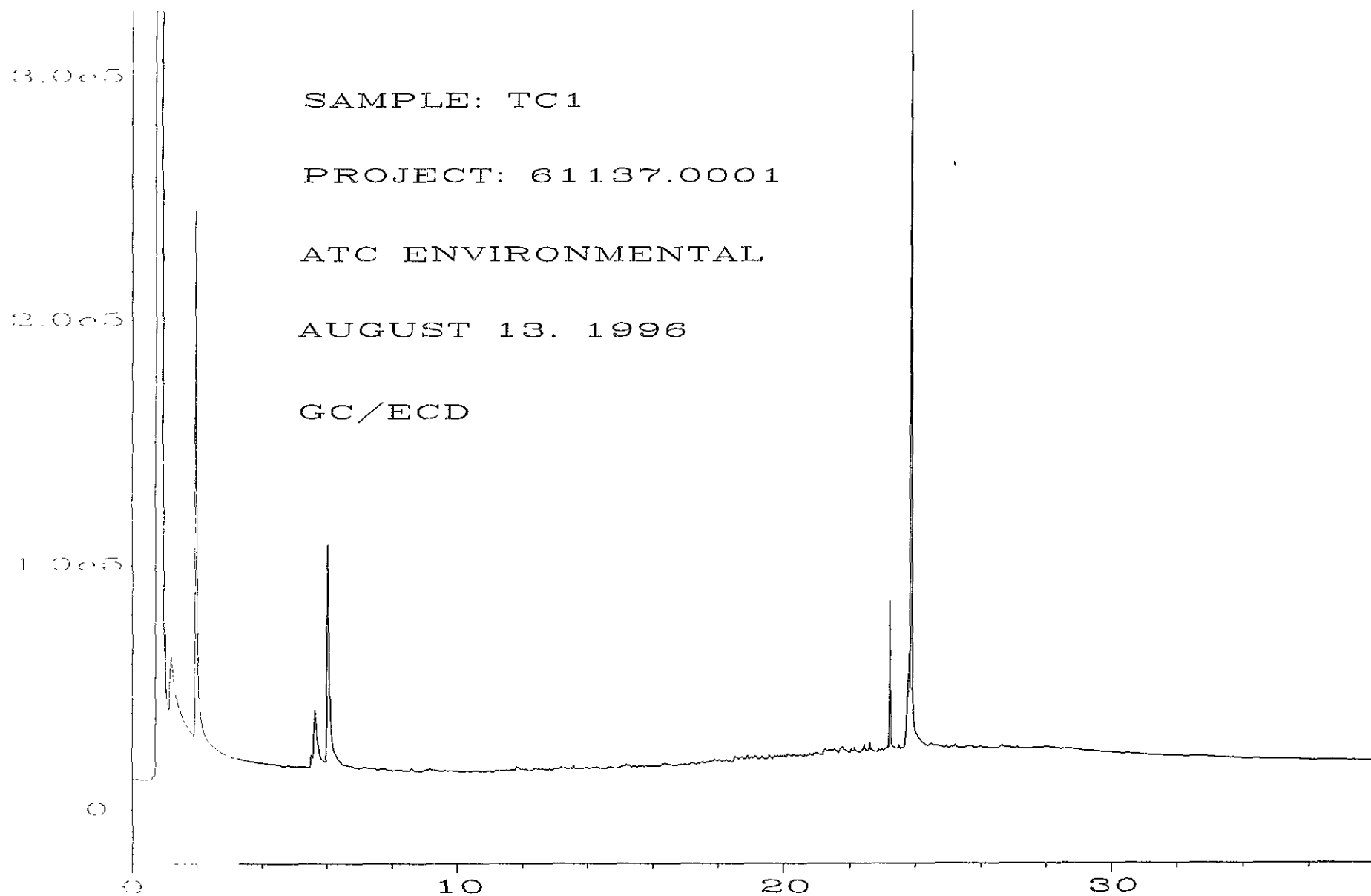
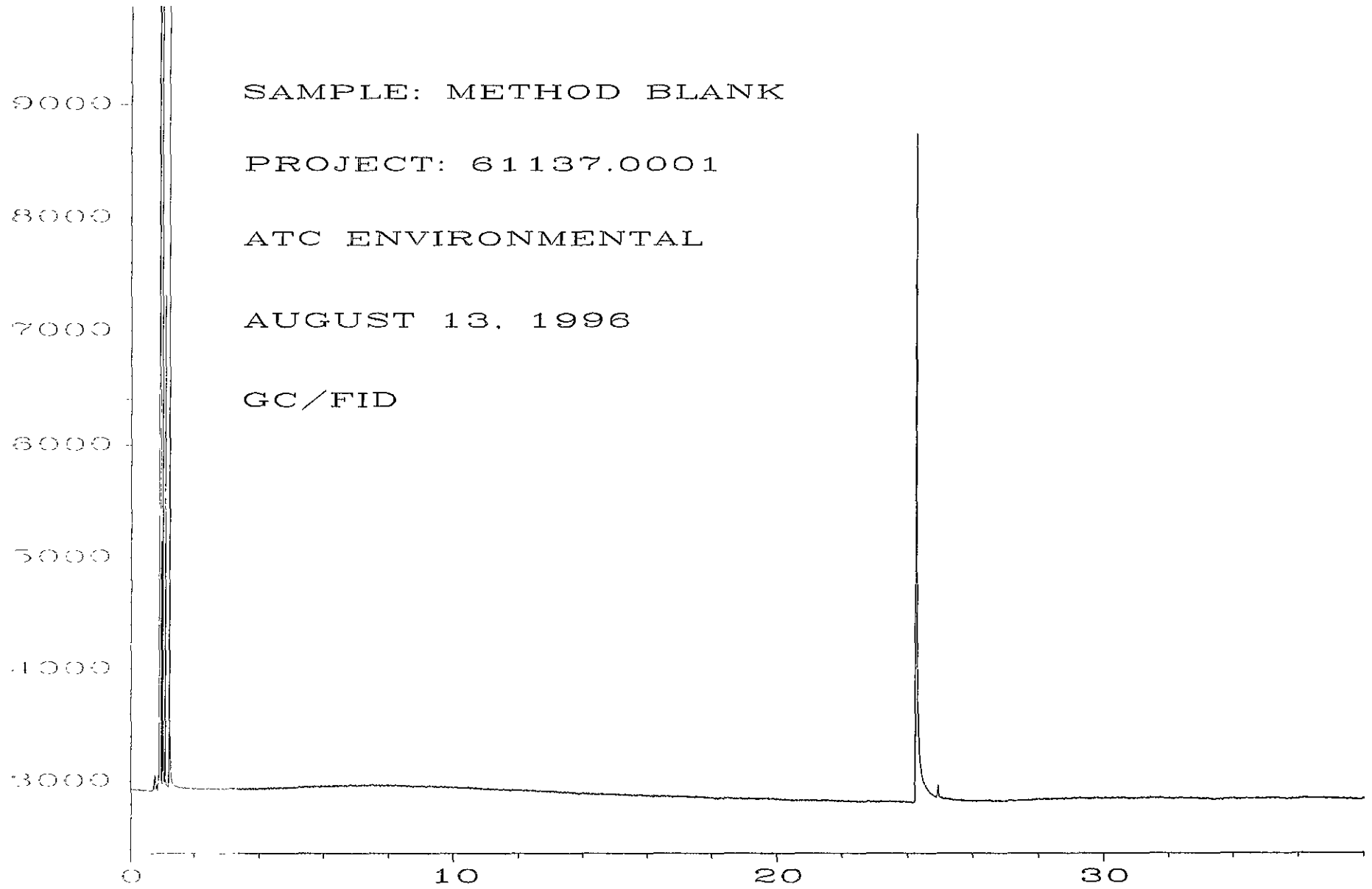


Fig. 2 in C:\HPCHEM\4\DATA\08-13-96\033R2001.D



Sig 1 in C:\HPCHEM\4\DATA\08-13-96\028F1501.D

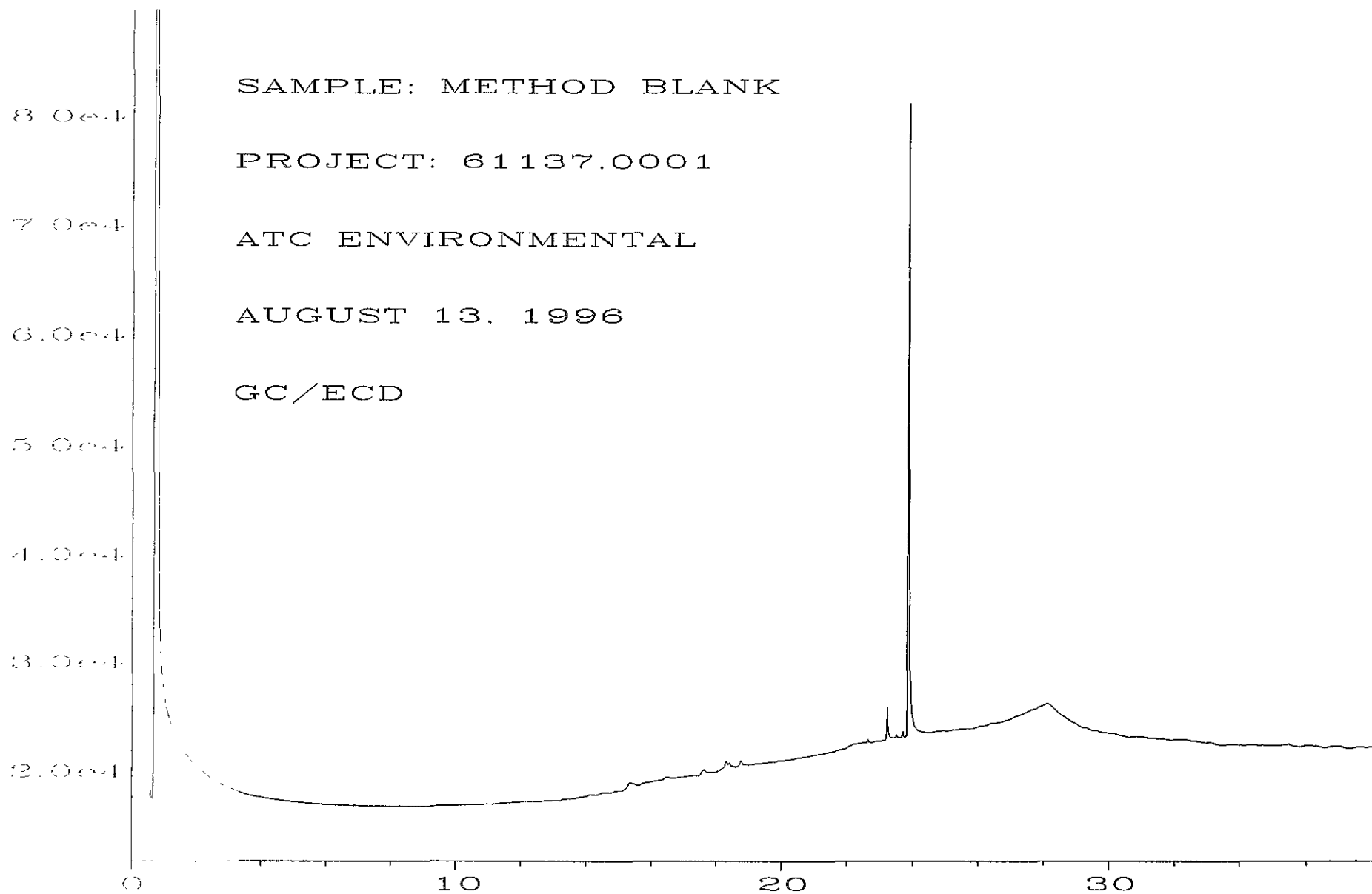
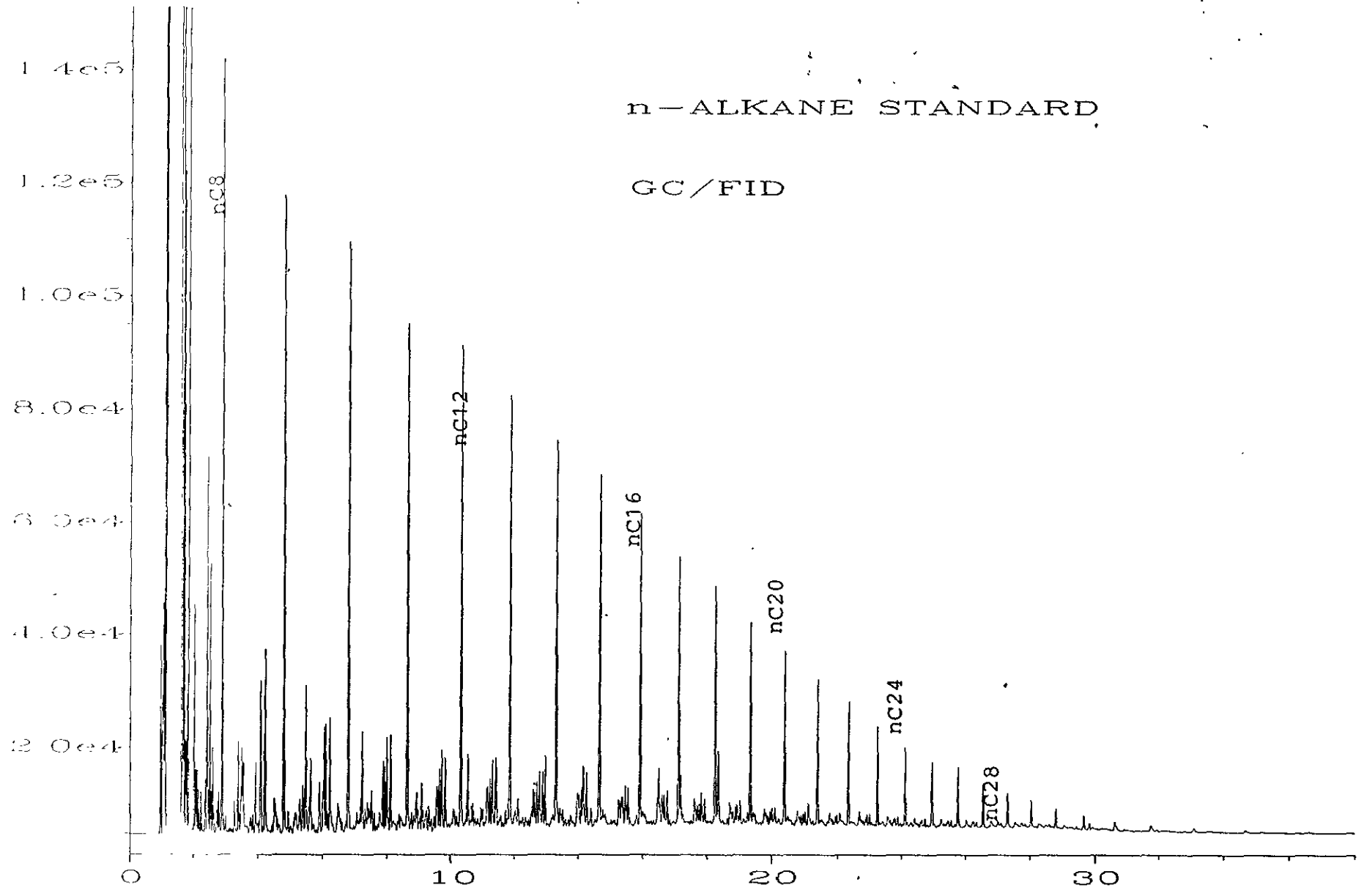


Fig 2 in C:\HPCHEM\4\DATA\08-13-96\028R1501.D

n-ALKANE STANDARD

GC/FID



10:36 am

2030 Camino Drive, Suite C
 San Jose, CA 95131
 Tel: (408) 474-0280
 Fax: (408) 434-6662

Project Name 3927 E 14TH STREET, OAKLAND
 Project Number 61137.0001
 ATC Environmental Inc. Contact DREW WILBERTON
 Laboratory Name FRIEDMAN & BRUYA

TPH as gas/BTEX, EPA
 TPH as diesel, EPA 8015M
 VOCs, EPA 8010
 VOCs, EPA 8240
 VOCs, EPA 8020
 VOCs, EPA 8010/8020
 SVOCs, EPA 8270
 TRPH, SM 5520F
 TOG, SM 5520B
 Title 22 Metals, EPA
 PP (13) Metals, EPA
 Pesticides Only, EPA 8080
GC CHARACTERIZ.
Sulfur

Turn Around Time
 Standard
 5 to 10 Business Days
 Priority Rush
 ___ Business Day(s)

Sample Number	Location	Date	Time	Matrix			Preservative	No. of Containers	Type of Containers	TPH as gas/BTEX, EPA	TPH as diesel, EPA 8015M	VOCs, EPA 8010	VOCs, EPA 8240	VOCs, EPA 8020	VOCs, EPA 8010/8020	SVOCs, EPA 8270	TRPH, SM 5520F	TOG, SM 5520B	Title 22 Metals, EPA	PP (13) Metals, EPA	Pesticides Only, EPA 8080	GC CHARACTERIZ.	Sulfur
				Soil	Water	Other																	
<u>PRODUCT</u> <u>TCL</u>		<u>8/10/96</u>				<input checked="" type="checkbox"/>	<u>-</u>	<u>1</u>	<u>40mlVOA</u>					<u>7/5/14</u>								<input checked="" type="checkbox"/>	
<u>client OK'd sulfur 8/14/96</u>																							

Remarks
PLEASE CALL IF ANY QUESTIONS
PLEASE TRY TO AGE DATE

Relinquished by sampler <u>Andrew Wilberton</u>	Date <u>8/17/96</u>	Time <u>2:00</u>	Received by <u>[Signature]</u>	Date <u>8-17-96</u>	Time <u>10:26 AM</u>
Relinquished by	Date	Time	Received by		
Relinquished by	Date	Time	Received by laboratory	Date	Time