KLEINFELDER

July 18, 1997
File: 23-482965-PH2

Mr. Michael Willcoxon, Esquire
Attorney-at-Law
11155 Dublin Boulevard, Suite 201
Dublin, California 94568

Subject: **Soil and Groundwater Assessment Report**
Former Hummingbird Haven Glider Airport
8638 Patterson Pass Road (at Greenville Road)
Livermore, California

Dear Mr. Summers:

Attached is Kleinfelder's Soil and Groundwater Assessment Report for the above referenced site.

California law requires a property owner to inform the appropriate regulating agencies if evidence of hazardous materials is encountered or if conditions are encountered that can be considered an immediate endangerment to the public's health or welfare. Therefore, Kleinfelder recommends that a copy of this report be provided to the current property owner for submittal to the Alameda County Department of Environmental Health (ACDEH).

Please call if you have any questions, or if we can be of additional assistance.

Sincerely,

KLEINFELDER, INC.

Laurie Racca
Project Geologist

John A. Baker, P.E.
Regional Manager

LVR:JAB:bal

Attachment

cc: James Summers/The DeSilva Group

KLEINFELDER

SOIL AND GROUNDWATER ASSESSMENT REPORT FORMER HUMMINGBIRD HAVEN GLIDER AIRPORT 8638 PATTERSON PASS ROAD (at Greenville Road) LIVERMORE, CALIFORNIA

July 18, 1997

A Report Prepared for:

Mr. Michael Willcoxon, Esquire
Attorney-at-Law
11155 Dublin Boulevard, Suite 201
Dublin, California 94568

SOIL AND GROUNDWATER ASSESSMENT REPORT
FORMER HUMMINGBIRD HAVEN GLIDER AIRPORT
8638 PATTERSON PASS ROAD (at Greenville Road)
LIVERMORE, CALIFORNIA

Kleinfelder Job No. 23-482965-PH2

Prepared by:

Laurie Racca
Project Geologist

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July 18, 1997

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APPENDICES

1. EXECUTIVE SUMMARY

Kleinfelder was retained by The DeSilva Group to prepare a Phase I Environmental Site Assessment (ESA) for the property known as the former Hummingbird Haven Glider Airport in Livermore, California (refer to Plates 1 and 2). It is our understanding that The DeSilva Group wishes to purchase the property for use as a corporation yard.

Additional evaluation of the property was recommended for the following potential environmental concerns identified during the course of the Phase I ESA: three groundwater monitoring wells adjacent to two (possibly three) underground fuel storage tanks; a groundwater monitoring well (the Wahler well) and four 55-gallon drums of soil, located at the intersection of Greenville Road and Old Patterson Pass Road; a domestic water well; and three abandoned oil wells. This report describes the results of Kleinfelder's assessment activities at the site.

Kleinfelder does not recommend additional assessment in the vicinity of the three former oil wells on site. However, a release has occurred in the vicinity of the USTs. Soil and groundwater have been impacted by petroleum hydrocarbons. The USTs should be removed along with the contaminated soil. A risk based corrective action (RBCA) assessment should be performed to evaluate remedial options for soil and water contamination remaining after the UST removal. Continued monitoring of the existing UST monitoring wells will most likely be required. Installation of additional monitoring wells or hydropunch sampling may be necessary to evaluate the extent of groundwater contamination.

No VOCs or SVOCs were detected in the water sample collected from the Wahler monitoring well (MW-1) adjacent to LLNL. A water sample from this well was also analyzed for plutonium. The results were 0.308 pCi/L $\pm$ 0.165 (plutonium 238) and 0.460 pCi/L $\pm$ 0.200 (plutonium 239). The concentration of plutonium detected in Kleinfelder's groundwater sample from MW-1 is above the PRG of 0.16 pCi/L for plutonium 238 tap water. The only known source of plutonium in the vicinity of the site is LLNL. Regulatory agencies in California generally do not hold property owners responsible for soil or groundwater contamination that originates from an off site source. The expense and/or liability associated with investigation or remediation of contaminants from an off site source would typically fall upon the responsible party. However, it is Kleinfelder's recommendation the domestic well on site be sampled for the presence of plutonium prior to its use as a potable water supply.

Recommend that well be destroyed and site hooked to city water

California law requires a property owner to inform the appropriate regulating agencies if evidence of hazardous materials is encountered or if conditions are encountered that can be considered an immediate endangerment to the public's health or welfare. Therefore, Kleinfelder recommends that a copy of this report be provided to the current property owner for submittal to the Alameda County Department of Environmental Health (ACDEH).

This report is subject to the limitations described in Section 6.

2. BACKGROUND

Kleinfelder was retained by The DeSilva Group to prepare a Phase I Environmental Site Assessment (ESA) for the property known as the former Hummingbird Haven Glider Airport in Livermore, California (refer to Plates 1 and 2). It is our understanding that The DeSilva Group wishes to purchase the property for use as a corporation yard. The property encompasses approximately 70 acres, located at the northeast corner of Patterson Pass Road and Greenville Road in an unincorporated area of Alameda County, adjacent to the City of Livermore.

As part of the Phase I ESA, Kleinfelder was provided with several documents describing previous investigations at the subject site. A summary of the environmental documents pertinent to this assessment is presented as follows.

Wahler Associates, *Preliminary Environmental Survey Report, TMI Property, Livermore, California,* Project No. TMI-101H, February 15, 1989.

This report encompassed a larger 300-acre property of which the subject site is a part. The Wahler environmental survey consisted of a review of available historical and regulatory agency information, a site visit, selected soil sampling, and the installation of groundwater monitoring wells. Environmental concerns identified at the current project site during the Wahler environmental survey included the following:

- glider airport underground storage tanks (USTs), reported to be 3-1,000 gallon USTs, two steel, one fiberglass, reported to contain liquid; source of information not documented (and not verified).
- possible herbicide use for weed control along the runways of glider airport.
- two oil wells on site (TXO Production Co. "Smith" 6-1 and Hershey Oil Co. "Smith et ux" 1); the Hershey well had not been abandoned, and the aboveground oil storage tanks associated with the Hershey well were still present. The map provided to Wahler describes an "underground storage tank field" at the location of the Hershey aboveground tanks. The Wahler report did not confirm or refute the existence of an underground storage tank field at this location.

- current and historical agricultural use of the site.
- domestic well and septic system.
- groundwater contamination with volatile organic compounds (VOCs) and semi-volatile organic chemicals (SVOCs) at the adjacent Lawrence Livermore National Laboratory (LLNL); potential groundwater contamination with plutonium.

Based upon the concerns identified above, soil and groundwater samples were collected at the site by Wahler. The results of their investigation is summarized as follows:

Environmental Concern	Scope of Assessment	Results
Glider airport USTs	1 soil boring to a depth of 25 feet in the estimated downgradient direction of USTs DH-8	Soil samples collected at 20 and 25 feet analyzed, TPH-gas detected at 11 to 1,700 ppm; no benzene detected, toluene 0 to 9,300 ppb, ethylbenzene 19 to 18,000 ppb, xylenes 99 to 84,000 ppb.
Herbicide use along runways	2 shallow (depth 9 inches) soil samples collected from opposite ends of the landing strip and composited for analysis SS-29, SS-30	No chlorinated herbicides were detected using EPA Method 8150
Oil wells and associated aboveground oil storage	Two shallow surface soil samples were collected near the TXO well, the Hershey well, and the aboveground storage tank area. The two samples collected at each location were composited for analysis. SS-31 and SS-32 SS-33, SS-34, SS-35, SS-36	Samples analyzed for total recoverable oil and grease (EPA 413.2 IR). • Hershey well - 70 ppm • Aboveground tanks - 400 ppm • TXO well - 22 ppm *Note: This method detects all oil and grease, including animal and vegetable fats as well as petroleum based oils.*
Reported underground storage tank field adjacent to Hershey oil well	No investigation to verify presence/absence of the "underground tank field"	Noted in the report that this information contradicts information available through California Division of Oil and Gas.
Agricultural use of the site	Shallow surface soil samples were collected at depth of 9 and 18 inches. Samples were composited for analysis.	No pesticides (EPA 8080) or herbicides (EPA 8150) were detected in the samples.
Domestic well and septic system	No testing of well; no investigation of septic system.	Report notes that these items weren't evaluated.
Offsite VOC and SVOC contamination of groundwater associated with LLNL	Three monitoring wells were installed on the larger 300-acre site. MW-1 is located on the subject property.	No VOCs or SVOCs were reported in any of the three wells. Groundwater gradient was 0.024 ft/ft with a flow direction north of west.
Potential plutonium groundwater contamination associated with LLNL	Report discusses use of plutonium contaminated sludge as fertilizer in an experimental garden 600 to 800 feet southwest of the site during the 1970s.	Sampling of the monitoring wells for plutonium was suggested but not conducted as part of the Wahler assessment.

Based on our review of the Wahler report and our own independent ESA, additional evaluation of the following potential environmental concerns was recommended.

- Two (possibly three) underground fuel storage tanks (USTs), surrounded by three groundwater monitoring wells (MWT-1, MWT-2, MWT-3). The monitoring wells were installed in 1989 by MSE Environmental. No analytical data were available for the wells. Need Report

- A groundwater monitoring well (MW-1) and four 55-gallon drums of soil, located at the intersection of Greenville Road and Old Patterson Pass Road. This well was installed by Wahler Associates in 1989 to evaluate potential groundwater contamination associated with Lawrence Livermore National Laboratory (LLNL).

- One domestic water well.

- Three abandoned oil wells.

Kleinfelder prepared a proposal/workplan, dated March 17, 1997, to assess potential soil and/or groundwater contamination at the four areas described above. The workplan was approved by The DeSilva Group and, after obtaining site access from the current property owner, field activities commenced on March 27, 1997 and were completed on April 8, 1997.

3. FIELD ACTIVITIES

3.1 SCOPE OF WORK

The scope of work included a geophysical survey of the USTs and oil wells, soil/hydropunch borings in the vicinity of the USTs, exploratory trenches and soil sampling in the vicinity of the oil wells, sampling and analysis of soil in the 55-gallon drums, groundwater sampling and analysis for the monitoring wells and domestic well.

A workplan submittal and approval is not required by the Alameda County Department of Environmental Heath (ACDEH) for voluntary site assessment activities when there is no record of contamination. Consequently, a workplan was not submitted to the County. The ACDEH requires notification if contamination is discovered. Additionally, the Alameda County Zone 7 Water Agency (Zone 7) requires that a permit application be submitted and approved prior to advancing soil borings to groundwater. Copies of the Zone 7 permits are included in Appendix A.

3.2 GEOPHYSICAL SURVEY

Kleinfelder subcontracted Norcal Geophysical Consultants, Inc. (Norcal) to verify the location of the underground storage tanks on site, to confirm the location of the three abandoned oil wells on site, and to evaluate the potential presence of drilling mud pits associated with the oil wells. A copy of the Norcal report is included as Appendix B.

The geophysical survey was conducted on March 27 and March 31, 1997. A horizontal grid system was established prior to collecting the geophysical data. Vertical magnetic gradient (VMG), electromagnetic (EM), ground penetrating radar (GPR), and electromagnetic line location (EMLL) methods were used to map variations in subsurface conditions. The data collected was downloaded to a field computer. The data was analyzed by Norcal and a written report was provided describing the results.

3.3 MONITORING WELL SAMPLING

The depth-to-groundwater was measured in each monitoring well with a conductivity-based water level indicator. The water level probe was decontaminated in a trisodium phosphate wash followed by a distilled water rinse prior to use in each well. Depth to groundwater was measured from the reference mark on the well casings established by the well installer, or to the north rim of the well casing if no reference mark was present. Measurements were made to the nearest 0.01 foot.

Groundwater samples were collected from each monitoring well by purging and sampling with disposable bailers. The volume of water, in gallons, standing in the well was calculated by subtracting the depth-to-groundwater measurement from the known depth to the well bottom and multiplying by the cross-sectional inside area of the well casing. The water well depths were obtained from logs filed with the Zone 7 Water Agency, and measured in the field prior to purging the wells. A minimum of three well volumes of water was then purged from each well.

A new disposable bailer was used to sample each well. Electrical conductivity, pH, and temperature were monitored while purging. Dissolved oxygen content was also measured in each well at several depths. The water quality measurements were recorded on purge-and-sample logs, along with the time and volume of water purged at each measurement. The pH and conductivity meters were calibrated per the manufacturer's directions prior to purging each well. A record of the field parameter readings obtained is included in the Purge Characterization and Sample Logs (Appendix C). The samples were collected after purging by decanting samples from the disposable Teflon bailer directly into sampling containers provided by the analytical laboratory. No equipment blanks or duplicate samples were collected. Trip blanks were provided by the analytical laboratory.

3.4 MONITORING WELL SURVEY

On April 29, 1997, Kleinfelder surveyed the three monitoring wells using a transit, lenker rod, and steel tape. A temporary benchmark was established at the northwest corner of the foundation for the former eastern aircraft hangar. Relative elevations for the top of the well casings were established in relation to the temporary benchmark.

3.5 DRILLING OF SOIL/HYDROPUNCH BORINGS

Kleinfelder advanced two exploratory soil borings (KB-3 and KB-5) and three soil/hydropunch borings (KB-1, KB-2, and KB-4) on March 31 and April 1, 1997. The location of the exploratory borings and hydropunch locations is shown on Plate 3. Kleinfelder's field protocol for the drilling and well installation is provided in Appendix D.

The exploratory soil and hydropunch borings were advanced using a truck-mounted drill rig equipped with 6-inch diameter hollow stem augers. Soil cuttings generated during drilling were placed in labeled 55-gallon drums. Soil samples were collected in the borings/wells at 5-foot intervals beginning at a depth of five feet and stopping when groundwater was encountered.

While sampling, an experienced environmental geologist classified the subsurface soil and logged the boreholes. A copy of the Unified Soil Classification System used to classify the soil, and a log key are provided in Appendix E (Plates A-1 through A-3). Descriptions of the soil encountered in each boring and identification of the sampling intervals are also presented in Appendix E (Plates A-4 through A-10). Soil encountered during drilling activities consisted of interbedded silty clay (high and low plasticity), clayey sand, silty sand and poorly graded sand. A fairly consistent sand interval (SP/SM) was noted in all borings, beginning at depths of approximately 5 to 15 feet, and varying in thickness from approximately 5 to 21 feet thick.

Soil samples were collected by advancing the boring to a point immediately above the desired sampling depth and then driving a Modified California Sampler, lined with 2-inch diameter brass tubes, into the undisturbed soil. The sampler was then removed from the bottom of the boring. The ends of the bottom tube were covered with Teflon sheeting and sealed with tight fitting plastic caps. Each sample was individually labeled and placed in an iced cooler pending transport to the analytical laboratory under chain of custody protocols.

Groundwater samples were collected using a Hydropunch II sampling device. Equipment used for Hydropunch sampling was decontaminated prior to use at each sampling location by steam cleaning, or by scrubbing in a trisodium-phosphate wash followed by a distilled water rinse.

Once a boring was drilled to the top of the groundwater surface, the Hydropunch system, consisting of a steel drive point attached to a stainless steel barrel with an internal PVC slotted screen was driven two to three feet past the bottom of the boring into the uppermost water bearing zone. The barrel was connected to the surface using clean, 2-inch diameter hollow steel

rods. The barrel was then pulled back from one to two feet exposing the internal PVC screen to the soil. Groundwater entered the barrel through the screen under hydrostatic pressure and was brought to the surface with a clean, Teflon or stainless steel bailer.

As with the soil samples, groundwater samples were immediately labeled and placed in an iced cooler. At the end of the day, the samples were delivered to the analytical laboratory under chain-of-custody control. Equipment blanks were not collected. Trip blanks were provided by the analytical laboratory.

3.6 QUALITATIVE FIELD SCREENING

To provide a qualitative indication of volatile organic constituents in the soil, a portable photoionization analyzer (PID) was used to screen vapors from the soil samples in the field. An Photovac brand PID was used to measure total ionizable compounds in parts per million by volume (ppmv) relative to a 100 ppm isobutylene standard. Each soil boring sample was screened in the field, and the PID readings were recorded on the boring/well logs (Appendix E). PID readings ranging from 0 to 400 ppmv were recorded for the soil samples collected.

For the protection of the field crew, the PID was also used to measure the total ionizable concentration in the breathing zone prior to and while drilling the borings. No consistent readings were noted in the breathing zone above 1 ppmv.

3.7 EXPLORATORY TRENCHING

Five exploratory trenches were advanced in the vicinity of the Hershey Oil Co. "Smith et ux" 1 oil well. The condition and type of soil within each trench was noted. Soil samples were collected from selected locations within the trenches using a backhoe. The samples were collected by driving a 2-inch diameter by 6-inch long brass sleeves into soils contained in the backhoe bucket. The ends of each sleeve were then covered with Teflon sheeting and sealed with tight fitting plastic caps. The samples were then labeled and placed in an ice chest pending transportation to the analytical laboratory. The soils were field screened using a PID in the manner previously described.

3.8 SOIL DRUM SAMPLING

Four 55-gallon drums were located at the southwest corner of the property, adjacent to the Wahler monitoring well. On April 8, 1997, the drums were opened. The drums contained soil presumably generated during the installation of the monitoring well. One soil sample from each drum was collected. The samples were collected in brass sleeves, the ends covered with Teflon sheeting and sealed with tight fitting caps. The samples were then labeled and placed in an ice chest pending transportation to the analytical laboratory.

4. RESULTS

4.1 GROUNDWATER GRADIENT

The elevation of groundwater at each well was calculated by subtracting the measured depth-to-groundwater from the surveyed top-of-casing elevations. The calculated groundwater elevations relative to mean sea level (msl) are shown on Table 1 and the monitoring well locations are shown on Plate 3. Depth to groundwater (March 26, 1997) in the three UST wells was 31.71 (MWT-1), 31.22 (MWT-2) and 29.78 (MWT-3) feet below the top of the well casings. Depth to groundwater was measured from the red reference mark established by the well installer. The calculated groundwater gradient in the vicinity of the USTs, based on the available data, is 0.028 ft/ft to the northwest.

4.2 GEOPHYSICAL SURVEY

4.2.1 Underground Storage Tanks

Kleinfelder subcontracted with Norcal Geophysical to conduct the geophysical survey. Norcal was able to locate a "zone of buried metal", but was unable to distinguish individual USTs. Therefore, Kleinfelder is unable to verify the information presented in the Wahler Associates 1989 report indicating the presence of three USTs. Only two vent pipes and two fill pipes were noted during our on-site activities. Additionally, our inquiries at the Alameda County Building Department, Fire Department, and Environmental Health Department revealed that none of these agencies have records or knowledge of the USTs. For additional information regarding the geophysical survey, please refer to Appendix B.

4.2.2 Oil Wells

Three oil wells are located on-site. Location information was obtained from the California Division of Oil and Gas. Norcal Geophysical was subcontracted to perform a geophysical survey in the vicinity of the three wells. Norcal was able to locate only one of the three well casings. This well is identified as "Smith et ux. 1", formerly owned by Hershey Oil Company. No

drilling mud pits were identified within the boundaries of the geophysical survey. No underground storage tanks were identified within the boundaries of the oil well geophysical survey. For additional information regarding the geophysical survey, please refer to Appendix B.

4.3 ANALYTICAL RESULTS

4.3.1 Underground Storage Tanks

Monitoring Wells

The water samples were analyzed for TPH-purgeable (as gasoline), TPH-extractable (as diesel, motor oil, and kerosene), Benzene, Toluene, Ethyl benzene and Total Xylenes (BTEX), Methyl tert-Butyl Ether (MtBE), and total lead. Monitoring wells MWT-1 and MWT-3 did not contain concentrations of petroleum hydrocarbons. Monitoring well MWT-2 contained 5,400 µg/L (ppb) TPH-purgeable, and BTEX concentrations of 20, 22, 370, and 890 µg /L (ppb) respectively. No extractable hydrocarbons were detected. The three wells contained total lead concentrations of 0.017 mg/L (MWT-1), 0.010 mg/L (MWT-2) and 0.018 mg/L (MWT-3), which are below the MCL for lead of 0.05 mg/L. The TPH purgeable results were referenced to standard gasoline (not aviation fuel). Please refer to Table 3 for a summary of the analytical results.

With the exception of well logs filed with Alameda County Water Agency Zone 7, Kleinfelder was unable to locate documentation or results of previous sampling for the three UST monitoring wells.

Hydropunch Water Samples

TPH-purgeable (as gasoline) was detected in two of three hydropunch samples at concentrations of 66 and 220 µg L (ppb). The TPH purgeable results were referenced to standard gasoline (not aviation fuel). BTEX compounds were also detected in these two samples ranging from none detected to 51 µg /L. TPH-extractable as diesel was detected in all three hydropunch samples. Please refer to the attached summary tables and laboratory reports for additional information. Total lead was detected in all three hydropunch samples at concentrations of 0.087 to 0.25 mg/L. These values exceed the Maximum Contaminant Level (MCL) for lead of 0.05 mg/L. Because the samples were to be analyzed for volatile contaminants (gasoline/BTEX) as well as lead, the

hydropunch water samples were not filtered to remove sediments. Contaminants may have been adsorbed to sediments (if present) in the sample leading to a slightly higher analytical result. The hydropunch sampling results are summarized in Table 3.

Soil Samples

Nine soil samples from the five exploratory borings were submitted for chemical analysis. Total lead was not detected in the nine soil samples analyzed. TPH-purgeable as gasoline (140 mg/kg) and BTEX compounds (none detected to 6.7 mg/kg) were detected in only one sample. This sample was obtained from Kleinfelder Boring 1 (KB1) at a depth of 35 feet below grade. No extractable hydrocarbons were detected in this sample. Three of the nine soil samples contained concentrations of TPH-extractable as diesel ranging from 1.1 mg/kg to 4.4 mg/kg. The soil sampling results are summarized in Table 2.

In addition to the hydrocarbon and lead analyses, two soil samples were analyzed for total Kjeldahl nitrogen, nitrogen as nitrate, nitrogen as nitrite, phosphorous as orthophosphate, soil pH, total organic carbon, and moisture content. The results of these analyses are summarized in Table 4. These analyses were performed to provide data for evaluation of remedial options.

4.3.2 Oil Wells

On April 8, 1997, Kleinfelder advanced five exploratory trenches in the vicinity of the Hershey well (Plate 4). No visual or olfactory indications of hydrocarbons were noted. No readings were noted on the photoionization detector used to screen soil in the field. Three soil samples were submitted for analysis. The soil samples were analyzed for total extractable petroleum hydrocarbons as diesel, motor oil and kerosene. A summary of the analytical results is presented in Table 6. The laboratory data reports are attached. No extractable petroleum hydrocarbons were reported.

The three samples submitted to the laboratory were also analyzed for EPA priority pollutant metals, Total Threshold Limit Concentration (TTLC). The TTLC is used along with the Soluble Threshold Limit Concentration (STLC) to identify hazardous waste for management and disposal purposes. None of the samples submitted to the laboratory exceeded the applicable TTLC concentrations for the metals analyzed.

Additionally, the results of the metals analyses were compared to the U.S. EPA Preliminary Remediation Goals (PRGs) for industrial sites. Industrial PRGs were selected for comparison due to the proposed use of the site as a corporation yard. PRGs are health-based concentrations which, if exceeded, may present a concern to EPA, and may require remediation. With the exception of arsenic in sample KT2-S1, the results of the metals analyses do not exceed the U.S. EPA industrial PRGs. The result for arsenic (3.0 mg/kg) in sample KT2-S1 is greater than the cancer PRG of 2.4 mg/kg, but less than the non-cancer PRG of 22 mg/kg. No background samples were collected for comparison. Considering the proposed use of the site as a paved corporation yard, this single reported arsenic concentration is unlikely to be a concern to human health at the site.

4.3.3 Wahler Monitoring Well and Soil Drums

Monitoring Well

The Wahler Associates monitoring well (MW-1) was installed in 1989 to evaluate the potential impact of the Lawrence Livermore National Laboratory (LLNL) to the subject site. This well was sampled on March 26, 1997. The sample was analyzed for volatile and semi-volatile organic compounds (VOCs and SVOCs), the main groundwater contaminants of concern at LLNL. No VOCs (EPA 8260) or SVOCs (EPA 8270) were detected.

In 1975 a study was conducted at the LLNL to evaluate plant uptake of plutonium from soil mixed with plutonium contaminated sewer sludge (Myers, D.S. et al, Evaluation of the Use of Sludge Containing Plutonium as a Soil Conditioner for Food Crops, LLNL). The assessment was conducted due to the 1967 release of plutonium to the City of Livermore municipal sewage treatment plant. Digested sludge from the sewage treatment plant was used by municipal agencies as a soil conditioner and was available without cost to the general public for use as a soil conditioner for lawns and gardens. The 1975 investigation was conducted to evaluate possible inhalation of the plutonium when the digested sludge was being applied as a soil conditioner, and the uptake of the plutonium by plants grown using the digested sludge. The study was conducted in the northeast portion of the LLNL site. Therefore, although the groundwater flow direction is to the west, a water sample from the Wahler monitoring well was analyzed for plutonium. The results were 0.308 pCi/L ± 0.165 (plutonium 238) and 0.460 pCi/L ± 0.200 (plutonium 239).

Kleinfelder contacted Mr. Michael Gill of U.S. EPA Region 9 for information regarding the above discussed LLNL study and for general information regarding plutonium in groundwater. It should be noted that Mr. Gill was not provided with specific information regarding the site or Kleinfelder's field activities. Mr. Gill indicated that he would not expect to find concentrations of plutonium in groundwater adjacent to LLNL. Plutonium is a man made element and there are no "natural" background levels in groundwater. Background concentrations of plutonium are detected in soil due to fallout from nuclear testing conducted over the past 50 years. Mr. Gill indicated that sampling of groundwater for plutonium has been conducted by the LLNL, but that he did not believe that any plutonium had been detected. Mr. Gill also stated that the majority of the area surrounding the LLNL site drinks water supplied by the municipal water system which is not derived from a groundwater source.

Mr. Gill indicated that there are no established Maximum Contaminant Levels (MCLs) or regulatory agency "action levels" for plutonium in groundwater. A Preliminary Remediation Goal (PRG) of 0.16 pCi/L has been established by EPA for plutonium 238 in tap water using Department of Energy (DOE) guidelines. PRGs are health-based concentrations which, if exceeded, may present a concern to EPA, and may require remediation. The chemical concentrations calculated typically correspond to a fixed level of risk (usually 1 in 1,000,000 cancer risk or a noncancer hazard quotient of 1). The concentration of plutonium detected in Kleinfelder's groundwater sample from MW-1 is above the PRG for plutonium in tap water.

The only known source of plutonium in the vicinity of the site is LLNL. Regulatory agencies in California generally do not hold property owners responsible for soil or groundwater contamination that originates from an offsite source. The expense and/or liability associated with investigation or remediation of contaminants from an offsite source would typically fall upon the responsible party. However, it is Kleinfelder's recommendation the domestic well on site be sampled for the presence of plutonium prior to its use as a potable water supply.

California law requires a property owner to inform the appropriate regulating agencies if evidence of hazardous materials is encountered or if conditions are encountered that can be considered an immediate endangerment to the public's health or welfare. Therefore, Kleinfelder recommends that a copy of this report be provided to the current property owner for submittal to the Alameda County Department of Environmental Health (ACDEH) and other regulatory agencies (such as the U.S. EPA) which may have authority over this issue.

Four 55-gallon drums are located adjacent to the Wahler well. The drums contain soil which is most likely the drilling returns generated during the installation of the well. The soil drums were sampled on April 8, 1997. The four samples were composited by the analytical laboratory for analysis. With the exception of 10 µg/kg xylenes, no VOCs or SVOCs were reported for the soil drum sample. The soil samples were not analyzed for plutonium.

4.3.4 Domestic Well

The domestic well on-site was sampled on March 26, 1997. The sample was analyzed for general minerals, general physical parameters, organic chemicals, coliform bacteria, polychlorinated biphenyls (PCBs) and radionuclides. The results are summarized on Table 4. No organic chemicals or PCBs were detected. Total coliform was measured at <2 coliforms per 100 milliliters. No values were reported above primary MCLs for cyanide, nitrate, nitrite, fluoride, or the radionuclides. The recommended secondary aesthetic standards were exceeded for chloride and specific conductance.

5. CONCLUSIONS AND RECOMMENDATIONS

Underground Storage Tank Area

- Two underground storage tanks (UST) are located on-site. A possible third UST may be present. The size of the USTs is unknown. The USTs currently contain product or a product/water mixture. The tanks are apparently not registered or permitted.

- A release has occurred in the vicinity of the USTs. Soil and groundwater have been impacted by petroleum hydrocarbons. The TPH purgeable results were referenced to standard (not aviation) gasoline. Future soil and groundwater sampling and analysis should include fuel pattern recognition for all available fuel standards.

- Groundwater was encountered at depths of 29.78 to 31.71 feet below existing grade. The groundwater flow direction is to the northwest, with a calculated gradient of 0.028 ft/ft. This result is consistent with the flow direction and gradient (0.024 ft/ft) obtained by Wahler Associates during their 1989 investigation.

- The USTs should be removed along with the contaminated soil. A risk based corrective action (RBCA) assessment should be performed to evaluate remedial options for soil and water contamination remaining after the UST removal. Continued monitoring of the existing monitoring wells will most likely be required. Installation of additional monitoring wells or hydropunch sampling may be necessary to evaluate the extent of groundwater contamination.

- California law requires a property owner to inform the appropriate regulating agencies if evidence of hazardous materials is encountered or if conditions are encountered that can be considered an immediate endangerment to the public's health or welfare. Therefore, Kleinfelder recommends that a copy of this report be provided to the current property owner for submittal to the Alameda County Department of Environmental Health (ACDEH).

Wahler Monitoring Well

No VOCs or SVOCs were detected in the water sample collected. A water sample from the Wahler monitoring well (MW-1) was also analyzed for plutonium. The results were 0.308 pCi/L ± 0.165 (plutonium 238) and 0.460 pCi/L ± 0.200 (plutonium 239). The concentration of plutonium detected in Kleinfelder's groundwater sample from MW-1 is above the PRG of 0.16 pCi/L for plutonium 238 tap water. The only known source of plutonium in the vicinity of the site is LLNL. Regulatory agencies in California generally do not hold property owners responsible for soil or groundwater contamination that originates from an off site source. The expense and/or liability associated with investigation or remediation of contaminants from an off site source would typically fall upon the responsible party. However, it is Kleinfelder's recommendation the domestic well on site be sampled for the presence of plutonium prior to its use as a potable water supply. as well as TPH and related constituents

With the exception of 10 µg/kg xylenes, no VOCs or SVOCs were reported for the soil drum sample. The soil in the drums can be spread on-site.

Domestic Well

No organic chemicals or PCBs were detected. Total coliform was measured at <2 coliforms per 100 milliliters. No values were reported above primary MCLs for cyanide, nitrate, nitrite, fluoride, or radionuclides. The recommended secondary aesthetic standards were exceeded for chloride and specific conductance. However, based on the results of the Wahler monitoring well (MW-1) sampling, it is recommended that the domestic well be sampled for plutonium prior to its use as a potable water supply.

Oil Wells

No visual or olfactory indications of hydrocarbons were noted. No readings were noted on the photoionization detector used to screen soil in the field. Three soil samples were submitted for analysis. No extractable petroleum hydrocarbons were reported. The three samples submitted to the laboratory were also analyzed for EPA priority pollutant metals. With the exception of arsenic in sample KT2-S1, the results of the metals analyses do not exceed the U.S. EPA industrial PRGs. The result for arsenic (3.0 mg/kg) in sample KT2-S1 is greater than the cancer PRG of 2.4 mg/kg, but less than the non-cancer PRG of 22 mg/kg. No background samples were collected for comparison. Considering the proposed use of the site as a paved corporation yard,

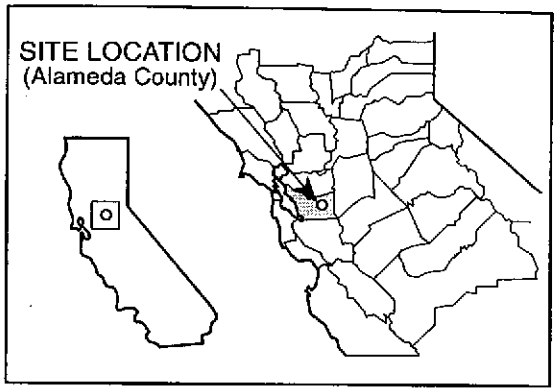
this single reported arsenic concentration is unlikely to be a concern to human health. Kleinfelder does not recommend additional sampling or assessment in the vicinity of the three former oil wells on-site.

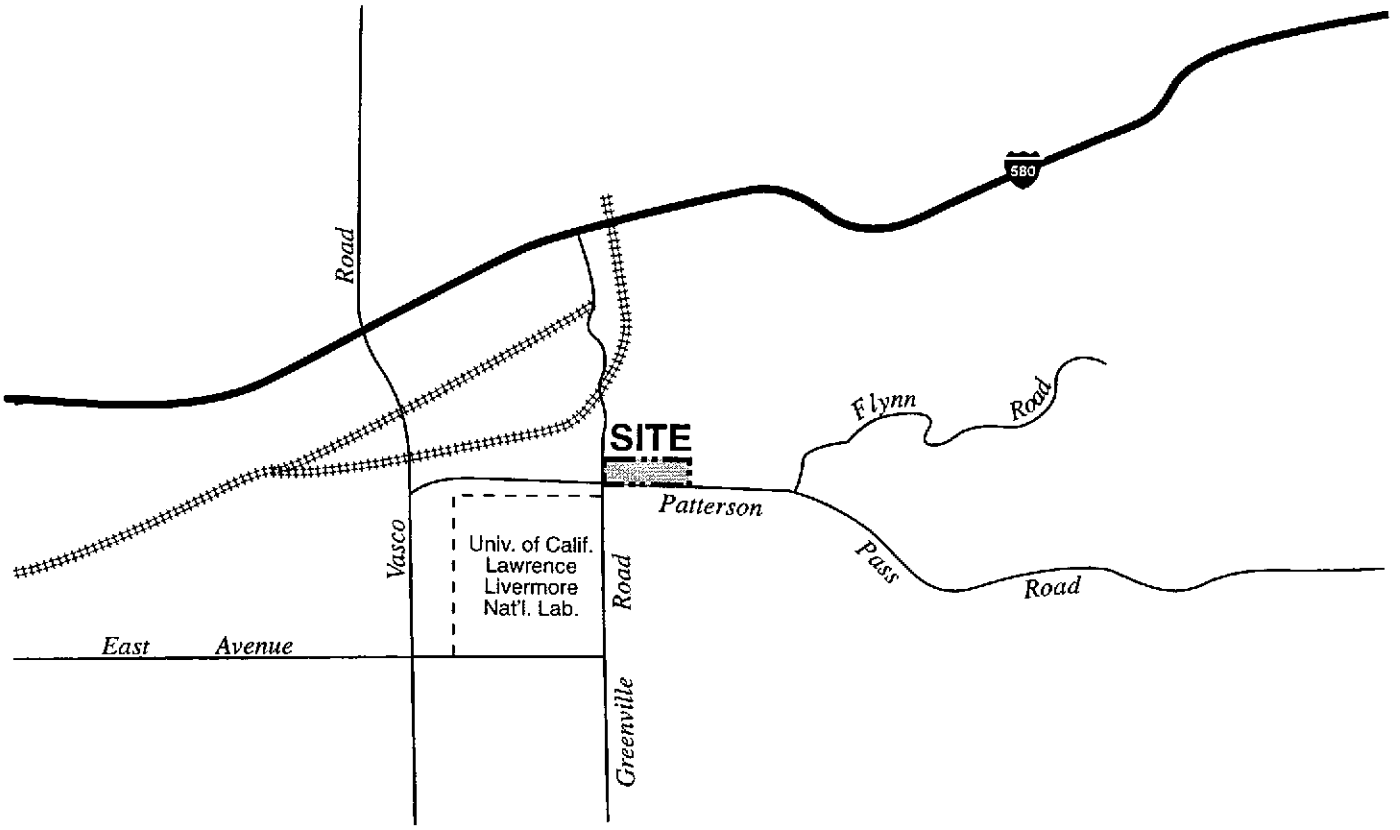
6. LIMITATIONS

Kleinfelder has prepared this report in accordance with the generally accepted standards of care which exist in Northern California at the time of writing. The conclusions in this report are based on work performed by Kleinfelder, laboratory analysis performed by Chromolab, Inc. and geophysical survey data provided by Norcal Geophysical Consultants. It should be recognized that definition and evaluation of geologic and chemical subsurface conditions are difficult. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and/or historic conditions applicable to the site. The conclusions of this assessment are based on field observations and analytical results obtained from soil and water samples collected from the site. More extensive studies may further reduce the uncertainties associated with this assessment. Kleinfelder should be notified for additional consultation if the client wishes to reduce the uncertainties beyond the level associated with this report. No warranty, expressed or implied, is made.

Kleinfelder offers various levels of investigative and engineering services to suit the varying needs of different clients. Although risk can never be eliminated, more detailed and extensive investigations yield more information, which may help our clients understand and manage the level of risk. Since detailed investigation and analysis involves greater expense, our clients participate in determining levels of service which provide adequate information for their purposes at acceptable levels of risk.

This document may be used only by the client and only for the purposes stated within a reasonable time from its issuance. Any party other than the client who wishes to use this document shall notify Kleinfelder of such intended use. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party.





N

APPROXIMATE SCALE: 1" = 1-1/4 miles

0 1-1/4 2-1/2

KLEINFELDER

Drawn By: D. Shelhart
Project No. 23-482965-ESA

Date: 6/18/97
Filename: 1048C.fh7

SITE LOCATION MAP

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE
1

Corrobilt Container (adjacent)

Marathon Dr.

Undeveloped Vacant (adjacent)

Greenville Road

Vacant Agricultural

drainage

MW-3 (Wahler)

Corral (adjacent)

Trees

Farm House

Domestic Well & Storage Tank

MWT-1

MWT-2

Underground Storage Tank Farm

Existing Structure

MWT-3

Vacant Agricultural oil wells Water Treatment Plant (adjacent)

Fenced Vacant (adjacent) LLNV

Patterson Pass Road

McCulloch-Smith et ux Well 2 Abandoned Oil Well

McCulloch-Smith et ux Well 1 (Hershey Well) Abandoned Oil Well

Former Oil Product Pipe Line

Former Aboveground Storage Tank Area

Abandoned Dry Hole

MW-1 (Wahler)

Tx0 Production Co. "Smith 6-1"

Patterson Pass Road

Power Sub Station (adjacent)

Agricultural with Rural Residences and oil wells (adjacent)

N

APPROXIMATE SCALE IN FEET: 1" = 200'

0 100 200 400

EXPLANATION

- Approximate Location Existing Monitoring Well
- Power Lines
- Fence/Property Line
- Pole Mounted Transformer
- Capacitor (pole mounted)

KLEINFELDER

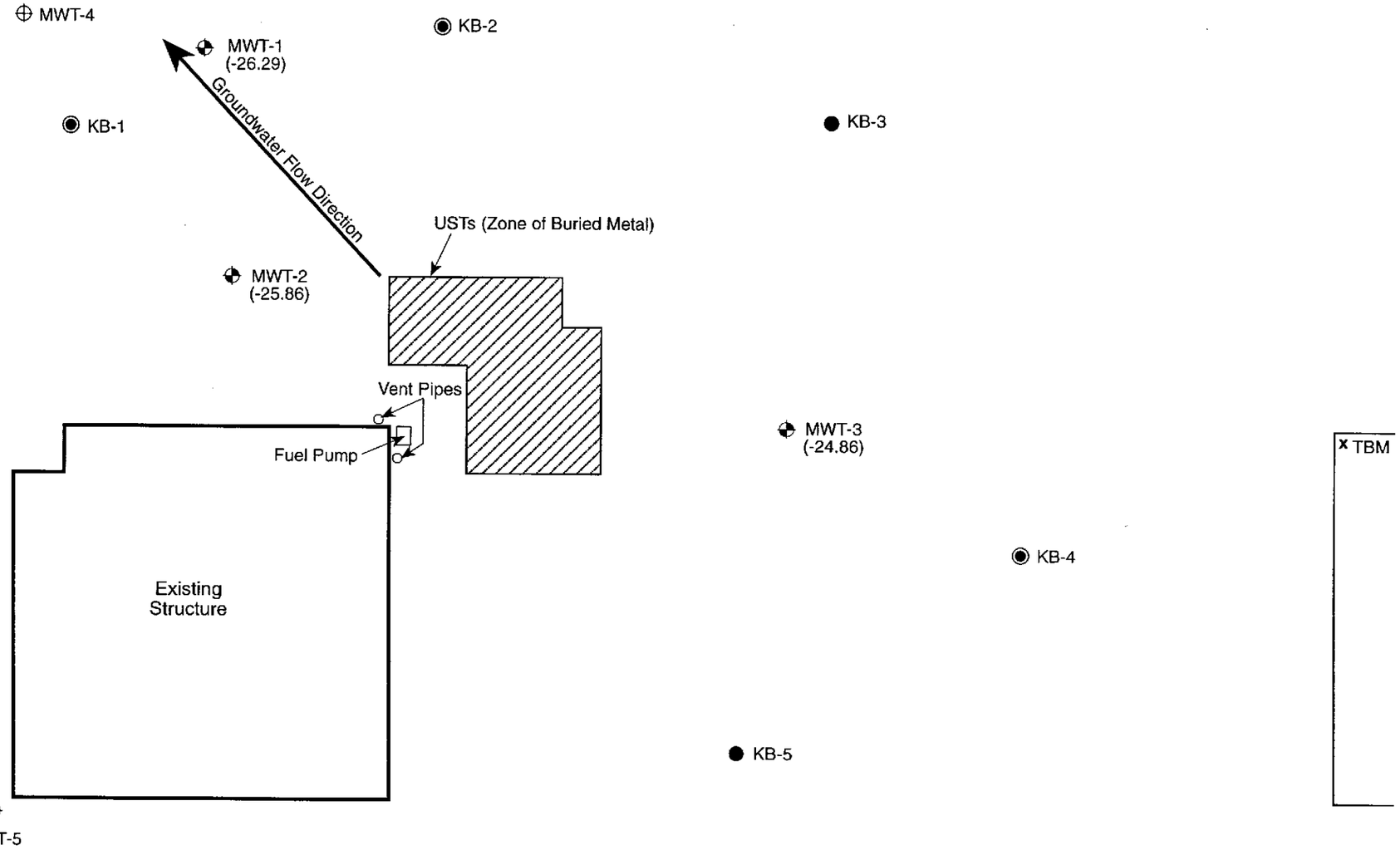
Drawn By: D. Shelhart
Project No. 23-482965-ESA

Date: 3/10/97
Filename: 1048B.fh7

SITE MAP

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 2



N

APPROXIMATE SCALE IN FEET: 1" = 10'

0 2 4 10 20

LEGEND

KB-5 ● Soil Boring
KB-4 ◉ Hydropunch Boring
MWT-3 ⊕ Monitoring Well with Relative Groundwater Elevations March 26, 1997
MWT-5 ⊕ Proposed Monitoring Well
TBM x Temporoary Brnch Mark

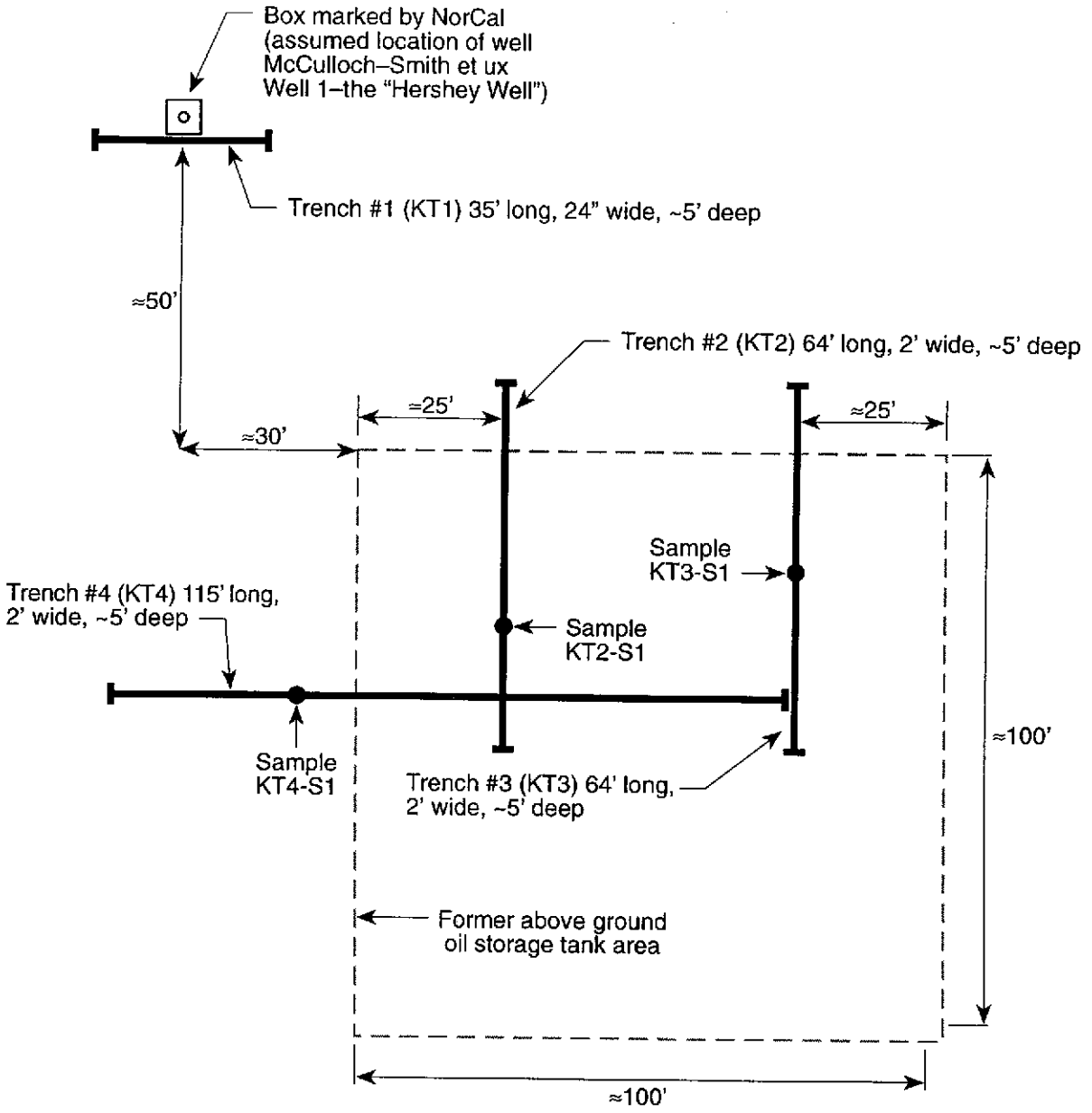
KLEINFELDER

Drawn By: M. Bussanich
Project No. 23-482965-ESA
Date: 4-14-97
Filename: 1105A.fh7

MONITORING WELL and BORING LOCATION MAP

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 3



KLEINFELDER

Drawn By: D. Shelhart	Date: 5/5/97
Project No. 23-482965-ESA	Filename: 1105B.fh7

TRENCH LOCATION MAP

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE
4

TABLE 1
GROUNDWATER DEPTH/ELEVATIONS
UST MONITORING WELLS
FORMER HUMMINGBIRD HAVEN GLIDER AIRPORT
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA
Project No. 23-482965-PH2

Well Number	Well Casing Elevation	Total Depth	Depth to Groundwater	Groundwater Elevation
March 26, 1997				
MWT-1	5.42	63.5	31.71	-26.29
MWT-2	5.36	48.6	31.22	-25.86
MWT-3	4.92	41.9	29.78	-24.86

Notes:
- On site temporary benchmark, assumed elevation 1.24 feet.
- Well casing elevation relative to on site temporary benchmark (in feet).
- Total depth (in feet) below well casing elevation.
- Depth to water measured from the top of well casing (in feet)
- Groundwater elevation relative to on site temporary benchmark (in feet)
- Total depth of wells as measured on 3/26/97.

TABLE 2
SUMMARY OF ANALYTICAL RESULTS--SOIL SAMPLES
UNDERGROUND STORAGE TANK AREA
FORMER HUMMINGBIRD HAVEN GLIDER AIRPORT
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA
Kleinfelder Project No. 23-482965-PH2
April 1997 Sampling
Analyzing Laboratory -- Chromolab Inc.

Sample Identification	Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Total Xylenes (mg/kg)	MtBE (mg/kg)	TPH-Purgeable	TPH-Extractable			Total Lead (mg/kg)
						Gasoline (mg/kg)	Diesel (mg/kg)	Motor Oil (mg/kg)	Kerosene (mg/kg)	
KB1 @ 35'	ND	1.8	1.6	6.7	ND	140	ND	ND	ND	ND
KB1 @ 45'	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
KB2 @ 35'	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
KB2 @ 40'	ND	ND	ND	ND	ND	ND	4.4*	ND	ND	ND
KB3 @ 20'	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
KB3 @ 40'	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
KB4 @ 20'	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
KB5 @ 5'	ND	ND	ND	ND	ND	ND	1.1*	ND	ND	ND
KB5 @ 25'	ND	ND	ND	ND	ND	ND	1.1*	ND	ND	ND

Notes:
KB1 @ 45' = Kleinfelder Boring 1, sample depth 45 feet below existing ground surface
ND = None detected above analytical reporting limits shown on the laboratory data sheets
MtBE = Methyl tert-Butyl Ether
mg/kg = milligrams per kilogram (parts per million)
TPH = Total Petroleum Hydrocarbons
* Pattern recognition not confirmed

TABLE 3

SUMMARY OF ANALYTICAL RESULTS--WATER SAMPLES
UNDERGROUND STORAGE TANK AREA
FORMER HUMMINGBIRD HAVEN GLIDER AIRPORT
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA
Kleinfelder Project No. 23-482965-PH2
April 1997 Sampling
Analyzing Laboratory -- Chromolab Inc.

Sample Identification	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MtBE (ug/L)	TPH-Purgeable	TPH-Extractable			Total Lead (mg/L)
						Gasoline (ug/L)	Diesel (ug/L)	Motor Oil (ug/L)	Kerosene (ug/L)	
MWT-1	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.017
MWT-2	120	22	370	890	ND	5,400 *	ND	ND	ND	0.010
MWT-3	ND	ND	1.6	0.54	ND	ND	ND	ND	ND	0.018
KB1-W1	* 2.1	0.93	16	51	ND	220	64*	ND	ND	0.087
KB2-W1	ND	ND	1.4	5.4	ND	66	180*	ND	ND	0.25
KB4-W1	ND	ND	ND	ND	ND	ND	80*	ND	ND	0.17

Notes:
MWT-1 = Underground Storage Tank Monitoring Well 1.
KB1 @ 45' = Kleinfelder Boring 1, water sample 1.
ND = None detected above analytical reporting limits shown on the laboratory data sheets.
MtBE = Methyl tert-Butyl Ether
ug/L = micrograms per Liter (parts per billion)
mg/L = milligrams per Liter (parts per million)
TPH = Total Petroleum Hydrocarbons
* Pattern recognition not confirmed.

TABLE 4
SUMMARY OF ANALYTICAL RESULTS--SOIL SAMPLES
UNDERGROUND STORAGE TANK AREA
FORMER HUMMINGBIRD HAVEN GLIDER AIRPORT
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA
Kleinfelder Project No. 23-482965-PH2
April 1997 Sampling
Analyzing Laboratory -- Chromolab Inc.

Sample Identification	Total Kjeldahl Nitrogen	Phosphorous as Orthophosphate	Nitrogen as Nitrate	Nitrogen as Nitrite	Soil pH	Total Organic Carbon	Dry Weight Percent Moisture
KB1 @ 40'	372 ppm	0.7 ppm	6 ppm	1.0 ppm	7.89	0.97%	19.4
KB5 @ 15'	570 ppm	0.6 ppm	17 ppm	1.0 ppm	7.10	0.51%	15.0

Notes:
KB1 @ 40' = Kleinfelder Boring 1, sample depth 40 feet below existing ground surface.

TABLE 5
SUMMARY OF ANALYTICAL RESULTS
DOMESTIC WELL
FORMER HUMMINGBIRD HAVEN GLIDER AIRPORT
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA
Kleinfelder Project No. 23-482965-PH2
April 1997 Sampling
Analyzing Laboratory -- Chromolab Inc.

Sample Location	Domestic Well	Reporting Units
General Minerals		
Cyanide	ND	mg/L
Nitrate	6	mg/L
Nitrite	ND	mg/L
Fluoride	ND	mg/L
Total Hardness/CaCO3	385	mg/L
Total Alkalinity	329	mg/L
Carbonate	0	mg/L
Bicarbonate	329	mg/L
Hydroxide Alkalinity	0	mg/L
Sulfate	240	mg/L
Chloride	500	mg/L
MBAS	ND	mg/L
pH	7.91	std. units
Specific Conductance	2600	umhos/cm
General Physical		
Threshold Odor	ND	Threshold
Color	5	Color Units
Turbidity	0.37	N.T.U.
Organic Chemicals (502.2)		
All consituents	ND	ug/L
Coliform		
Total Coliform	<2	coliforms per 100 ml
PCBs		
All consituents	ND	ug/L
Radionuclides		
gross alpha	9.80	pCi/L
gross beta	2.73	pCi/L
tritium	262	pCi/L
strontium 90	1.13	pCi/L
radon 222	0.00	pCi/L
radium 228	1.67	pCi/L
total uranium	10.50	pCi/L

Notes:
ND = None detected above analytical reporting limits shown on the laboratory data sheets.
ug/L = micrograms per Liter (parts per billion)
mg/L = milligrams per Liter (parts per million)

TABLE 6
Summary of Soil Sampling Results
Former Hershey Oil Well
8638 Patterson Pass Road
Livermore, California
Project No. 23-482965-PH2

Site Number	KT2	KT3	KT4			Regulatory and Other Limits		
Date Sampled	4/8/97	4/8/97	35528					
Sample ID #	KT2-S1	KT3-S1	KT4-S1					
Sample Depth								
Laboratory ID #	125182	125183	125184	Reporting Limit	Reporting Units			
Analyzing Laboratory	Chromolab	Chromolab	Chromolab					
TPH EXTRACTABLE								
(as diesel)	ND	ND	ND	1.0	mg/kg			
(as motor oil)	ND	ND	ND	50	mg/kg			
(as kerosene)	ND	ND	ND	1.0	mg/kg			
						STLC mg/l	TTLC mg/kg	PRG mg/kg
METALS by EPA 6010A/7471								
Antimony	ND	ND	ND	2.0	mg/kg	15	500	680
Arsenic	**3.0**	**2.1**	**2.0**	1.0	mg/kg	5	500	2.4*
Beryllium	ND	**0.55**	**0.50**	0.50	mg/kg	0.75	75	1.1
Cadmium	ND	ND	ND	0.50	mg/kg	1.0	100	850
Chromium	**18**	**21**	**19**	1.0	mg/kg	5	2,500	450
Copper	**12**	**14**	**11**	1.0	mg/kg	25	2,500	63,000
Lead	**5.2**	**5.8**	**5.3**	1.0	mg/kg	5	1,000	1,000
Mercury	ND	ND	ND	0.050	mg/kg	0.2	20	NE
Nickel	**24**	**28**	**27**	1.0	mg/kg	20	2,000	34,000
Selenium	ND	ND	ND	2.0	mg/kg	1.0	100	8,500
Silver	ND	ND	ND	1.0	mg/kg	5	500	8,500
Thallium	ND	ND	ND	2.0	mg/kg	7	700	120
Zinc	**26**	**26**	**22**	1.0	mg/kg	250	5,000	100,000

Notes:

ND - Not Detected Above Analytical Reporting Limits.
NE - Elemental Mercury PRG Not Established.
PRG - EPA Preliminary Remediation Goals for Industrial Sites.
STLC - Soluble Threshold Limit Concentration.
TTLC - Total Threshold Limit Concentration.
* Cancer PRG, Non-cancer PRG for Arsenic is 22 mg/kg.

TABLE 7

Summary of Soil/Water Sampling Results

Wahler Monitoring Well and 55-Gallon Drums

8638 Patterson Pass Road

Livermore, California

Project No. 23-482965-PH2

Sample Identification	VOC's-EPA 8240 (soil mg/kg)	SVOC's- EPA 8270 (soil mg/kg)	Plutonium 238 (pCi/L +/- sigma error)	Plutonium 239 (pCi/L +/- sigma error)
Soil Drums KD-1-4	total xylenes = 10	ND	NA	NA
Sample Identification	**VOC's-EPA 8260 (water ug/L)**	**SVOC's- EPA 8270 (water ug/L)**	**Plutonium 238 (pCi/L +/- sigma error)**	**Plutonium 239 (pCi/L +/- sigma error)**
Water Sample MW-1 **	ND	ND	0.308 +/- 0.185	0.460 +/- 0.200

Notes:

mg/kg - milligrams per kilogram

NA - Not analyzed for this constituent.

ND - None detected above laboratory reporting limits

pCi/L - picocuries per liter.

SVOC's - Semivolatile organic compounds

ug/L - micrograms per liter

VOC's - Volatile organic compounds

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600 FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 8638 Patterson Pass Road. See attached map

CLIENT
Name The DeSilva Group
Address _____ Voice _____
City _____ Zip _____

APPLICANT
Name Kleinfelder (Keith Powers) Fax 510-484-5838
Address 7133 Koll Center Parkway Voice _____
City Pleasanton Zip 94566-3101

TYPE OF PROJECT Environmental Investigation X

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	___	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other _____
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger 6" HSA
Cable ___ Other _____

DRILLER'S LICENSE NO. C57512268

WELL PROJECTS
Drill Hole Diameter ___ in. Maximum
Casing Diameter ___ in. Depth ___ ft.
Surface Seal Depth ___ ft. Number ___

GEOTECHNICAL PROJECTS
Number of Borings 5 Maximum
Hole Diameter 6 in. Depth 50 ft.

ESTIMATED STARTING DATE 3/24/97
ESTIMATED COMPLETION DATE 3/24/97

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE K BR Date 3/18/97

FOR OFFICE USE

PERMIT NUMBER 97182
LOCATION NUMBER _____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

(C.) GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 20 Mar 97
Wyman Hong

91992

NORCAL GEOPHYSICAL CONSULTANTS INC.

NORCAL

LETTER OF TRANSMITTAL

TO: Kleinfelder
3077 Fite Circle
Sacramento, CA 95827

ATTN: Ms. Laurie Racca

REF: Geophysical Survey
DeSilva Property, Livermore, CA

VIA: MAIL: REG() PRIORITY() **UPS RED:(X)** FED.EXP:() CA OVERNIGHT:()

ENCLOSED IS/ARE THE FOLLOWING/COMMENTS:

Two (2) copies of final report for the above referenced.

BY: Ted A. Heinse

DATE: April 17, 1997

1350 INDUSTRIAL AVENUE SUITE A • PETALUMA, CA 94952
TELEPHONE (707) 763-1312 • FAX (707) 762-5587

NORCAL GEOPHYSICAL CONSULTANTS INC.

NORCAL

April 15, 1997

Ms. Laurie Racca
Kleinfelder
3077 Fite Circle
Sacramento, CA 95827

Dear Ms. Racca,

This letter presents the findings of a geophysical investigation conducted at the DeSilva property in Livermore, California. The investigation was performed on March 27 and 31, 1997 by NORCAL Geophysicist, Ted A. Heinse and Geophysical Technician, Robert L. Black.

We investigated four sites at the property located at 8638 Patterson Pass Road. These sites are referred to as the UST Site, and Well Sites 1, 2, and 3. Kleinfelder delineated the UST Site and the center of the Well Site 1 survey area. We used a map provided by Kleinfelder to scale distances from known reference points to locate Well Sites 2, and 3.

PURPOSE AND SCOPE OF WORK

The objective of the geophysical investigation at the UST Site is to verify the locations of the underground storage tanks (UST's). The objective at the three Well Sites is to determine whether abandoned oil wells and associated mud pits exist. The scope of work included collecting and analyzing the data, marking the locations of the detected features in the field, and presenting our findings in a written report.

RATIONALE AND METHODOLOGY

We used the vertical magnetic gradient (VMG), electromagnetic (EM), ground penetrating radar (GPR), and electromagnetic line location (EMLL) methods to map variations in subsurface conditions. The VMG method was used to determine the presence of buried ferrous metal that could represent an abandoned steel cased well. The EM method was used to locate conductivity highs that may indicate the presence of a possible mud pit. The GPR method was used to identify variations in the shallow subsurface electrical properties that may be indicative of former excavations and UST's. The EMLL method was used to detect buried metal and further characterize detected VMG and GPR variations.

1350 INDUSTRIAL AVENUE SUITE A • PETALUMA, CA 94952
TELEPHONE (707) 763-1312 • FAX (707) 762-5587

NORCAL

Our instrumentation consisted of a Scintrex ENVI-MAG magnetometer, a Geonics EM31-DL Ground conductivity meter, a Geophysical Survey Systems, Inc. SIR-2 Subsurface Interface Radar System with a 500 megahertz (MHZ), and a Fisher TW-6 inductive pipe and cable locator.

SITE DESCRIPTION

UST Site

The locations of the pertinent site features are shown on the Geophysical Survey Map of the UST Site, Plate 1. This site is located in the northeastern portion of the property. The survey area encompasses the area to the northeast of the Building and measures 50 feet (east-west) by 60 feet (north-south). This area is flat, open, and covered with short grasses and gravel. A gas pump, and suspected UST vent pipes are attached to the northern and eastern walls of the Building. Suspected UST fill-ports are located to the northeast of the Building.

Well Sites

The Well Site 1, 2, and 3 survey areas are located in the southeastern, southcentral, and southwestern portions of the property, respectively. Each of these areas are flat and covered with low to medium height grasses. The vertical metal pole in the center of the Well Site 1 survey area is the only notable surface feature at these three sites. The location of the metal pole is shown on the Geophysical Survey Map of Well Site 1, Plate 2. Location references for the other sites are indicated on the respective maps.

DATA ACQUISITION

Horizontal Control

Prior to collecting the geophysical data, we established a horizontal control system (survey grid) with an easting and northing coordinate system. The survey grid at the UST Site measures 50 feet (east-west) by 60 feet (north-south). The grids at the Well Sites measured 100 feet square and were centered over the suspected well locations. We used a fiberglass measuring tape to locate the baselines, and grid nodes. The grid nodes at all four areas were marked with fluorescent pink spray paint. In addition, we used pin flags to mark the baselines and a few intermediate grid node points.

NORCAL

Survey Coverage

We collected GPR and EMLL data at the UST Site along north-south and east-west trending traverses spaced five feet apart, as shown on Plate 1. GPR and EMLL data collected at Well Site 1 were obtained along north-south and east-west trending traverses as necessary to characterize subsurface targets. We obtained VMG and EM data over the three Well Sites at five foot intervals along north-south trending traverses spaced five feet apart.

DATA ANALYSIS

Computer Data Processing and Interpretation

The VMG and TC data were down loaded to a field computer. We contoured the data sets using the software package SURFER (Version 5.02) by Golden Software. SURFER was used to calculate an evenly spaced array of values (grid) based on the observed field data. Finally, these grid values were used to produce the Vertical Magnetic Gradient and Terrain Conductivity Contour Maps for the respective sites.

Generally, the earths magnetic field and terrain conductivity varies smoothly throughout a given region and is manifested on contour maps as widely spaced contour lines. Significant variations are represented on the Contour Maps by closely spaced contours. The zones of closely spaced contours are compared to the observed surface metal or structures within each survey area. Areas where there are variations and no associated surface sources are considered anomalous and potential areas for buried objects.

Actual anomaly magnitude and shape are dependent on the relative position and size of the buried objects with respect to the location of the data points. In general, anomaly magnitude will decrease and anomaly width will increase as distance (depth) to the source increases.

GPR Profiles Review

Variations in subsurface conditions produce changes in the GPR reflection characteristics. Analysis of these changes provide information regarding the difference in subsurface materials or locations of buried UST's, debris, and buried pipelines, and are typically represented by discontinuous and parabolic reflection patterns.

NORCAL

RESULTS

UST Site

The results of the geophysical investigation at the UST site are shown on the Geophysical Survey Map of the UST Site, Plate 1. The EMLL data obtained over this site indicate that buried metal exists within a zone northeast of the Building. The approximate limits of this zone are shown on Plate 1. The presence of the suspected fill-ports indicates that the buried metal is probably UST's. The GPR data obtained over this site did not reveal large hyperbolic reflection patterns within the upper 2-3 feet that are typical of UST's. Since we did not observe these characteristic reflection patterns we estimate that the metallic sources exist at depths greater than the penetration limits of the GPR, about 3 feet. As a result we cannot estimate the orientation, size, or number of UST's that may exist.

The GPR data did resolve zones of discontinuities in the subsurface materials. One of these zones corresponds with the location of the zone of buried metal described above and probably represents the limits of a former excavation. The two northern zones probably represent subtle shallow stratigraphic variations. These zones are also shown on Plate 1.

Well Sites

The results of the VMG and EM surveys at the well sites are shown on the Vertical Magnetic Gradient and Terrain Conductivity Contour Maps for Well Sites 1, 2, and 3, Plates 2-4 respectively.

The VMG Contour Map of Well Site 1 (Plate 2) shows two significant VMG variations, one in the northwest portion, the other in the central portion. The variation in the northwest portion is not of a magnitude typical of a steel cased well. The GPR and EMLL data obtained over this area indicate the presence of a metal object that measures about three feet square. The location of this object was marked in the field with spray paint and a survey stake, and is noted on Plate 2 as "Buried Metal". The VMG variation in the central portion is probably due, at least in part, to the vertical metal pole described above. However, the steepest magnetic gradients appear not to be symmetrical around the pole. Instead the gradients are offset to the south suggesting that there is an additional metallic source. This additional metallic source could be a possible well. The Well Site 1 TC Contour Map shows a zone of high conductivity that could be representative of a mud pit in the vicinity of the possible well location. Further definition of these possible subsurface features will require excavating in these areas.

NORCAL

The VMG Contour Maps of Well Sites 2 and 3 (Plates 3 and 4) do not exhibit any high magnitude contour closures typical of abandoned oil wells. The contour closures shown on these maps coincide with the locations of the pin-flags used to mark the baselines of the survey area and probably do not represent significant subsurface metallic sources.

The Terrain Conductivity Contour Maps of Well Sites 2 and 3 (Plates 3 and 4) show relatively uniform conductivity throughout the sites and do not show localized areas that could be interpreted as possible mud pits.

STANDARD CARE AND WARRANTY

The scope of NORCAL's services for this project consisted of using geophysical methods to characterize the shallow subsurface. The accuracy of our findings is subject to specific site conditions and limitations inherent to the techniques used. We performed our services in a manner consistent with the level of skill ordinarily exercised by members of the profession currently employing similar methods. No warranty, with respect to the performance of services or products delivered under this agreement, expressed or implied, is made by NORCAL.

We appreciate having the opportunity to provide our services to Kleinfelder. We look forward to working with you on future projects.

Respectfully,

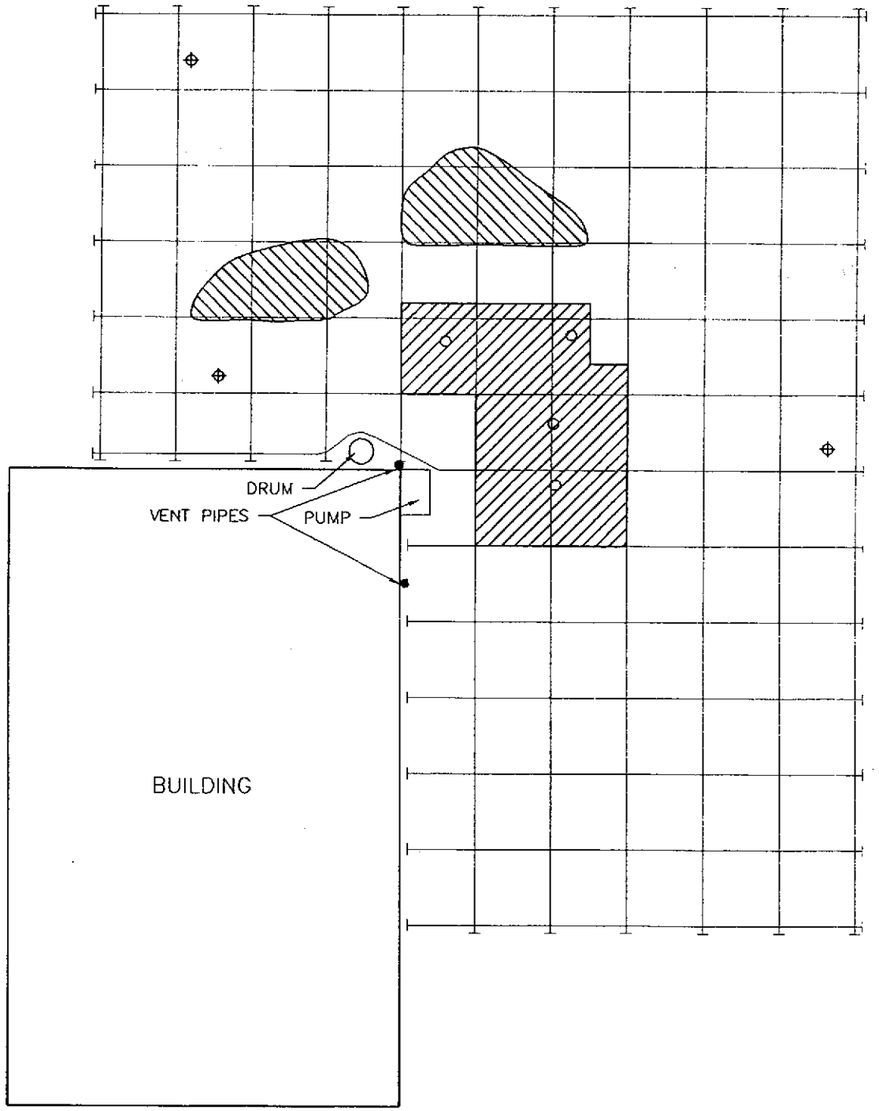
NORCAL Geophysical Consultants, Inc.

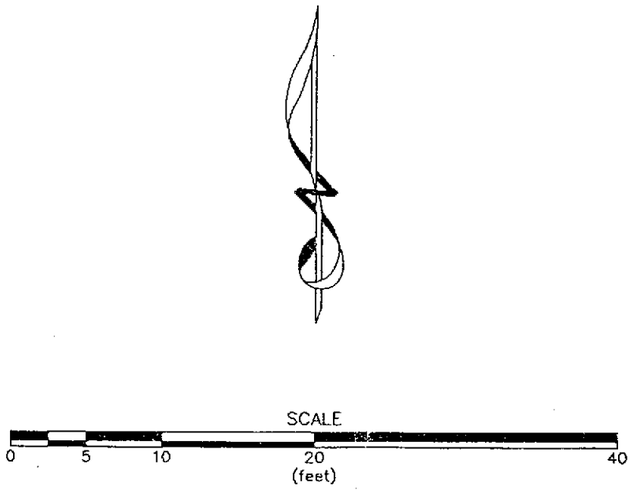
Ted A. Heinse
Staff Geophysicist

Kenneth G. Blom
Geophysicist, GP-887

TAH/KGB/jh

Enclosures: Plates 1-4





LEGEND

- GPR TRAVERSE
- EXISTING MONITORING WELL
- SUSPECTED UST FILL PORT
- ZONE OF BURIED METAL
- NON-METALLIC SUBSURFACE MATERIAL VARIATION

NORCAL

NORCAL GEOPHYSICAL CONSULTANTS INC.

JOB #: 97-177.33
DATE: 4/97

DRAWN BY: SPD
APPROVED: TAH

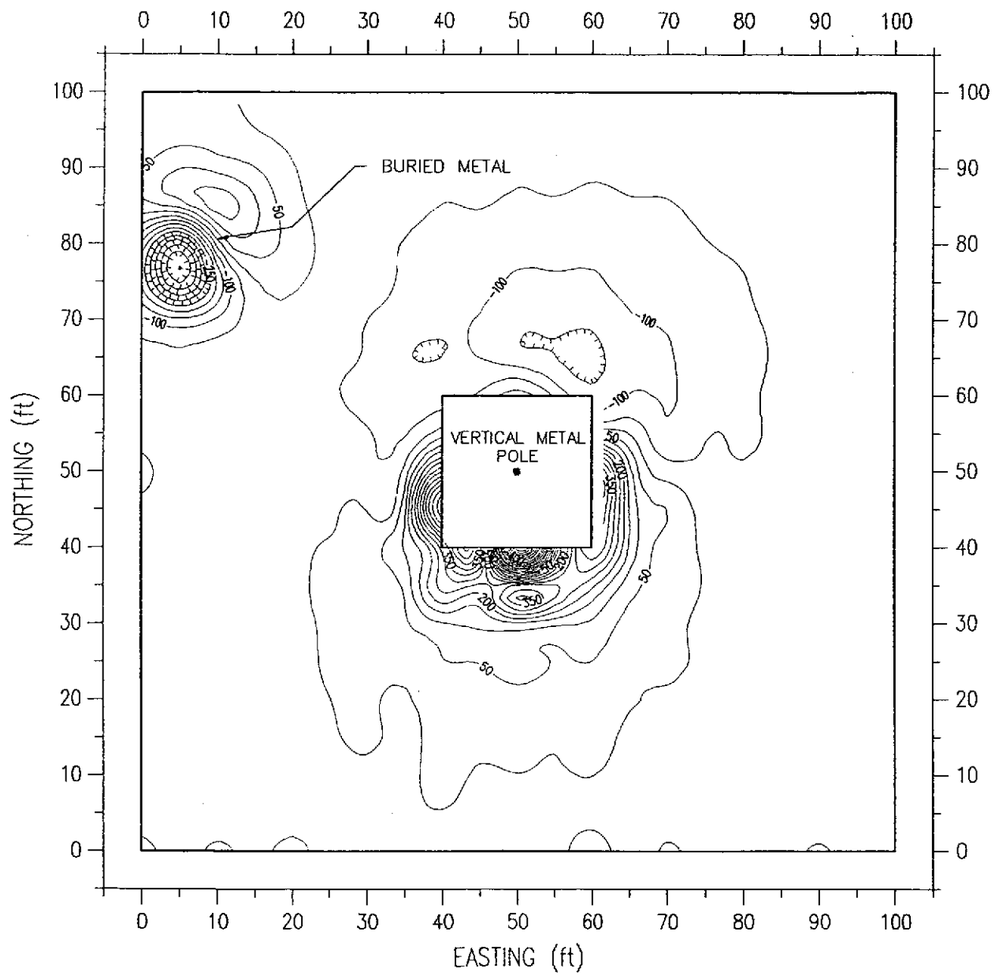
SURVEY LOCATION:
DeSILVA PROPERTY
LIVERMORE, CALIFORNIA

CLIENT: KLEINFELDER

GEOPHYSICAL SURVEY MAP
UST SITE

PLATE
1

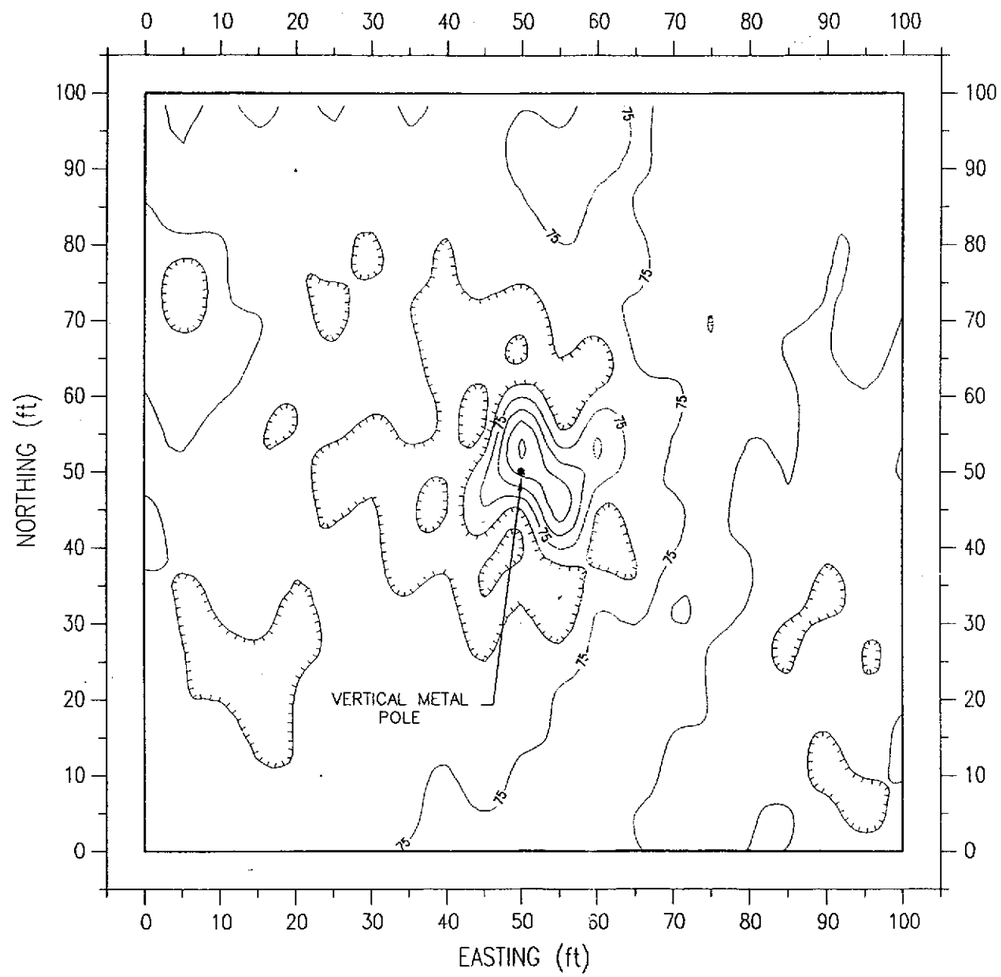
VERTICAL MAGNETIC GRADIENT CONTOUR MAP



LEGEND

VERTICAL MAGNETIC GRADIENT CONTOUR
CONTOUR INTERVAL = 50 g/m

TERRAIN CONDUCTIVITY CONTOUR MAP



LEGEND

TERRAIN CONDUCTIVITY CONTOUR
CONTOUR INTERVAL = 5 mS/m

SCALE
0 10 20 40 80
(feet)

NORCAL GEOPHYSICAL CONSULTANTS INC.

JOB #: 97-177.33
DATE: 4/97
DRAWN BY: SPD
APPROVED: AH

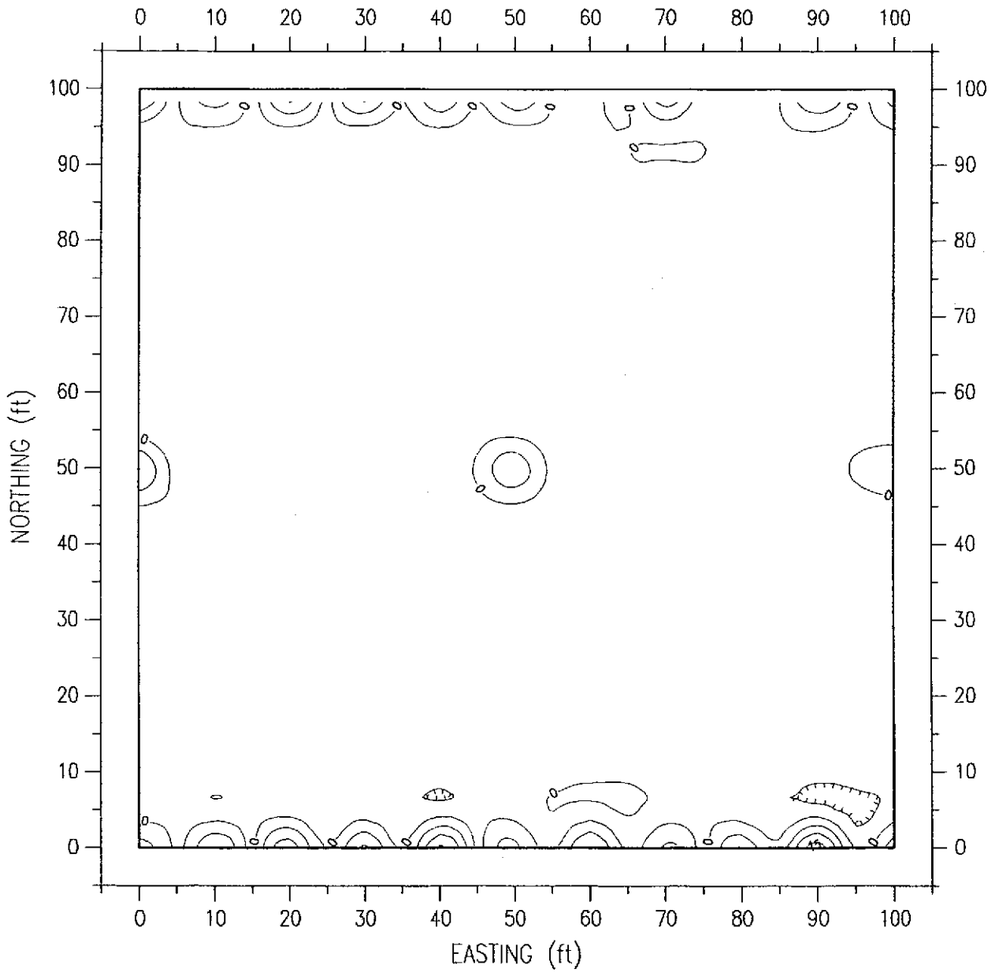
SURVEY LOCATION:
DeSILVA PROPERTY
LIVERMORE, CALIFORNIA

CLIENT: KLEINFELDER

GEOPHYSICAL SURVEY MAP
WELL SITE 1

PLATE 2

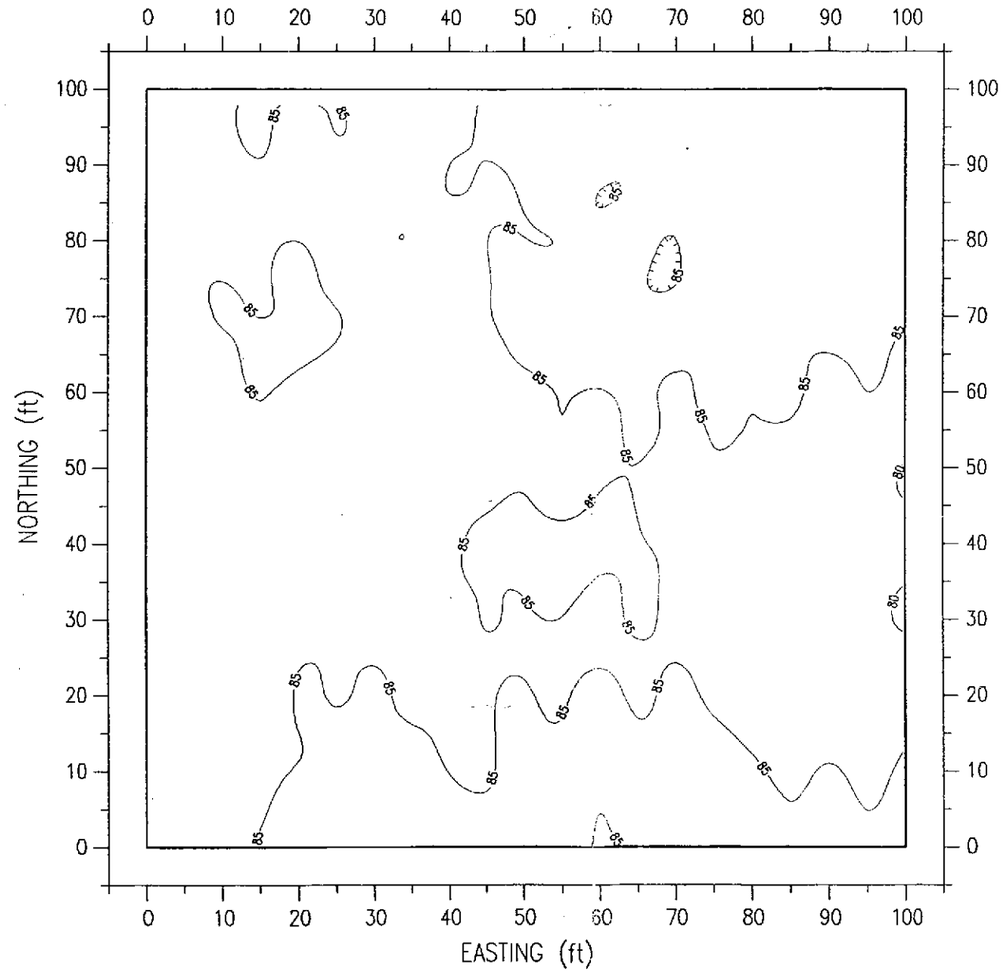
VERTICAL MAGNETIC GRADIENT CONTOUR MAP



LEGEND

0 — VERTICAL MAGNETIC GRADIENT CONTOUR
CONTOUR INTERVAL = 5 g/m

TERRAIN CONDUCTIVITY CONTOUR MAP



LEGEND

0 — TERRAIN CONDUCTIVITY CONTOUR
CONTOUR INTERVAL = 5 mS/m

LOCATION REFERENCE: GRID (0,0) IS LOCATED 1140 FEET EAST AND 50 FEET NORTH OF THE METAL POLE LOCATED AT WELL SITE 1.

SCALE
0 10 20 40 80
(feet)

NORCAL GEOPHYSICAL CONSULTANTS INC.

JOB #: 97-177.33
DATE: 4/97
DRAWN BY: SPD
APPROVED: TAH

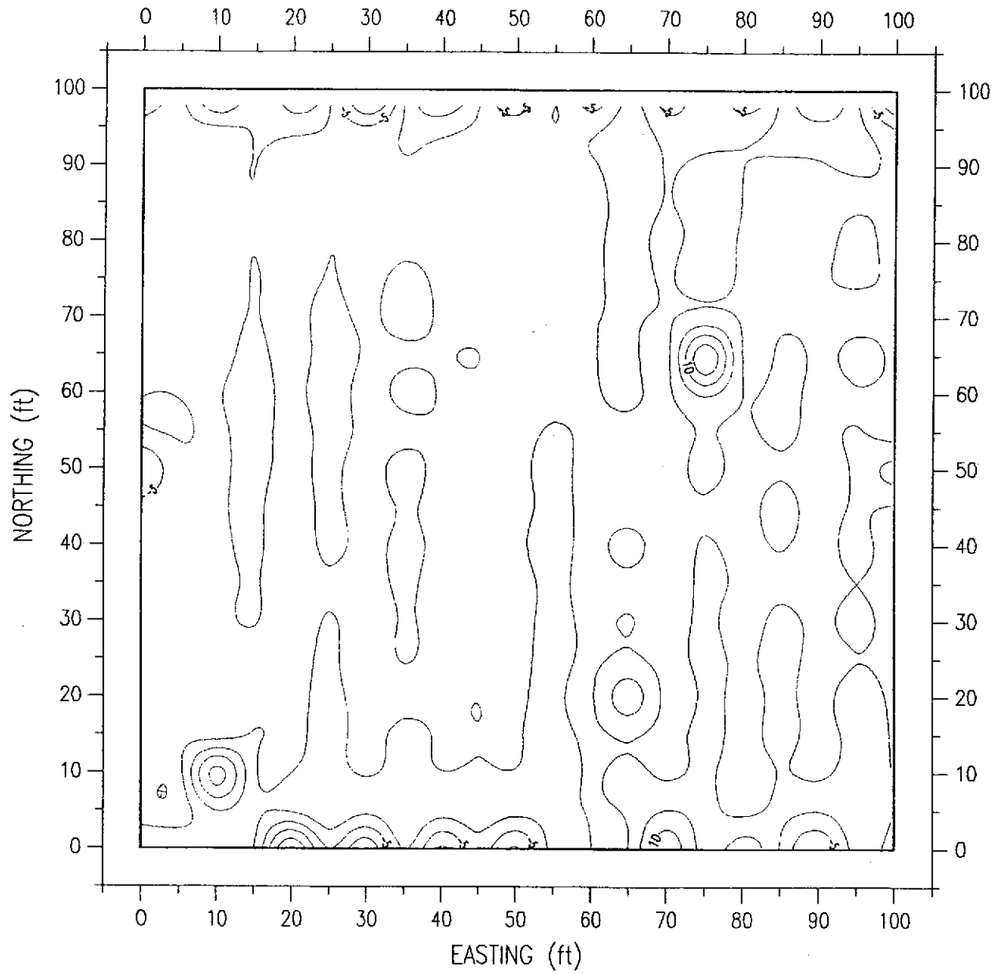
SURVEY LOCATION:
DeSILVA PROPERTY
LIVERMORE, CALIFORNIA

CLIENT: KLEINFELDER

GEOPHYSICAL SURVEY MAP
WELL SITE 2

PLATE 3

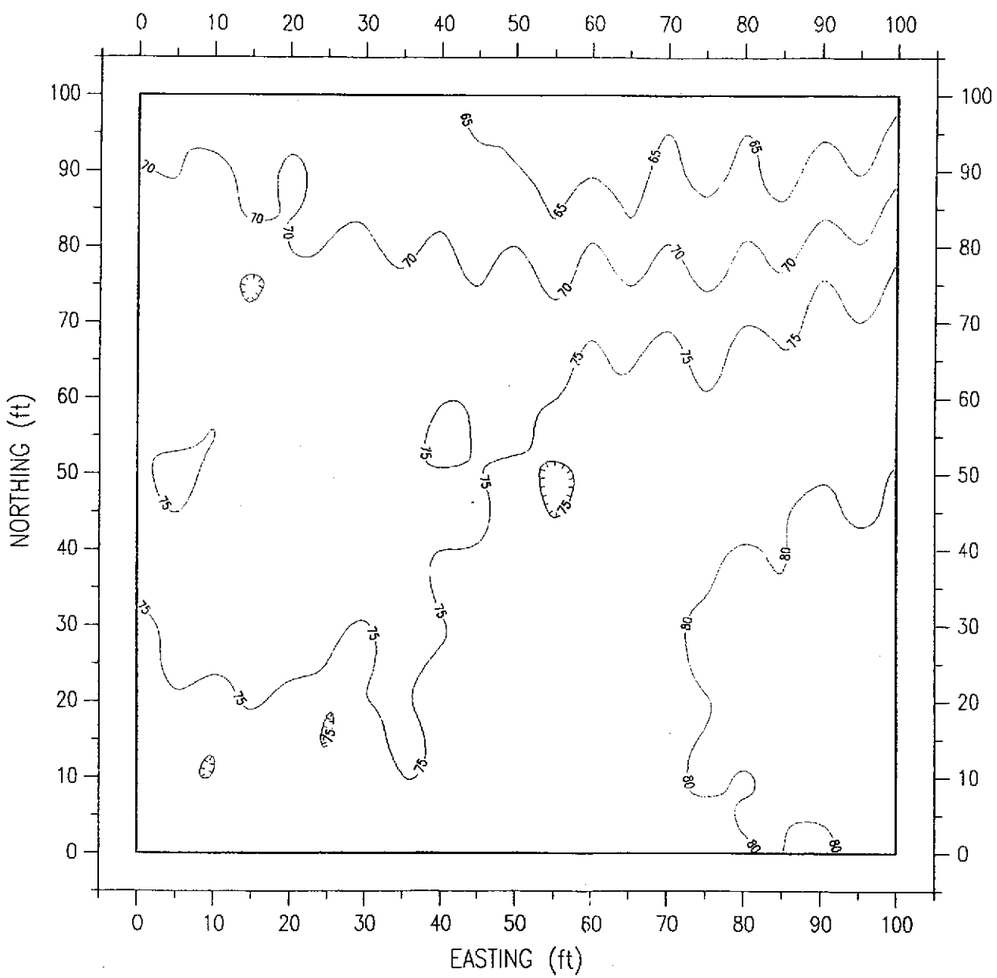
VERTICAL MAGNETIC GRADIENT CONTOUR MAP



LEGEND

VERTICAL MAGNETIC GRADIENT CONTOUR
CONTOUR INTERVAL = 5 g/m

TERRAIN CONDUCTIVITY CONTOUR MAP



LEGEND

TERRAIN CONDUCTIVITY CONTOUR
CONTOUR INTERVAL = 5 mS/m

LOCATION REFERENCE: GRID (0,0) IS LOCATED 250 FEET EAST AND 90 FEET NORTH OF THE NORTHEAST CORNER OF THE INTERSECTION OF OLD PATTERSON PASS AND GREENVILLE ROAD.

SCALE
0 10 20 40 80
(feet)

NORCAL GEOPHYSICAL CONSULTANTS INC.

JOB #: 97-177.33
DATE: 4/97
DRAWN BY: SPD
APPROVED: TAH

SURVEY LOCATION:
DeSILVA PROPERTY
LIVERMORE, CALIFORNIA

CLIENT: KLEINFELDER

GEOPHYSICAL SURVEY MAP
WELL SITE 3

PLATE 4

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. MW-1 (Weather)

Date: 3-26-97 Weather: Sunny, light Breeze ≈ 70°F Sheet 1 of 1

Project: Grenville Rd. Submitted By: Stephen Quayle Date: 3-26-97

Project No.: 23-4529-65/ESA Reviewed By: Date:

Purpose of Log: Development ☒ Sampling

Equipment & Decontamination

	Bailer	Disposable Bailer	Suction Pump	Submers-able Pump	Dedicated Pump	Other
Purging Equipment	~~Bailer~~	Disposable Bailer	Suction Pump	Submers-able Pump	Dedicated Pump	Other
Sampling Equipment	Bailer	Disposable Bailer	Suction Pump	Submers-able Pump	Dedicated Pump	Other

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.		90292	02154	90294
Calibration Date/Time	NA	3-26-97/ 1102	3-26-97/ 1055	3-26-97/

Decontamination Methods	Wash		Rinse I		Rinse II		Rinse III	
TSP / Alconox / Other:	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool	DI / Tap / Other	Steam / Hot / Cool
Vol. (gal):			N/A					
Source:								
Decon. Notes:								

Development / Purge Record

Well Security: good / fair / poor Well Integrity: good / fair / poor Locked: yes / no

Purge Volume (CV) = T.D. − DTW × Factor × 1 C.V = 1.3 gal

Well Diam.: ~~2"~~ 4" = 50' ft. − 42.82 ft. × 2"=0.17 4"=0.66 × ~~0.66~~ 3 film = 3.9 gal

Free Product?: Odor: no / yes Floating Product: none / sheen feet thick

	T							
Time (24-hr)		11:28	11:36	11:42	11:50			Replicate Goals
Gallons Purged	0	1.3	2.6	3.9	5.2			
Surged (minutes)	↑		08					(dev. only)
pH	S	8.~~58~~ KP	7.56	7.54		Dewatered 1:55		±0.5
Temperature (°C)	T	20.1	20.1	20.2				±1°C
Cond. (µmhos/cm)	A	1690	1710	1760		(1)		±10%
Salinity (‰)	R	1.2	1.2	1.3				±10%
Turbidity (NTU's)	T	2.62	42.2					<50 NTUs
Color	↓	clear	slightly cloudy	↑ 200				Colorless
Depth to Water								±0.01'

Reference Point: TOC Other:

Sample Log

Sample #	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
MW-1	1235	3	40ml	VOA	HCl	—	EPA 624/ 8260	C
		2	1L	Amber	—	—	EPA 625/ 8270	H
		2	1L	Amber	-	—	Platinum &	R
							Breakdown products	O
								M
								A
								LAB

Misc

Other Observations: Well dewatered, tagged it TD = 56' not 50.

Wait for 80% recharge, = ~~56~~ 45.46 @ 1229 80% recharge reached.

1235 Started Sampling. New lock installed.

Final Check: VOAs free of bubbles? yes / no / NA Well Locked? yes / no / NA

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. MWT-1

Date: 3-26-97 Weather: Sunny light Breeze ≈ 70°F Sheet 1 of 1

Project: Greenville Rd. Submitted By: Stephen Quayle Date: 3-26-97

Project No: 23-4829-65/ESA Reviewed By: Date:

Purpose of Log — Development X Sampling

Equipment & Decontamination

Purging Equipment	Bailer	(Disposable Bailer)	Suction Pump	Submersible Pump	Dedicated Pump	Other:
Sampling Equipment	Bailer	(Disposable Bailer)	Suction Pump	Submersible Pump	Dedicated Pump	Other:

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.		~~SBA 90292~~ 90292	02154	90294
Calibration Date/Time	NA	3-26-97 / 1102	3-26-97 / 1055	3-26-97 /

Decontamination Methods	Wash		Rinse I		Rinse II		Rinse III	
	DI	Steam	DI	Steam	DI	Steam	DI	Steam
TSP	Tap	Hot	Tap	Hot	Tap	Hot	Tap	Hot
Alconox	Other	Cool	Other	Cool	Other	Cool	Other	Cool
Other:								
Vol. (gal):			NA					
Source:								
Decon. Notes:								

Development / Purge Record

Well Security: (good) fair poor Well Integrity: (good) fair poor Locked: (yes) no

Purge Volume (CV) T.D. – DTW × Factor × 1 C.V = 5.6 gal

Well Diam.: ☑ 2" ☐ 4" 63.5 ft. – 31.71 ft. × (2"=0.163 4"=0.663) × = 11.2 gal 16.8

Free Product?: Odor: (no) yes 1420 Floating Product: (none) sheen film feet thick

								Replicate Goals
Time (24-hr)	~~1359~~	1439	1459					
Gallons Purged	0	5.6	11.2	16.8				
Surged (minutes)	↑							(dev. only)
pH	S	7.30	7.34	7.29				±0.10
Temperature (°C)	T	21.5	21.4	21.5				±1°C
Cond. (µmhos/cm)	A	2300	2250	2500				±10%
Salinity (‰)	R							±10%
Turbidity (NTU's)	T	>200	>200	>200				<50 NTUs
Color	↓	Cloudy	Cloudy	Cloudy				Colorless
Depth to Water								±0.01'

Reference Point: TOC Other:

Sample Log

Sample #	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
MWT-1	1525	3	40ml	VOA	HCL	—	TPH-Gas/BTXE MTBE	C
		2	1L	Amber	—	—	TEPH	H
		1	250ml	Plastic	HNO_3	—	Total Lead	R
								O
								M
								A
								L AB

Misc

Other Observations:

Final Check: VOAs free of bubbles? (yes) / no / NA Well Locked? (yes) / no / NA

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. MWT-2

Date: 3-26-97 Weather: Sunny, Light Breeze ≈ 70°F Sheet 1 of 1

Project: Greenville Rd. Submitted By: Stephen Quayle Date: 3-26-97

Project Number: 23-4829-65/5A Reviewed By: Date:

Purpose of Log — Development X Sampling

Equipment & Decontamination

Purging Equipment	Bailer	Disposable Bailer	Suction Pump	Submersible Pump	Dedicated Pump	Other:
Sampling Equipment	Bailer	Disposable Bailer	Suction Pump	2" Submersible Pump	Dedicated Pump	Other:

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.		90292	02154	90294
Calibration Date/Time		3-26-97 / 1102	3-26-97 / 1055	3-26-97 /

Decontamination Methods	Wash		Rinse I		Rinse II		Rinse III	
TSP / Alconox / Other:	DI Tap Other	Steam Hot Cold	DI Tap Other	Steam Hot Cold	DI Tap Other	Steam Hot Cold	DI Tap Other	Steam Hot Cold
Vol. (gal):			NA					
Water Source:								
Decon. Notes:								

Development / Purge Record

Well Security: good fair poor Well Integrity: good fair poor Locked: yes no

Purge Volume (CV)	T.D.	–	DTW	X	Factor	1 C.V.	X	3 C.V.
Well Diam.: 2" 4"	48.6 ft.	–	31.22 ft.	X	2" = 0.163, 4" = 0.653	3	X	9

Free Product?: Odor: no yes Floating Product: none sheen slight film feet thick

Time (24-hr)	16:14	16:19	1624	1630				Replicate Goals
Gallons Purged	0	3	6	9				
pH	↓	7.28	7.21	7.21				±0.50
Temperature (°C)	↓	20.1	20.0	20.0				±10%
Cond. (µmhos/cm)	↓	3690	3600	3650				±10%
Salinity (‰)	↓	2.5	2.5	2.5				±10%
Turbidity (NTU's)	↓	>200	>200	>200				<50 NTUs
Color	↓	Black	Blackish	Light Brown				Colorless
Depth to Water								
Reference Point:	TOC	Other:						

Sample Log

Sample Number	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
MWT-2	1635	3	40ml	VOA	HCl	—	TPH-Gas/BTEX MTBE	C
	1652	2	1L	Amber	—	—	TEPH	H
		1	250ml	Plastic	HNO_3	—	Total Lead	R
								O
								M
								A
								LAB

Misc

Other Observations: Wait for 80% recharge 34.7' 1658 1589

1652 80% recharge reached, began Sampling.

Final Check: VOAs free of bubbles? yes / no / NA Well Locked? yes / no / NA

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. MWT-3

Date: 3-26-97 Weather: Sunny, light Breeze ≈ 70° F Sheet 1 of 1

Project: Greenville Rd. Submitted By: Stephen Quayle Date: 3-26-97

Project Number: 23-4829-65/ESA Reviewed By: Date:

Purpose of Log ☐ Development ☒ Sampling

Equipment & Decontamination

Purging Equipment	Bailer	~~Disposable~~ Bailer	Suction Pump	Submersible Pump	Dedicated Pump	Other:
Sampling Equipment	Bailer	~~Disposable~~ Bailer	Suction Pump	2" Submersible Pump	Dedicated Pump	Other:

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.		90292	02154	90294
Calibration Date/Time		3-26-97 / 1102	3-26-97 / 1055	3-26-97 /

Decontamination Methods	Wash	Rinse I	Rinse II	Rinse III
	DI Tap Other / Steam Hot Cold	DI Tap Other / Steam Hot Cold	DI Tap Other / Steam Hot Cold	DI Tap Other / Steam Hot Cold
TSP / Alconox / Other:				
Vol. (gal):		NA		
Water Source:				
Decon. Notes:				

Development / Purge Record

Well Security: (good) fair poor Well Integrity: (good) fair poor Locked: (yes) no

Purge Volume (CV): T.D. – DTW X Factor 1 C.V. X 3 C.V.

Well Diam.: ☐ 2" ☐ 4": 41.9 ft. – 29.78 ft. X (2"=0.175, 4"=0.663) 2.1 X ~~6.3~~ 6.3

Free Product?: Odor: no yes Floating Product: none sheen film feet thick

Time (24-hr)	1537	1541	1544	1548				Replicate Goals
Gallons Purged	0	2.1	4.2	6.3				
pH		7.06	7.09	7.11				±0.50
Temperature (°C)		20.1	20.2	~~20.1~~ 20.3				±10%
Cond. (µmhos/cm)		3700	3550	3400				±10%
Salinity (‰)								±10%
Turbidity (NTU's)		>200	>200	>200				<50 NTUs
Color		~~Stsk~~ Cloudy	Cloudy	cloudy				Colorless
Depth to Water								

Reference Point: TOC Other:

Sample Log

Sample Number	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
MWT-3	1555	3	40ml	VOA	HCl	—	TPH-Gas/BTEX MTBE	C
		2	1L	Amber	—	—	TEPH	H
		1	250ml	Plastic	HNO_3	—	Total Lead	R
								O
								M
								A
								LAB

Misc

Other Observations: @ 1548 WL (TOC) 32.4

Final Check: VOAs free of bubbles? (yes) / no / NA Well Locked? (yes) / no / NA

KA KLEINFELDER

WELL DEVELOPMENT & SAMPLING LOG

WELL NO. Domestic well

Date: 3-26-92 Weather: Sunny, Light Breeze ≈ 70°F Sheet ___ of ___

Project: Greenville Rd Submitted By: Date:

Project Number: 23-4829-65/ESH Reviewed By: Date:

Purpose of Log ☐ Development ☒ Sampling

Equipment & Decontamination

Purging Equipment N A	Bailer	Disposable Bailer	Suction Pump	Submersible Pump	Dedicated Pump	Other: out of use	
Sampling Equipment N A	Bailer	Disposable Bailer	Suction Pump	2" Submersible Pump	Dedicated Pump	Other: out of use	

Test Equipment	Water Level	pH	Conductivity	Turbidity
Meter No.		N A		
Calibration Date/Time				

Decontamination Methods	Wash		Rinse I		Rinse II		Rinse III	
TSP / Alconox / Other:	DI / Tap / Other	Steam / Hot / Cold	DI / Tap / Other	Steam / Hot / Cold	DI / Tap / Other	Steam / Hot / Cold	DI / Tap / Other	Steam / Hot / Cold
Vol. (gal):			N A					
Water Source:								
Decon. Notes:								

Development / Purge Record

N A Well Security: good fair poor Well Integrity: good fair poor Locked: yes no

Purge Volume (CV) T.D. ___ ft. N A DTW ___ ft. X Factor (2"=0.175, 4"=0.663) 1 C.V. ___ X ___ C.V.

Well Diam.: ☐ 2" ☐ 4"

Free Product?: Odor: no yes Floating Product: none sheen film ___ feet thick

								Replicate Goals
Time (24-hr)								
Gallons Purged	0							
pH								±0.50
Temperature (°C)								±10%
Cond. (umhos/cm)								±10%
Salinity (‰)								±10%
Turbidity (NTU's)								<50 NTUs
Color								Colorless
Depth to Water								

Reference Point: TOC Other:

Sample Log

Sample Number	Time	Quantity	Volume	Type	Preserv.	Filtration	Analysis	Lab
DW	15:00	2	40ml	VOA	—	—	Radon 222	
		3	1L	Amber	—	-	Radionuclides	
		2	1L	Amber	—	—	~~TCBS~~ Pest	
		2	40ml	VOA	HCl	—	502.2	
		1	250ml	Plastic	NAOH	-	Cyanide	
		2	250ml	Plastic	HNO_3		Title 22 Inorganics	
		1	1L	Amber	H_2SO_4		Nitrate/Nitrite	
		2	250ml	Plastic	)		title 22 general physical	

Misc

Other Observations:

2	1L	Ambers	)		title 22 organic
3	40ml	VOA	—	—	Fecal Coliform

Final Check: VOAs free of bubbles? yes / no / NA Well Locked? yes / no / NA

KA KLEINFELDER

RECORD OF WATER LEVEL MEASUREMENTS

Date: 3-26-97 Weather: Sunny, Light Breeze ~70°F Sheet 1 of 1

Project: Livermore Property Submitted By: Stephen Quayle Date: 3-26-97

Project No.: 23-4829-651 ESA Reviewed By: Date:

Instrument Number: 11928

Well Number	Time (opened/measured) (24-hr)	Sensitivity Setting (est. %)	Measuring Point (M.P.)	Measurement 1	Replicate Measurements (if requested) 2	3	Notes	(Locked? Y)
MWT-1	1015	100	TOC	31.71				Y
							5.0 ppm on PID	
MWT-2	1016			31.22				Y
							23 ppm on PID	
MWT-3	1017			29.78				Y
							8 ppm on PID	
MW-1 (water)	1040	↓	↓	42.82				Y

M.P.: TOC, GS, Cover ring, Other:

All Wells Locked – (YES) / NO

KLEINFELDER
INSTRUMENT CALIBRATION LOG

STAFF (name and employee no.) Stephen Quayle / Keith Powers Date 3-26-97

PROJECT NUMBER 23-482965-ESA PROJECT LOCATION Greenville Road

pH Instrument (make and number) Orion SA210 (90292) Conductivity Instrument (make and number) YSI 33 - (02154)

	Time	Temp.	pH4	pH7	pH10		1000 umho	10,000 mmho	0.0 umho
Reading (Initial)	~~1055~~ 1102 SBQ			~~7.15~~ 6.80 SBQ		Reading (Initial)			
Calibration (Initial)	~~1058~~ 1106 SBQ			~~7.01~~ 7.01 SBQ		Calibration (Initial)			
Reading (Intermediate)	~~1059~~ 1107 SBQ		~~4.20~~ 4.30 SBQ	~~4.20~~ SBQ		Reading (Intermediate)			
Calibration (Intermediate)	1109		4.06			Calibration (Intermediate)			
Reading (End of Day)	1637		4.52	7.28		Reading (End of Day)			

Comments:
~~Alert~~ Meter could not be adjusted any farther down for calibration. SBQ

Note: Fluid needs changing

Comments:
Zero Check
Red line
Good 1055

Turbidity Instrument (make and number) HF Instruments DRT15C (90294)

	0 NTU	0.02 NTU	___ NTU	Battery Check
Reading (Initial)		0.04		
Calibration		0.02		

NOTES:

KLEINFELDER

TECHNICIAN'S DAILY REPORT

Date 3-26-97 Hours

File No 23-482965-ESA Miles

Project Livermore Property Weather Sunny, light Breeze ≈ 70°F

Diary:

Kleinfelder Personnel: K. Powers, S. Quayle

Onsite Tail-gate H&S meeting

Check out site

Open UST wells allow to equilibrate

0:30 To MW-1 Wahler well

Calmeters,

1435 Sampled MW-1 (Wahler)

~~1525~~

~~MWT-1~~ Sampled MWT-1

1555 Sampled MWT-3

1652 Sampled MWT-2

1719 Depart Site for Lab. 1 Labled drum of Purge water left on Site.

Reviewed by: Signed: Stephen B. Quayle

4-3

KLEINFELDER

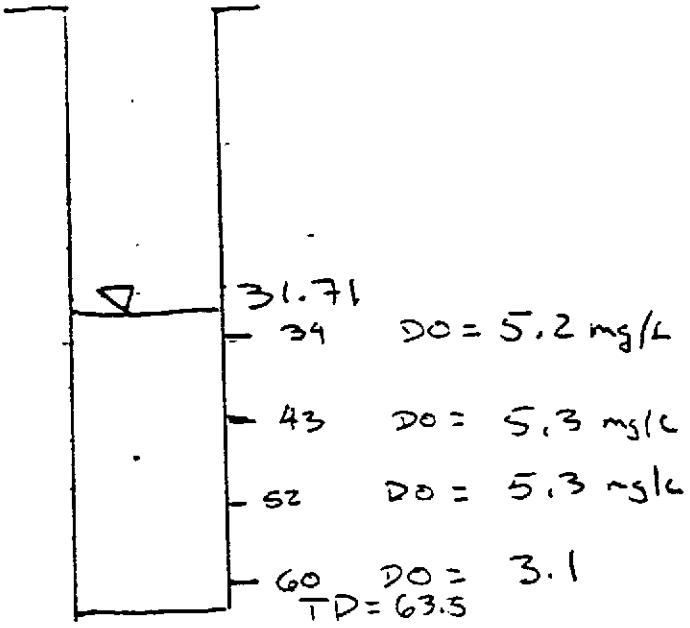
SHEET _____ OF _____

PROJECT NO. 23-4829-65/ESA

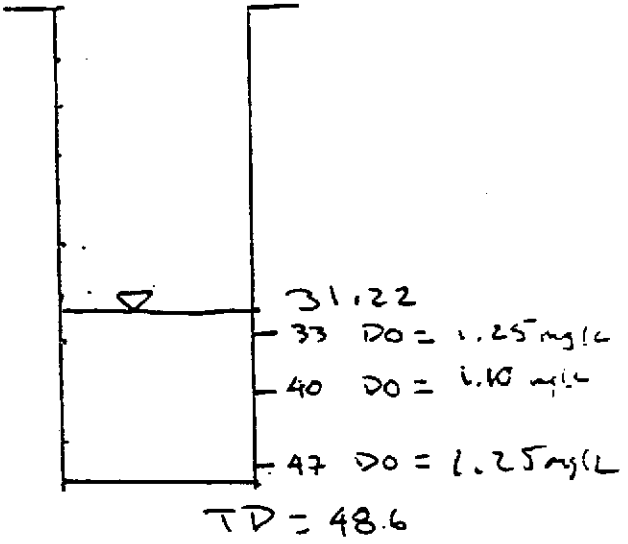
PROJECT Greenville Rd REVIEWED BY _____ DATE _____

SUBJECT DO Reading BY _____ DATE _____

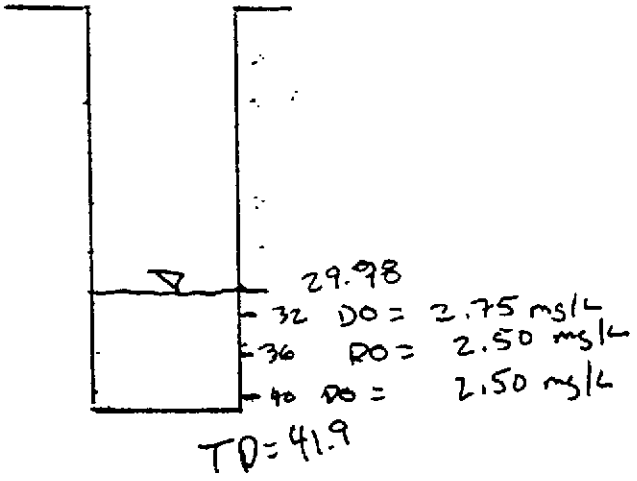
MWT-1



MWT-2



MWT-3



KLEINFELDER

DAILY REPORT

Date 3-31-97 Weather _____ Hours _____ Miles _____ Sheet 1 of 1

Project Greenville Rd Submitted by Stephen Quayle Date _____

Project Number 23-4829-65/ESA Reviewed by _____ Date _____

0800 Arrived on-site
0807 Drillers arrive on-site (Spectrum)
mike and mike
0812 Tail gate H&S Meeting
Calibrated microtip # 90318
0819 Set up @ KB-1
Hand augar ≈ 5'
1002 KB1-35 Sample
1024 KB1-45 Sample
1114 Sampled KB1-W1
Filled 3 Voas 40ml
2 Ambers 1L
1 Plastic 250ml
1145 Move off KB1
1149 Set up @ KB2
Hand augar ≈ 5'
1500 Set up @ KB3
Hand Augar
1515 Start drilling
1700 Completed KB3
1730 Depart Site.

KLEINFELDER

DAILY REPORT

Date 4-1-97 Weather _____ Hours _____ Miles _____ Sheet ___ of ___

Project Greenville Rd Submitted by Stephe Quayle Date _____

Project Number 23-4829-65/ESA Reviewed by _____ Date _____

0800 Arrive on site
Drillers on site
0805 Set up on KB4
PID Calibrated
Hand augar 5'
0832 Drilling KB4
1055 KB4-W1 Sampled
1108 Set up @ KB5
1243 Completed KB5
Clean up
Grout boring
1429 Depart Site
Additional 12 drum left on site.
Total of 13 drums ~~left~~ SDG on site.

KLEINFELDER

TECHNICIAN'S DAILY REPORT

Date 4/8/97 Hours

File No. 23-4829-65/ESA Miles

Project Greenville Rd. Weather

Diary: 7:30 start

7:55 on site, mark trench locations, calibrate PID, filled out labels & chain-of-custody, drew map of trench locations.

9:34 Desilva not on-site. Do not have a phone, going to find phone and call them.

10:00 was on hold ten minutes plus (~~he~~ James Summers line was busy) then phone cut out. Going to go back to the site and see if back hoe is there. ~~The~~

10:15 Back hoe is here, apparently Desilva called him @ 8:30 he had to come from Fremont.

10:25 start on KTI

No indication of petroleum hydrocarbons ~~on~~ any trenches.

14:20 back hoe leaves site.

14:30 I leave site in route for lab.

15:00 Drop off sample @ Lab (Chromalab)

15:30 @ KA Pleas

Conference call with Dan to Pam (KA Soc) on Livermore update. unload truck. make copies of notes, check maps.

17:00 finished

Reviewed by: _____ Signed: K RR

M-3

KLEINFELDER

DAILY REPORT

Date 4/8/97 Weather _____ Hours _____ Miles _____ Sheet ___ of ___

Project Greenville Rd. Submitted by KBR Date _____

Project Number 23-4829-65/ESA Reviewed by _____ Date _____

— Trench # (KT1) ~~x~~ 35' x 2'W x 5'D

- ≈ 2'-3' of clay ⇒ clayey sand to 5'
  Dark brown light brown
- No PID readings, no odors, no stained soil, no evidence of contamination, no sample taken.
- Photos 1-3 Trench #1, Stake (wooden) is presumed location of well.

— Trench #2 (KT2) ≈ 64' L x 2'W x 5'D

- ≈ 3' dark brown clay ⇒ light brown clayey sand to 5'
- took conformation sample (to confirm no contamination) KT2-S1 @ 11:12 ≈ midway of trench; ≈ 2.5' bgs out of bucket.
- No odors, no stained soil, no PID readings.
- Photos 4&5 of KT2, can see metal pole to left

— Trench #3 (KT3) ≈ 64' L x 2'W x 5'D

- ≈ 2-3' dark brown clay ⇒ light brown clayey sand to 5'
- took conformation sample (KT3-S1) @ 12:20 out of bucket
- no odors, no stained soil, all soil looked undisturbed/tight, no PID reading
- Photos 6&7 of trench #3

— Trench #4 (KT4) extended it further west than previously planned because I am not finding anything. (≈115' L x 2'W x 5'D

- took confirmatory sample (KT4-S1) @ 13:45.
- Pictures 8, 9, 10 KT4

APPENDIX D

KLEINFELDER FIELD PROTOCOL

D-1 FIELD PREPARATION

Before performing work in the field, environmental staff will review the scope of work, prepare a health and safety plan, coordinate the work to be done with their supervisor, assemble the necessary sample containers, and check, calibrate and clean equipment to be used in the field. Underground Service Alert (USA) also was contacted prior to work with the boring locations and the scheduled date of drilling. Additionally, a utility locating firm may be employed to check the boring locations.

D-2 DRILLING AND SUBSURFACE SOIL SAMPLING

D-2.1 Drilling

Soil borings were advanced using a truck-mounted drill rig, equipped with hollow stem augers. Subsurface soil samples were collected from the soil borings. While drilling, an experienced environmental geologist classifies the soil, logs the stratigraphy of the borings, and collects soil samples.

D-2.2 Qualitative Field Screening

An organic vapor detector, such as a H·NU, using a photo-ionization detector (PID) or a Foxboro flame-ionization detector (FID), was used to provide a qualitative screening of each soil sample collected from the borings. The organic vapor detector measures ionizable compounds in the air in parts per million by volume (ppmv). Field calibration was performed using a calibrated span gas. Ambient air was used to set the instrument to zero. The soil contained in the cone of the sampler or in a brass tube was exposed and screened with the organic vapor detector. The vapor reading was noted as the field screening result.

For the protection of the drilling crew, the organic vapor detector also was used to measure the volatile concentrations in the breathing zone prior to and during the drilling of the borings. Total ionizable hydrocarbon readings in excess of 1 ppmv may necessitate respiratory protection for the affected crew members. This requirement was included in the complete field health and safety plan developed for the project prior to the start of field work.

D-2.3 Collection of Soil Samples

Soil samples were collected approximately every 5 feet for field screening and logging. Samples were collected by advancing the boring to a point immediately above the desired sampling depth and then driving (vertical borings) or pushing (slant borings) a Modified California Sampler, lined with 2-inch diameter brass tubes, into the undisturbed soil. The sampler was then removed from the bottom of the boring. The ends of the bottom tube were covered with Teflon and sealed with tight fitting plastic caps.

Each sample was individually labeled. The label includes Kleinfelder's name, job number, the date and time the sample were collected, the employee number of the individual who performed the sampling, and a unique five-digit sample identification number. A custody seal may be placed on the sample in such a way that any attempt to tamper with the sample was easily visible.

D-2.4 Sample Handling

After labeling, the sample was immediately stored in an iced cooler for transport to Kleinfelder's office sample control or to the analytical laboratory. A Kleinfelder chain-of-custody form accompanies the cooler. The chain-of-custody form includes Kleinfelder's name, address and telephone number, the employee number of the individual who performed the sampling, the sample numbers, the date and time the samples were collected, the number of containers each sample occupies, and the analyses for which the samples were being submitted, if any. The chain-of-custody form was signed by each person who handles the samples, including all Kleinfelder employees and the receiving employee of office sample control or the analytical laboratory when the samples were delivered.

D-3 HYDROPUNCH GROUNDWATER SAMPLING

Hydropunch is a method to collect representative groundwater samples from boreholes without the need to install monitoring wells. This method is usually used as an exploration tool for screening groundwater quality and reducing the number of wells needed at a site. If required, monitoring wells can be installed later to verify the analytical results. The sampling protocol for Hydropunch sampling was as follows:

- A boring is drilled to the desired sampling depth, usually to the top of the groundwater surface, using hollow stem augers.
- Equipment used for Hydropunch sampling is decontaminated prior to use at each sampling location by steam cleaning, or by scrubbing in a trisodium-phosphate wash followed by a distilled water rinse.
- The Hydropunch system, consisting of a steel drive point attached to a stainless steel barrel with an internal PVC slotted screen, is driven two to three feet past the bottom of the boring into the uppermost water bearing zone. The barrel is connected to the surface using clean, 2-inch diameter hollow steel rods.
- The barrel is then pulled back from one to two feet exposing the internal PVC screen to the soil.
- Groundwater enters the barrel through the screen under hydrostatic pressure and is brought to the surface with a clean, Teflon or stainless steel bailer.
- The samples are immediately labeled and placed in an iced sample container. At the end of the day, the samples are delivered to the analytical laboratory under chain-of-custody control.

D-4 GROUNDWATER WELL AND PIEZOMETER INSTALLATION

D-4.1 Observation Well and Piezometer Construction

Construction details for shallow groundwater observation wells and piezometers are as follows:

- The well casing is 2-inch or 4-inch inside diameter, flush threaded joint, schedule 40 PVC pipe. The piezometer casing is 2-inch inside diameter, flush threaded joint, schedule 40 PVC pipe.

- The wells are constructed in 8-inch or 10-inch diameter borings and piezometer are constructed in 8-inch diameter borings.

- Well and piezometer screen sections are perforated with 0.01-inch or 0.02-inch factory-cut slots.

- The wells are constructed with screened sections according to the work plan and the top is set approximately 1-foot above the first water bearing sand. The piezometer is constructed with 5-feet of screen and is set approximately at the top of the first water bearing sand.

- The PVC pipe and end caps are steam cleaned prior to installation.

- The annular space between the screen and the wall of the boring is backfilled with clean sand to approximately 1 feet above the top of the perforated sections in the observation wells and to the top of the perforated section on the piezometer.

- A 3- to 5-foot bentonite plug is placed above the sand pack to provide a seal against surface water infiltration and to reduce the potential for cement grout to infiltrate into the water.

- The remaining annular space is filled to the surface with tremmied cement/bentonite grout to the surface.

- The well heads are enclosed in a water tight cement utility box set flush to the ground surface or in an above ground locking stove pipe.

D-4.2 Observation Well Development

The wells are developed to reduce the effects of drilling on the formation and to increase the effective hydraulic radius of the well.

The observation wells and piezometer are developed several weeks after installation to allow the grout to set. Each well is first sampled with a clear acrylic bailer to visually inspect for

hydrocarbon layer or sheen. If no product layer or sheen is observed on the water, the well is developed by surging, pumping or bailing. Surging along the screened interval of the well is performed to draw the sediment from the formation into the filter pack and the well, and to set the sand pack. The sediment laden water is purged from the well at a rate of between 0.75 to 10 gallons per minute (gpm) depending on recharge rate and casing size. Development continues until the discharge runs relatively clear of fines. Approximately 5 to 10 well volumes generally are removed from each monitoring well. Discharge water is stored in 55-gallon drums and left on site for later discharge or disposal by the client, depending on laboratory results.

D-4.3 Equipment Decontamination

To reduce the potential for cross-contamination between wells, developing equipment was washed in a trisodium phosphate solution and rinsed in distilled water or steam cleaned prior to use in the next monitoring well.

D-4.4 Well Survey

The locations of soil borings and monitoring wells, and the elevation of the top of the PVC casings was usually surveyed and tied into permanent markers, if readily available. Survey accuracy was 0.1 foot for the "x" and "y" coordinates and .01 foot for the "z" coordinate. The depth to static groundwater was measured from a set location at the top of the PVC casing. The depth of water was then subtracted from the elevation of the top of the well casing to provide a groundwater elevation for each monitoring well location.

D-5 GROUNDWATER MONITORING

D-5.1 Water Level Measurements

Water level measurements were made in the wells and piezometer prior to purging and sampling the wells. Measurement protocol was as follows:

1. The wells were opened and allowed to equilibrate with the atmosphere.
2. The water level probe was decontaminated in a trisodium phosphate wash, followed by a distilled water rinse, prior to use in each well.

3. Water level measurements were made using a conductivity-based water-level meter. Depth-to-water was generally measured from a surveyed mark on the north rim of the PVC well casing.

The water level measurements were converted to elevations using the surveyed casing elevations.

D-5.2 Groundwater Sampling

Groundwater samples were collected from the monitoring wells at the site. The sampling protocol for each well was as follows:

1. Down-well equipment (pumps, bailers, etc.) was decontaminated by steam cleaning, or by scrubbing in a trisodium-phosphate wash followed by a distilled water rinse, prior to use in each well. Bailer cord was replaced prior to use in each well.

2. The depth-to-water was measured using a conductivity-based water-level meter.

3. The volume of water standing in the well was calculated by subtracting the depth-to-water measurement from the depth of the well and multiplying by the appropriate conversion factor ($3.14*radius^2$, 0.16 for 2-inch wells, and 0.65 for 4-inch wells).

4. Three to five well volumes of water were purged from each well using a submersible pump, bladder pump, or Teflon bailer.

5. Physical parameters (pH, electrical conductivity, and temperature) were monitored for stability during purging. The physical parameter measurements were recorded on purge-and-sample logs, along with the time and volume of water purged at each measurement.

6. Samples were collected with a disposable bailer or bladder pump into appropriately prepared bottles provided by the analytical laboratory.

7. Samples were immediately labeled and placed in an iced sample container. At the end of the day, the samples were delivered to the analytical laboratory under chain-of-custody control. Sample handling was described in more detail in Section A-2.4.

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			*USCS SYMBOL*	*TYPICAL DESCRIPTIONS*
COARSE GRAINED SOILS (More than half of material is larger than the #200 sieve)	GRAVELS (More than half of coarse fraction is larger than the #4 sieve)	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
			GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES WITH LITTLE OR NO FINES
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVELS, GRAVEL-SILT-SAND MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS (More than half of coarse fraction is smaller than the #4 sieve)	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
			SP	POORLY-GRADED SANDS, SAND-GRAVEL MIXTURES WITH LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS, SAND-GRAVEL-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-GRAVEL-CLAY MIXTURES
FINE GRAINED SOILS (More than half of material is smaller than the #200 sieve)	SILTS AND CLAYS (Liquid limit less than 50)		ML	INORGANIC SILTS & VERY FINE SANDS, SILTY OR CLAYEY FINE SANDS, CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS & ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS (Liquid limit greater than 50)		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILT
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS & ORGANIC SILTS OF MEDIUM-TO-HIGH PLASTICITY
HIGHLY ORGANIC SOILS			PT	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

KLEINFELDER

Drafted By: DWA
Date: 4/14/97

Project No.: 23-482965-PH2
File Number:

UNIFIED SOIL CLASSIFICATION SYSTEM

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE

A-1

KEYSOIL 82965 4/14/97

LOG SYMBOLS


BULK / BAG SAMPLE


MODIFIED CALIFORNIA SAMPLER
(2-1/2 inch outside diameter)

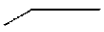

SPLIT SPOON SAMPLER
(2 inch outside diameter)


CONTINUOUS CORE SAMPLER


CALIFORNIA SAMPLER

N/R NO SAMPLE RECOVERY

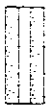

WATER LEVEL
(level where first encountered)
(level after completion)


SOIL CONTACT NOTED
WITHIN SAMPLE INTERVAL


SOIL CONTACT INFERRED
BETWEEN SAMPLE INTERVALS


SOLID PIPE
BACKFILLED WITH CEMENT GROUT


SOLID PIPE
BACKFILLED WITH BENTONITE PELLETS


SOLID PIPE
BACKFILLED WITH SILICA


SLOTTED PIPE
BACKFILLED WITH PEA GRAVEL


NO PIPE
BACKFILLED WITH BENTONITE CHIPS


NO PIPE
BACKFILLED WITH SILICA


NO PIPE
BACKFILLED WITH NATIVE SOIL

FID FLAME IONIZATION DETECTOR

PID PHOTOIONIZATION DETECTOR

GENERAL NOTES

1. *Lines separating strata represent approximate boundaries only. Actual transitions may be gradual.*
2. *No warranty is provided as to the continuity of soil conditions between individual sample locations.*
3. *Logs represent general soil conditions observed at the point of exploration on the date indicated.*
4. *In general, Unified Soil Classification designations presented on the logs were evaluated by visual methods only. Therefore, actual designations (based on laboratory tests) may vary.*

KEYLOGEW 82965 4/14/97

KLEINFELDER

Drafted By: DWA	Project No.: 23-482965-PH2
Date: 4/14/97	File Number:

LOG KEY

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE
A-2

Date Completed: 3/31/97

Surface Conditions: Unpaved.

Logged By: K. Powers/S. Quayle

Groundwater: Initially encountered at a depth of approximately 49 feet below existing site grade, finally at approximately 35-3/4 feet.

Total Depth: 51-1/2 feet

Depth, ft	FIELD: Sample Type	FIELD: Blows/6"	FIELD: PID ppmv	FIELD: Sample Number	Lithology	DESCRIPTION
						Approximate Surface Elevation (ft):
						FILL/CLAY/SAND: Hand augered to 5 feet: fill to about 6 inches, clay about 6 inches to about 1 foot, then sands
5		25 33 35	2			**Silty CLAY** (CL): Dark brown, stiff to very stiff, low to moderate plasticity
						Silty SAND (SM): Dark yellowish brown, dry, medium dense to dense, fine grained, some fines
10		0 50 100	0			**Silty SAND/Clayey SAND** (SM/SC): Dark yellowish brown, dry, dense to very dense, fine grained, some fines
15		22 28 34	0			**SAND** (SP): Light olive-brown, dry to moist, loose to medium dense, fine grained, trace fines
20		30 22 45	0			increasing moisture, increasing clay fraction
						Silty CLAY (CL): Dark brown, moist, medium stiff, moderate plasticity, some fines
25						

KLEINFELDER

Drafted By: DWA | Project No.: 23-482965-PH2

Date: 4/14/97 | File Number:

LOG OF BORING KB- 1

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 1 of 2

A-3

ENVBORING 82965 6/9/97

Depth, ft	FIELD: Sample Type	FIELD: Blows/6"	FIELD: PID ppmv	FIELD: Sample Number	Lithology	DESCRIPTION
						(Continued from previous plate)
		26 55	1			**Clayey SAND** (SC): Yellowish brown, moist, medium dense to dense, fine to medium grained some coarse grained, with trace rounded to well rounded coarse gravel
30		22 56	1			**Silty CLAY** (CL): Light olive-brown, moist, very stiff to hard, moderate to high plasticity, trace fine sand
35		10 24 39	400	KB1-35		olive-gray, medium stiff
40		16 40 43	130	KB1-40		**Silty CLAY** (CH): Light brownish gray, moist, medium stiff to stiff, moderate to high plasticity, some fine sand, trace to some silt
45		6 120/5"	1	KB1-45		**Silty CLAY** (CL): Pale yellow, dry to moist, medium stiff to stiff, low to moderate plasticity, some fine to coarse sand, trace silt
50		71 22 40	7			**Silty CLAY** (CL): Light olive-brown, moist to wet, stiff to hard, moderate to high plasticity, some fine to coarse sand, trace silt
						Boring completed at a depth of approximately 51-1/2 feet below existing site grade. Hydropunch sample No. KB-1-W1 taken.

KLEINFELDER

Drafted By: DWA
Date: 4/14/97
Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 1

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE
2 of 2
A-3

ENVBORNG 82965 6/9/97

Date Completed: 3/31/97

Surface Conditions: Unpaved.

Logged By: S. Quayle

Groundwater: Encountered at a depth of approximately 45 feet below existing site grade.

Total Depth: 46 feet

Depth, ft	FIELD: Sample Type	FIELD: Blows/6"	FIELD: PID ppmv	FIELD: Sample Number	Lithology	DESCRIPTION
						Approximate Surface Elevation (ft):
						FILL: Hand augered 0 to 5 feet
5		12 25 35	13			**Silty SAND** (SM): Dark yellowish brown, dry, medium dense to dense, fine grained, some fines
10		10 8 10	3			loose to medium dense
15		10 33 25	3			**SAND** (SP): Light yellowish brown, medium dense to dense, fine to medium grained sand, some fine to coarse subangular to subrounded gravel, iron oxide stains
20		5 12 17	3			**Silty CLAY** (CL): Moist, soft to medium stiff, moderate plasticity, some fine sand
25						

KLEINFELDER

Drafted By: DWA
Date: 4/14/97

Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 2

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 1 of 2

A-4

ENVBORING 82965 6/9/97

Depth, ft	Sample Type	Blows/6"	PID ppmv	Sample Number	Lithology	DESCRIPTION
						(Continued from previous plate)
		10 14 22	3			**SAND** (SP): Yellowish brown, medium dense, some fines, iron oxide stains
30		12 57	6			medium dense to dense, fine to medium grained, trace fines
35		55 73	18	KB2-35		**Silty CLAY** (CH): Light brown, moist, stiff to very stiff, high plasticity, trace fine sand
40		38 65	8	KB2-40		
45		26 43	2			**Clayey SILT** (ML): Yellowish brown, wet, medium stiff to stiff, moderate to high plasticity, some fine to coarse sand
						Boring completed at a depth of approximately 46 feet below existing site grade. Hyrdopunch sample No. KB-2-W1 taken.
50						

FIELD

KLEINFELDER

Drafted By: DWA
Date: 4/14/97

Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 2

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE
2 of 2

A-4

ENVBORNG 82965 6/9/97

Date Completed: 3/31/97

Surface Conditions: Unpaved.

Logged By: S. Quayle

Groundwater: Encountered at a depth of approximately 42 feet below existing site grade.

Total Depth: 46-1/2 feet

Depth, ft	FIELD: Sample Type	FIELD: Blows/6"	FIELD: PID ppmv	FIELD: Sample Number	Lithology	DESCRIPTION
						Approximate Surface Elevation (ft):
						FILL: Hand augered 0 to 5 feet
5		26 39 49	9			**Silty CLAY** (CL): Brown, dry, stiff to very stiff, low to moderate plasticity, some fine sand
10		16 23 28	3			silt fraction increased, medium stiff to stiff, low plasticity
15		25 36 40	1			**SAND** (SP): Yellowish brown, medium dense to dense, fine to medium grained, trace fines
20		12 24 27	6	KB3-20		some coarse sand, loose to medium dense
25						

KLEINFELDER

Drafted By: DWA
Date: 4/14/97

Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 3

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 1 of 2

A-5

ENVBORNG 82965 6/9/97

Depth, ft	Sample Type	Blows/6"	PID ppmv	Sample Number	Lithology	DESCRIPTION
						(Continued from previous plate)
		30 75	2			**Clayey SAND** (SC): Dark yellowish brown, moist, dense to very dense, fine to medium grained trace coarse grained, trace rounded gravel
30		7 9 14	4			**Silty CLAY** (CH): Yellowish brown, moist, medium stiff to stiff, high plasticity, trace fine sand
35		10 55	4			brownish yellow, medium stiff, some fine to medium sand
40		11 23 37	3	KB3-40		yellowish-brown, stiff to very stiff, some fine grained sand
45		9 15 27	3			yellow-brown, wet, very stiff to hard, some silt
50						Boring completed at a depth of approximately 46-1/2 feet below existing site grade.

KLEINFELDER

Drafted By: DWA
Date: 4/14/97

Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 3

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 2 of 2

A-5

ENVBORNG 82965 6/9/97

Date Completed: 4/1/97

Logged By: S. Quayle

Total Depth: 36 feet

Surface Conditions: Unpaved.

Groundwater: Encountered at a depth of approximately 31 feet below existing site grade.

Depth, ft	FIELD: Sample Type	FIELD: Blows/6"	FIELD: PID ppmv	FIELD: Sample Number	Lithology	DESCRIPTION
						Approximate Surface Elevation (ft):
						FILL: Hand augered 0 to 5 feet
5		62 36 55	2			**Silty CLAY** (CL): Brown, stiff to very stiff, low to moderate plasticity
10		26 49	2			**Silty SAND** (SM): Yellowish brown, dry, medium dense to dense, fine grained, some fines
15		25 47	1			fine grained with some medium grained, some fines
20		30 54	2	KB4-20		
25						

KLEINFELDER

Drafted By: DWA
Date: 4/14/97

Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 4

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 1 of 2

A-6

ENVBORNG 82965 6/9/97

Depth, ft	Sample Type	Blows/6"	PID ppmv	Sample Number	Lithology	DESCRIPTION
						(Continued from previous plate)
		37 70	3			dense, trace fines, fine grained trace coarse grained
30		11 52 33	36			**SAND** (SP): Brown, moist to wet, medium dense, fine grained, some fines
35		10 53	7			**Silty SAND** (SM): Dark yellowish brown, medium dense, some coarse grained, some fines
						Boring completed at a depth of approximately 36 feet below existing site grade. Hydropunch sample No. KB-4-W1 taken.
40						
45						
50						

KLEINFELDER

Drafted By: DWA
Date: 4/14/97
Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 4

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE
2 of 2

A-6

ENVBORNG 82965 6/9/97

Date Completed: 4/1/97

Logged By: S. Quayle

Total Depth: 36-1/2 feet

Surface Conditions: Unpaved.

Groundwater: Encountered at a depth of approximately 31 feet below existing site grade.

Depth, ft	FIELD: Sample Type	FIELD: Blows/6"	FIELD: PID ppmv	FIELD: Sample Number	Lithology	DESCRIPTION
						Approximate Surface Elevation (ft):
						FILL: Hand auger 0 to 5 feet
5		25 25 42	180	KB5-5		**Silty CLAY** (CL): Dark yellowish brown, moderately stiff, low to moderate plasticity
10		15 18 23	7			**SAND** (SP): Yellowish brown, moist, loose to medium dense, fine grained, some fines
15		22 28 40	16	KB5-15		**Silty CLAY** (CL): Brown, medium stiff to stiff, moderate to high plasticity
20		12 18 29	6			**SAND** (SP): Yellowish brown, dry to moist, loose to medium dense, fine grained, some fines
25						

KLEINFELDER

Drafted By: DWA | Project No.: 23-482965-PH2

Date: 4/14/97 | File Number:

LOG OF BORING KB- 5

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE 1 of 2

A-6

ENVBORNG 82965 6/9/97

Depth, ft	FIELD: Sample Type	FIELD: Blows/6"	FIELD: PID ppmv	FIELD: Sample Number	Lithology	DESCRIPTION
						(Continued from previous plate)
		10 18 32	13	KB5-25		**Silty CLAY** (CL): Light yellow-brown, moist, medium stiff to stiff, some fine sand
30		8 17 22	14			**SAND** (SP): Dark grayish brown, moist to wet, medium dense, fine to medium grained, some fines, iron oxide staining
35		15 27 50/5"	3			**Silty CLAY** (CL): Yellowish brown, very stiff to hard, moderate plasticity, trace fine sand, iron oxide staining
						Boring completed at a depth of approximately 36-1/2 feet below existing site grade.
40						
45						
50						

KLEINFELDER

Drafted By: DWA
Date: 4/14/97
Project No.: 23-482965-PH2
File Number:

LOG OF BORING KB- 5

LIVERMORE PROPERTY
8638 PATTERSON PASS ROAD
LIVERMORE, CALIFORNIA

PLATE
2 of 2
A-6

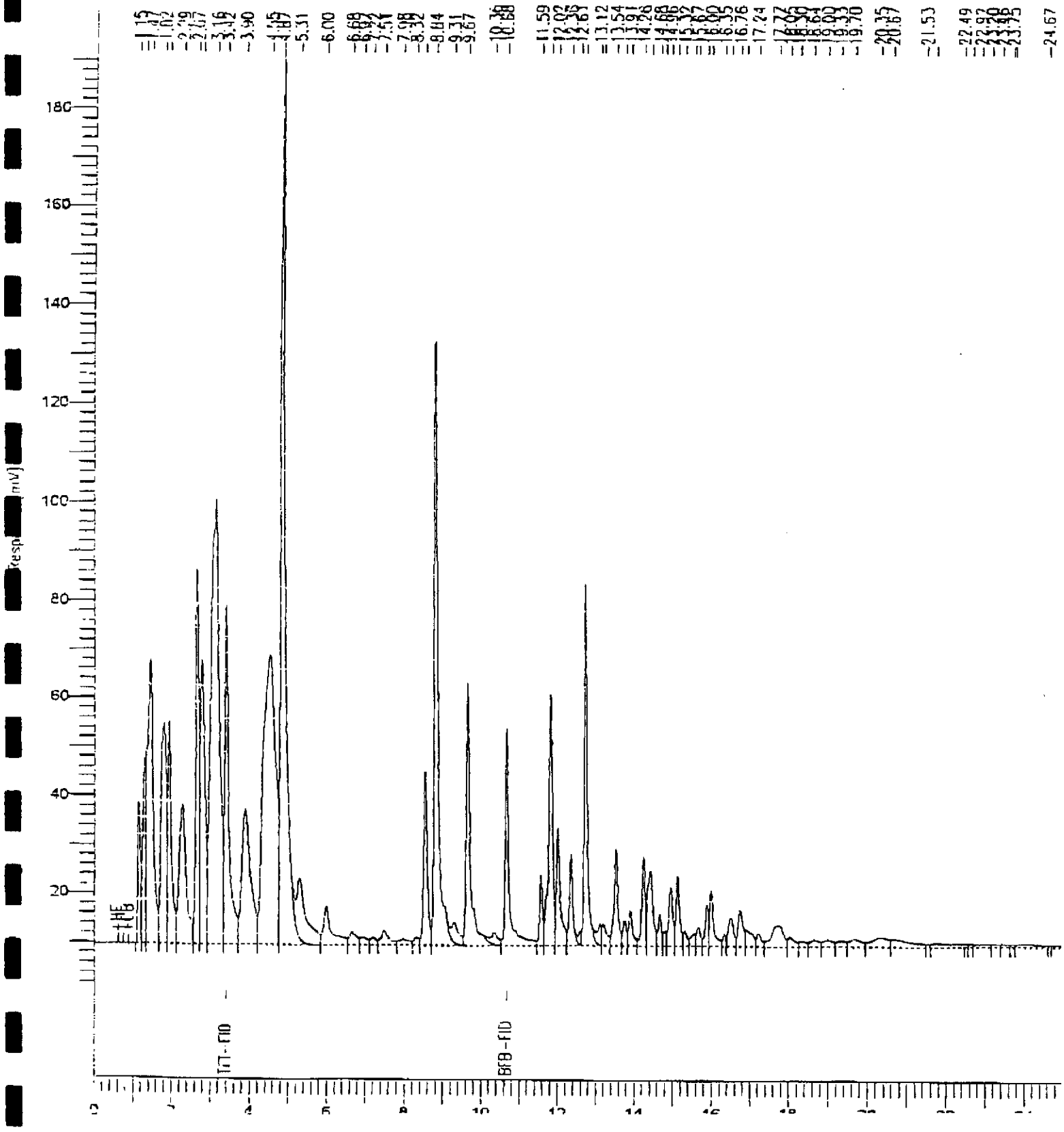
ENVBORNG 82965 6/9/97

Gasoline Chromatogram

GAS STD

Sample Name : GAS FCV MSB21 2.5UG/5ML
FileName : M:\1G40602.raw
Method : 1PA20B
Start Time : 0.00 min End Time : 24.99 min
Scale Factor: 1.0 Plot Offset: 0 mV

Sample #: 2
Date : 4/6/97 13:39
Time of Injection: 4/6/97 12:14
Low Point : 0.45 mV High Point : 191.84 mV
Plot Scale: 191.4 mV

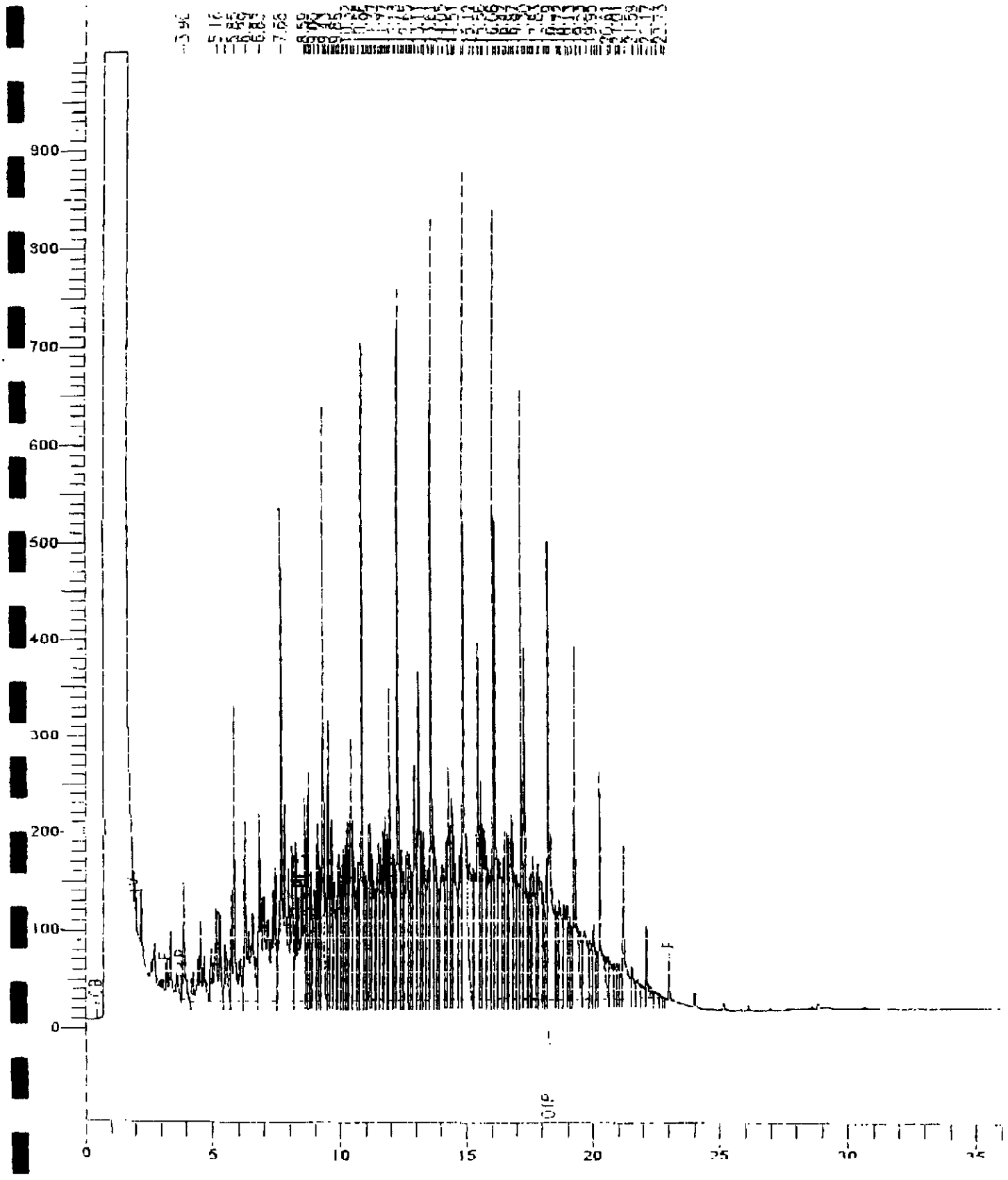


diesel analysis

DIESEL STD

Data Name : DIESEL 5000PPM
File Name : M:\5405006.raw
Method : 1M0324
Start Time : 0.00 min End Time : 36.00 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: 5405006 Page 1 of 1
Date : 4/5/97 23:35
Time of Injection: 4/5/97 23:00
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



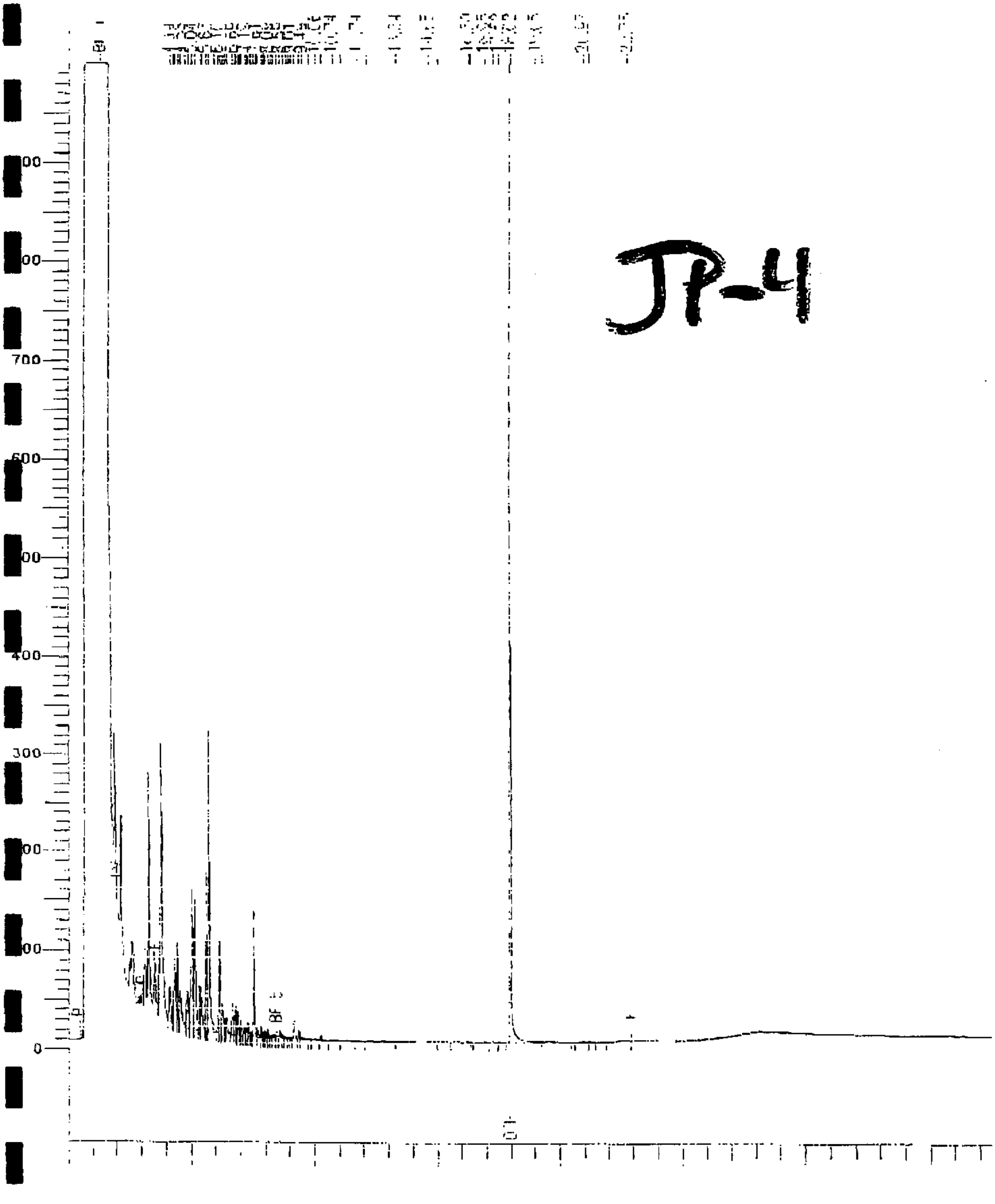
diesel analysis

ile Name : JP4 100PPM
ethod : N:\9414009.raw
ample : 200226
tart Time : 0.00 min
cale Factor: 0.0

End Time : 37.50 min
Plot Offset: 0 mV

Sample #: 9012SM
Date : 4/14/97 15:48
Time of Injection: 4/14/97 15:10
Low Point : 0.00 mV
Plot Scale: 1000.0 mV

Page 1 of 1
High Point : 1000.00 mV

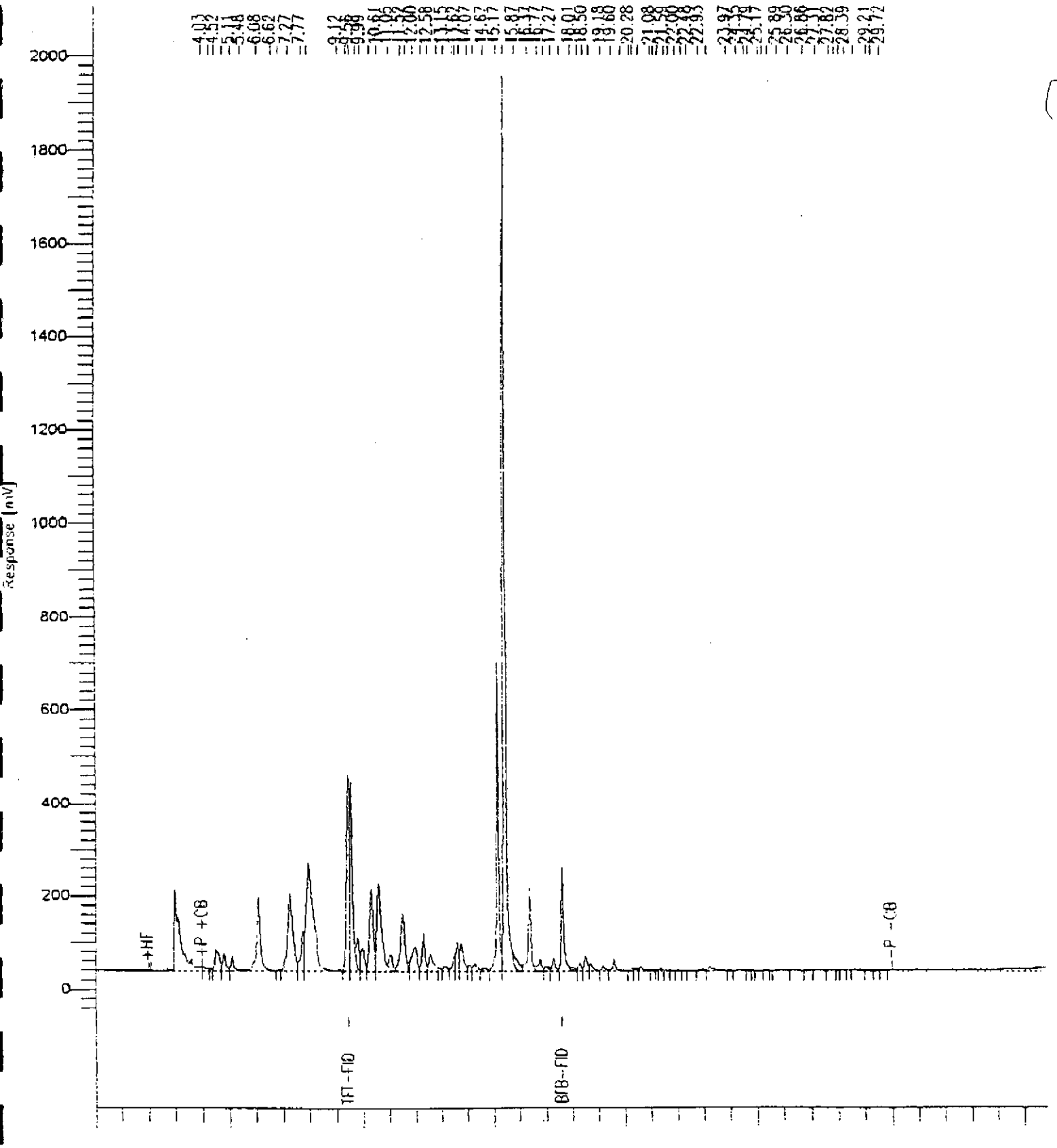


Gasoline Chromatogram

KB1-W1

Sample Name : 9703447/KB1-W1
FileName : P:\4G40708.raw
Method : 4PA17N
Start Time : 0.00 min End Time : 35.99 min
Scale Factor: 1.0 Plot Offset: -58 mV

Sample #: 123766 Page 1 of 1
Date : 4/7/97 15:00
Time of Injection: 4/7/97 14:24
Low Point : -57.96 mV High Point : 2004.94 mV
Plot Scale: 2062.9 mV

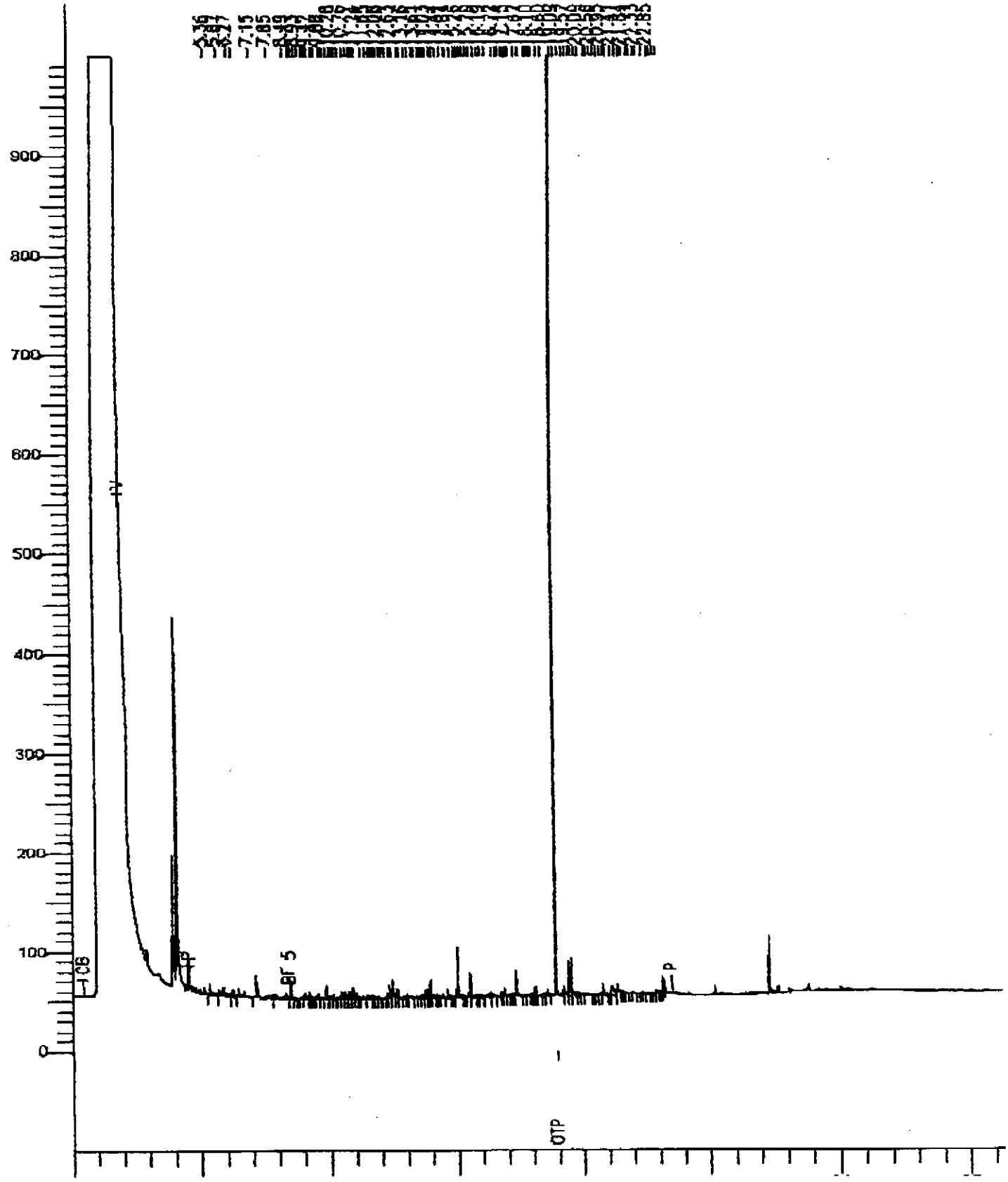


diesel analysis

KB1-W1

Sample Name : 9703447/KB1-W1
FileName : D:\H404009.raw
Method : 4D0403
Start Time : 0.00 min End Time : 36.39 min
Scale Factor: 0.0 Plot Offset: 9 mV

Sample #: 123765 Page 1 of 1
Date : 4/5/97 00:46
Time of Injection: 4/5/97 00:09
Low Point : 0.00 mV High Point : 1000.09 mV
Plot Scale: 1000.0 mV

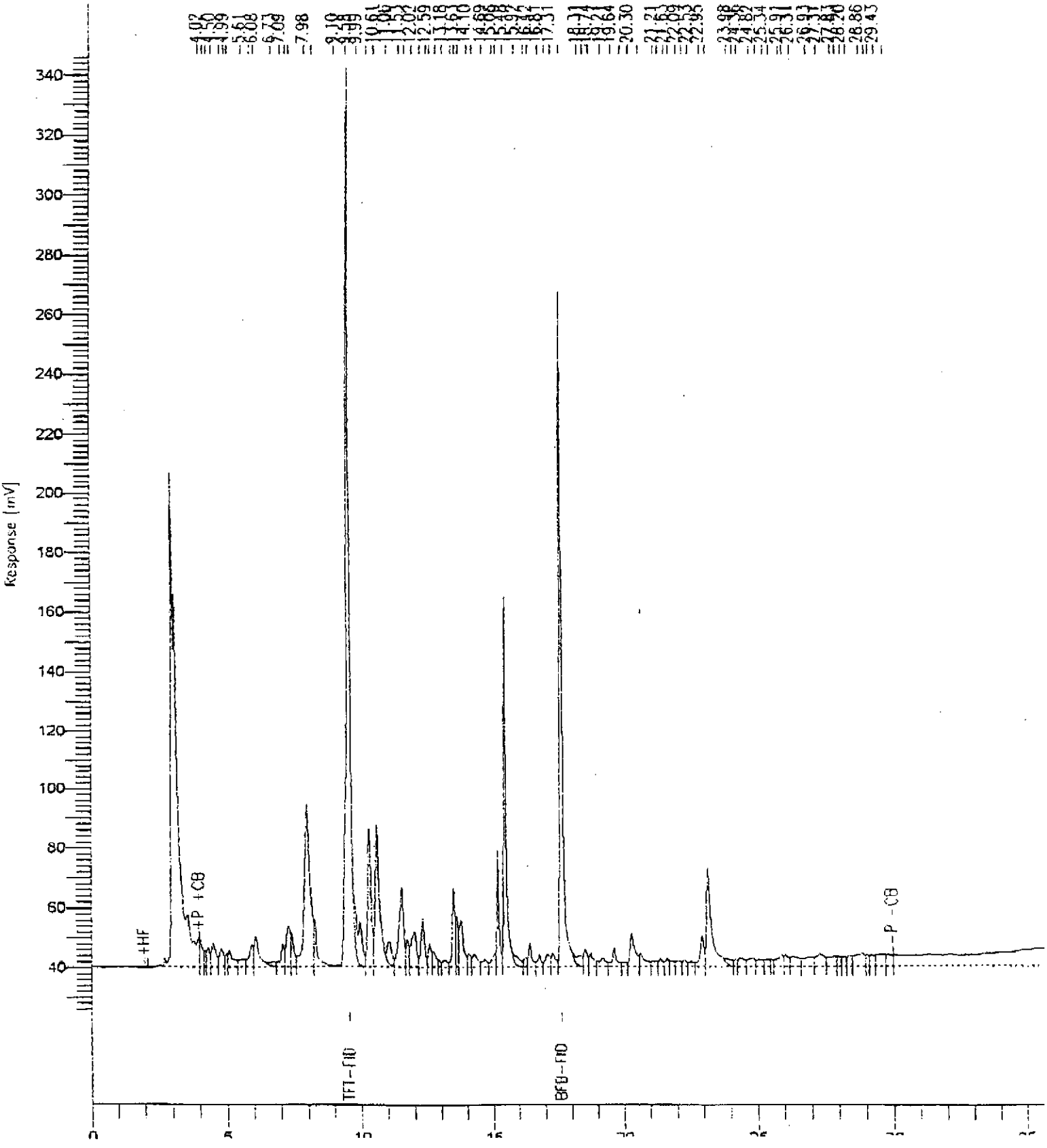


Gasoline Chromatogram

KBZ-W1

Sample Name : 9703447/KB2-W1
FileName : P:\4G40709.raw
Method : 4PA17N
Start Time : 0.00 min End Time : 35.99 min
Scale Factor: 1.0 Plot Offset: 25 mV

Sample #: 123767 Page 1 of 1
Date : 4/7/97 15:42
Time of Injection: 4/7/97 15:06
Low Point : 24.92 mV High Point : 347.34 mV
Plot Scale: 322.4 mV

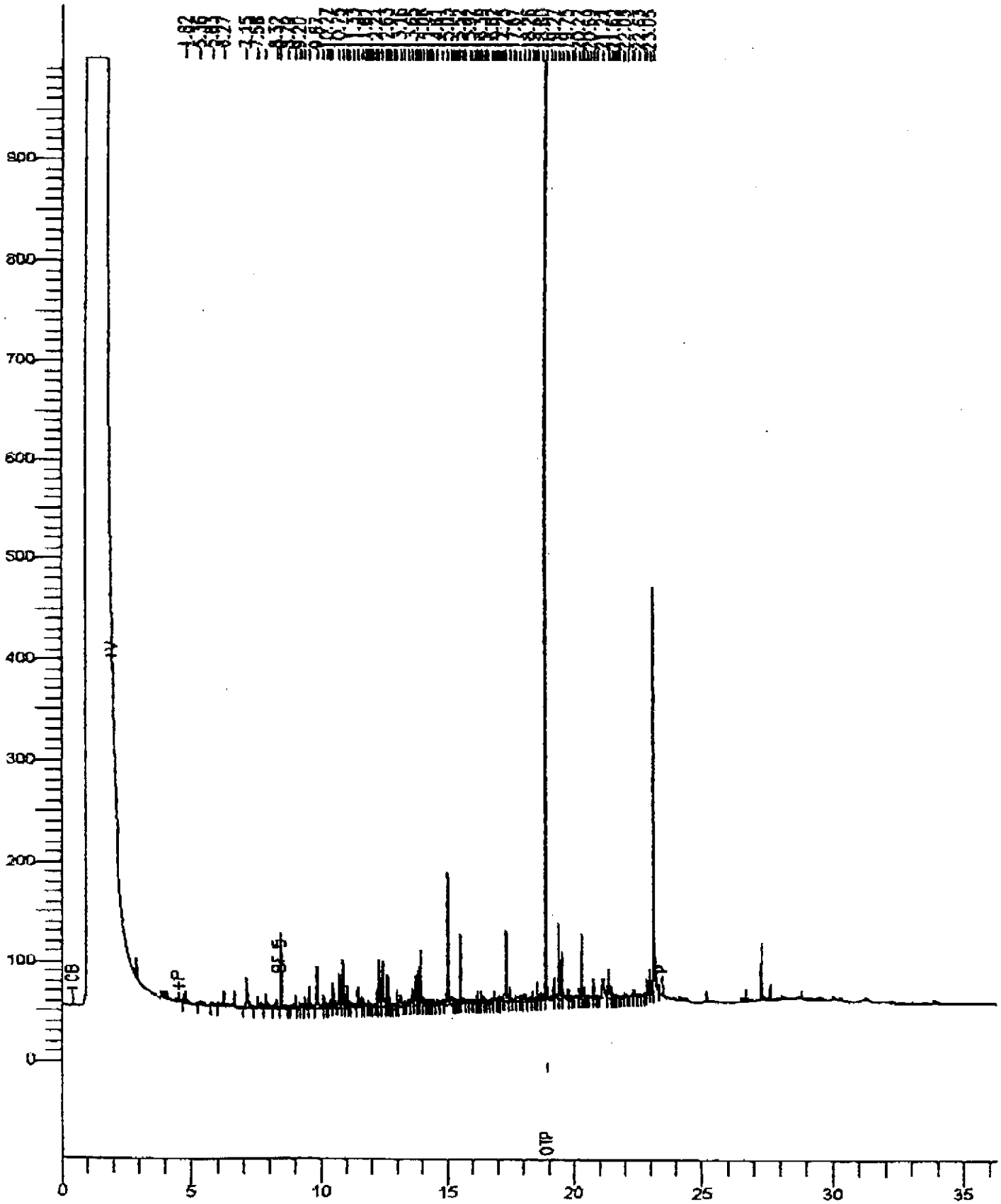


KBZ-W1

diesel analysis

Sample Name : 9703447/KBZ-W1
FileName : P:\R404010.raw
Method : 4D0403
Start Time : 0.00 min End Time : 36.99 min
Scale Factor: 0.0 Plot Offset: 0 mV

Sample #: 123767 Page 1 of 1
Date : 4/5/97 01:32
Time of Injection: 4/3/97 20:56
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



Gasoline Chromatogram

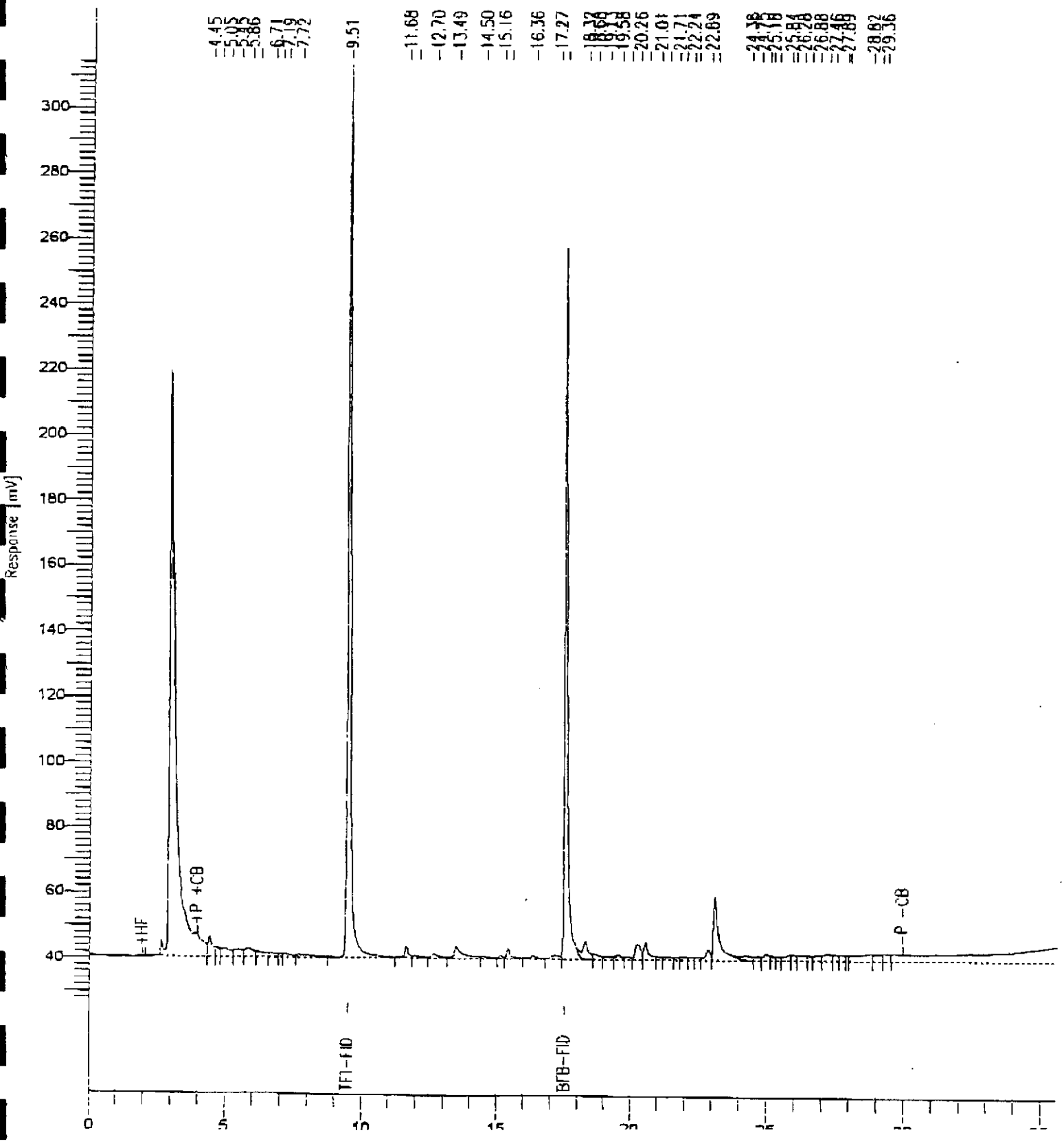
KB4-W1

Sample Name : 9704008/KB4-W1
FileName : P:\4G40719.raw
Method : 4PA17N
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 35.99 min
Plot Offset: 27 mV

Sample #: 123926
Date : 4/7/97 23:03
Time of Injection: 4/7/97 22:27
Low Point : 26.72 mV
Plot Scale: 288.7 mV

High Point : 315.40 mV



KB4-W1

diesel analysis

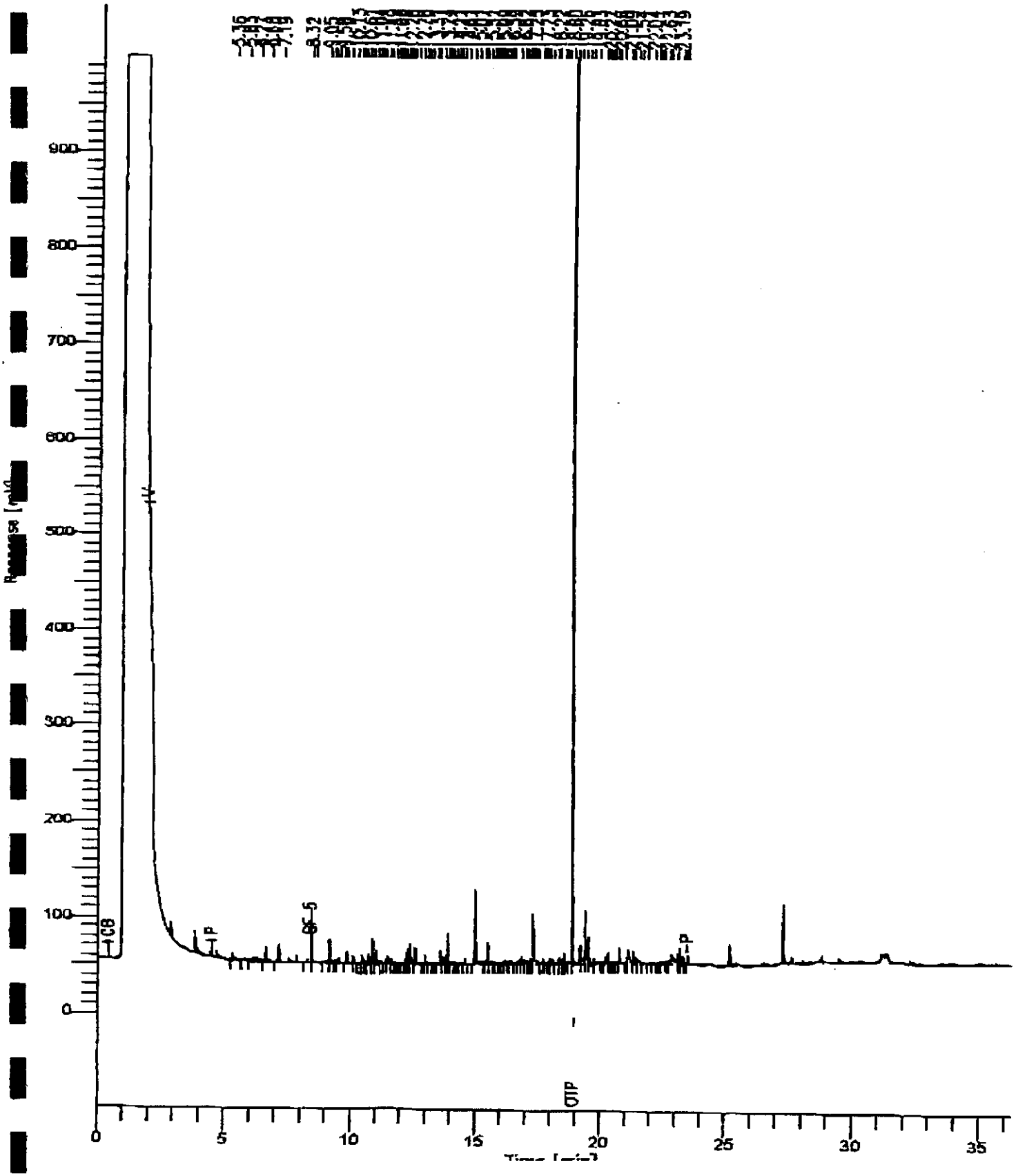
Sample Name : 9704006/KB4-W1
File Name : D:\2004011.raw
Method : 970403
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 36.33 min
Plot Offset: 0 mV

Sample #: 123925
Date : 4/5/97 02:19
Time of Injection: 4/5/97 01:42
Low Point : 0.00 mV
Plot Scale: 1000.0 mV

High Point : 1000.00 mV

Page 1 of 1



KLEINFELDER

32860

PROJECT NO.	PROJECT NAME	RECEIVING LAB
23-4829-65/ESA	Greenville Rd.	Chroma Lab

L.P. NO. (P.O. NO.):

SAMPLERS: (Signature/Number) [signature] Stephen B. Quayle

INSTRUCTIONS/REMARKS: 5 day T.A.T.

ANALYSIS

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	Total Petroleum Hydrocarbons	Fuel Fingerprint/Oxygenates	BTEX/MTBE	Total Lead	Total Kjeldahl Nitrogen	Phosphorous as orthophosphate	Nitrogen as Nitrate	Nitrogen as Nitrite	Soil pH	Total Organic Carbon	Moisture Content
1	4-1-97	0901	KB4-20	Soil	1	Brass	X	X	X								
2	↓	0954	KB4-30	Soil	1	Brass											
3		1055	KB4-W1	H_2O	6		X	X	X								
4			Tripblank #2	H_2O	1	VOA		X									
5		1124	KB5-5	Soil	1	Brass	X	X	X								
6			~~KB5-15~~	~~Soil~~	~~1~~												
7		1138	KB5-15	Soil	1	Brass					X	X	X	X	X	X	X
8		1155	KB5-25	Soil	1	Brass	X	X	X								
9																	
10																	
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

SUBM #: 9704008 REP: MV
CLIENT: KLEIN-SAC
DUE: 04/08/97
REF #:32868

Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
[signature]	1457 4/1/97	Chris Rowley 1507 4/1/97

Instructions/Remarks:

Send Results To:

KLEINFELDER
7133 KOLL CENTER PARKWAY
SUITE 100
PLEASANTON, CA 94566
(510) 484-1700

Attn

M-60

White – Sampler

Canary – Return Copy To Shipper

Pink – Lab Copy

CHAIN OF CUSTODY

№ 2895

CHROMALAB, INC.

Environmental Service (SDB)

Sample Receipt Checklist

Client Name: KLEINFELDERS Date/Time Received: 4/1/97 (Date) / 1507 (Time)

Reference/Subm #: 32868/9704008 Received by: _____

Checklist completed by: Chris Rowley 4/2/97 (Signature / Date) Reviewed By: JW 4-2-97 (Initial/Date)

Matrix: Soil/H2O Carrier name: Client - C/L - _____

Shipping container/cooler in good condition?	Yes ✓	No ____	Not Present ____
Custody seals intact on shipping container/cooler?	Yes ____	No ____	Not Present ✓
Custody seals intact on sample bottles?	Yes ____	No ____	Not Present ✓
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 ____	
Sample containers intact?	Yes ✓	No ____	
Sufficient sample volume for indicated test?	Yes ✓	No ____	
All samples received within holding time?	Yes ✓	No ____	
Container/Temp Blank temperature in compliance? Temp: 7.5 °C	Yes ✓	No ____	
Water - VOA vials have zero headspace? No VOA vials submitted ____	Yes ✓	No ____	
Water - pH acceptable upon receipt? yes adjusted? ____ Checked by CR (chemist for VOAs)			

Any No and/or NA (not applicable) response must be detailed in the comments section below.

==========

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

CHROMALAB, INC.

Environmental Services (SDB)

April 9, 1997

Submission #: 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD.
Received: April 1, 1997

Project#: 23-4829-65/ESA

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB4-20**
Spl#: 123920
Sampled: April 1, 1997

Matrix: SOIL
Run#: 6140

Analyzed: April 6, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	95	1
MTBE	N.D.	0.0050	N.D.	74	1
BENZENE	N.D.	0.0050	N.D.	75	1
TOLUENE	N.D.	0.0050	N.D.	76	1
ETHYL BENZENE	N.D.	0.0050	N.D.	76	1
XYLENES	N.D.	0.0050	N.D.	76	1

Marianne Alexander
Gas/BTEX Supervisor

Chip Poalinelli
Operations Manager

(916) 366-7013

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 9, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB5-5**
Spl#: 123927 *Matrix:* SOIL
Sampled: April 1, 1997 *Run#:* 6140 *Analyzed:* April 6, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	95	1
MTBE	N.D.	0.0050	N.D.	74	1
BENZENE	N.D.	0.0050	N.D.	75	1
TOLUENE	N.D.	0.0050	N.D.	76	1
ETHYL BENZENE	N.D.	0.0050	N.D.	76	1
XYLENES	N.D.	0.0050	N.D.	76	1

Note: Surrogate recovery was outside QA/QC limits due to matrix interference. See Surrogate Summary page.

Marianne Alexander
Gas/BTEX Supervisor

Chip Poalinelli
Operations Manager

(916) 366-7013

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 9, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB5-25**
Spl#: 123928 *Matrix:* SOIL
Sampled: April 1, 1997 *Run#:* 6140 *Analyzed:* April 6, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	95	1
MTBE	N.D.	0.0050	N.D.	74	1
BENZENE	N.D.	0.0050	N.D.	75	1
TOLUENE	N.D.	0.0050	N.D.	76	1
ETHYL BENZENE	N.D.	0.0050	N.D.	76	1
XYLENES	N.D.	0.0050	N.D.	76	1

Marianne Alexander
Gas/BTEX Supervisor

Chip Poalinelli
Operations Manager

(916) 366-7013

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(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 9, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Surrogate** report for 3 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6140
Matrix: SOIL

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123920-1	KB4-20	TRIFLUOROTOLUENE	58.9	65-135
123920-1	KB4-20	4-BROMOFLUOROBENZENE	50.6	65-135
123920-2	KB4-20	TRIFLUOROTOLUENE	95.8	65-135
123920-2	KB4-20	4-BROMOFLUOROBENZENE	71.6	65-135
123927-1	KB5-5	TRIFLUOROTOLUENE	59.3	65-135
123927-1	KB5-5	4-BROMOFLUOROBENZENE	48.2	65-135
123927-2	KB5-5	TRIFLUOROTOLUENE	70.2	65-135
123927-2	KB5-5	4-BROMOFLUOROBENZENE	64.1	65-135
123928-1	KB5-25	TRIFLUOROTOLUENE	60.9	65-135
123928-1	KB5-25	4-BROMOFLUOROBENZENE	49.7	65-135
123928-2	KB5-25	TRIFLUOROTOLUENE	72.8	65-135
123928-2	KB5-25	4-BROMOFLUOROBENZENE	66.3	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124834-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	96.4	65-135
124834-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	84.4	65-135
124835-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	91.4	65-135
124835-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	112	65-135
124837-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	95.6	65-135
124837-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	130	65-135
124838-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	64.8	65-135
124838-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	58.3	65-135
124839-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	76.2	65-135
124839-1	*Matrix spike duplicate (MSD)*	4-BROMOFLUOROBENZENE	68.1	65-135

V132
QCSURR1229 ALEXANDM 09-Apr-97

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Surrogate** report for 3 samples for Purgeable Volatile Aromatic
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6140
Matrix: SOIL

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123920-1	KB4-20	TRIFLUOROTOLUENE	58.9	65-135
123920-1	KB4-20	4-BROMOFLUOROBENZENE	50.6	65-135
123920-2	KB4-20	TRIFLUOROTOLUENE	95.8	65-135
123920-2	KB4-20	4-BROMOFLUOROBENZENE	71.6	65-135
123927-1	KB5-5	TRIFLUOROTOLUENE	59.3	65-135
123927-1	KB5-5	4-BROMOFLUOROBENZENE	48.2	65-135
123927-2	KB5-5	TRIFLUOROTOLUENE	70.2	65-135
123927-2	KB5-5	4-BROMOFLUOROBENZENE	64.1	65-135
123928-1	KB5-25	TRIFLUOROTOLUENE	60.9	65-135
123928-1	KB5-25	4-BROMOFLUOROBENZENE	49.7	65-135
123928-2	KB5-25	TRIFLUOROTOLUENE	72.8	65-135
123928-2	KB5-25	4-BROMOFLUOROBENZENE	66.3	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124834-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	96.4	65-135
124834-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	84.4	65-135
124835-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	91.4	65-135
124835-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	112	65-135
124837-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	95.6	65-135
124837-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	130	65-135
124838-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	64.8	65-135
124838-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	58.3	65-135
124839-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	76.2	65-135
124839-1	*Matrix spike duplicate (MSD)*	4-BROMOFLUOROBENZENE	68.1	65-135

V132
QCSURR1229 WPFILES\MVERONA 10

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: SOIL
Lab Run#: 6140 *Analyzed:* April 5, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup (mg/Kg)	Found BSP (mg/Kg)	Found Dup (mg/Kg)	Recov BSP (%)	Recov Dup (%)	Control Limits	% RPD	% RPD Lim
GASOLINE	0.500	0.500	0.476	0.525	95.2	105	75-125	9.79	35
MTBE	0.0200	0.0200	0.0147	0.0176	73.5	88.0	75-125	18.0	35
BENZENE	0.0200	0.0200	0.0150	0.0174	75.0	87.0	77-123	14.8	35
TOLUENE	0.0200	0.0200	0.0152	0.0183	76.0	91.5	79-122	18.5	35
ETHYL BENZENE	0.0200	0.0200	0.0152	0.0188	76.0	94.0	70-130	21.2	35
XYLENES	0.0600	0.0600	0.0457	0.0570	76.2	95.0	75-125	22.0	35

BS Smpl #: 124835
BSD Smpl #: 124837

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Matrix spike** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: SOIL
Lab Run#: 6140 *Instrument:* 3400-1 *Analyzed:* April 5, 1997

Analyte	Spiked Sample Amount (mg/Kg)	Spike Amt MS (mg/Kg)	Spike Amt MSD (mg/Kg)	Amt Found MS (mg/Kg)	Amt Found MSD (mg/Kg)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
MTBE	N.D.	0.0189	0.0172	0.0135	0.0120	71.4	69.8	65-135	2.27	35
BENZENE	N.D.	0.0189	0.0172	0.0118	0.0088	62.4	51.4	65-135	19.3	35
TOLUENE	N.D.	0.0189	0.0172	0.0136	0.0108	72.0	62.8	65-135	13.6	35
ETHYL BENZENE	0.0060	0.0189	0.0172	0.0144	0.0116	76.2	67.4	65-135	12.2	35
XYLENES	0.062	0.0567	0.0515	0.0606	0.0590	107	114	65-135	6.33	35

Sample Spiked: 124489
Submission #: 9704066
Client Sample ID: SSCS-600w

MS Smpl #: 124838
MSD Smpl #: 124839

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CHROMALAB, INC.

Environmental Services (SDB)

April 9, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB4-W1**
Spl#: 123925 *Matrix:* WATER
Sampled: April 1, 1997 *Run#:* 6151 *Analyzed:* April 7, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	106	1
MTBE	N.D.	5.0	N.D.	88	1
BENZENE	N.D.	0.50	N.D.	93	1
TOLUENE	N.D.	0.50	N.D.	102	1
ETHYL BENZENE	N.D.	0.50	N.D.	108	1
XYLENES	N.D.	0.50	N.D.	110	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 9, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for BTEX MTBE analysis.
Method: SW846 8020A Nov 1990

Client Sample ID: **TRIPBLANK #2**
Spl#: 123926 *Matrix:* WATER
Sampled: April 1, 1997 *Run#:* 6151 *Analyzed:* April 7, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
MTBE	N.D.	5.0	N.D.	88	1
BENZENE	N.D.	0.50	N.D.	93	1
TOLUENE	N.D.	0.50	N.D.	102	1
ETHYL BENZENE	N.D.	0.50	N.D.	108	1
XYLENES	N.D.	0.50	N.D.	110	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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MV V132 O: BTEXQC0220
ALEXANDM 04:02

CHROMALAB, INC.

Environmental Services (SDB)

April 9, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Surrogate** report for 2 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6151
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123925-1	KB4-W1	TRIFLUOROTOLUENE	111	65-135
123925-1	KB4-W1	4-BROMOFLUOROBENZENE	93.9	65-135
123926-1	TRIPBLANK #2	TRIFLUOROTOLUENE	111	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124865-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	101	65-135
124866-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	109	65-135
124867-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	114	65-135
124868-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	108	65-135
124869-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	101	65-135

V132
QCSURR1229 ALEXANDM 09-Apr-97

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Surrogate** report for 2 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6151
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123925-1	KB4-W1	TRIFLUOROTOLUENE	111	65-135
123925-1	KB4-W1	4-BROMOFLUOROBENZENE	93.9	65-135
123926-1	TRIPBLANK #2	TRIFLUOROTOLUENE	111	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124865-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	101	65-135
124866-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	109	65-135
124867-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	114	65-135
124868-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	108	65-135
124869-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	101	65-135

V132
QCSURR1229 WPFILES\MVERONA 10

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 6151 *Analyzed:* April 7, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup (ug/L)	Found BSP (ug/L)	Found Dup (ug/L)	Recov BSP (%)	Recov Dup (%)	Control Limits	% RPD	% RPD Lim
GASOLINE	500	500	530	522	106	104	75-125	1.90	20
MTBE	20.0	20.0	17.5	17.5	87.5	87.5	75-125	0	20
BENZENE	20.0	20.0	18.5	19.2	92.5	96.0	77-123	3.71	20
TOLUENE	20.0	20.0	20.3	21.1	102	106	78-122	3.85	20
ETHYL BENZENE	20.0	20.0	21.7	22.4	108	112	70-130	3.64	20
XYLENES	60.0	60.0	66.0	68.4	110	114	75-125	3.57	20

BS Smpl #: 124866
BSD Smpl #: 124867

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April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Matrix spike** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 6151 *Instrument:* 3400-4 *Analyzed:* April 7, 1997

Analyte	Spiked Sample Amount (ug/L)	Spike Amt MS (ug/L)	Spike Amt MSD (ug/L)	Amt Found MS (ug/L)	Amt Found MSD (ug/L)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
GASOLINE	N.D.	500	500	182	176	36.4	35.2	65-135	200	20
MTBE	N.D.	20.0	20.0	22.2	22.1	111	110	65-135	0.90	20
BENZENE	N.D.	20.0	20.0	22.3	21.0	112	105	65-135	6.45	20
TOLUENE	N.D.	20.0	20.0	22.0	20.7	110	104	65-135	5.61	20
ETHYL BENZENE	N.D.	20.0	20.0	21.9	20.6	110	103	65-135	6.57	20
XYLENES	N.D.	60.0	60.0	66.0	62.7	110	104	65-135	5.61	20

Sample Spiked: 123925
Submission #: 9704008
Client Sample ID: KB4-W1

MS Smpl #: 124868
MSD Smpl #: 124869

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: 1 sample for PERCENTAGE MOISTURE analysis.
Method: *EPA SW846 8000*

Matrix: SOIL *Extracted:* April 3, 1997
Sampled: April 1, 1997 *Run#:* 6138 *Analyzed:* April 3, 1997

Spl#	CLIENT SPL ID	DRY WEIGHT PERCENT MOISTURE (%)	REPORTING LIMIT (%)	BLANK RESULT (%)	BLANK SPIKE (%)	DILUTION FACTOR	% MOISTURE
123930	KB5-15	15.0	0.1	N.D.	--	--	15.0

Carolyn House
Extractions Supervisor

Chip Poalinelli
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997

Submission #: 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD.
Received: April 1, 1997

Project#: 23-4829-65/ESA

re: 1 sample for pH analysis.
Method: *9040/9045*

Sampled: April 1, 1997

Matrix: SOIL
Run#: 6139

Extracted: April 3, 1997
Analyzed: April 3, 1997

Spl#	CLIENT SPL ID	pH (Units)	REPORTING LIMIT (Units)	BLANK RESULT (Units)	BLANK SPIKE (%)	DILUTION FACTOR
123929	KB5-15	7.10	1-14	7.00	--	--

Carolyn House
Extractions Supervisor

Chip Poalinelli
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/6010A NOV 1990*

Client Sample ID: **KB4-W1**
Spl#: 123925 *Matrix:* WATER *Extracted:* April 8, 1997
Sampled: April 1, 1997 *Run#:* 6159 *Analyzed:* April 8, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
LEAD	0.17	0.0050	N.D.	104	1

Charles Woolley
Chemist

John S. Labash
Inorganic Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Blank spike and duplicate** report for Miscellaneous Metals analysis.

Method: EPA 3050A/6010A Nov 1990

Matrix: WATER
Lab Run#: 6159 *Analyzed:* April 8, 1997

Analyte	Spike Amount BSP (mg/L)	Spike Amount Dup	Spike Found BSP (mg/L)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
LEAD	0.500	0.500	0.518	0.523	104	105	80-120	0.95	20

BS Smpl #: 124976
BSD Smpl #: 124977

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April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Matrix spike** report for Miscellaneous Metals analysis.

Method: EPA 3050A/6010A Nov 1990

Matrix: WATER *Extracted:* April 8, 1997
Lab Run#: 6159 *Instrument:* PE ICP *Analyzed:* April 8, 1997

Analyte	Spiked Sample Amount (mg/L)	Spike Amt MS (mg/L)	Spike Amt MSD (mg/L)	Amt Found MS (mg/L)	Amt Found MSD (mg/L)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
LEAD	0.17	0.500	0.500	0.583	0.612	82.6	88.4	80-120	6.78	20

Sample Spiked: 123925
Submission #: 9704008
Client Sample ID: KB4-W1

MS Smpl #: 124978
MSD Smpl #: 124979

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Environmental Services (SDB)

April 3, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: 1 sample for Lead analysis.
Method: *EPA 3050A/7420A*

Matrix: SOIL *Extracted:* April 3, 1997
Sampled: April 1, 1997 *Run#:* 6074 *Analyzed:* April 3, 1997

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
123920	KB4-20	N.D.	5.0	N.D.	102	1

Shafi Barekzai
Chemist

John S. Labash
Inorganics Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 3, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: 2 samples for Lead analysis.
Method: *EPA 3050A/7420A*

Matrix: SOIL *Extracted:* April 3, 1997
Sampled: April 1, 1997 *Run#:* 6074 *Analyzed:* April 3, 1997

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
123927	KB5-5	N.D.	5.0	N.D.	102	1
123928	KB5-25	N.D.	5.0	N.D.	102	1

Shafi Barekzai
Chemist

John S. Labash
Inorganics Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Blank spike and duplicate** report for Lead analysis.

Method: EPA 3050A/7420A

Matrix: SOIL
Lab Run#: 6074 *Analyzed:* April 3, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup	Spike Found BSP (mg/Kg)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
LEAD	250	250	256	258	102	103	85-115	0.97	20

BS Smpl #: 124223
BSD Smpl #: 124224

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Matrix spike** report for Lead analysis.

Method: EPA 3050A/7420A

Matrix: SOIL *Extracted:* April 3, 1997
Lab Run#: 6074 *Instrument:* *Analyzed:* April 3, 1997

Analyte	Spiked Sample Amount (mg/Kg)	Spike Amt MS (mg/Kg)	Spike Amt MSD (mg/Kg)	Amt Found MS (mg/Kg)	Amt Found MSD (mg/Kg)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
LEAD	ND	250	250	253	253	101	101	85-115	0	20

Sample Spiked: 124041
Submission #: 9704015
Client Sample ID: PIT# 1-4'

MS Smpl #: 124226
MSD Smpl #: 124227

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB4-20**
Spl#: 123920 *Matrix:* SOIL *Extracted:* April 3, 1997
Sampled: April 1, 1997 *Run#:* 6087 *Analyzed:* April 6, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	84.7	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB5-5**
Spl#: 123927 *Matrix:* SOIL *Extracted:* April 3, 1997
Sampled: April 1, 1997 *Run#:* 6087 *Analyzed:* April 6, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	1.1	1.0	N.D.	84.7	1
Note: *Compound reported is in the Diesel range. It does not have a pattern characteristic of petroleum hydrocarbons.*					
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB5-25**
Spl#: 123928 *Matrix:* SOIL *Extracted:* April 3, 1997
Sampled: April 1, 1997 *Run#:* 6087 *Analyzed:* April 6, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	1.1	1.0	N.D.	84.7	1
Note: *Compound reported is in the Diesel range. It does not have pattern characteristic of petroleum hyadrocarbons.*					
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Surrogate** report for 3 samples for TEPH analysis.
Method: EPA 8015M
Lab Run#: 6087
Matrix: SOIL

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123920-1	KB4-20	O-TERPHENYL	79.4	60-130
123927-1	KB5-5	O-TERPHENYL	95.2	60-130
123928-1	KB5-25	O-TERPHENYL	89.8	60-130

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124338-1	*Reagent blank (MDB)*	O-TERPHENYL	104	60-130
124339-1	*Spiked blank (BSP)*	O-TERPHENYL	104	60-130
124340-1	*Spiked blank duplicate (BSD)*	O-TERPHENYL	104	60-130
124341-1	*Matrix spike (MS)*	O-TERPHENYL	97.6	60-130
124342-1	*Matrix spike duplicate (MSD)*	O-TERPHENYL	97.2	60-130

S015
QCSURR1229 WPFILES\MVERONA 10

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Blank spike and duplicate** report for TEPH analysis.

Method: EPA 8015M

Matrix: SOIL
Lab Run#: 6087

Analyzed: April 4, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup	Spike Found BSP (mg/Kg)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
DIESEL	6.66	6.65	5.64	5.16	84.7	77.6	60-130	8.75	25

BS Smpl #: 124339
BSD Smpl #: 124340

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QC_BSD1226 CHP 12:15:38

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Matrix spike** report for TEPH analysis.

Method: EPA 8015M

Matrix: SOIL
Lab Run#: 6087 *Instrument:* 6000D
Extracted: April 3, 1997
Analyzed: April 7, 1997

Analyte	Spiked Sample Amount (mg/Kg)	Spike Amt MS (mg/Kg)	Spike Amt MSD (mg/Kg)	Amt Found MS (mg/Kg)	Amt Found MSD (mg/Kg)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
DIESEL	N.D.	6.66	6.64	4.89	4.86	73.4	73.2	60-130	0.27	25

Sample Spiked: 123920
Submission #: 9704008
Client Sample ID: KB4-20

MS Smpl #: 124341
MSD Smpl #: 124342

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB4-W1**
Spl#: 123925 *Matrix:* WATER *Extracted:* April 4, 1997
Sampled: April 1, 1997 *Run#:* 6105 *Analyzed:* April 5, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	80	50	N.D.	90.5	1
Note: Hydrocarbon reported does not match the pattern of our Diesel standard.					
MOTOR OIL	N.D.	500	N.D.	--	1
KEROSENE	N.D.	50	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Surrogate** report for 1 sample for TEPH analysis.
Method: EPA 8015M
Lab Run#: 6105
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123925-1	KB4-W1	O-TERPHENYL	108	60-130

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124667-1	*Reagent blank (MDB)*	O-TERPHENYL	107	60-130
124668-1	*Spiked blank (BSP)*	O-TERPHENYL	114	60-130
124669-1	*Spiked blank duplicate (BSD)*	O-TERPHENYL	113	60-130

S015
QCSURR1229 WPFILES\MVERONA 10

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9704008

KLEINFELDER (SACRAMENTO)

Atten: Stephen Quayle

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 1, 1997

re: **Blank spike and duplicate** report for TEPH analysis.

Method: EPA 8015M

Matrix: WATER
Lab Run#: 6105 *Analyzed:* April 4, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup	Found BSP (ug/L)	Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
DIESEL	200	200	181	192	90.5	96.0	60-130	5.90	25

BS Smpl #: 124668
BSD Smpl #: 124669

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A & L WESTERN AGRICULTURAL LABORATORIES

1311 Woodland Ave. • Ste. #1 • Modesto CA 95351 • (209) 529-4080 • FAX (209) 529-4736

REPORT NUMBER

97-093-010

Client No: 2717

April 18, 1997

Mike Verona
CHROMALAB, INC.
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project #9704008

Lab No: 56582

Sample Id: KB5-15 4/1/97

Total Organic Carbon	0.51 %
Total Kjeldahl Nitrogen . . .	570 ppm
Nitrate Nitrogen . . .	17 ppm
Nitrite Nitrogen	1.0 ppm
Water Soluble Phosphate . . .	0.6 ppm

A & L Western Agricultural Laboratories

Robert Butterfield
Laboratory Director

KLEINFELDER

32846

PROJECT NO.	PROJECT NAME
23-4029-65/ESA	Greenville Rd.

L.P. NO. (P.O. NO.)

SAMPLERS: (Signature/Number) Stephen Quayle Steph B. Quayle

RECEIVING LAB: Chroma Lab

INSTRUCTIONS/REMARKS: 5 day Turn around time

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: Total Petroleum Hydrocarbons Fuel Fingerprint (Gasoline Range)	BTEX / MTBE	Total Lead	Total Kjeldahl Nitrogen	Phosphorous as Orthophosphate	Nitrogen as Nitrate	Nitrogen as Nitrite	5011 PH	Total Organic Carbon	Moisture Content	
1	3-31-97	1002	KB1-35	Soil	1	Brass	X	X	X								
2		1024	KB1-45	Soil	1	Brass	X	X	X								
3			TripBlank #3	H_2O	1	VOA		X									*Note 6 Containers
4		1326	KB2-35	Soil	1	Brass	X	X	X								3 40ml Voas
5		1339	KB2-40	Soil	1	Brass	X	X	X								2 1L ambers
6		1114	KB1-W1	H_2O	6	*	X	X	X								1 250ml plastic
7		1440	KB2-W1	H_2O	6	*	X	X	X								6
8		1545	KB3-20	Soil	1	Brass	X	X	X								
9		1625	KB3-40	Soil	1	Brass	X	X	X								
10		1012	KB1-40	Soil	1	Brass					X	X	X	X	X	X	X
11																	
12																	
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

SUBM #: 9703447 REF: MV
CLIENT: KLEIN-SAC
DUE: 04/07/97
REF #: 32846

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature) Steph B. Quayle	Date/Time 3/31/97 1758	Received for Laboratory by: (Signature) Chris Rowley

Instructions/Remarks:
Please Fax Results when available
Fax: 916-366-7013

Send Results To: Attn: Laurie Racca
KLEINFELDER
~~7133 KOLL CENTER PARKWAY~~
~~SUITE 100~~
~~PLEASANTON, CA 94566~~
~~(510) 484-1700~~
3077 Fite Circle
Sacramento, CA 95827
916-366-1701
Attn

M-60

White - Sampler

Canary - Return Copy To Shipper

Pink - Lab Copy

CHAIN OF CUSTODY

№ 2360

CHROMALAB, INC.

Environmental Service (SDB)

Sample Receipt Checklist

Client Name: KLEINFELDERS Date/Time Received: 3/31/97 (Date) / 1758 (Time)

Reference/Subm #: 32846/9703447 Received by: CR

Checklist completed by: C Rowley (Signature) / 4/1/97 (Date) Reviewed By: [illegible] 4/1/97 (Initial/Date)

Matrix: H2O/Soil Carrier name: (Client) C/L - _____

Shipping container/cooler in good condition?	Yes ✓	No ____	Not Present ____
Custody seals intact on shipping container/cooler?	Yes ____	No ____	Not Present ✓
Custody seals intact on sample bottles?	Yes ____	No ____	Not Present ✓
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 ____	
Sample containers intact?	Yes ✓	No ____	
Sufficient sample volume for indicated test?	Yes ✓	No ____	
All samples received within holding time?	Yes ✓	No ____	
Container/Temp Blank temperature in compliance?	Temp: 7.8 °C Yes ✓	No ____	
Water - VOA vials have zero headspace?	No VOA vials submitted ____ Yes ✓	No ____	

Water - pH acceptable upon receipt? Yes adjusted? ____ Checked by CR (chemist for VOAs)

Any No and/or NA (not applicable) response must be detailed in the comments section below.

==========

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **TRIP BLANK**
Spl#: 123765 *Matrix:* WATER
Sampled: March 31, 1997 *Run#:* 6149 *Analyzed:* April 7, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	100	1
MTBE	N.D.	5.0	N.D.	99	1
BENZENE	N.D.	0.50	N.D.	102	1
TOLUENE	N.D.	0.50	N.D.	108	1
ETHYL BENZENE	N.D.	0.50	N.D.	112	1
XYLENES	N.D.	0.50	N.D.	114	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB1-W1**
Spl#: 123766 *Matrix:* WATER
Sampled: March 31, 1997 *Run#:* 6149 *Analyzed:* April 7, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	220	50	N.D.	100	1
MTBE	N.D.	5.0	N.D.	99	1
BENZENE	2.1	0.50	N.D.	102	1
TOLUENE	0.93	0.50	N.D.	108	1
ETHYL BENZENE	16	0.50	N.D.	112	1
XYLENES	51	0.50	N.D.	114	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

(916) 366-7013

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Federal ID #68-0140157

MV V132 O:BTEXQC0220
KAYVAN 09:37

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB2-W1**
Spl#: 123767 *Matrix:* WATER
Sampled: March 31, 1997 *Run#:* 6149 *Analyzed:* April 7, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	66	50	N.D.	100	1
MTBE	N.D.	5.0	N.D.	99	1
BENZENE	N.D.	0.50	N.D.	102	1
TOLUENE	N.D.	0.50	N.D.	108	1
ETHYL BENZENE	1.4	0.50	N.D.	112	1
XYLENES	5.4	0.50	N.D.	114	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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KAYVAN 09:37

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 3 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6149
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123765-1	TRIP BLANK	TRIFLUOROTOLUENE	94.1	65-135
123765-1	TRIP BLANK	4-BROMOFLUOROBENZENE	90.0	65-135
123766-1	KB1-W1	TRIFLUOROTOLUENE	93.4	65-135
123766-1	KB1-W1	4-BROMOFLUOROBENZENE	87.6	65-135
123767-1	KB2-W1	TRIFLUOROTOLUENE	101	65-135
123767-1	KB2-W1	4-BROMOFLUOROBENZENE	91.2	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124850-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	113	65-135
124850-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	98.0	65-135
124851-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	115	65-135
124851-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	127	65-135
124852-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	99.0	65-135
124852-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	130	65-135
124853-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	102	65-135
124853-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	96.7	65-135
124854-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	109	65-135
124854-1	*Matrix spike duplicate (MSD)*	4-BROMOFLUOROBENZENE	97.8	65-135

V132
QCSURR1229 KAYVAN 10-Apr-97 11

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 3 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6149
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123765-1	TRIP BLANK	TRIFLUOROTOLUENE	94.1	65-135
123765-1	TRIP BLANK	4-BROMOFLUOROBENZENE	90.0	65-135
123766-1	KB1-W1	TRIFLUOROTOLUENE	93.4	65-135
123766-1	KB1-W1	4-BROMOFLUOROBENZENE	87.6	65-135
123767-1	KB2-W1	TRIFLUOROTOLUENE	101	65-135
123767-1	KB2-W1	4-BROMOFLUOROBENZENE	91.2	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124850-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	113	65-135
124850-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	98.0	65-135
124851-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	115	65-135
124851-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	127	65-135
124852-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	99.0	65-135
124852-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	130	65-135
124853-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	102	65-135
124853-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	96.7	65-135
124854-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	109	65-135
124854-1	*Matrix spike duplicate (MSD)*	4-BROMOFLUOROBENZENE	97.8	65-135

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QCSURR1229 KAYVAN 10-Apr-97 11

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 6149 *Analyzed:* April 6, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup	Spike Found BSP (ug/L)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
GASOLINE	500	500	500	538	100	108	75-125	7.69	20
MTBE	20.0	20.0	19.7	19.1	98.5	95.5	75-125	3.09	20
BENZENE	20.0	20.0	20.4	18.4	102	92.0	77-123	10.3	20
TOLUENE	20.0	20.0	21.5	19.4	108	97.0	78-122	10.7	20
ETHYL BENZENE	20.0	20.0	22.4	20.2	112	101	70-130	10.3	20
XYLENES	60.0	60.0	68.4	61.3	114	102	75-125	11.1	20

BS Smpl #: 124851
BSD Smpl #: 124852

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Matrix spike** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 6149 *Instrument:* 3400-4 *Analyzed:* April 7, 1997

Analyte	Spiked Sample Amount (ug/L)	Spike Amt MS (ug/L)	Spike Amt MSD (ug/L)	Amt Found MS (ug/L)	Amt Found MSD (ug/L)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
MTBE	N.D.	20.0	20.0	17.7	18.3	88.5	91.5	65-135	3.33	20
BENZENE	N.D.	20.0	20.0	18.0	19.3	90.0	96.5	65-135	6.97	20
TOLUENE	N.D.	20.0	20.0	19.2	20.5	96.0	102	65-135	6.06	20
ETHYL BENZENE	N.D.	20.0	20.0	20.3	21.7	102	108	65-135	5.71	20
XYLENES	N.D.	60.0	60.0	62.7	66.0	104	110	65-135	5.61	20

Sample Spiked: 123805
Submission #: 9703452
Client Sample ID: MW-4

MS Smpl #: 124853
MSD Smpl #: 124854

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB1-35**
Spl#: 123760 *Matrix:* SOIL
Sampled: March 31, 1997 *Run#:* 6140 *Analyzed:* April 10, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	140	31	N.D.	95	120
MTBE	N.D.	0.62	N.D.	74	120
BENZENE	N.D.	0.12	N.D.	75	120
TOLUENE	1.8	0.12	N.D.	76	120
ETHYL BENZENE	1.6	0.12	N.D.	76	120
XYLENES	6.7	0.12	N.D.	76	125

Note: Surrogate recovery was outside QA/QC limits due to sample interference. See Surrogate Summary page.

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

(916) 366-7013

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Federal ID #68-0140157

MV V132 O:BTEXQC0220
KAYVAN 09:37

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB1-45**
Spl#: 123761 *Matrix:* SOIL
Sampled: March 31, 1997 *Run#:* 6140 *Analyzed:* April 5, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	95	1
MTBE	N.D.	0.0050	N.D.	74	1
BENZENE	N.D.	0.0050	N.D.	75	1
TOLUENE	N.D.	0.0050	N.D.	76	1
ETHYL BENZENE	N.D.	0.0050	N.D.	76	1
XYLENES	N.D.	0.0050	N.D.	76	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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Federal ID #68-0140157

MV V132 O:BTEXQC0220
KAYVAN 09:37

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB2-35**
Spl#: 123762 *Matrix:* SOIL
Sampled: March 31, 1997 *Run#:* 6140 *Analyzed:* April 5, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	95	1
MTBE	N.D.	0.0050	N.D.	74	1
BENZENE	N.D.	0.0050	N.D.	75	1
TOLUENE	N.D.	0.0050	N.D.	76	1
ETHYL BENZENE	N.D.	0.0050	N.D.	76	1
XYLENES	N.D.	0.0050	N.D.	76	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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MV V132 O:BTEXQC0220
KAYVAN 09:37

CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB2-40**
Spl#: 123763 *Matrix:* SOIL
Sampled: March 31, 1997 *Run#:* 6140 *Analyzed:* April 5, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	95	1
MTBE	N.D.	0.0050	N.D.	74	1
BENZENE	N.D.	0.0050	N.D.	75	1
TOLUENE	N.D.	0.0050	N.D.	76	1
ETHYL BENZENE	N.D.	0.0050	N.D.	76	1
XYLENES	N.D.	0.0050	N.D.	76	1

Kayvan Kimyai
Chemist

Marianne Alexander
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MV V132 O:BTEXQC0220
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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **KB3-20**
Spl#: 123821 *Matrix:* SOIL
Sampled: March 31, 1997 *Run#:* 6140 *Analyzed:* April 5, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	1.0	N.D.	95	1
MTBE	N.D.	0.0050	N.D.	74	1
BENZENE	N.D.	0.0050	N.D.	75	1
TOLUENE	N.D.	0.0050	N.D.	76	1
ETHYL BENZENE	N.D.	0.0050	N.D.	76	1
XYLENES	N.D.	0.0050	N.D.	76	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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MV V132 O:BTEXQC0220
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Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 6 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6140
Matrix: SOIL

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123760-1	KB1-35	TRIFLUOROTOLUENE	408	65-135
123760-1	KB1-35	4-BROMOFLUOROBENZENE	342	65-135
123761-1	KB1-45	TRIFLUOROTOLUENE	1.39	65-135
123761-1	KB1-45	4-BROMOFLUOROBENZENE	4.30	65-135
123761-2	KB1-45	TRIFLUOROTOLUENE	89.6	65-135
123761-2	KB1-45	4-BROMOFLUOROBENZENE	85.5	65-135
123762-1	KB2-35	TRIFLUOROTOLUENE	68.7	65-135
123762-1	KB2-35	4-BROMOFLUOROBENZENE	55.5	65-135
123762-2	KB2-35	TRIFLUOROTOLUENE	71.6	65-135
123762-2	KB2-35	4-BROMOFLUOROBENZENE	66.6	65-135
123763-1	KB2-40	TRIFLUOROTOLUENE	77.0	65-135
123763-1	KB2-40	4-BROMOFLUOROBENZENE	65.5	65-135
123764-1	KB3-40	TRIFLUOROTOLUENE	73.2	65-135
123764-1	KB3-40	4-BROMOFLUOROBENZENE	63.0	65-135
123764-2	KB3-40	TRIFLUOROTOLUENE	88.3	65-135
123764-2	KB3-40	4-BROMOFLUOROBENZENE	82.9	65-135
123821-1	KB3-20	TRIFLUOROTOLUENE	1.04	65-135
123821-1	KB3-20	4-BROMOFLUOROBENZENE	0.873	65-135
123821-2	KB3-20	TRIFLUOROTOLUENE	80.7	65-135
123821-2	KB3-20	4-BROMOFLUOROBENZENE	72.1	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124834-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	96.4	65-135
124834-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	84.4	65-135
124835-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	91.4	65-135
124835-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	112	65-135
124837-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	95.6	65-135
124837-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	130	65-135
124838-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	64.8	65-135
124838-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	58.3	65-135

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QCSURR1229 KAYVAN 10-Apr-97 11

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 6 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6140
Matrix: SOIL

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123760-1	KB1-35	TRIFLUOROTOLUENE	408	65-135
123760-1	KB1-35	4-BROMOFLUOROBENZENE	342	65-135
123761-1	KB1-45	TRIFLUOROTOLUENE	1.39	65-135
123761-1	KB1-45	4-BROMOFLUOROBENZENE	4.30	65-135
123762-1	KB2-35	TRIFLUOROTOLUENE	68.7	65-135
123762-1	KB2-35	4-BROMOFLUOROBENZENE	55.5	65-135
123763-1	KB2-40	TRIFLUOROTOLUENE	77.0	65-135
123763-1	KB2-40	4-BROMOFLUOROBENZENE	65.5	65-135
123764-1	KB3-40	TRIFLUOROTOLUENE	73.2	65-135
123764-1	KB3-40	4-BROMOFLUOROBENZENE	63.0	65-135
123764-2	KB3-40	TRIFLUOROTOLUENE	88.3	65-135
123764-2	KB3-40	4-BROMOFLUOROBENZENE	82.9	65-135
123821-1	KB3-20	TRIFLUOROTOLUENE	1.04	65-135
123821-1	KB3-20	4-BROMOFLUOROBENZENE	0.873	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124834-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	96.4	65-135
124834-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	84.4	65-135
124835-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	91.4	65-135
124835-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	112	65-135
124837-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	95.6	65-135
124837-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	130	65-135
124838-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	64.8	65-135
124838-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	58.3	65-135
124839-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	76.2	65-135
124839-1	*Matrix spike duplicate (MSD)*	4-BROMOFLUOROBENZENE	68.1	65-135

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997

Submission #: 9703447
page 2

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 6 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6140

124839-1	*Matrix spike duplicate (MSD)* TRIFLUOROTOLUENE	76.2	65-135
124839-1	*Matrix spike duplicate (MSD)* 4-BROMOFLUOROBENZENE	68.1	65-135

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CHROMALAB, INC.

Environmental Services (SDB)

April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: SOIL
Lab Run#: 6140 *Analyzed:* April 5, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup (mg/Kg)	Spike Found BSP (mg/Kg)	Spike Found Dup (mg/Kg)	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
GASOLINE	0.500	0.500	0.476	0.525	95.2	105	75-125	9.79	35
MTBE	0.0200	0.0200	0.0147	0.0176	73.5	88.0	75-125	18.0	35
BENZENE	0.0200	0.0200	0.0150	0.0174	75.0	87.0	77-123	14.8	35
TOLUENE	0.0200	0.0200	0.0152	0.0183	76.0	91.5	79-122	18.5	35
ETHYL BENZENE	0.0200	0.0200	0.0152	0.0188	76.0	94.0	70-130	21.2	35
XYLENES	0.0600	0.0600	0.0457	0.0570	76.2	95.0	75-125	22.0	35

BS Smpl #: 124835
BSD Smpl #: 124837

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April 10, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Matrix spike** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: SOIL
Lab Run#: 6140 *Instrument:* 3400-1 *Analyzed:* April 5, 1997

Analyte	Spiked Sample Amount (mg/Kg)	Spike Amt MS (mg/Kg)	Spike Amt MSD (mg/Kg)	Amt Found MS (mg/Kg)	Amt Found MSD (mg/Kg)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
MTBE	N.D.	0.0189	0.0172	0.0135	0.0120	71.4	69.8	65-135	2.27	35
BENZENE	N.D.	0.0189	0.0172	0.0118	0.0088	62.4	51.4	65-135	19.3	35
TOLUENE	N.D.	0.0189	0.0172	0.0136	0.0108	72.0	62.8	65-135	13.6	35
ETHYL BENZENE	0.00600	0.0189	0.0172	0.0144	0.0116	76.2	67.4	65-135	12.2	35
XYLENES	0.062	0.0567	0.0515	0.0606	0.0590	107	114	65-135	6.33	35

Sample Spiked: 124489
Submission #: 9704066
Client Sample ID: SSCS-600w

MS Smpl #: 124838
MSD Smpl #: 124839

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: 1 sample for PERCENTAGE MOISTURE analysis.
Method: *EPA SW846 8000*

Sampled: March 31, 1997 *Matrix:* SOIL *Run#:* 6138 *Extracted:* April 3, 1997 *Analyzed:* April 3, 1997

Spl#	CLIENT SPL ID	DRY WEIGHT PERCENT MOISTURE (%)	REPORTING LIMIT (%)	BLANK RESULT (%)	BLANK SPIKE (%)	DILUTION FACTOR	% MOISTURE
123769	KB1-40	19.4	0.1	N.D.	--	--	19.4

Carolyn House
Extractions Supervisor

Chip Poalinelli
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: 1 sample for pH analysis.
Method: *9040/9045*

Sampled: March 31, 1997 *Matrix:* SOIL *Extracted:* April 1, 1997
Run#: 6032 *Analyzed:* April 1, 1997

Spl#	CLIENT SPL ID	pH (Units)	REPORTING LIMIT (Units)	BLANK RESULT (Units)	BLANK SPIKE (%)	DILUTION FACTOR
123768	KB1-40	7.89	1-14	7.00	--	--

Carolyn House
Extractions Supervisor

Chip Poalinelli
Operations Manager

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/6010A Nov 1990*

Client Sample ID: **KB1-W1**
Spl#: 123766 *Matrix:* WATER *Extracted:* April 2, 1997
Sampled: March 31, 1997 *Run#:* 6053 *Analyzed:* April 2, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
LEAD	0.087	0.0050	N.D.	97.6	1

Charles Woolley
Chemist

John S. Labash
Inorganic Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/6010A Nov 1990*

Client Sample ID: **KB2-W1**
Spl#: 123767 *Matrix:* WATER *Extracted:* April 2, 1997
Sampled: March 31, 1997 *Run#:* 6053 *Analyzed:* April 2, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
LEAD	0.25	0.0050	N.D.	97.6	1

Charles Woolley
Chemist

John S. Labash
Inorganic Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for Miscellaneous Metals analysis.

Method: EPA 3050A/6010A Nov 1990

Matrix: WATER
Lab Run#: 6053 *Analyzed:* April 2, 1997

Analyte	Spike Amount BSP (mg/L)	Spike Amount Dup	Found BSP (mg/L)	Found Dup	Recov BSP (%)	Recov Dup (%)	Control Limits	% RPD	% RPD Lim
LEAD	0.500	0.500	0.488	0.515	97.6	103	80-120	5.38	20

BS Smpl #: 124012
BSD Smpl #: 124013

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Environmental Services (SDB)

April 8, 1997

Submission #: 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD.
Received: March 31, 1997

Project#: 23-4829-65/ESA

re: **Matrix spike** report for Miscellaneous Metals analysis.

Method: EPA 3050A/6010A Nov 1990

Matrix: WATER
Lab Run#: 6053

Instrument: PE ICP

Extracted: April 2, 1997
Analyzed: April 2, 1997

Analyte	Spiked Sample Amount (mg/L)	Spike Amt MS (mg/L)	Spike Amt MSD (mg/L)	Amt Found MS (mg/L)	Amt Found MSD (mg/L)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
LEAD	0.062	0.500	0.500	0.565	0.578	101	103	80-120	1.96	20

Sample Spiked: 122958
Submission #: 9703376
Client Sample ID: #1 TREATED WATER

MS Smpl #: 124015
MSD Smpl #: 124017

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CHROMALAB, INC.

Environmental Services (SDB)

April 3, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: 6 samples for Lead analysis.
Method: *EPA 3050A/7420A*

Sampled: March 31, 1997 *Matrix:* SOIL *Extracted:* April 1, 1997
Run#: 6046 *Analyzed:* April 2, 1997

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
123760	KB1-35	N.D.	5.0	N.D.	96.4	1
123762	KB2-35	N.D.	5.0	N.D.	96.4	1
123763	KB2-40	N.D.	5.0	N.D.	96.4	1
123764	KB3-40	N.D.	5.0	N.D.	96.4	1

Sampled: March 31, 1997 *Matrix:* SOIL *Extracted:* April 1, 1997
Run#: 6046 *Analyzed:* April 2, 1997

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
123761	KB1-45	N.D.	5.0	N.D.	96.4	1

Sampled: March 31, 1997 *Matrix:* SOIL *Extracted:* April 3, 1997
Run#: 6074 *Analyzed:* April 3, 1997

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
123821	KB3-20	N.D.	5.0	N.D.	102	1

Shafi Barekzai
Chemist

John S. Labash
Inorganics Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for Lead analysis.

Method: EPA 3050A/7420A

Matrix: SOIL
Lab Run#: 6046

Analyzed: April 2, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup (mg/Kg)	Found BSP (mg/Kg)	Found Dup (mg/Kg)	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
LEAD	250	250	241	237	96.4	94.8	85-115	1.67	20

BS Smpl #: 123979
BSD Smpl #: 123980

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Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for Lead analysis.

Method: EPA 3050A/7420A

Matrix: SOIL
Lab Run#: 6074 *Analyzed:* April 3, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup (mg/Kg)	Spike Found BSP (mg/Kg)	Spike Found Dup (mg/Kg)	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits %	% RPD	% RPD Lim
LEAD	250	250	256	258	102	103	85-115	0.97	20

BS Smpl #: 124223
BSD Smpl #: 124224

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Matrix spike** report for Lead analysis.

Method: EPA 3050A/7420A

Matrix: SOIL *Extracted:* April 1, 1997
Lab Run#: 6046 *Instrument:* *Analyzed:* April 2, 1997

Analyte	Spiked Sample Amount (mg/Kg)	Spike Amt MS (mg/Kg)	Spike Amt MSD (mg/Kg)	Amt Found MS (mg/Kg)	Amt Found MSD (mg/Kg)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
LEAD	32	250	250	269	272	94.8	96.0	85-115	1.26	20

Sample Spiked: 123770
Submission #: 9703448
Client Sample ID: WSU 1,2,3,4

MS Smpl #: 123982
MSD Smpl #: 123983

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Matrix spike** report for Lead analysis.

Method: EPA 3050A/7420A

Matrix: SOIL *Extracted:* April 3, 1997
Lab Run#: 6074 *Instrument:* *Analyzed:* April 3, 1997

Analyte	Spiked Sample Amount (mg/Kg)	Spike Amt MS (mg/Kg)	Spike Amt MSD (mg/Kg)	Amt Found MS (mg/Kg)	Amt Found MSD (mg/Kg)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
LEAD	ND	250	250	253	253	101	101	85-115	0	20

Sample Spiked: 124041
Submission #: 9704015
Client Sample ID: PIT# 1-4'

MS Smpl #: 124226
MSD Smpl #: 124227

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB1-35**
Spl#: 123760 *Matrix:* SOIL *Extracted:* April 2, 1997
Sampled: March 31, 1997 *Run#:* 6088 *Analyzed:* April 5, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	65.1	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB1-45**
Spl#: 123761 *Matrix:* SOIL *Extracted:* April 2, 1997
Sampled: March 31, 1997 *Run#:* 6088 *Analyzed:* April 5, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	65.1	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB2-35**
Spl#: 123762 *Matrix:* SOIL *Extracted:* April 3, 1997
Sampled: March 31, 1997 *Run#:* 6087 *Analyzed:* April 7, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	84.7	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB2-40**
Spl#: 123763 *Matrix:* SOIL *Extracted:* April 3, 1997
Sampled: March 31, 1997 *Run#:* 6087 *Analyzed:* April 7, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	4.4	1.0	N.D.	84.7	1
Note: Hydrocarbon reported as Diesel, is in the late Diesel range and does not match our Diesel standard.					
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB3-40**
Spl#: 123764 *Matrix:* SOIL *Extracted:* April 3, 1997
Sampled: March 31, 1997 *Run#:* 6087 *Analyzed:* April 6, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	84.7	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB3-20**
Spl#: 123821 *Matrix:* SOIL *Extracted:* April 2, 1997
Sampled: March 31, 1997 *Run#:* 6088 *Analyzed:* April 5, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	65.1	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 3 samples for TEPH analysis.
Method: EPA 8015M
Lab Run#: 6088
Matrix: SOIL

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123760-1	KB1-35	O-TERPHENYL	97.4	60-130
123761-1	KB1-45	O-TERPHENYL	84.8	60-130
123821-1	KB3-20	O-TERPHENYL	98.1	60-130

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124343-1	*Reagent blank (MDB)*	O-TERPHENYL	93.2	60-130
124344-1	*Spiked blank (BSP)*	O-TERPHENYL	106	60-130
124345-1	*Spiked blank duplicate (BSD)*	O-TERPHENYL	103	60-130

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for TEPH analysis.

Method: EPA 8015M

Matrix: SOIL
Lab Run#: 6087 *Analyzed:* April 4, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup	Spike Found BSP (mg/Kg)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
DIESEL	6.66	6.65	5.64	5.16	84.7	77.6	60-130	8.75	25

BS Smpl #: 124339
BSD Smpl #: 124340

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for TEPH analysis.

Method: EPA 8015M

Matrix: SOIL
Lab Run#: 6088 *Analyzed:* April 4, 1997

Analyte	Spike Amount BSP (mg/Kg)	Spike Amount Dup (mg/Kg)	Found BSP (mg/Kg)	Found Dup (mg/Kg)	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
DIESEL	6.67	6.67	4.34	5.14	65.1	77.1	60-130	16.9	25

BS Smpl #: 124344
BSD Smpl #: 124345

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OC_BSD1226 CHIP 08:44:18

CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 3 samples for TEPH analysis.
Method: EPA 8015M
Lab Run#: 6087
Matrix: SOIL

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123762-1	KB2-35	O-TERPHENYL	86.8	60-130
123763-1	KB2-40	O-TERPHENYL	86.2	60-130
123764-1	KB3-40	O-TERPHENYL	78.2	60-130

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124338-1	*Reagent blank (MDB)*	O-TERPHENYL	104	60-130
124339-1	*Spiked blank (BSP)*	O-TERPHENYL	104	60-130
124340-1	*Spiked blank duplicate (BSD)*	O-TERPHENYL	104	60-130

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CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB1-W1**
Spl#: 123766 *Matrix:* WATER *Extracted:* April 4, 1997
Sampled: March 31, 1997 *Run#:* 6105 *Analyzed:* April 5, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	64	50	N.D.	90.5	1
Note: *Hydrocarbon reported does not match the pattern of our Diesel Standard.*					
MOTOR OIL	N.D.	500	N.D.	--	1
KEROSENE	N.D.	50	N.D.	--	1

NOTE: **Quantitation for the above Analyte is based on the response factor of Diesel.**

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 7, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KB2-W1**
Spl#: 123767 *Matrix:* WATER *Extracted:* April 4, 1997
Sampled: March 31, 1997 *Run#:* 6105 *Analyzed:* April 5, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	180	50	N.D.	90.5	1
Note: Hydrocarbon reported does not match the pattern of our Diesel Standard.					
MOTOR OIL	N.D.	500	N.D.	--	1
KEROSENE	N.D.	50	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

1220 Quarry Lane • Pleasanton, California 94566-4756
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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Surrogate** report for 2 samples for TEPH analysis.
Method: EPA 8015M
Lab Run#: 6105
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123766-1	KB1-W1	O-TERPHENYL	113	60-130
123767-1	KB2-W1	O-TERPHENYL	115	60-130

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124667-1	*Reagent blank (MDB)*	O-TERPHENYL	107	60-130
124668-1	*Spiked blank (BSP)*	O-TERPHENYL	114	60-130
124669-1	*Spiked blank duplicate (BSD)*	O-TERPHENYL	113	60-130

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703447

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: March 31, 1997

re: **Blank spike and duplicate** report for TEPH analysis.

Method: EPA 8015M

Matrix: WATER
Lab Run#: 6105 *Analyzed:* April 4, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup	Spike Found BSP (ug/L)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
DIESEL	200	200	181	192	90.5	96.0	60-130	5.90	25

BS Smpl #: 124668
BSD Smpl #: 124669

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

Date: 5/9/97

Attention: LAURIE RACCA
KLEINFELDER - SACTO
3077 Fite Circle
Sacramento, CA 95827

Dear Client,

Enclosed are the hardcopy subcontract reports for ChromaLab submission number 9703447. You were mailed the faxed copies along with your invoice because the subcontract hardcopies were not yet available.

These are for your records only. We apologize for any inconvenience.

If you have any questions or need more information, please do not hesitate to call me at (510) 484-1919 extension 110.

Sincerely,

Samantha Antone
Invoicing

Enclosures

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Federal ID #68-0140157

A & L WESTERN AGRICULTURAL LABORATORIES

1311 Woodland Ave. • Ste. #1 • Modesto CA 95351 • (209) 529-4080 • FAX (209) 529-4736

REPORT NUMBER

97-091-059
Amended Report

Client No: 2717

April 18, 1997

CHROMALAB, INC.
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project #9703447
Project Mgr. C. Rowley

Lab No: 56467

Sample Id: KB1-40

Total Organic Carbon	0.97 %
Total Kjeldahl Nitrogen . . .	372 ppm
Nitrate Nitrogen . . .	6 ppm
Nitrite Nitrogen	1.0 ppm
Water Soluble Phosphate . . .	0.7 ppm

A & L Western Agricultural Laboratories

Robert Butterfield
Laboratory Director

A & L WESTERN AGRICULTURAL LABORATORIES

1311 Woodland Ave. • Ste. #1 • Modesto CA 95351 • (209) 529-4080 • FAX (209) 529-4736

REPORT NUMBER

97-091-059
Amended Report

Client No: 2717

April 18, 1997

CHROMALAB, INC.
1220 Quarry Lane
Pleasanton, CA 94566-4756

Project #9703447
Project Mgr. C. Rowley

Lab No: 56467

Sample Id: KB1-40

Total Organic Carbon	0.97 %
Total Kjeldahl Nitrogen . . .	372 ppm
Nitrate Nitrogen	6 ppm
Nitrite Nitrogen	1.0 ppm
Water Soluble Phosphate . . .	0.7 ppm

A & L Western Agricultural Laboratories

Robert Butterfield
Laboratory Director

KLEINFELDER

03306 / 123001-123014 32759

PROJ. NO.	PROJECT NAME	NO. OF CONTAINERS	REMARKS
23-4829-65/ESA	Greenville Rd.		Chromalab: 5-Day T.A.T
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number) Stephen Quayle [signature]		

ANALYSIS: (1) Total Petroleum Hydrocarbons (Fuel Fingerprint Quantitate ...); (2) BTEX / MTBE; (3) Total Lead; (4) VOCs (624/8260); (5) SVOCs (625/8270); (6) Autonium & breakdown products

DATE MM DD YY	SAMPLE I.D. TIME HH MM SS	SAMPLE I.D.	NO. OF CONTAINERS	(1) TPH	(2) BTEX/MTBE	(3) Total Lead	(4) VOCs	(5) SVOCs	(6) Autonium & breakdown						REMARKS
3-26-97	1235	MW-1	7				X	X	X						
↓	1525	MWT-1	6	X	X	X									SUBM #: 9703386 REP:
↓	1555	MWT-3	6	X	X	X									CLIENT: KLEIN-SAC DUE: 04/02/97
↓		Trip Blank #1	1		X										REF #:32759
↓	1652	MWT-2	6	X	X	X									

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Remarks	Send Results To
[signature]	3/26/97 1757		Please Fax results when available.	Attn: Laurie Racca
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		KLEINFELDER ~~7133 KOLL CENTER PARKWAY~~ 3077 Fite Ci[r] ~~SUITE 100~~ Sacramento, CA 95827 ~~PLEASANTON, CA 94566~~
Relinquished by: (Signature)	Date/Time 3/26/97 1757	Received for Laboratory by: (Signature) [signature]		~~(510) 484-1700~~ 916-366-1701 FAX: 916-366-7013

M-60 White - Sampler Canary - Return Copy To Shipper Pink - Lab Copy

CHAIN OF CUSTODY № 804

CHROMALAB, INC.

Environmental Services (SDB)

Sample Receipt Checklist

Client Name: KLEINFELDER'S Date/Time Received: 3/26/97 (Date) / 1757 (Time)

Reference/Subm #: 32759/9703384 Received by: CR

Checklist completed by: Chris Rowley 3/27/97 (Signature / Date) Reviewed By: SA 3/27/97 (Initial/Date)

Matrix: H2O Carrier name: Client - C/L - _____

Shipping container/cooler in good condition?	Yes ✓	No ___	Not Present ___
Custody seals intact on shipping container/cooler?	Yes ___	No ___	Not Present ✓
Custody seals intact on sample bottles?	Yes ___	No ___	Not Present ✓
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 ___	
Sample containers intact?	Yes ✓	No ___	
Sufficient sample volume for indicated test?	Yes ✓	No ___	
All samples received within holding time?	Yes ✓	No ___	
Container/Temp Blank temperature in compliance?	Temp: 7.9 °C Yes ✓	No ___	
Water - VOA vials have zero headspace?	No VOA vials submitted ___	Yes ___	No ___
Water - pH acceptable upon receipt? YES	adjusted? ___	Checked by CR	Chemist for VOAs

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

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CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **MWT-1**
Spl#: 123009 *Matrix:* WATER
Sampled: March 26, 1997 *Run#:* 6049 *Analyzed:* April 1, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	102	1
MTBE	N.D.	5.0	N.D.	108	1
BENZENE	N.D.	0.50	N.D.	103	1
TOLUENE	N.D.	0.50	N.D.	104	1
ETHYL BENZENE	N.D.	0.50	N.D.	104	1
XYLENES	N.D.	0.50	N.D.	106	1

Kayvan Kimyai
Chemist

Marianne Alexander
Gas/BTEX Supervisor

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Federal ID #68-0140157

MW1132 Q:BTEXQC0220

ALEXANDM 17:28

CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **MWT-2**
Spl#: 123012 *Matrix:* WATER
Sampled: March 26, 1997 *Run#:* 6049 *Analyzed:* April 1, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	5400	500	N.D.	102	10
MTBE	N.D.	50	N.D.	108	10
BENZENE	20	5.0	N.D.	103	10
TOLUENE	22	5.0	N.D.	104	10
ETHYL BENZENE	370	5.0	N.D.	104	10
XYLENES	890	5.0	N.D.	106	10

Note: Reporting Limits Increased Due To Matrix Interference. Surrogate recovery was outside QA/QC limits due to matrix interference. See Surrogate Summary page.

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CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **MWT-3**
Spl#: 123011 *Matrix:* WATER
Sampled: March 26, 1997 *Run#:* 6049 *Analyzed:* April 1, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	102	1
MTBE	N.D.	5.0	N.D.	108	1
BENZENE	N.D.	0.50	N.D.	103	1
TOLUENE	N.D.	0.50	N.D.	104	1
ETHYL BENZENE	1.6	0.50	N.D.	104	1
XYLENES	0.54	0.50	N.D.	106	1

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CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **TRIP BLANK #1**
Spl#: 123014 *Matrix:* WATER
Sampled: March 26, 1997 *Run#:* 6049 *Analyzed:* April 1, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	50	N.D.	102	1
MTBE	N.D.	5.0	N.D.	108	1
BENZENE	N.D.	0.50	N.D.	103	1
TOLUENE	N.D.	0.50	N.D.	104	1
ETHYL BENZENE	N.D.	0.50	N.D.	104	1
XYLENES	N.D.	0.50	N.D.	106	1

Kayvan Kimyai
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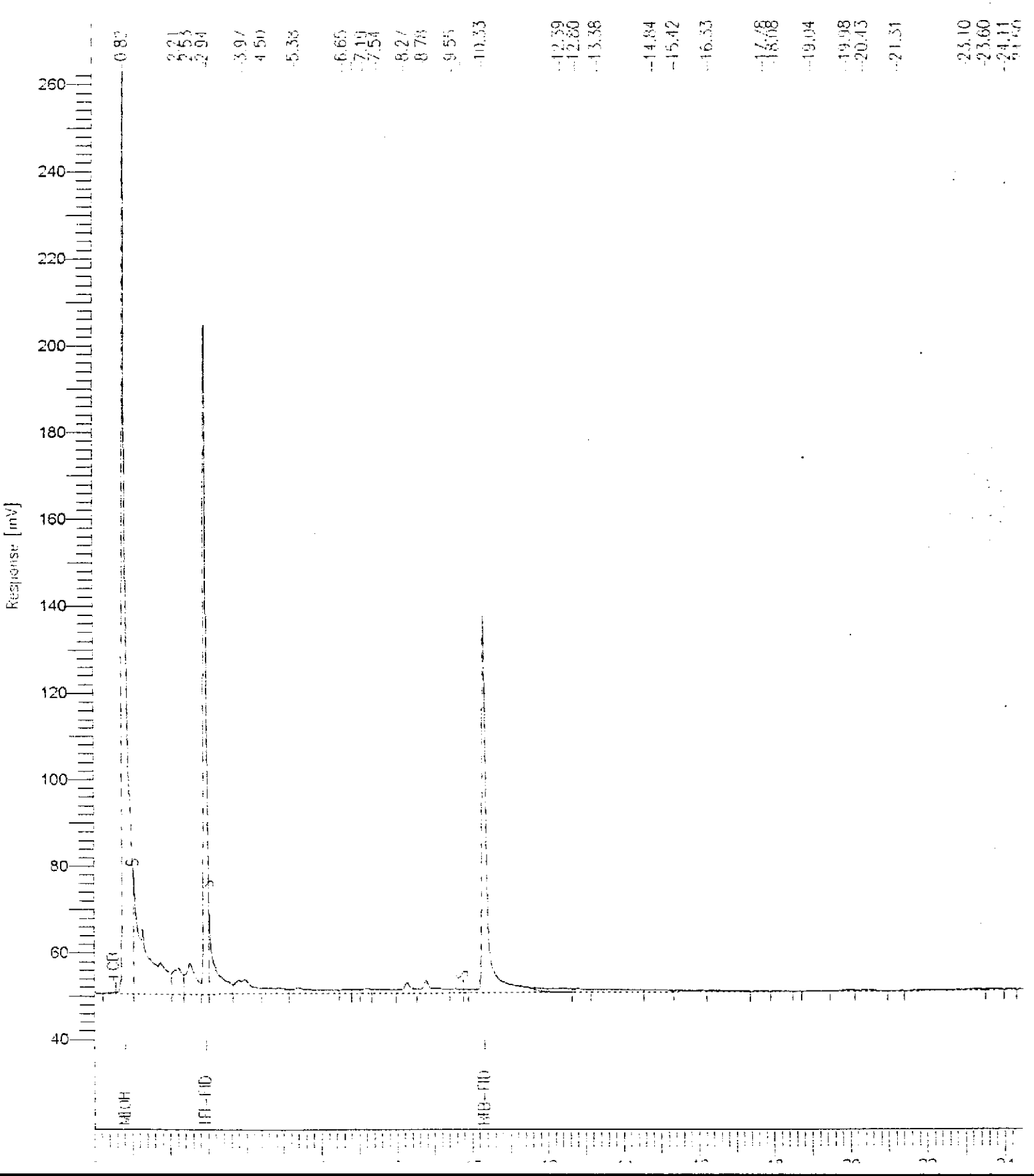
MW1123 O:BTEXOC0220

ALEXANDM 17:26

Gasoline Chromatogram

Sample Name : 9703086/MWT-1
FileName : D:\3G40120.raw
Method : 8PA15E
Start Time : 0.00 min End Time : 24.99 min
Scale Factor: 1.0 Plot Offset: 40 mV

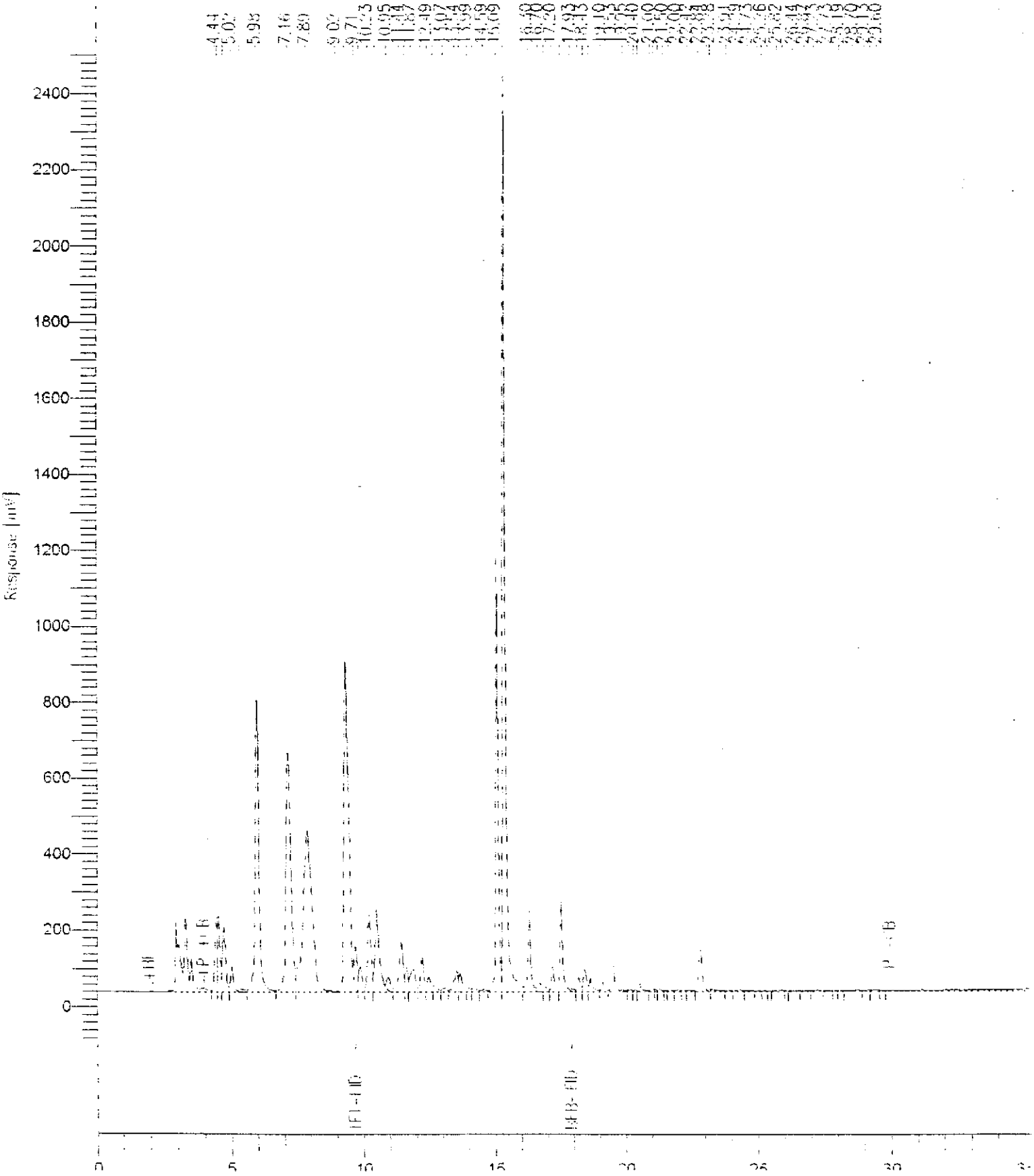
Sample #: 123009 Page 1 of 1
Date : 4/1/97 22:06
Time of Injection: 4/1/97 21:41
Low Point : 39.03 mV High Point : 263.32 mV
Plot Scale: 223.1 mV



Gasoline Chromatogram

Sample Name : 9701086/MWT-2
FileName : 2:\4G\0209.raw
Method : 4EA17W
Start Time : 0.00 min End Time : 35.00 min
Scale Factor: 1.0 Plot Offset: -80 mV

Sample #: 115012 Page 1 of 1
Date : 4/1/97 16:58
Time of Injection: 4/2/97 16:22
Low Point : -80.81 mV High Point : 2361.75 mV
Plot Scale: 2361.7 mV



Gasoline Chromatogram

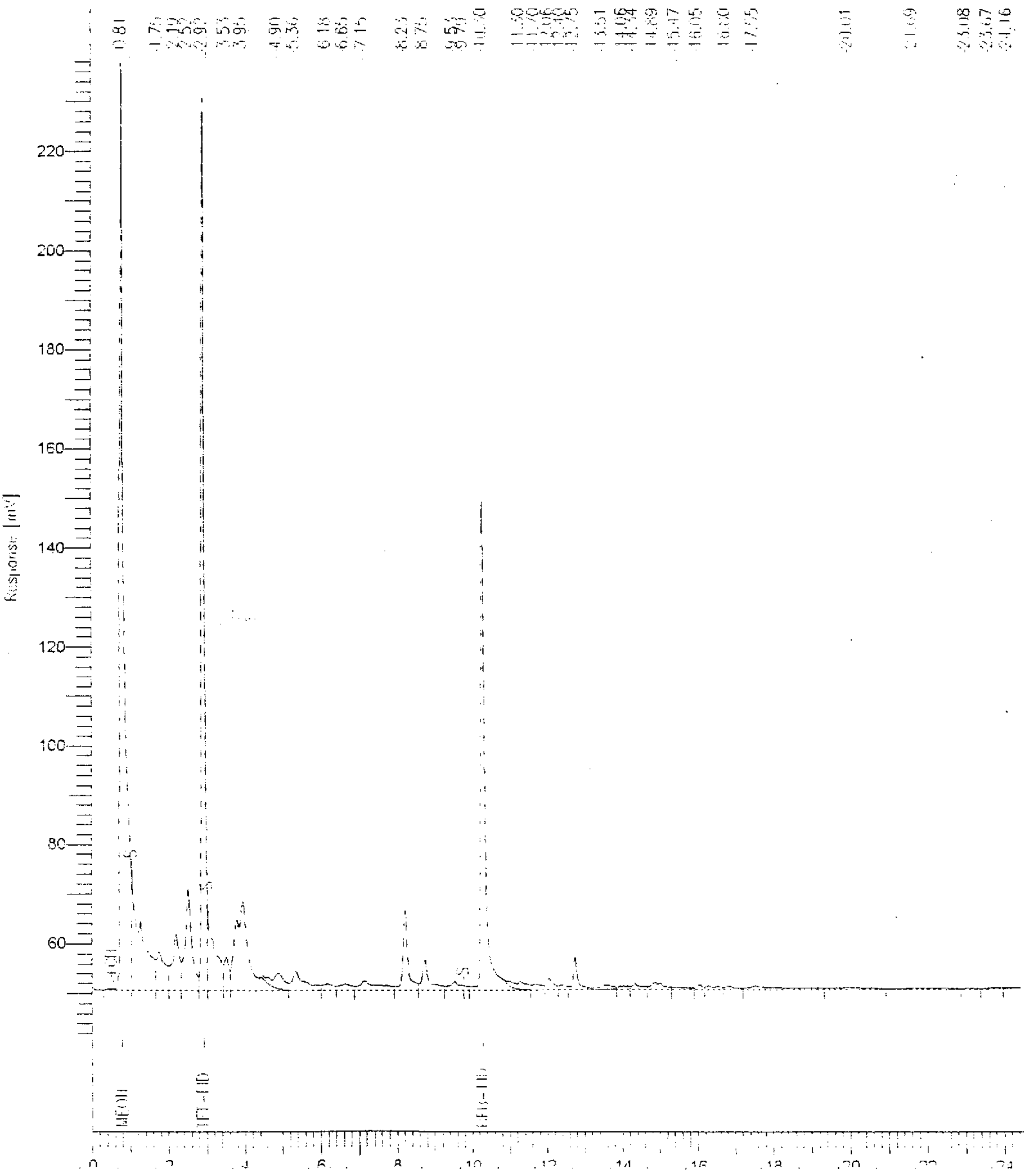
Sample Name : 9703066/MWT-3
FileName : Q:\3G40211.raw
Method : 3BA15E
Start Time : 0.00 min
Scale Factor: 1.0

End Time : 24.99 min
Plot Offset: 41 mV

Sample #: 120011
Date : 4/2/97 16:29
Time of Injection: 4/2/97 16:01
Low Point : 41.10 mV
Plot Scale: 197.0 mV

Page 1 of 1

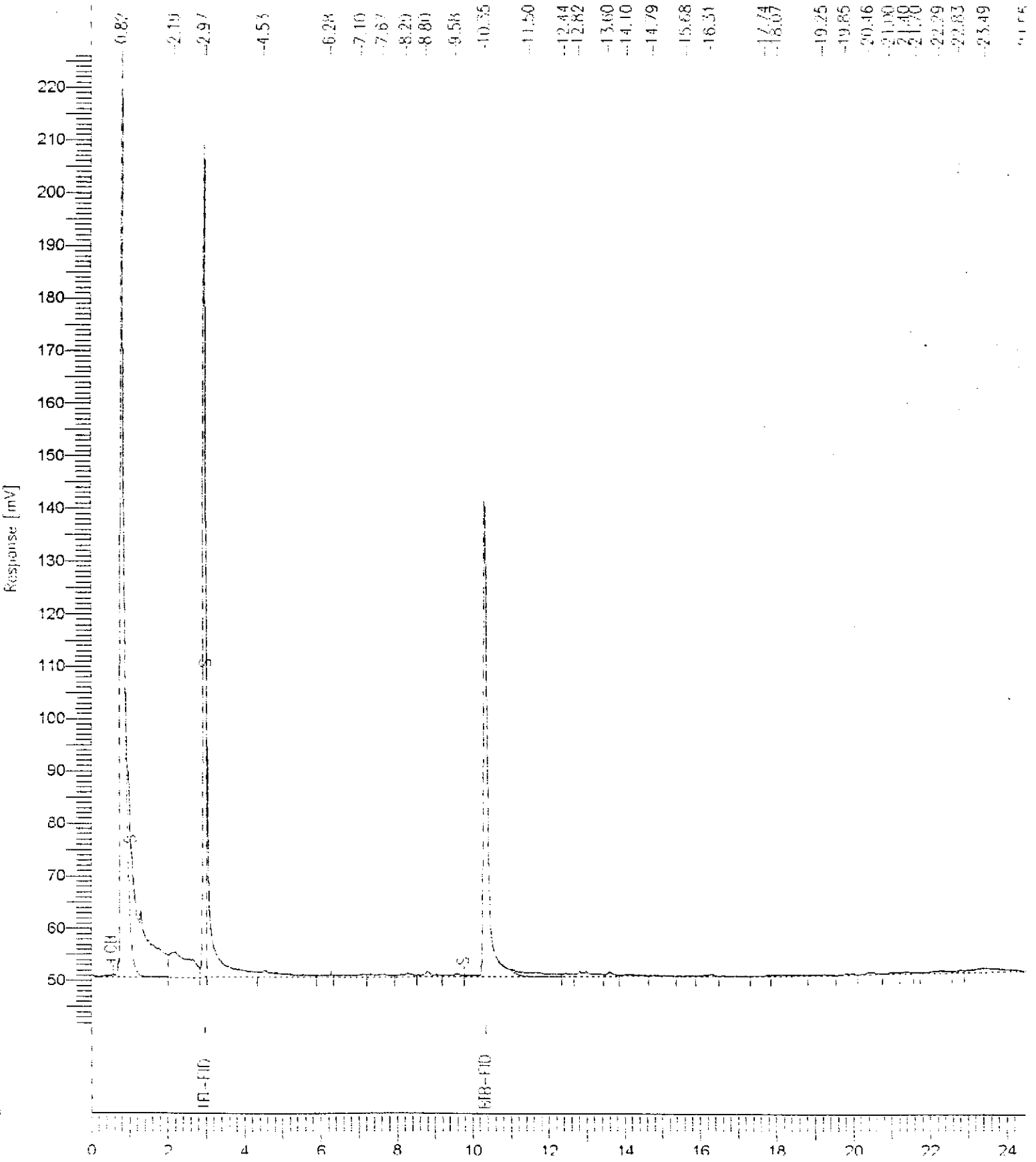
High Point : 236.38 mV



Gasoline Chromatogram

Sample Name : 9703086/TRIP BLANK #1
FileName : Q:\5G40117.raw
Method : 8PA15E
Start Time : 0.00 min End Time : 24.39 min
Scale Factor: 1.0 Plot Offset: 42 mV

Sample #: 123014 Page 1 of 1
Date : 4/1/97 20:00
Time of Injection: 4/1/97 20:05
Low Point : 41.02 mV High Point : 226.04 mV
Plot Scale: 184.4 mV



CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Surrogate** report for 4 samples for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod
Lab Run#: 6049
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123009-1	MWT-1	TRIFLUOROTOLUENE	111	65-135
123009-1	MWT-1	4-BROMOFLUOROBENZENE	124	65-135
123011-1	MWT-3	TRIFLUOROTOLUENE	109	65-135
123011-1	MWT-3	4-BROMOFLUOROBENZENE	124	65-135
123011-2	MWT-3	TRIFLUOROTOLUENE	114	65-135
123011-2	MWT-3	4-BROMOFLUOROBENZENE	128	65-135
123012-1	MWT-2	TRIFLUOROTOLUENE	132	65-135
123012-1	MWT-2	4-BROMOFLUOROBENZENE	761	65-135
123012-2	MWT-2	TRIFLUOROTOLUENE	152	65-135
123012-2	MWT-2	4-BROMOFLUOROBENZENE	99.7	65-135
123014-1	TRIP BLANK #1	TRIFLUOROTOLUENE	127	65-135
123014-1	TRIP BLANK #1	4-BROMOFLUOROBENZENE	115	65-135

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
123994-1	*Reagent blank (MDB)*	TRIFLUOROTOLUENE	140	65-135
123994-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	146	65-135
123995-1	*Spiked blank (BSP)*	TRIFLUOROTOLUENE	106	65-135
123995-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	161	65-135
123996-1	*Spiked blank duplicate (BSD)*	TRIFLUOROTOLUENE	109	65-135
123996-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	162	65-135
123997-1	*Matrix spike (MS)*	TRIFLUOROTOLUENE	106	65-135
123997-1	*Matrix spike (MS)*	4-BROMOFLUOROBENZENE	111	65-135
123998-1	*Matrix spike duplicate (MSD)*	TRIFLUOROTOLUENE	110	65-135
123998-1	*Matrix spike duplicate (MSD)*	4-BROMOFLUOROBENZENE	104	65-135

V132
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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Blank spike and duplicate** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 6049 *Analyzed:* April 1, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup	Spike Found BSP (ug/L)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
GASOLINE	500	500	508	529	102	106	75-125	3.85	20
MTBE	20.0	20.0	21.6	22.8	108	114	75-125	5.40	20
BENZENE	20.0	20.0	20.6	21.5	103	108	77-123	4.74	20
TOLUENE	20.0	20.0	20.7	21.5	104	108	78-122	3.77	20
ETHYL BENZENE	20.0	20.0	20.7	21.6	104	108	70-130	3.77	20
XYLENES	60.0	60.0	63.8	66.5	106	111	75-125	4.61	20

BS Smpl #: 123995
BSD Smpl #: 123996

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Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Matrix spike** report for Gasoline BTEX MTBE analysis.

Method: SW846 8020A Nov 1990 / 8015Mod

Matrix: WATER
Lab Run#: 6049 *Instrument:* 3400-5 *Analyzed:* April 1, 1997

Analyte	Spiked Sample Amount (ug/L)	Spike Amt MS (ug/L)	Spike Amt MSD (ug/L)	Amt Found MS (ug/L)	Amt Found MSD (ug/L)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
MTBE	N.D.	20.0	20.0	22.4	22.8	112	114	65-135	1.77	20
BENZENE	0.62	20.0	20.0	20.8	21.2	101	103	65-135	1.96	20
TOLUENE	N.D.	20.0	20.0	20.4	20.6	102	103	65-135	0.97	20
ETHYL BENZENE	N.D.	20.0	20.0	20.6	21.1	103	106	65-135	2.87	20
XYLENES	1.7	60.0	60.0	63.1	64.0	102	104	65-135	1.94	20

Sample Spiked: 122953
Submission #: 9703374
Client Sample ID: EFFLUENT

MS Smpl #: 123997
MSD Smpl #: 123998

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Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Semivolatile Organic Compounds (B/NAs) analysis.
Method: *SW846 Method 8270A Nov 1990*

Client Sample ID: **MW-1**
Spl#: 123007 *Matrix:* WATER *Extracted:* April 1, 1997
Sampled: March 26, 1997 *Run#:* 6061 *Analyzed:* April 1, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
PHENOL	N.D.	2.0	N.D.	16.3	1
BIS(2-CHLOROETHYL)ETHER	N.D.	2.0	N.D.	--	1
2-CHLOROPHENOL	N.D.	2.0	N.D.	47.3	1
1,3-DICHLOROBENZENE	N.D.	2.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	2.0	N.D.	53.7	1
BENZYL ALCOHOL	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	2.0	N.D.	--	1
2-METHYLPHENOL	N.D.	2.0	N.D.	--	1
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	2.0	N.D.	--	1
4-METHYLPHENOL	N.D.	2.0	N.D.	--	1
N-NITROSO-DI-N-PROPYLAMINE	N.D.	2.0	N.D.	48.3	1
HEXACHLOROETHANE	N.D.	2.0	N.D.	--	1
NITROBENZENE	N.D.	2.0	N.D.	--	1
ISOPHORONE	N.D.	2.0	N.D.	--	1
2-NITROPHENOL	N.D.	2.0	N.D.	--	1
2,4-DIMETHYLPHENOL	N.D.	2.0	N.D.	--	1
BIS(2-CHLOROETHOXY)METHANE	N.D.	5.0	N.D.	--	1
2,4-DICHLOROPHENOL	N.D.	2.0	N.D.	--	1
1,2,4-TRICHLOROBENZENE	N.D.	2.0	N.D.	53.7	1
NAPHTHALENE	N.D.	2.0	N.D.	--	1
4-CHLOROANILINE	N.D.	2.0	N.D.	--	1
HEXACHLOROBUTADIENE	N.D.	2.0	N.D.	--	1
4-CHLORO-3-METHYLPHENOL	N.D.	5.0	N.D.	59.8	1
2-METHYLNAPHTHALENE	N.D.	2.0	N.D.	--	1
HEXACHLOROCYCLOPENTADIENE	N.D.	2.0	N.D.	--	1
2,4,6-TRICHLOROPHENOL	N.D.	2.0	N.D.	--	1
2,4,5-TRICHLOROPHENOL	N.D.	2.0	N.D.	--	1
2-CHLORONAPHTHALENE	N.D.	2.0	N.D.	--	1
2-NITROANILINE	N.D.	10	N.D.	--	1
DIMETHYL PHTHALATE	N.D.	5.0	N.D.	--	1
ACENAPHTHYLENE	N.D.	2.0	N.D.	--	1
3-NITROANILINE	N.D.	10	N.D.	--	1
ACENAPHTHENE	N.D.	2.0	N.D.	59.0	1
2,4-DINITROPHENOL	N.D.	10	N.D.	--	1
4-NITROPHENOL	N.D.	10	N.D.	19.2	1
DIBENZOFURAN	N.D.	2.0	N.D.	--	1
2,4-DINITROTOLUENE	N.D.	2.0	N.D.	48.7	1
2,6-DINITROTOLUENE	N.D.	5.0	N.D.	--	1
DIETHYL PHTHALATE	N.D.	5.0	N.D.	--	1
4-CHLOROPHENYL PHENYL ETHER	N.D.	2.0	N.D.	--	1

CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997

Submission #: 9703386
page 2

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD
Received: March 26, 1997

Project#: 23-4829-65/ESA

re: One sample for Semivolatile Organic Compounds (B/NAs) analysis, continued.
Method: *SW846 Method 8270A Nov 1990*

Client Sample ID: **MW-1**
Spl#: 123007
Sampled: March 26, 1997

Matrix: WATER
Run#: 6061

Extracted: April 1, 1997
Analyzed: April 1, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
FLUORENE	N.D.	5.0	N.D.	--	1
4-NITROANILINE	N.D.	10	N.D.	--	1
2-METHYL-4,6-DINITROPHENOL	N.D.	10	N.D.	--	1
N-NITROSO-DI-N-PHENYLAMINE	N.D.	2.0	N.D.	--	1
4-BROMOPHENYL PHENYL ETHER	N.D.	5.0	N.D.	--	1
HEXACHLOROBENZENE	N.D.	2.0	N.D.	--	1
PENTACHLOROPHENOL	N.D.	10	N.D.	48.8	1
PHENANTHRENE	N.D.	2.0	N.D.	--	1
ANTHRACENE	N.D.	2.0	N.D.	--	1
DI-N-BUTYL PHTHALATE	N.D.	5.0	N.D.	--	1
FLUORANTHENE	N.D.	2.0	N.D.	--	1
PYRENE	N.D.	2.0	N.D.	66.3	1
BUTYL BENZYL PHTHALATE	N.D.	5.0	N.D.	--	1
3,3'-DICHLOROBENZIDINE	N.D.	5.0	N.D.	--	1
BENZO(A)ANTHRACENE	N.D.	2.0	N.D.	--	1
BIS(2-ETHYLHEXYL)PHTHALATE	N.D.	5.0	N.D.	--	1
CHRYSENE	N.D.	2.0	N.D.	--	1
DI-N-OCTYL PHTHALATE	N.D.	5.0	N.D.	--	1
BENZO(B)FLUORANTHENE	N.D.	2.0	N.D.	--	1
BENZO(K)FLUORANTHENE	N.D.	2.0	N.D.	--	1
BENZO(A)PYRENE	N.D.	2.0	N.D.	--	1
INDENO(1,2,3 C,D)PYRENE	N.D.	2.0	N.D.	--	1
DIBENZO(A,H)ANTHRACENE	N.D.	2.0	N.D.	--	1
BENZO(G,H,I)PERYLENE	N.D.	2.0	N.D.	--	1
BENZOIC ACID	N.D.	10	N.D.	--	1

Michael Lee
Chemist

Chip Poalinelli
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Surrogate** report for 1 sample for Semivolatile Organic Compounds
Method: SW846 Method 8270A Nov 1990
Lab Run#: 6061
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123007-1	MW-1	NITROBENZENE-D5	61.2	35-114
123007-1	MW-1	2-FLUOROBIPHENYL	65.5	43-116
123007-1	MW-1	P-TERPHENYL-D14	95.8	33-141
123007-1	MW-1	PHENOL-D5	24.7	10-110
123007-1	MW-1	2-FLUOROPHENOL	38.5	25-100
123007-1	MW-1	2,4,6-TRIBROMOPHENOL	66.3	10-123

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124066-1	*Reagent blank (MDB)*	NITROBENZENE-D5	69.6	35-114
124066-1	*Reagent blank (MDB)*	2-FLUOROBIPHENYL	68.1	43-116
124066-1	*Reagent blank (MDB)*	P-TERPHENYL-D14	75.7	33-141
124066-1	*Reagent blank (MDB)*	PHENOL-D5	24.3	10-110
124066-1	*Reagent blank (MDB)*	2-FLUOROPHENOL	44.0	25-100
124066-1	*Reagent blank (MDB)*	2,4,6-TRIBROMOPHENOL	83.4	10-123
124067-1	*Spiked blank (BSP)*	NITROBENZENE-D5	56.2	35-114
124067-1	*Spiked blank (BSP)*	2-FLUOROBIPHENYL	59.0	43-116
124067-1	*Spiked blank (BSP)*	P-TERPHENYL-D14	64.3	33-141
124067-1	*Spiked blank (BSP)*	PHENOL-D5	17.3	10-110
124067-1	*Spiked blank (BSP)*	2-FLUOROPHENOL	29.2	25-100
124067-1	*Spiked blank (BSP)*	2,4,6-TRIBROMOPHENOL	72.4	10-123
124068-1	*Spiked blank duplicate (BSD)*	NITROBENZENE-D5	42.1	35-114
124068-1	*Spiked blank duplicate (BSD)*	2-FLUOROBIPHENYL	43.6	43-116
124068-1	*Spiked blank duplicate (BSD)*	P-TERPHENYL-D14	55.2	33-141
124068-1	*Spiked blank duplicate (BSD)*	PHENOL-D5	13.3	10-110
124068-1	*Spiked blank duplicate (BSD)*	2-FLUOROPHENOL	24.6	25-100
124068-1	*Spiked blank duplicate (BSD)*	2,4,6-TRIBROMOPHENOL	52.2	10-123

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Blank spike and duplicate** report for Semivolatile Organic Compounds (B/NAs) analysis.

Method: SW846 Method 8270A Nov 1990

Matrix: WATER
Lab Run#: 6061 *Analyzed:* April 1, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup (ug/L)	Found BSP	Found Dup	Recov BSP (%)	Recov Dup (%)	Control Limits	% RPD	% RPD Lim
PHENOL	60.0	60.0	9.77	8.02	16.3	13.4	12-89	19.5	35
2-CHLOROPHENOL	60.0	60.0	28.4	22.1	47.3	36.8	23-134	25.0	25
1,4-DICHLOROBENZENE	30.0	30.0	16.1	11.9	53.7	39.7	36-97	30.0	30
N-NITROSO-DI-N-PROPYLAMINE	30.0	30.0	14.5	11.2	48.3	37.3	10-130	25.7	34
1,2,4-TRICHLOROBENZENE	30.0	30.0	16.1	11.5	53.7	38.3	44-142	33.5	35
4-CHLORO-3-METHYLPHENOL	60.0	60.0	35.9	26.8	59.8	44.7	22-147	28.9	31
ACENAPHTHENE	30.0	30.0	17.7	13.4	59.0	44.7	56-118	27.6	30
4-NITROPHENOL	60.0	60.0	11.5	9.65	19.2	16.1	17-132	17.6	35
2,4-DINITROTOLUENE	30.0	30.0	14.6	10.9	48.7	36.3	39-139	29.2	35
PENTACHLOROPHENOL	60.0	60.0	29.3	23.8	48.8	39.7	45-125	20.6	35
PYRENE	30.0	30.0	19.9	16.7	66.3	55.7	52-115	17.4	35

BS Smpl #: 124067
BSD Smpl #: 124068

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CHROMALAB, INC.

Environmental Services (SDB)

April 1, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/6010A Nov 1990*

Client Sample ID: **MWT-1**
Spl#: 123009 *Matrix:* WATER *Extracted:* March 31, 1997
Sampled: March 26, 1997 *Run#:* 6005 *Analyzed:* March 31, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
LEAD	0.017	0.0050	N.D.	102	1

Shafi Barekzai
Chemist

John S. Labash
Inorganics Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 1, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/6010A Nov 1990*

Client Sample ID: **MWT-2**
Spl#: 123012 *Matrix:* WATER *Extracted:* March 31, 1997
Sampled: March 26, 1997 *Run#:* 6005 *Analyzed:* March 31, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
LEAD	0.010	0.0050	N.D.	102	1

Shafi Barekzai
Chemist

John S. Labash
Inorganics Supervisor

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CHROMALAB, INC.

Environmental Services (SDB)

April 1, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for Miscellaneous Metals analysis.
Method: *EPA 3010A/6010A Nov 1990*

Client Sample ID: **MWT-3**
Spl#: 123011 *Matrix:* WATER *Extracted:* March 31, 1997
Sampled: March 26, 1997 *Run#:* 6005 *Analyzed:* March 31, 1997

ANALYTE	RESULT (mg/L)	REPORTING LIMIT (mg/L)	BLANK RESULT (mg/L)	BLANK SPIKE (%)	DILUTION FACTOR
LEAD	0.018	0.0050	N.D.	102	1

Shafi Barekzai
Chemist

John S. Labash
Inorganics Supervisor

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Blank spike and duplicate** report for Miscellaneous Metals analysis.

Method: EPA 3050A/6010A Nov 1990

Matrix: WATER
Lab Run#: 6005 *Analyzed:* March 31, 1997

Analyte	Spike Amount BSP (mg/L)	Spike Amount Dup	Found BSP (mg/L)	Found Dup	Recov BSP (%)	Recov Dup (%)	Control Limits	% RPD	% RPD Lim
LEAD	0.500	0.500	0.509	0.508	102	102	80-120	0	20

BS Smpl #: 123655
BSD Smpl #: 123656

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Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Matrix spike** report for Miscellaneous Metals analysis.

Method: EPA 3050A/6010A Nov 1990

Matrix: WATER *Extracted:* March 31, 1997
Lab Run#: 6005 *Instrument:* *Analyzed:* March 31, 1997

Analyte	Spiked Sample Amount (mg/L)	Spike Amt MS (mg/L)	Spike Amt MSD (mg/L)	Amt Found MS (mg/L)	Amt Found MSD (mg/L)	Spike Recov MS (%)	Spike Recov MSD (%)	Control Limits	% RPD	% RPD Lim
LEAD	ND	0.500	0.500	0.415	0.416	83.0	83.2	80-120	0.24	20

Sample Spiked: 122995
Submission #: 9703384
Client Sample ID: G-10

MS Smpl #: 123658
MSD Smpl #: 123659

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CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)
Atten: Laurie Racca
Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997
re: One sample for Volatile Organics by GC/MS analysis.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: **MW-1**
Spl#: 123007 *Matrix:* WATER
Sampled: March 26, 1997 *Run#:* 6058 *Analyzed:* April 2, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
ACETONE	N.D.	50	N.D.	--	1
BENZENE	N.D.	0.50	N.D.	103	1
BROMODICHLOROMETHANE	N.D.	0.50	N.D.	--	1
BROMOFORM	N.D.	0.50	N.D.	--	1
BROMOMETHANE	N.D.	1.0	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	0.50	N.D.	--	1
CHLOROBENZENE	N.D.	0.50	N.D.	102	1
CHLOROETHANE	N.D.	1.0	N.D.	--	1
2-BUTANONE (MEK)	N.D.	50	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	0.50	N.D.	--	1
CHLOROFORM	N.D.	0.50	N.D.	--	1
CHLOROMETHANE	N.D.	1.0	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.50	N.D.	--	1
1,2-DIBROMO-3-CHLOROPROPANE	N.D.	5.0	N.D.	--	1
1,2-DIBROMOETHANE	N.D.	0.50	N.D.	--	1
DIBROMOMETHANE	N.D.	0.50	N.D.	--	1
DICHLORODIFLUOROMETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	0.50	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	0.50	N.D.	99.7	1
1,2-DICHLOROETHENE (CIS)	N.D.	0.50	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	0.50	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	0.50	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	0.50	N.D.	--	1
ETHYLBENZENE	N.D.	0.50	N.D.	--	1
2-HEXANONE	N.D.	50	N.D.	--	1
METHYLENE CHLORIDE	N.D.	3.0	N.D.	--	1
4-METHYL-2-PENTANONE (MIBK)	N.D.	50	N.D.	--	1
NAPHTHALENE	N.D.	1.0	N.D.	--	1
STYRENE	N.D.	0.50	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
TETRACHLOROETHENE	N.D.	0.50	N.D.	--	1
TOLUENE	N.D.	0.50	N.D.	105	1
1,1,1-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	0.50	N.D.	--	1
TRICHLOROETHENE	N.D.	0.50	N.D.	103	1
1,1,1,2-TETRACHLOROETHANE	N.D.	0.50	N.D.	--	1
VINYL ACETATE	N.D.	5.0	N.D.	--	1

CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)
Atten: Laurie Racca
Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997
re: One sample for Volatile Organics by GC/MS analysis, continued.

Method: SW846 Method 8260A Sept 1994

Client Sample ID: **MW-1**
Spl#: 123007 *Matrix:* WATER
Sampled: March 26, 1997 *Run#:* 6058 *Analyzed:* April 2, 1997

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
VINYL CHLORIDE	N.D.	0.50	N.D.	--	1
TOTAL XYLENES	N.D.	1.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	0.50	N.D.	--	1
CARBON DISULFIDE	N.D.	0.50	N.D.	--	1
ISOPROPYLBENZENE	N.D.	0.50	N.D.	--	1
BROMOBENZENE	N.D.	0.50	N.D.	--	1
BROMOCHLOROMETHANE	N.D.	1.0	N.D.	--	1
TRICHLOROFLUOROMETHANE	N.D.	0.50	N.D.	--	1

Chip Poalinelli
Operations Manager

for
Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Surrogate** report for 1 sample for Volatile Organics by GC/MS
Method: SW846 Method 8260A Sept 1994
Lab Run#: 6058
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123007-1	MW-1	4-BROMOFLUOROBENZENE	93.4	86-115
123007-1	MW-1	D4-1,2-DICHLOROETHANE	105	76-114
123007-1	MW-1	D8-TOLUENE	107	88-110

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
124038-1	*Reagent blank (MDB)*	4-BROMOFLUOROBENZENE	96.4	86-115
124038-1	*Reagent blank (MDB)*	D4-1,2-DICHLOROETHANE	101	76-114
124038-1	*Reagent blank (MDB)*	D8-TOLUENE	104	88-110
124039-1	*Spiked blank (BSP)*	4-BROMOFLUOROBENZENE	88.4	86-115
124039-1	*Spiked blank (BSP)*	D4-1,2-DICHLOROETHANE	96.0	76-114
124039-1	*Spiked blank (BSP)*	D8-TOLUENE	93.8	88-110
124040-1	*Spiked blank duplicate (BSD)*	4-BROMOFLUOROBENZENE	93.8	86-115
124040-1	*Spiked blank duplicate (BSD)*	D4-1,2-DICHLOROETHANE	96.6	76-114
124040-1	*Spiked blank duplicate (BSD)*	D8-TOLUENE	102	88-110

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CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Blank spike and duplicate** report for Volatile Organics by GC/MS analysi

Method: SW846 Method 8260A Sept 1994

Matrix: WATER
Lab Run#: 6058 *Analyzed:* April 1, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup	Found BSP (ug/L)	Found Dup	Recov BSP (%)	Recov Dup (%)	Control Limits	% RPD	% RPD Lim
BENZENE	50.0	50.0	51.7	56.9	103	114	69-129	10.1	20
CHLOROBENZENE	50.0	50.0	51.0	54.8	102	110	61-121	7.55	20
1,1-DICHLOROETHENE	50.0	50.0	49.9	54.1	99.7	108	65-125	7.99	20
TOLUENE	50.0	50.0	52.5	57.2	105	114	70-130	8.22	20
TRICHLOROETHENE	50.0	50.0	51.6	55.5	103	111	74-134	7.48	20

BS Smpl #: 124039
BSD Smpl #: 124040

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CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **MWT-1**
Spl#: 123009 *Matrix:* WATER *Extracted:* April 1, 1997
Sampled: March 26, 1997 *Run#:* 6035 *Analyzed:* April 2, 1997

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
KEROSENE	N.D.	50	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik for
Chemist

Alex Tam
Semivolatiles Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **MWT-2**
Spl#: 123012 *Matrix:* WATER *Extracted:* April 1, 1997
Sampled: March 26, 1997 *Run#:* 6035 *Analyzed:* April 2, 1997

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
KEROSENE	N.D.	50	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik FOR
Chemist

Alex Tam
Semivolatiles Supervisor

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 2, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **MWT-3**
Spl#: 123011 *Matrix:* WATER *Extracted:* April 1, 1997
Sampled: March 26, 1997 *Run#:* 6035 *Analyzed:* April 2, 1997

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
KEROSENE	N.D.	50	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik for
Chemist

Alex Tam
Semivolatiles Supervisor

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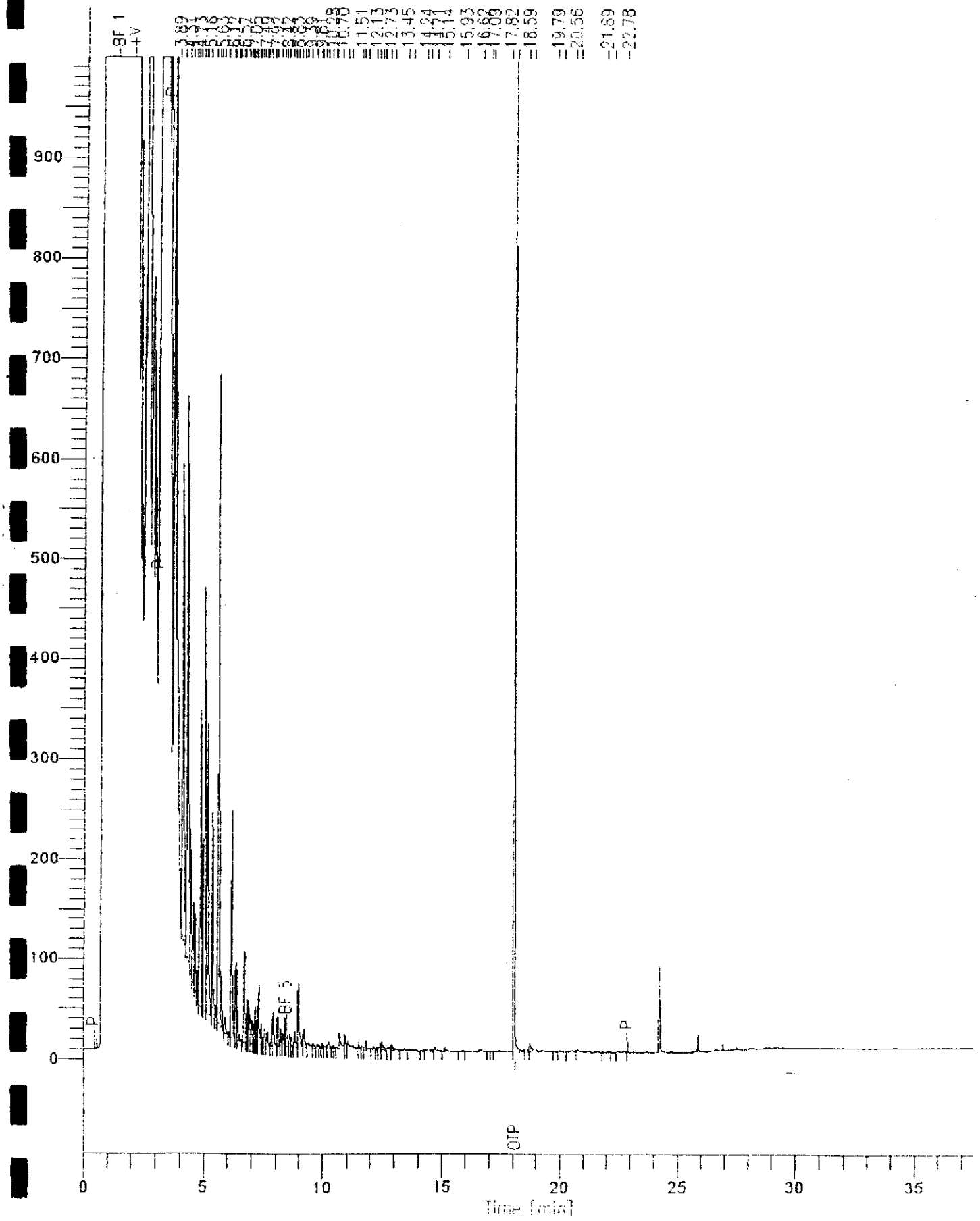
diesel analysis

mple Name : 9703386/MWT3
Name : N:\T401039.raw
thod : 2D0326
art Time : 0.00 min End Time : 37.50 min
ale Factor: 0.0 Plot Offset: 0 mV

Sample #: 123011 Page 1 of 1
Date : 4/2/97 14:35
Time of Injection: 4/2/97 13:57
Low Point : 0.00 mV High Point : 1000.00 mV
Plot Scale: 1000.0 mV



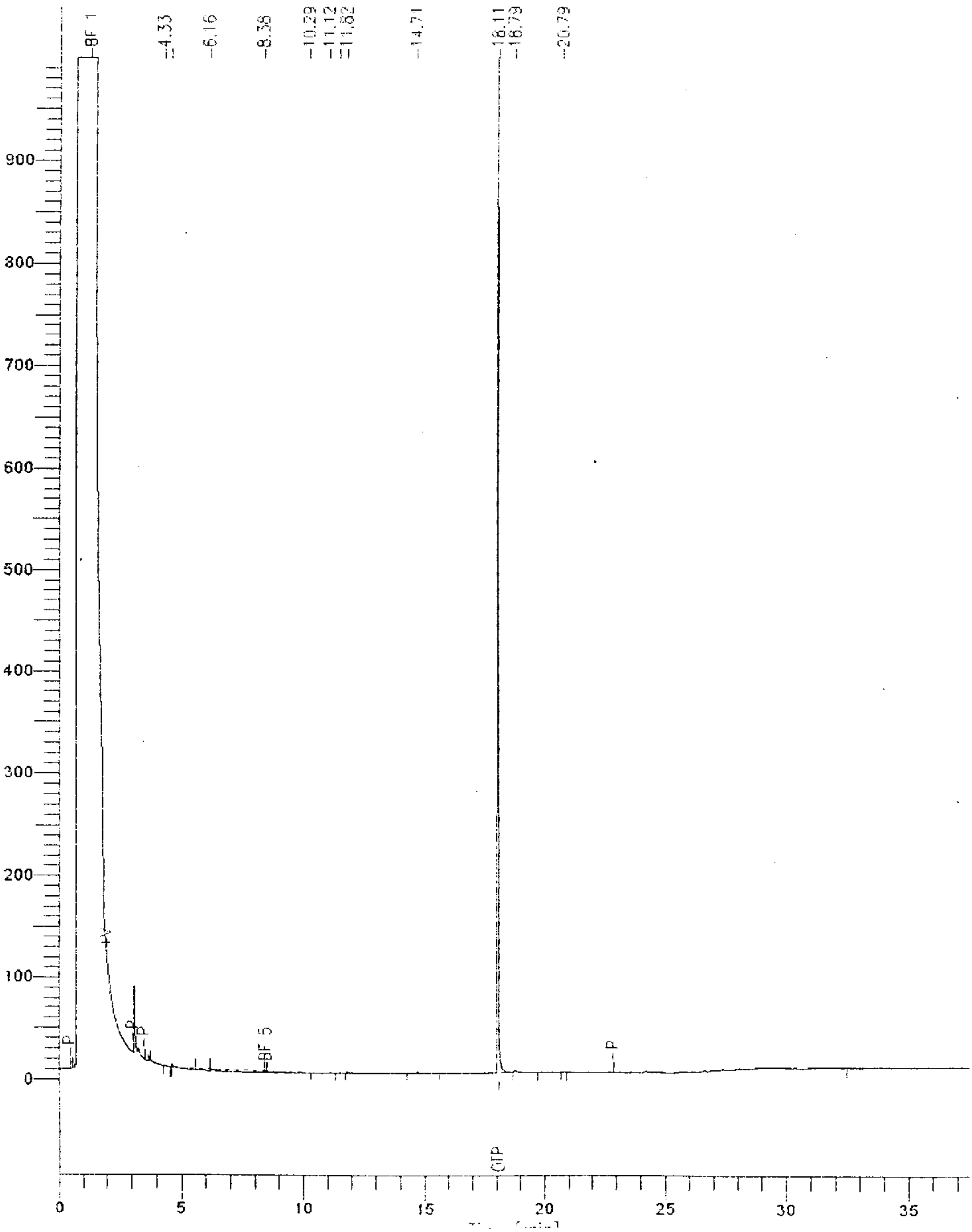
diesel analysis

e Name : 9703386/MW7-1
Name : N:\T401040.raw
thod : ZD0326
art Time : 0.00 min
ale Factor: 0.0

End Time : 37.50 min
Plot Offset: 0 mV

Sample #: 123009
Date : 4/2/97 15:20
Time of Injection: 4/2/97 14:42
Low Point : 0.00 mV
Plot Scale: 1000.0 mV

High Point : 1000.00 mV



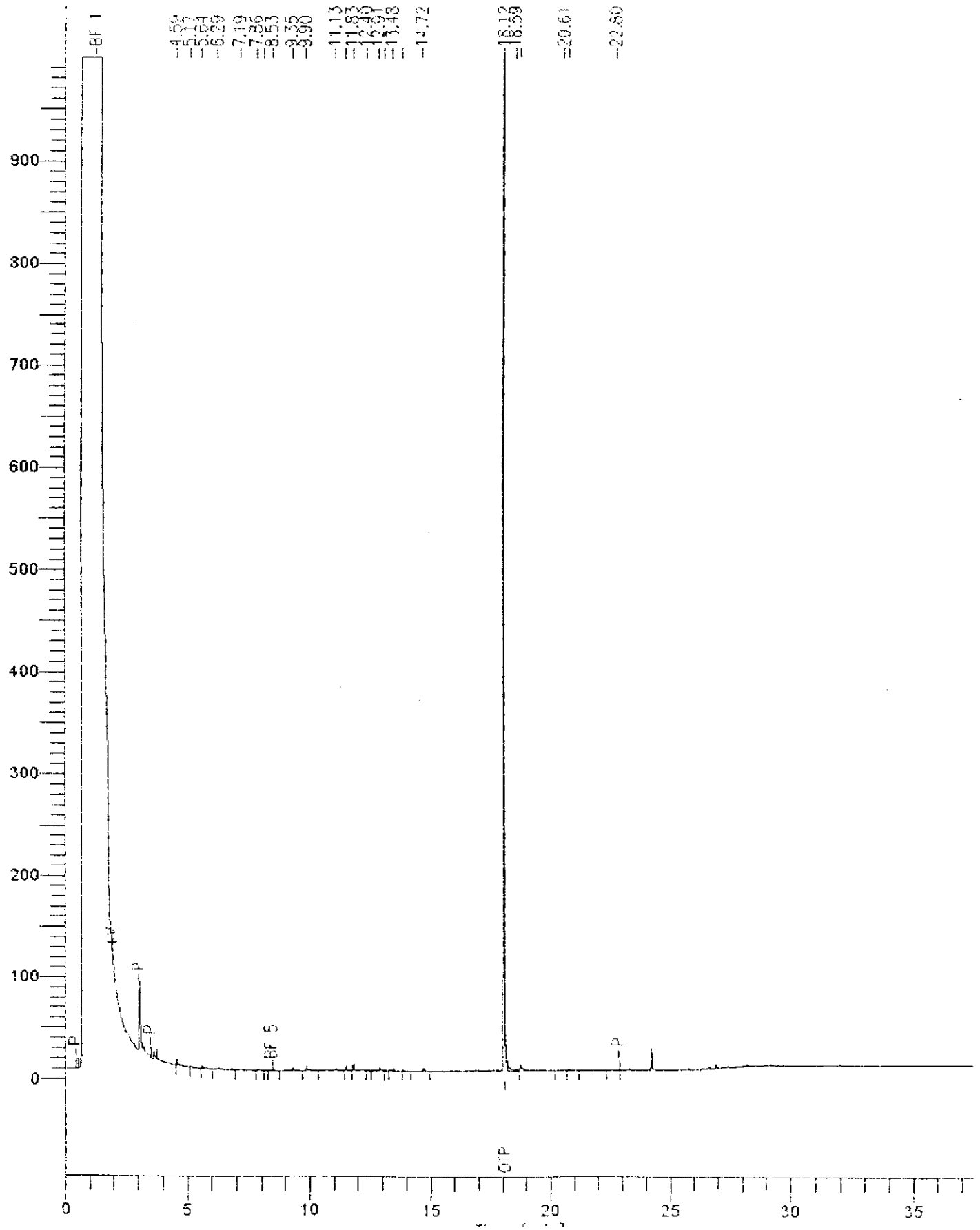
diesel analysis

Sample Name : 9703386/MWT2
Data Name : N:\T401038.raw
Method : ZD0325
Start Time : 0.00 min
Scale Factor: 0.0

End Time : 37.50 min
Plot Offset: 0 mV

Sample #: 123012
Date : 4/2/97 13:50
Time of Injection: 4/2/97 13:12
Low Point : 0.00 mV
Plot Scale: 1000.0 mV

High Point : 1000.00 mV



CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Surrogate** report for 3 samples for TEPH analysis.
Method: EPA 8015M
Lab Run#: 6035
Matrix: WATER

Sample#	Client Sample ID	Surrogate	% Recovered	Recovery Limits
123009-1	MWT-1	O-TERPHENYL	117	60-130
123011-1	MWT-3	O-TERPHENYL	110	60-130
123012-1	MWT-2	O-TERPHENYL	112	60-130

Sample#	QC Sample Type	Surrogate	% Recovered	Recovery Limits
123884-1	*Reagent blank (MDB)*	O-TERPHENYL	118	60-130
123885-1	*Spiked blank (BSP)*	O-TERPHENYL	112	60-130
123886-1	*Spiked blank duplicate (BSD)*	O-TERPHENYL	114	60-130

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CHROMALAB, INC.

Environmental Services (SDB)

April 8, 1997 *Submission #:* 9703386

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: March 26, 1997

re: **Blank spike and duplicate** report for TEPH analysis.

Method: EPA 8015M

Matrix: WATER
Lab Run#: 6035 *Analyzed:* April 1, 1997

Analyte	Spike Amount BSP (ug/L)	Spike Amount Dup	Spike Found BSP (ug/L)	Spike Found Dup	Spike Recov BSP (%)	Spike Recov Dup (%)	Control Limits	% RPD	% RPD Lim
DIESEL	200	200	150	164	75.0	82.0	60-130	8.92	25

BS Smpl #: 123885
BSD Smpl #: 123886

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PROJ NO	PROJECT NAME
29-4829-65/ESA	Greenville Rd.
L P NO / P.O. NO.	SAMPLERS: (Signature/Number) Stephen Quayle [signature]

Chromalab! 5-Day T.A.T

DATE MM DD YY	SAMPLE I D TIME HH MM SS	SAMPLE I D	NO OF CONTAINERS	Total Petroleum Hydrocarbons Fuel Fingerprint (extractable and purgeable)	BTEX/MTBE	Total Lead	VOCs (624/8260)	SVOCs (625/8270)	Plutonium & breakdown Prod.						REMARKS
3-26-97	1235	MW-1	7				X	X	X						SUBM #: 9703306 REP: CLIENT: KLEIN-SAC DUE: 04/02/97 REF #:32759
	1525	MWT-1	6	X	X	X									
	1555	MWT-3	6	X	X	X									
		Trip Blank #1	1		X										
	1652	MWT-2	6	X	X	X									

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
[signature]	3/26/97 1757	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
	3/26/97 1757	[signature]

Remarks: Please Fax results when available.

Send Results To: Attn: Lawrie Racca.
KLEINFELDER
~~7133 KOLL CENTER PARKWAY~~ 3077 Fite Ci[rcle]
~~SUITE 100~~ Sacramento, CA 95827
~~PLEASANTON, CA 94566~~
~~(510) 484-1700~~ 916-366-1701
FAX: 916-366-7613

White - Sampler   Canary - Return Copy To Shipper   Pink - Lab Copy   No 804

CHAIN OF CUSTODY

DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES
701 "B" Belmont Way • Pinole, CA 94564 • (510) 724-9450 • Fax (510) 724-9174

ANALYTICAL RESULTS REPORT

Company: CHROMALAB, INC.
Address: 1220 Quarry Lane
Pleasanton, CA 94566

Contact: Mr. Chris Rowley

Report Date: May 8, 1997

Project Number: 9703386

TABLE I

Sample ID.	Sampling Date/Time	Analysis	Result ± sigma error pCi/L		
Water	3/26/97 (0000)	Plutonium 238	0.308	±	0.165
		Plutonium 239	0.460	±	0.200

TABLE II QA/QC Data

Analysis	Sample	Duplicate Sample	% of Agreement
Plutonium 238	0.283 pCi/L	0.306 pCi/L	92.48
Plutonium 239	0.481 pCi/L	0.439 pCi/L	109.56

A duplicate sample was processed for QA/QC purposes, the above Table II shows the results. The results in Table I, is a calculated average of the duplicated samples.

Patricia Davi
DLE Associates,
QA/QC Manager

0700012005

KLEINFELDER

32758

PROJECT NO.	PROJECT NAME	RECEIVING LAB
23-4829-65/ESA	Greenville Rd.	ChromaLab

L.P. NO. (P.O. NO.)

SAMPLERS: (Signature/Number) KBR 3014

INSTRUCTIONS/REMARKS: 5-day T.A.T.

ANALYSIS: Title 22 general physical chem[illegible]; Title 22 inorganic chemicals; Title 22 organic chemicals; 10 tube total/fecal coliform; Trihalomethanes (502.2); PCBs (NO pesticides); Radionuclides (see[illegible])

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	Title 22 general physical chem	Title 22 inorganic chemicals	Title 22 organic chemicals	10 tube total/fecal coliform	Trihalomethanes	PCBs	Radionuclides				INSTRUCTIONS/REMARKS
1	3/26/97	15:00	DW	H_2O	20	VOAs Plastic	X	X	X	X	X	X	X				Radionuclides
2		~~15:00~~	~~Trip Blank~~ KBR	~~H_2O~~	~~1~~	Amber											gross alpha/beta
3																	tritium
4																	strontium 90
5																	radon 222
6																	radium 228
7																	total uranium
8																	
9																	
10																	SUBM #: 9703385 REP:
11																	CLIENT: KLEIN-SAC
12																	DUE: 04/02/97 REF #:32758
13																	
14																	
15																	
16																	
17																	
18																	
19																	
20																	

Relinquished by: (Signature)	Date/Time		Received by: (Signature)
KBR	3/26/97	15:15	[signature]
Relinquished by: (Signature) [signature]	3/26/97	1751	Received by: (Signature)
Relinquished by: (Signature)	3/26/97	1751	Received for Laboratory by: (Signature) [signature]

Instructions/Remarks: Please Fax results when available.

Send Results To: Attn: Laurie Racca
KLEINFELDER
~~7133 KOLL CENTER PARKWAY~~
~~SUITE 100~~
~~PLEASANTON, CA 94566~~
~~(510) 484-1700~~
Attn 3077 Fite Circle
Sacramento CA 95827
916-366-1701

M-60 White - Sampler Canary - Return Copy To Shipper Pink - Lab Copy

CHAIN OF CUSTODY

№ 2359

FAX: 916-366-7013

CHROMALAB, INC.

Environmental Service (SDB)

Sample Receipt Checklist

Client Name: KLEINFELDERS Date/Time Received: 3/26/97 (Date) / 1759 (Time)

Reference/Subm #: 32758/9703385 Received by: CR

Checklist completed by: Chris Rawley 3/27/97 (Signature / Date) Reviewed By: SA 3/27/97 (Initial/Date)

Matrix: H2O Carrier name: (Client) - C/L - _____

Shipping container/cooler in good condition?	Yes ✓	No ___	Not Present ___
Custody seals intact on shipping container/cooler?	Yes ___	No ___	Not Present ✓
Custody seals intact on sample bottles?	Yes ___	No ___	Not Present ✓
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 ___	
Sample containers intact?	Yes ✓	No ___	
Sufficient sample volume for indicated test?	Yes ✓	No ___	
All samples received within holding time?	Yes ✓	No ___	
Container/Temp Blank temperature in compliance?	Temp: 7.9 °C Yes ✓	No ___	
Water - VOA vials have zero headspace?	No VOA vials submitted ___	Yes ✓	No ___
Water - pH acceptable upon receipt? Y/C/S adjusted? ___	Checked by CR (Chemist for VOAs)		

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

qa\forms\smprechk.doc

01/24/97

CHROMALAB, INC.

Environmental Services (SDB)

RECEIVED
MAY 29 1997
By_____

Date: 5/15/97

Attention: LAURIE RACCA
KLEINFELDER - SACTO
3077 FITE CIRCLE
SACRAMENTO, CA 95827

Dear Client,

Enclosed are the hardcopy subcontract reports for ChromaLab submission number 9703386. You were mailed the faxed copies along with your invoice because the subcontract hardcopies were not yet available.

These are for your records only. We apologize for any inconvenience.

If you have any questions or need more information, please do not hesitate to call me at (510) 484-1919 extension 110.

Sincerely,

Samantha Antone
Invoicing

Enclosures

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

DAVI LABORATORIES, ENVIRONMENTAL ASSOCIATES
701 "B" Belmont Way • Pinole, CA 94564 • (510) 724-9450 • Fax (510) 724-9174

ANALYTICAL RESULTS REPORT

Company: CHROMALAB, INC.
Address: 1220 Quarry Lane
Pleasanton, CA 94566

Contact: Mr. Chris Rowley

Report Date: May 8, 1997

Project Number: 9703386

TABLE I

Sample ID.	Sampling Date/Time	Analysis	Result ± sigma error pCi/L		
Water	3/26/97 (0000)	Plutonium 238	0.308	±	0.165
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Plutonium 239	0.481 pCi/L	0.439 pCi/L	109.56

A duplicate sample was processed for QA/QC purposes, the above Table II shows the results. The results in Table I, is a calculated average of the duplicated samples.

Patricia Davi
DLE Associates,
QA/QC Manager

C E R C O
analytical, inc.

3942-A Valley Avenue
Pleasanton, CA 94566
Tel: 510.462.2771
Fax: 510.462.2775

Mr. Chris Rowley
Chromalab, Inc.
1220 Quarry Lane, #C
Pleasanton, CA 94566-4756

Sample Source:
Project Number: 9703385
Project Name: Not Indicated
Date Received: 03/27/97
Matrix: Water

April 8, 1997
Job No.9703140
Sample No.001
Cust. No.10176

Lab No.	Client I.D.	Total Coliform MPN (coliforms per 100 ml)	Fecal Coliform MPN (coliforms per 100 ml)	Date Sampled	Date Analyzed
001	DW	<2	--	03/26/97	03/27-29/97
Method No.:		SM9221B	SM9221E		

Albert C. Oetting
Albert C. Oetting
Laboratory Director

California State Certified Laboratory No.2153

Quality Control Report Available on Request

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone (209) 572-0900
FAX (209) 572-0916

CERTIFICATE OF ANALYSIS
502.2

Report # I087-01

ChromaLab
1220 Quarry Lane
Pleasanton CA 94566 - 4756

Date Sampled 03/26/97

Date of Report: 03/31/97
Date Received: 03/28/97
Date Started : 03/28/97
Date Completed: 03/28/97

Project Name:
Project # 9703385
Sample ID: DW
Lab ID: I31487

Method	Detection Limit	Analyte	Results	Units µg/L
502.2	1.0	Dichlorodifluoromethane	ND	
	0.5	Chloromethane	ND	
	0.5	Bromomethane	ND	
	0.5	Vinyl Chloride	ND	
	0.5	Chloroethane	ND	
	1.0	Trichlorofluoromethane	ND	
	1.0	1,1,2-Trichlorotrifluoroethane	ND	
	0.5	1,1-Dichloroethene	ND	
	0.5	Methylene chloride	ND	
	0.5	trans-1,2-Dichloroethene	ND	
	0.5	1,1-Dichloroethane	ND	
	0.5	2,2-Dichloropropane	ND	
	0.5	cis-1,2-Dichloroethene	ND	
	0.5	Chloroform	ND	
	0.5	Bromochloromethane	ND	
	0.5	1,1,1-Trichloroethane	ND	
	0.5	1,1-Dichloropropene	ND	
	0.5	Carbon Tetrachloride	ND	
	0.5	1,2-Dichloroethane	ND	
	0.5	Trichloroethene	ND	
	0.5	1,2-Dichloropropane	ND	
	0.5	Bromodichloromethane	ND	
	0.5	Dibromomethane	ND	
	0.5	cis-1,3-Dichloropropene	ND	
	0.5	trans-1,3-Dichloropropene	ND	
	0.5	1,1,2-Trichloroethane	ND	
	0.5	1,3-Dichloropropane	ND	
	0.5	Tetrachloroethene	ND	
	0.5	Dibromochloromethane	ND	
	0.5	1,1,1,2-Tetrachloroethane	ND	
	0.5	Chlorobenzene	ND	
	0.5	Bromoform	ND	
	0.5	1,1,2,2-Tetrachloroethane	ND	

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone (209) 572-0900
FAX (209) 572-0916

CERTIFICATE OF ANALYSIS
502.2

Report #: I087-01

Sample ID: DW

Lab ID: I31487

Method	Detection Limit	Analyte	Results	Units µg/L
502.2	0.5	1,2,3-Trichloropropane	ND	
	0.5	Bromobenzene	ND	
	0.5	2-Chlorotoluene	ND	
	0.5	4-Chlorotoluene	ND	
	0.5	1,3-Dichlorobenzene	ND	
	0.5	1,4-Dichlorobenzene	ND	
	0.5	1,2-Dichlorobenzene	ND	
	0.5	1,2,4-Trichlorobenzene	ND	
	0.5	Hexachlorobutadiene	ND	
	0.5	1,2,3-Trichlorobenzene	ND	
	5.0	Methyl Ethyl Ketone	ND	
	0.5	Benzene	ND	
	5.0	Methyl Isobutyl Ketone	ND	
	1.0	2-Chloroethyl Vinyl Ether	ND	
	0.5	Toluene	ND	
	0.5	Ethylbenzene	ND	
	0.5	m-Xylene	ND	
	0.5	p-Xylene	ND	
	0.5	o-Xylene	ND	
	0.5	Styrene	ND	
	0.5	Isopropyl Benzene	ND	
	0.5	n-Propylbenzene	ND	
	0.5	1,3,5-Trimethylbenzene	ND	
	0.5	tert-Butylbenzene	ND	
	0.5	1,2,4-Trimethylbenzene	ND	
	0.5	sec-Butylbenzene	ND	
	0.5	p-Isopropyltoluene	ND	
	0.5	n-Butylbenzene	ND	
	0.5	Naphthalene	ND	
	0.5	bis(2-Chloroethyl) ether	ND	

Richard Meissner
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone (209) 572-0900
FAX (209) 572-0916

CERTIFICATE OF ANALYSIS

General Minerals

Report # I087-01

ChromaLab
1220 Quarry Lane
Pleasanton CA 94566 - 4756

Date Sampled 03/26/97

Date of Report: 04/04/97
Date Received: 03/28/97
Date Started : 03/28/97
Date Completed: 04/03/97

Project Name:
Project # 9703385
Sample ID: DW
Lab ID: I31487

Method	Detection Limit	Analyte	Results	Units
335.3	0.01	Cyanide	ND	mg/L
300	1.0	Nitrate	6	mg/L
300	1.0	Nitrite	ND	mg/L
300	1.0	Fluoride	ND	mg/L
2340 B	1	Total Hardness/$CaCO_3$	385	mg/L
310.1	10	Total Alkalinity	329	mg/L
310.1	10	Carbonate	0	mg/L
310.1	10	Bicarbonate	329	mg/L
310.1	10	Hydroxide Alkalinity	0	mg/L
300	1	Sulfate	240	mg/L
300	1	Chloride	500	mg/L
425.1	0.05	MBAS	ND	mg/L
150.1	n/a	pH	7.91	std. units
120.1	1	Specific Conductance	2600	umhos/cm
160.1	10	Total Dissolved Solids	1540	mg/L

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone (209) 572-0900
FAX (209) 572-0916

CERTIFICATE OF ANALYSIS

General Physical

Report # I087-01

ChromaLab
1220 Quarry Lane
Pleasanton CA 94566 - 4756

Date Sampled 03/26/97

Date of Report: 04/04/97
Date Received: 03/28/97
Date Started : 03/28/97
Date Completed: 04/03/97

Project Name:
Project # 9703385
Sample ID: DW
Lab ID: I31487

Method	Detection Limit	Analyte	Results	Units
140.1	NA	Threshold Odor	ND	Threshold
110.3	5	Color	5	Color Units
180.1	0.1	Turbidity	0.37	N.T.U.

Ramiro Salgado
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone (209) 572-0900
FAX (209) 572-0916

CERTIFICATE OF ANALYSIS

PCB's

Report # I087-01

ChromaLab
1220 Quarry Lane
Pleasanton CA 94566 - 4756

Date Sampled 03/26/97

Date of Report: 04/07/97
Date Received: 03/28/97
Date Started : 04/03/97
Date Completed: 04/05/97

Project Name:
Project # 9703385
Sample ID: DW
Lab ID: I31487

Method	Detection Limit	Analyte	Results	Units µg/L
608	1.0	Arochlor 1016	ND	
	1.0	Arochlor 1221	ND	
	1.0	Arochlor1232	ND	
	1.0	Arochlor1242	ND	
	1.0	Arochlor1248	ND	
	1.0	Arochlor1254	ND	
	1.0	Arochlor1260	ND	

Gregory Merciadis
Chemist

Certification # 1157

Donna Keller
Laboratory Director

GeoAnalytical Laboratories, Inc.

1405 Kansas Avenue
Modesto, CA 95351

Phone (209) 572-0900
FAX (209) 572-0916

CERTIFICATE OF ANALYSIS

508

Report # I087-01

ChromaLab
1220 Quarry Lane
Pleasanton CA 94566 - 4756

Date Sampled 03/26/97

Date of Report: 04/07/97
Date Received: 03/28/97
Date Started : 04/04/97
Date Completed: 04/07/97

Project Name:
Project # 9703385
Sample ID: DW
Lab ID: I31487

Method	Detection Limit	Analyte	Results	Units µg/L
508	0.1	Endrin	ND	
	0.2	Lindane (gamma-BHC)	ND	
	10.0	Methoxychlor	ND	
	1.0	Toxaphene	ND	
	0.1	Chlordane	ND	
	0.01	Heptachlor	ND	
	0.01	Heptachlor Epoxide	ND	
	5.0	Chlorothalonil (Daconil, Bravo)	ND	
	0.5	Propachlor	ND	
	0.5	Trifluralin	ND	
	0.02	Dieldrin	ND	
	0.5	PCB	ND	

Gregory Merciadis
Chemist

Certification # 1157

Donna Keller
Laboratory Director

175/125620-125623

KLEINFELDER

33059

PROJECT NO.	PROJECT NAME
23-4829-65/ESA	Greenville Rd.

L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number)

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	ANALYSIS: VOCs (624) (8240)	SVOCs (625) (8270)
1	4/10/97	12:50	~~SP~~ KD-1	Soil	1	Brass		
2		12:58	KD-2	Soil	1	Brass	X	X
3		13:05	KD-3	Composite Soil	1	Brass		
4	↓	13:15	KD-4	Soil	1	Brass		
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

RECEIVING LAB: Chromalab

INSTRUCTIONS/REMARKS: 5-Day T.A.T.

Please composite samples.

SUBM #: 9704175 REP: MV
CLIENT: KLEIN-SAC
DUE: 04/17/97
REF #: 33059

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
KBR	4/10/97 19:01	Chris Rowley 4/10/97 1401

Instructions/Remarks:
Please Fax results when available
916-366-7013

Send Results To:
Attn: Laurie Racca
KLEINFELDER
~~7133 KOLL CENTER PARKWAY~~
~~SUITE 100~~
~~PLEASANTON, CA 94566~~
~~(510) 484-1700~~
3077 Fite Circle
Sacramento, CA 95827
916-366-1701

Attn.

M-60

White – Sampler

Canary – Return Copy To Shipper

Pink – Lab Copy

CHAIN OF CUSTODY

№ 2376

CHROMALAB, INC.

Environmental Service (SDB)

Sample Receipt Checklist

Client Name: KLEINFELDER Date/Time Received: 4/10/97 (Date) 1401 (Time)

Reference/Subm #: 33059/9704175 Received by: CR

Checklist completed by: Chris Rowley (Signature) 4/11/97 (Date) Reviewed By: M (Initial) 4-11-97 (Date)

Matrix: Soil Carrier name: (Client) - C/L - _____

Shipping container/cooler in good condition?	Yes ✓	No	Not Present
Custody seals intact on shipping container/cooler?	Yes	No	Not Present ✓
Custody seals intact on sample bottles?	Yes	No	Not Present ✓
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	
Sample containers intact?	Yes ✓	No	
Sufficient sample volume for indicated test?	Yes ✓	No	
All samples received within holding time?	Yes ✓	No	
Container/Temp Blank temperature in compliance? Temp: 8.9 °C	Yes	No ✓	
Water - VOA vials have zero headspace? No VOA vials submitted ✓	Yes	No	
Water - pH acceptable upon receipt? ____ adjusted? ____ Checked by ____ /chemist for VOAs			

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: Samples recd out of acceptable temp. range of 2-8°C

Corrective Action: Samples recd within 1 hour of sampling

c:\qa\forms\smprechk.doc

CHROMALAB, INC.

Environmental Services (SDB)

April 17, 1997 *Submission #:* 9704175

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 10, 1997

re: One sample for Semivolatile Organic Compounds (B/NAs) analysis.
Method: *SW846 Method 8270A Nov 1990*

Client Sample ID: **KD-1-4**
Spl#: 125620 *Matrix:* SOIL *Extracted:* April 15, 1997
Sampled: April 10, 1997 *Run#:* 6308 *Analyzed:* April 16, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
PHENOL	N.D.	0.10	N.D.	38.9	1
BIS(2-CHLOROETHYL)ETHER	N.D.	0.10	N.D.	--	1
2-CHLOROPHENOL	N.D.	0.10	N.D.	66.5	1
1,3-DICHLOROBENZENE	N.D.	0.10	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	0.10	N.D.	48.8	1
BENZYL ALCOHOL	N.D.	0.20	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	0.10	N.D.	--	1
2-METHYLPHENOL	N.D.	0.10	N.D.	--	1
BIS(2-CHLOROISOPROPYL)ETHER	N.D.	0.10	N.D.	--	1
4-METHYLPHENOL	N.D.	0.20	N.D.	--	1
N-NITROSO-DI-N-PROPYLAMINE	N.D.	0.10	N.D.	80.0	1
HEXACHLOROETHANE	N.D.	0.10	N.D.	--	1
NITROBENZENE	N.D.	0.10	N.D.	--	1
ISOPHORONE	N.D.	0.10	N.D.	--	1
2-NITROPHENOL	N.D.	0.10	N.D.	--	1
2,4-DIMETHYLPHENOL	N.D.	0.10	N.D.	--	1
BIS(2-CHLOROETHOXY)METHANE	N.D.	0.10	N.D.	--	1
2,4-DICHLOROPHENOL	N.D.	0.10	N.D.	--	1
1,2,4-TRICHLOROBENZENE	N.D.	0.10	N.D.	53.0	1
NAPHTHALENE	N.D.	0.10	N.D.	--	1
4-CHLOROANILINE	N.D.	0.20	N.D.	--	1
HEXACHLOROBUTADIENE	N.D.	0.10	N.D.	--	1
4-CHLORO-3-METHYLPHENOL	N.D.	0.20	N.D.	72.0	1
2-METHYLNAPHTHALENE	N.D.	0.10	N.D.	--	1
HEXACHLOROCYCLOPENTADIENE	N.D.	0.10	N.D.	--	1
2,4,6-TRICHLOROPHENOL	N.D.	0.10	N.D.	--	1
2,4,5-TRICHLOROPHENOL	N.D.	0.10	N.D.	--	1
2-CHLORONAPHTHALENE	N.D.	0.10	N.D.	--	1
2-NITROANILINE	N.D.	0.50	N.D.	--	1
DIMETHYL PHTHALATE	N.D.	0.50	N.D.	--	1
ACENAPHTHYLENE	N.D.	0.10	N.D.	--	1
3-NITROANILINE	N.D.	0.10	N.D.	--	1
ACENAPHTHENE	N.D.	0.10	N.D.	77.3	1
2,4-DINITROPHENOL	N.D.	0.50	N.D.	--	1
4-NITROPHENOL	N.D.	0.50	N.D.	34.6	1
DIBENZOFURAN	N.D.	0.10	N.D.	--	1
2,4-DINITROTOLUENE	N.D.	0.10	N.D.	68.8	1
2,6-DINITROTOLUENE	N.D.	0.20	N.D.	--	1
DIETHYL PHTHALATE	N.D.	0.50	N.D.	--	1
4-CHLOROPHENYL PHENYL ETHER	N.D.	0.10	N.D.	--	1

(916) 366-7013 MV 04/17
FAX RESULTS WHEN AVAILABLE-916-366-7013

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 17, 1997

Submission #: 9704175
page 2

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD.
Received: April 10, 1997

Project#: 23-4829-65/ESA

re: One sample for Semivolatile Organic Compounds (B/NAs) analysis, continued.
Method: *SW846 Method 8270A Nov 1990*

Client Sample ID: **KD-1-4**
Spl#: 125620
Sampled: April 10, 1997

Matrix: SOIL
Run#: 6308

Extracted: April 15, 1997
Analyzed: April 16, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
FLUORENE	N.D.	0.10	N.D.	--	1
4-NITROANILINE	N.D.	0.50	N.D.	--	1
2-METHYL-4,6-DINITROPHENOL	N.D.	0.50	N.D.	--	1
N-NITROSO-DI-N-PHENYLAMINE	N.D.	0.10	N.D.	--	1
4-BROMOPHENYL PHENYL ETHER	N.D.	0.10	N.D.	--	1
HEXACHLOROBENZENE	N.D.	0.10	N.D.	--	1
PENTACHLOROPHENOL	N.D.	0.50	N.D.	61.0	1
PHENANTHRENE	N.D.	0.10	N.D.	--	1
ANTHRACENE	N.D.	0.10	N.D.	--	1
DI-N-BUTYL PHTHALATE	N.D.	2.0	N.D.	--	1
FLUORANTHENE	N.D.	0.10	N.D.	--	1
PYRENE	N.D.	0.10	N.D.	65.9	1
BUTYL BENZYL PHTHALATE	N.D.	0.50	N.D.	--	1
3,3'-DICHLOROBENZIDINE	N.D.	0.20	N.D.	--	1
BENZO(A)ANTHRACENE	N.D.	0.10	N.D.	--	1
BIS(2-ETHYLHEXYL)PHTHALATE	N.D.	0.50	N.D.	--	1
CHRYSENE	N.D.	0.10	N.D.	--	1
DI-N-OCTYL PHTHALATE	N.D.	0.50	N.D.	--	1
BENZO(B)FLUORANTHENE	N.D.	0.10	N.D.	--	1
BENZO(K)FLUORANTHENE	N.D.	0.20	N.D.	--	1
BENZO(A)PYRENE	N.D.	0.050	N.D.	--	1
INDENO(1,2,3 C,D)PYRENE	N.D.	0.20	N.D.	--	1
DIBENZO(A,H)ANTHRACENE	N.D.	0.20	N.D.	--	1
BENZO(G,H,I)PERYLENE	N.D.	0.20	N.D.	--	1
BENZOIC ACID	N.D.	0.50	N.D.	--	1

Michael Lee
Chemist

Chip Poalinelli
Operations Manager

(916) 366-7013 MV 04/17
FAX RESULTS WHEN AVAILABLE-916-366-7013

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 17, 1997 *Submission #:* 9704175

KLEINFELDER (SACRAMENTO)
Atten: Laurie Racca
Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 10, 1997
re: One sample for Volatile Organics by GC/MS analysis.
Method: *SW846 METHOD 8240A Nov 1990*

Client Sample ID: **KD-1-4**
Spl#: 125620 *Matrix:* SOIL
Sampled: April 10, 1997 *Run#:* 6315 *Analyzed:* April 14, 1997

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
ACETONE	N.D.	50	N.D.	--	1
BENZENE	N.D.	5.0	N.D.	100	1
BROMODICHLOROMETHANE	N.D.	5.0	N.D.	--	1
BROMOFORM	N.D.	5.0	N.D.	--	1
BROMOMETHANE	N.D.	10	N.D.	--	1
2-BUTANONE (MEK)	N.D.	50	N.D.	--	1
CARBON TETRACHLORIDE	N.D.	5.0	N.D.	--	1
CHLOROBENZENE	N.D.	5.0	N.D.	99.1	1
CHLOROETHANE	N.D.	5.0	N.D.	--	1
2-CHLOROETHYLVINYLETHER	N.D.	10	N.D.	--	1
CHLOROFORM	N.D.	5.0	N.D.	--	1
CHLOROMETHANE	N.D.	10	N.D.	--	1
DIBROMOCHLOROMETHANE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,2-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,3-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,4-DICHLOROBENZENE	N.D.	5.0	N.D.	--	1
1,1-DICHLOROETHENE	N.D.	5.0	N.D.	117	1
1,2-DICHLOROETHENE (CIS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROETHENE (TRANS)	N.D.	5.0	N.D.	--	1
1,2-DICHLOROPROPANE	N.D.	5.0	N.D.	--	1
CIS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
TRANS-1,3-DICHLOROPROPENE	N.D.	5.0	N.D.	--	1
ETHYLBENZENE	N.D.	5.0	N.D.	--	1
2-HEXANONE	N.D.	50	N.D.	--	1
METHYLENE CHLORIDE	N.D.	5.0	N.D.	--	1
4-METHYL-2-PENTANONE (MIBK)	N.D.	50	N.D.	--	1
STYRENE	N.D.	5.0	N.D.	--	1
1,1,2,2-TETRACHLOROETHANE	N.D.	5.0	N.D.	--	1
TETRACHLOROETHENE	N.D.	5.0	N.D.	--	1
TOLUENE	N.D.	5.0	N.D.	101	1
1,1,1-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
1,1,2-TRICHLOROETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROETHENE	N.D.	5.0	N.D.	93.2	1
TRICHLOROFLUOROMETHANE	N.D.	5.0	N.D.	--	1
TRICHLOROTRIFLUOROETHANE	N.D.	5.0	N.D.	--	1
VINYL ACETATE	N.D.	50	N.D.	--	1
VINYL CHLORIDE	N.D.	5.0	N.D.	--	1
TOTAL XYLENES	10	5.0	N.D.	--	1

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 17, 1997

KLEINFELDER (SACRAMENTO)
Atten: Laurie Racca
Project: GREENVILLE RD. *Project#:* 23-4829-65/ESA
Received: April 10, 1997
re: One sample for Volatile Organics by GC/MS analysis, continued.
Method: *SW846 METHOD 8240A Nov 1990*

Client Sample ID: **KD-1-4**
Spl#: 125620 *Matrix:* SOIL
Sampled: April 10, 1997 *Run#:* 6315 *Analyzed:* April 14, 1997

ANALYTE	RESULT (ug/Kg)	REPORTING LIMIT (ug/Kg)	BLANK RESULT (ug/Kg)	BLANK SPIKE (%)	DILUTION FACTOR

June Zhao
Chemist

Chip Poalinelli
Operations Manager for

(916) 366-7013 MV 04/17
FAX RESULTS WHEN AVAILABLE-916-366-7013

1220 Quarry Lane • Pleasanton, California 94566-4756
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Federal ID #68-0140157

[redacted]04[redacted]7/[redacted]518[redacted] -[redacted]5[redacted]3 [redacted]

KLEINFELDER

33011

PROJECT NO.	PROJECT NAME	RECEIVING LAB:
23-4829-65/ESA	Greenville Rd	Chroma Lab

L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number)	INSTRUCTIONS/REMARKS
	KBR 3814	5-day T.A.T.

ANALYSIS: Total Extractable Petroleum Hydrocarbons with Carbon chain breakdown (C6-C3?) ; EPA Priority pollutant Metals

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CON-TAINERS	TYPE OF CON-TAINERS	Total Extractable Petroleum Hydrocarbons with Carbon chain breakdown	EPA Priority pollutant Metals
1	4-8-97	11:12	KT2-S1	soil	1	SS.	X	X
2	↓	12:20	KT3-S1	↓	↓	↓	X	X
3	↓	13:15	KT4-S1	↓	↓	↓	X	X
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								
17								
18								
19								
20								

SUBM #: 9704127 REP: MV
CLIENT: KLEIN-SAC
DUE: 04/15/97
REF #:33011

Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)
KBR	4-8-97 14:53	Chris Rowley 4/8/97 1453

Instructions/Remarks: Please Fax results when available 916-366-7013

Send Results To: Attn: Laurie Racca
KLEINFELDER
~~7133 KOLL CENTER PARKWAY~~
~~SUITE 100~~
~~PLEASANTON, CA 94566~~
~~(510) 484-1700~~
3077 Fite Circle
Sacramento, CA 95827
916-366-1701
Attn

M-60 White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY

№ 2356

CHROMALAB, INC.

Environmental Service (SDB)

Sample Receipt Checklist

Client Name: KLEINFELDER Date/Time Received: 4/8/97 (Date) / 1453 (Time)

Reference/Subm #: 33011/9704127 Received by: CR

Checklist completed by: Chris Rowley (Signature) 4/9/97 (Date) Reviewed By: MW 4-9-97 (Initial/Date)

Matrix: Soil Carrier name: (Client) C/L - _____

Shipping container/cooler in good condition?	Yes ✓	No ___	Not Present ___
Custody seals intact on shipping container/cooler?	Yes ___	No ___	Not Present ✓
Custody seals intact on sample bottles?	Yes ___	No ___	Not Present ✓
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 ___	
Sample containers intact?	Yes ✓	No ___	
Sufficient sample volume for indicated test?	Yes ✓	No ___	
All samples received within holding time?	Yes ✓	No ___	
Container/Temp Blank temperature in compliance?	Temp: 6.1 °C Yes ✓	No ___	
Water - VOA vials have zero headspace?	No VOA vials submitted ✓	Yes ___	No ___
Water - pH acceptable upon receipt? ___ adjusted? ___ Checked by ___/chemist for VOAs			

Any No and/or NA (not applicable) response must be detailed in the comments section below.

Client contacted: _____ Date contacted: _____ Person contacted: _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action: _____

9704127

Project Number: Project Name:

FAX FAX FAX FAX FAX FAX FAX FAX FAX FAX

To: Mike Verona (person)

Chromalab (company)

(address or branch office)

484-1096 (fax number)

From: (person)

Kleinfelder, Inc.
7133 Koll Center Parkway, Suite 100
Pleasanton, CA 94566
(510) 484-1700
(510) 484-5838 (FAX)

Date: 4/10/97

Time: 8'30

Total Pages: 1 (including cover sheet)

Original will follow ___

Original will not follow ___

Sent by: ___

Instructions/Remarks:

Mike, Please take the samples on COC # 2356 your # 33011, sampled on 4-8-97, sample #'s KT2-S1, ~~KT3-S1~~ KD KT3-S1 and KT4-S1 off hold.

Thanks
Keith

Project Number: 9704127 Project Name:

FAX FAX FAX FAX FAX FAX FAX FAX FAX FAX

To: Michael Verona (person)

(company) ChromaLab

(address or branch office)

510-484-1096 (fax number)

From: Keith Powers (person)

Kleinfelder, Inc.
7133 Koll Center Parkway, Suite 100
Pleasanton, CA 94566
(510) 484-1700
(510) 484-5838 (FAX)

Date: 4/9/97

Time: 8:42

Total Pages: 7 (including cover sheet)

Original will follow ___

Original will not follow ___

Sent by: Keith

Instructions/Remarks:

Mike, these are the samples I want on hold. Thanks

KLEINFELDER 9704127 3301

PROJECT NO.	PROJECT NAME	RECEIVING LAB:
23-4829-65/ESA	Greenville Rd	Chroma Lab
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number)	INSTRUCTIONS/REMARKS
	KBR 3014	5-day T.A.T.

ANALYSIS: Total Extractable Petroleum Hydrocarbons with Carbon chain breakdown (C6-C) | EPA Priority Pollutant Metals

	DATE MM/DD/YY	SAMPLE I.D. TIME HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS	Total Extractable Petroleum Hydrocarbons with Carbon chain breakdown	EPA Priority Pollutant Metals	INSTRUCTIONS/REMARKS
1	4-8-97	11:12	KT2-S1	soil	1	SS.	X	X	
2	↓	12:20	KT3-S1	↓	↓	↓	X	X	
3	↓	13:15	KT4-S1	↓	↓	↓	X	X	

Please hold samples until further notice
KBR
4/9/97

KT2

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Instructions/Remarks:	Send Results To:
			Please Fax results when available 916-366-7013	Attn: Laurie Racca KLEINFELDER ~~7133 KOLL CENTER PARKWAY SUITE 100 PLEASANTON, CA 94566 (510) 484-1700~~ 3077 Fite Circle Sacramento, CA 95827 916-366-1701
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		
Relinquished by: (Signature) KBR	Date/Time 4-8-97 11:53	Received for Laboratory by: (Signature) Chris Rowley 4/8/97 1453		

M-60 White – Sampler Canary – Return Copy To Shipper Pink – Lab Copy

CHAIN OF CUSTODY № 2356

CHROMALAB, INC.

Environmental Services (SDB)

April 15, 1997

Submission #: 9704127

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD
Project#: 23-4829-65/ESA
Received: April 8, 1997

re: One sample for Miscellaneous Metals with Mercury analysis.
Method: *EPA 3050A/6010A/7471A Nov 1990*

Client Sample ID: **KT2-S1**
Spl#: 125182 *Matrix:* SOIL *Extracted:* April 11, 1997
Sampled: April 8, 1997 *Run#:* 6236 *Analyzed:* April 14, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
ANTIMONY	N.D.	2.0	N.D.	94.8	1
ARSENIC	3.0	1.0	N.D.	98.4	1
BERYLLIUM	N.D.	0.50	N.D.	95.1	1
CADMIUM	N.D.	0.50	N.D.	94.7	1
CHROMIUM	18	1.0	N.D.	96.0	1
COPPER	12	1.0	N.D.	99.5	1
LEAD	5.2	1.0	N.D.	95.6	1
NICKEL	24	1.0	N.D.	93.9	1
SELENIUM	N.D.	2.0	N.D.	95.0	1
SILVER	N.D.	1.0	N.D.	98.5	1
THALLIUM	N.D.	2.0	N.D.	95.2	1
ZINC	26	1.0	N.D.	95.0	1
MERCURY	N.D.	0.050	N.D.	96.8	1

Mercury extracted on April 11, 1997 and analyzed on April 11, 1997.

Charles Woolley
Chemist

John S. Labash
Inorganic Supervisor

(916) 366-7013 MV 04/15

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 15, 1997 *Submission #:* 9704127

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: April 8, 1997

re: One sample for Miscellaneous Metals with Mercury analysis.
Method: *EPA 3050A/6010A/7471A Nov 1990*

Client Sample ID: **KT3-S1**
Spl#: 125183 *Matrix:* SOIL *Extracted:* April 11, 1997
Sampled: April 8, 1997 *Run#:* 6236 *Analyzed:* April 14, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
ANTIMONY	N.D.	2.0	N.D.	94.8	1
ARSENIC	2.1	1.0	N.D.	98.4	1
BERYLLIUM	0.55	0.50	N.D.	95.1	1
CADMIUM	N.D.	0.50	N.D.	94.7	1
CHROMIUM	21	1.0	N.D.	96.0	1
COPPER	14	1.0	N.D.	99.5	1
LEAD	5.8	1.0	N.D.	95.6	1
NICKEL	28	1.0	N.D.	93.9	1
SELENIUM	N.D.	2.0	N.D.	95.0	1
SILVER	N.D.	1.0	N.D.	98.5	1
THALLIUM	N.D.	2.0	N.D.	95.2	1
ZINC	26	1.0	N.D.	95.0	1
MERCURY	N.D.	0.050	N.D.	96.8	1

Mercury extracted on April 11, 1997 and analyzed on April 11, 1997.

Charles Woolley
Chemist

John S. Labash
Inorganic Supervisor

(916) 366-7013 MV 04/15

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Federal ID #68-0140157

M005 0:0C0405 JOHN 18:01

CHROMALAB, INC.

Environmental Services (SDB)

April 15, 1997 *Submission #:* 9704127

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: April 8, 1997

re: One sample for Miscellaneous Metals with Mercury analysis.
Method: *EPA 3050A/6010A/7471A Nov 1990*

Client Sample ID: **KT4-S1**
Spl#: 125184 *Matrix:* SOIL *Extracted:* April 11, 1997
Sampled: April 8, 1997 *Run#:* 6236 *Analyzed:* April 14, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
ANTIMONY	N.D.	2.0	N.D.	94.8	1
ARSENIC	2.0	1.0	N.D.	98.4	1
BERYLLIUM	0.50	0.50	N.D.	95.1	1
CADMIUM	N.D.	0.50	N.D.	94.7	1
CHROMIUM	19	1.0	N.D.	96.0	1
COPPER	11	1.0	N.D.	99.5	1
LEAD	5.3	1.0	N.D.	95.6	1
NICKEL	27	1.0	N.D.	93.9	1
SELENIUM	N.D.	2.0	N.D.	95.0	1
SILVER	N.D.	1.0	N.D.	98.5	1
THALLIUM	N.D.	2.0	N.D.	95.2	1
ZINC	22	1.0	N.D.	95.0	1
MERCURY	N.D.	0.050	N.D.	96.8	1

Mercury extracted on April 11, 1997 and analyzed on April 11, 1997.

Charles Woolley
Chemist

John S. Labash
Inorganic Supervisor

CHROMALAB, INC.

Environmental Services (SDB)

April 15, 1997 *Submission #:* 9704127

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: April 8, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KT2-S1**
Spl#: 125182 *Matrix:* SOIL *Extracted:* April 14, 1997
Sampled: April 8, 1997 *Run#:* 6282 *Analyzed:* April 15, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	95.5	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

1220 Quarry Lane • Pleasanton, California 94566-4756
(510) 484-1919 • Facsimile (510) 484-1096
Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 15, 1997 *Submission #:* 9704127

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: April 8, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KT3-S1**
Spl#: 125183 *Matrix:* SOIL *Extracted:* April 14, 1997
Sampled: April 8, 1997 *Run#:* 6282 *Analyzed:* April 15, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	95.5	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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Federal ID #68-0140157

CHROMALAB, INC.

Environmental Services (SDB)

April 15, 1997 *Submission #:* 9704127

KLEINFELDER (SACRAMENTO)

Atten: Laurie Racca

Project: GREENVILLE RD *Project#:* 23-4829-65/ESA
Received: April 8, 1997

re: One sample for TEPH analysis.
Method: *EPA 8015M*

Client Sample ID: **KT4-S1**
Spl#: 125184 *Matrix:* SOIL *Extracted:* April 14, 1997
Sampled: April 8, 1997 *Run#:* 6282 *Analyzed:* April 15, 1997

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
DIESEL	N.D.	1.0	N.D.	95.5	1
MOTOR OIL	N.D.	50	N.D.	--	1
KEROSENE	N.D.	1.0	N.D.	--	1

NOTE: Quantitation for the above Analyte is based on the response factor of Diesel.

Bruce Havlik
Chemist

Alex Tam
Semivolatiles Supervisor

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