



**Chevron U.S.A. Products Company**

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✓  
9/24

SEARCHED 8/17/92

August 17, 1992

Ms. Eva Chu  
Alameda County Environmental Health  
80 Swan Way, Room 200  
Oakland, CA 94621

reports dated 1988

Re: Former **Chevron** Service Station No. 9-7127  
**Highway I-580 and Grantline Rd.**  
**Tracy, CA 94546**

Dear Ms. Chu :

Enclosed is the following Kleinfelder's reports : Final Report - Subsurface Environmental Investigation dated January 6, 1988, Addendum to Final Report - Subsurface Environmental Investigation dated January 19, 1988, and Draft Report - Summary of Domestic Water Sampling Activities and Analytical Results dated March 8, 1988. Only a draft version of Kleinfelder's Summary of Domestic Water Sampling Activities and Analytical Results exists. It appears that a final version of this report was never done according to one of Kleinfelder 's consultant.

In our telephone conversation on August 17, 1992, Chevron and Alameda County Environmental Health agreed that one well will be initially installed at the above referenced site. Depending on the results of our initial monitoring well, two additional wells maybe installed. Also, Chevron and Alameda County agreed that additional soil borings will not be done as stated in Pacific Environmental Group's work plan dated July 3, 1991. Your office will be informed when the subsurface investigation will begin.

If you need any additional reports or if you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan  
Engineer

LKAN/MacFile 9-7127R1

Enclosure

cc: Mr. Eddy So, RWQCB-S.F. Bay Region  
2101 Webster Street, Suite 500, Oakland, CA 94612

Ms. Bette Owen, Chevron U.S.A. Products Co.



**FINAL REPORT: SUBSURFACE  
ENVIRONMENTAL INVESTIGATION  
AT CHEVRON SERVICE STATION  
#7127  
SOUTH GRANT LINE ROAD  
TRACY, CALIFORNIA**

**FILE 001**

January 6, 1988

January 8, 1988  
File: 10-1782-01

Mr. Bob Stoltz  
Chevron U.S.A.  
2 Annabel Lane #200  
San Ramon, CA 94583

**SUBJECT: Final Report - Subsurface Environmental Investigation at Chevron Service Station #7127, South Grant Line Road, Tracy, California**

Dear Bob:

Enclosed is the final report summarizing the findings of our initial site assessment at the subject site on South Grant Line Road in Tracy, California.

As you know, detectable concentrations of benzene in the domestic tap water supply at the site exists. Although the levels detected do not exceed the Federal drinking water standard of 5 ppb, recommended action levels of the State of California have been exceeded. Reporting of the detected concentrations to proper authorities should be considered in light of the existing laws of California Assembly Bill 2185 which require disclosure of any potential hazard relating to a chemical release. In addition, the untested application of Proposition 65 laws may also affect the requirements of disclosure when they become enforceable in March 1988.

We are intending to collect another round of water samples to be analyzed by two different laboratories on a rush basis on January 8, 1988 to reconfirm the presence of benzene in tap water samples. Our staff is currently reviewing the possible presence of other wells in the site area and reviewing Public Health testing requirements of domestic wells with the Alameda County Health Department. Information obtained from our review and reconfirmation water sampling will be presented verbally to you as soon as we receive it. This information shall be transmitted in a short letter as soon thereafter as possible.

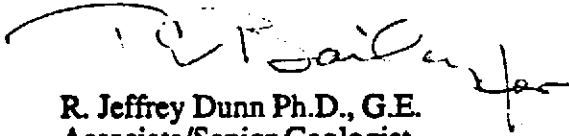
We appreciate the opportunity to provide environmental services to Chevron and will keep you posted as further information becomes available. I imagine that we will be discussing some possible further action at this site. If you have any questions regarding the content of this report, please do not hesitate to call.

Very truly yours,

**KLEINFELDER**



Mark A Klaver  
Project Geologist



R. Jeffrey Dunn Ph.D., G.E.  
Associate/Senior Geologist

MAK:RJD:cd

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## 1 SUMMARY

This report presents the results of Kleinfelder's site assessment conducted in December 1987 at Chevron Service Station No. 7127. It is our understanding that Chevron is currently in the process of selling this property.

Past vapor sampling work performed by EA Engineering Service and Technology, Inc., identified the presence of varying concentrations of organic vapors at several locations beneath the site. The work performed by EA is summarized in their November 13, 1987 report. Upon review of their data and on the results of our investigation it appears that the source of organic vapors is from residual hydrocarbons present in soils adjacent to the existing underground tank cluster. It is believed that the soils containing elevated concentrations of hydrocarbons are backfill materials of an older storage tank cavity which was abandoned and replaced with the current tank cluster. Information regarding the date of existing tank placement and removal of tanks from the adjacent suspected tank cavity were not known during this investigation.

The horizontal extent of organic vapors as measured by EA is due to the mobility of these organic vapors away from the originating source. Movement of vapors through the layer of fill above the bedrock beneath the site is limited vertically by the surface asphalt cover where vapors would spread laterally beneath this cover. The highest concentrations of organic vapors were detected immediately adjacent to the existing, and suspected older tank cavity.

The well indurated and cemented sandstone and conglomerate bedrock beneath the site would seem to impede downward migration to ground water beneath the site. During the course of our investigation ground water was not encountered during drilling due to auger refusal on the buried bedrock surface. It is believed that ground water exists approximately 40 to 50 feet beneath ground surface although seasonal fluctuation may be extreme due to the nature of the recharge area. The domestic water well at the site could not be accessed for direct sampling during this investigation, although tap water was sampled which supposedly originates from this well. It is believed that an adjacent ranch property also utilizes this well as a domestic water supply. Information regarding the construction of this well is not available although Henning Brothers Drilling of Modesto, California (well drillers) recall that most wells completed in the area are

approximately 90 feet deep with the bottom 20 feet of casing being perforated. Well pack information is unknown.

The tap water sample collected indicated low concentrations of benzene upon analysis. A confirmation sample collected also indicated the presence of benzene in tap water at 4 ppb. This information was provided to Chevron on January 6, 1988. Due to the fact that this organic concentration exceeds the State Action Level it was recommended that notification to prospective water users be made and an alternative water supply made available.

The source of benzene in the domestic well onsite is likely from historic fuel spills at the site, possibly from tank systems which have since been removed as evidenced by the suspected older tank cavity identified during drilling.

Free gasoline product will move with gravity along the path of least resistance. In the bedrock, this path should be along fractures or joints. The close proximity of the domestic well to the underground tank cluster may allow any fuel product to move along a fracture plane to ground water, or more likely, to the casing of the domestic well where it could then rapidly move downward to ground water along the permeable well pack.

## 2 INTRODUCTION

Kleinfelder was retained by Chevron, USA on December 2, 1987 to further investigate possible subsurface hydrocarbon contamination at the Chevron Station No. 7127 on Grant Line Road in Tracy, California. Possible contamination was detected by E. A. Engineering, Science, and Technology, Inc. on October 27, 1987. Their scope of services provided at that time consisted of a soil vapor investigation involving thirteen onsite and two offsite monitoring locations. Soil vapor sampling and analysis indicated the presence of organic vapor compounds surrounding, and to the north and south of the gasoline tank cluster. The vapor samples were collected at depths ranging from three to twelve feet below the ground surface. No ground water or penetration resistance information was obtained at that time.

The site setting is in the northern Diablo Range approximately three miles east of Altamont Pass in Tracy, California (see Plate 1). The property is underlain by up to nine to twenty feet of engineered fill as determined from subsurface exploration information obtained at the site. Bedrock below the fill layer consists of dense cemented sandstones and conglomerates as can be seen in adjacent formation exposures. Rainfall at the site is approximately twelve inches per year.

Structures on the property are a gasoline station building and two service islands. One existing water well supplies all of the domestic and commercial needs for the site and possibly neighboring ranch properties. The well construction and casing details are unknown at this time. It is believed that the well was completed in 1968. Other wells in the area drilled by Henning Brothers of Modesto, California are typically ninety feet deep with twenty feet of perforations at the bottom of the hole.



#### 4 SCOPE OF WORK

Kleinfelder was authorized by Chevron, USA on December 2, 1987 to further evaluate site conditions and perform limited soil and ground water sampling services at the subject property shown on Plate 1. The original scope of work as proposed was modified due to adverse drilling conditions encountered at the site. Presence of dense, indurated bedrock beneath the fill precluded the completion of any of the boreholes as monitoring wells. The greatest depth reached during this investigation was twenty feet (Borehole B-4).

The original work elements initially proposed for further characterization of the subsurface conditions were as follows:

1. Drilling of six soil borings to maximum depths of 40 feet or to auger refusal using hollow stem drilling equipment.
2. Soil sample collection at five foot intervals for logging, vapor analysis, and chemical testing purposes, if needed, to assess subsurface stratigraphy and soil quality.
3. Completion of five of the boreholes, if possible, as monitoring wells using 2 inch diameter PVC casing.
4. Development, purging, and sampling of all completed wells.
5. Analysis of a maximum of 12 soil samples (two per borehole) and six ground water samples using EPA Test Method 8015 for total hydrocarbons concentration as gasoline, and benzene, toluene, and xylene using GC/FID analytical methodology.
6. Completion of a data report summarizing the field work and results of chemical analyses and any conclusion and/or recommendations which can be offered based on the data obtained.
7. A minimum of one water sample will be obtained from an onsite tap thought to be supplied by the onsite well.

The scope of work as completed for further investigation of subsurface conditions was as follows:

1. Drilling of seven soil borings at the locations shown on Plate 2 to maximum depths of 20 feet or to auger refusal using hollow stem drilling equipment.

2. Soil sample collection at five foot intervals for logging, vapor analysis and chemical testing purposes, to allow assessment at the subsurface stratigraphy and soil quality.
3. Analysis of seven soil samples (1 per borehole) and 1 domestic well water sample using EPA Test Methods 8015 and 602 respectively for total petroleum hydrocarbon concentration as gasoline, and benzene, toluene and total xylenes using GC/FID analytical methodology.
4. Completion of a data report summarizing the field work and results of chemical analyses and any conclusions and/or recommendations which can be made based upon the data obtained.

## 4 FIELD ACTIVITIES

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### 4.1 SOIL BORINGS

On December 7, 1987 a geologist installed seven boreholes (B-1 through B-7) at the locations shown on Plate 2. Five of these holes were originally intended to be completed as monitoring wells, but auger refusal on dense, indurated conglomerates and sandstones underlying the site limited the drilling depth to the thickness of the subgrade fill.

A CME-75 mobile drilling rig equipped with eight inch diameter continuous flight hollow stem augers was used to advance the borings and collect soil samples at five foot intervals. Soil samples were obtained by driving 2.0 inch I.D. modified California sampler with brass liners into the soil for analytical sample collection. A 140 pound hammer dropping 30 inches was used to drive the sampler into the soils or rock at the bottom of the boreholes. After the sampler was removed from the hole, the brass liners were removed, and sealed, appropriately labeled, and placed in refrigerated storage. The samples were then transported to the analytical laboratory under chain-of-custody control. Following borehole drilling, all seven holes were backfilled and plugged with neat cement up to surface grade.

### 4.2 SUBSURFACE CONDITIONS

The subject property is underlain by up to twenty feet of engineered fill, beneath which is middle and/or lower Pleistocene non-marine sandstones, conglomerates and shales. A thin colluvial veneer blankets the rolling, hilly topography in the area although bedrock exposures are frequent.

Fill materials underlying the site are typically silty clays with gravel, and gravelly silty sands. The subsurface stratigraphy is shown on cross-sections A-A' and B-B' (See Plates 3 and 4). The cross sections show depth to fill-bedrock contact and also show the location of what is believed to be an older backfilled tank cavity adjacent to the one currently in use. Both of the tank excavations appear to have been dug into bedrock to allow deep enough placement of the underground fuel storage tanks.

During drilling, soil samples were routinely analyzed in the field using a Photovac TIP photo-ionization detector. The only hydrocarbon odors observed and which tested positive using the TIP were found in boreholes B-3 and B-4. All other soils sampled did not show the presence of hydrocarbons. Table 1 presents TIP readings which tested positive in the field.

TABLE 1  
PHOTOVAC TIP READINGS

Bore Hole No.	Depth	TIP Reading (ppm)
B-3	6	50
B-4	6	25
B-4	15	2000+

Logs of the seven exploratory boreholes and an explanatory legend are included in Appendix A Plates A-1 through A-8.

#### 4.3 WATER SAMPLING

On December 21, 1987 a Kleinfelder sampling technician collected a water sample for analysis from a tap located on the south side of the building. All water at the service station is supplied by the existing onsite water well. Plate 2 shows the location of the water well. Water was allowed to run from the tap for 15 minutes prior to sampling. The sample was collected in a 40 ml VOA glass sample bottle and placed in refrigerated storage for transport to the analytical laboratory under chain-of-custody control.

## 5 ANALYTICAL RESULTS

### 5.1 SOIL SAMPLES

Soil samples collected from boreholes B-1 through B-7 were analyzed for benzene, toluene, total xylenes, ethylbenzene, and total petroleum hydrocarbons (as gasoline) using EPA Test Method 8020 and 8015 respectively. The analytical results for the soil samples are presented in Table 2 with the laboratory report attached in Appendix B.

TABLE 2  
SUMMARY OF ANALYTICAL TEST RESULTS OF SOIL SAMPLES

Sample ID No.	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Total Xylenes (ppb)	Total Petroleum Hydrocarbons (as gasoline) (ppm)
B1-10	ND	ND	ND	ND	ND
B2-20	1	ND	3	4	0.8
B3-14	1200	680	800	2000	76
B4-15	19,000	85,000	28,000	140,000	2,300
B5-5	76	7	2	30	0.5
B6-5	ND	ND	ND	ND	ND
B7-5	22	3	24	46	0.7

ND = non-detection within lowermost laboratory detection levels.

The soil sample analytical results have been renumbered because none of the seven holes were completed as monitoring wells as was originally planned. The sample numbers used in Table 1 correspond with the boring numbers as shown on Plate 2. An explanatory key correlating the new designated sample numbers with the original numbers as shown in chain-of-custody is included in Appendix B.

Initial sampling of water on December 21, 1987 from an onsite tap revealed non-detect concentrations for all compounds analyzed except benzene, which was detected at 2 ppb (parts per billion). Analysis of the water sample was done using EPA Test Method 602.

Because a hose through which the initial water sample was collected was suspected of contributing organic compounds to the sample, a confirmation sample was collected on January 5, 1988. This sample was similarly obtained at a water tap immediately adjacent to the well. Water was purged through the tap for approximately 20 minutes during which time temperature and conductivity measurements were taken. Electric conductivity ranged from 980 to 990 micromhos/cm and temperatures from 21.5 ° to 23.0°C. During purging, the pump within the well activated for a brief period. The sample obtained was collected directly from the tap and not through a hose. The sample was analyzed on a one day rush turnaround for EPA 602 Test Method compounds. The results of the analysis confirmed the presence of benzene at a concentration of 4 ppb (parts per billion).

It should be noted that the recommended Federal drinking water standard for benzene is 0 ppb. Also, the California Department of Health Service action level for benzene is 0.7 ppb in drinking water.

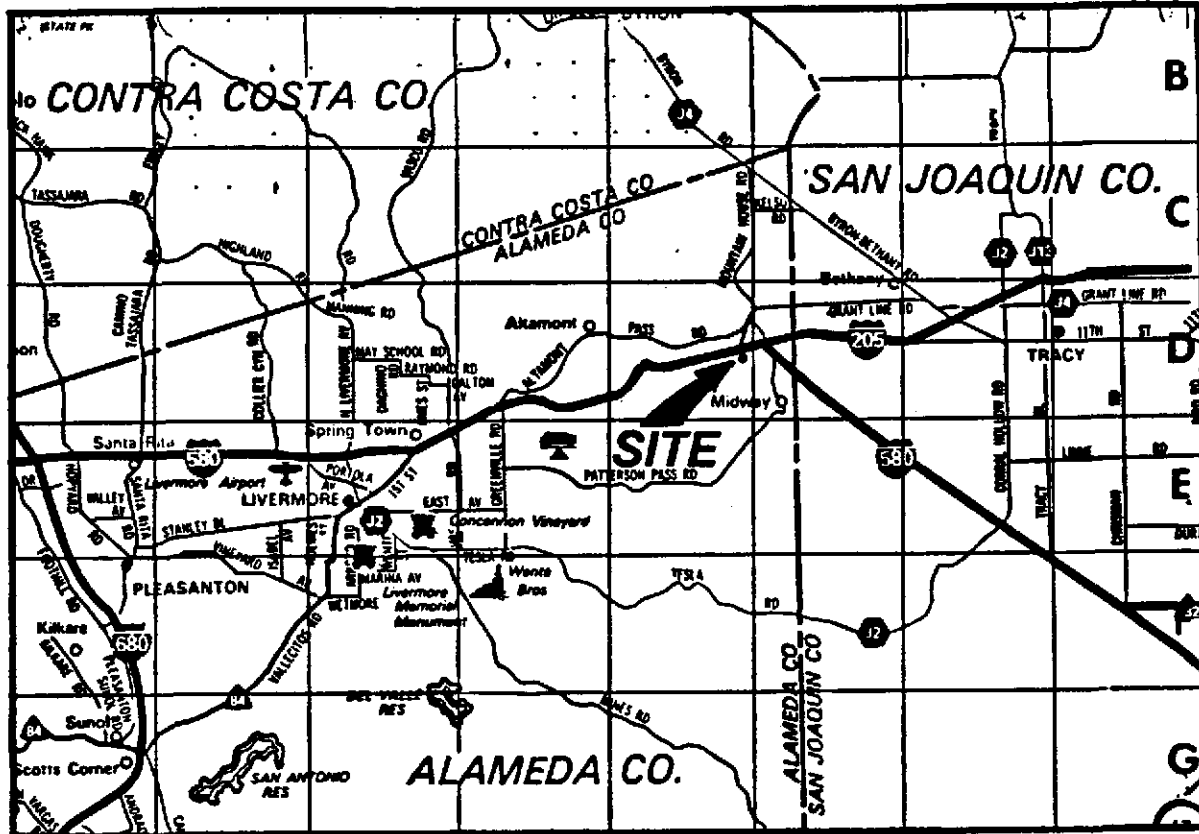
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## 6 LIMITATIONS

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This report was prepared in general accordance with the accepted standard of practice which exists in Northern California at the time the investigation was performed. It should be recognized that definition and evaluation of environmental conditions is a difficult and inexact art. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the conditions present. More extensive studies, including additional environmental investigations, can tend to reduce the inherent uncertainties associated with such studies. If the client wishes to reduce the uncertainty beyond the level associated with this study, Kleinfelder should be notified for additional consultation.

Our firm has prepared this report for the client's exclusive use for this particular project and in accordance with generally accepted engineering practices within the area at the time of our investigation. No other warranties, expressed or implied, as to the professional advice provided are made.



approximate scale

**KI** KLEINFELDER

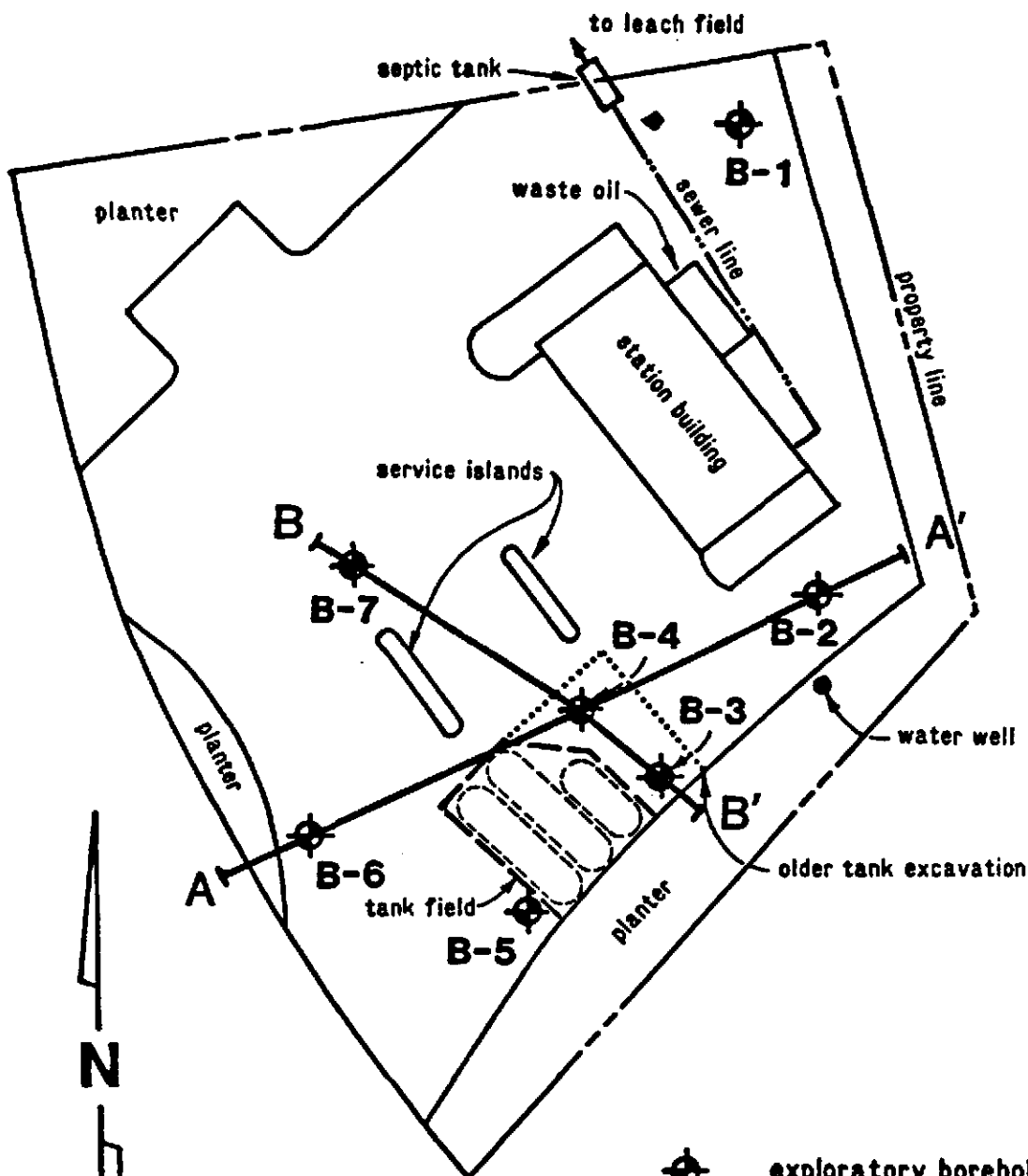
SITE LOCATION MAP  
 CHEVRON, USA STATION 7127  
 GRANT LINE ROAD  
 TRACY, CALIFORNIA

PLATE

1

PROJECT NO. 10-1782-01

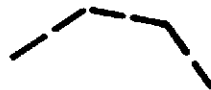




approximate scale



exploratory borehole location



existing tank field



older tank excavation



cross-section location

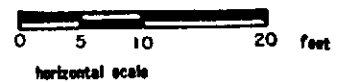
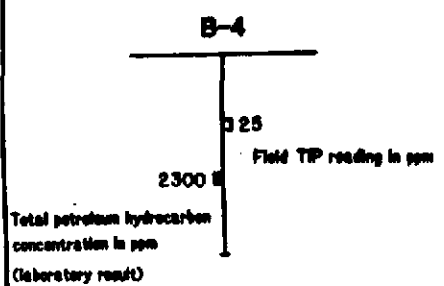
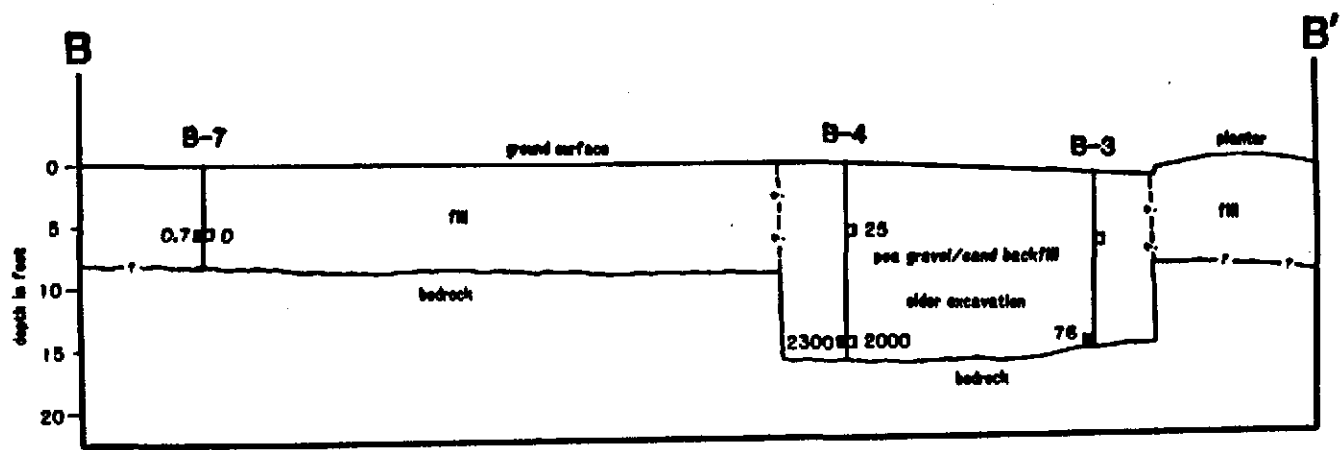
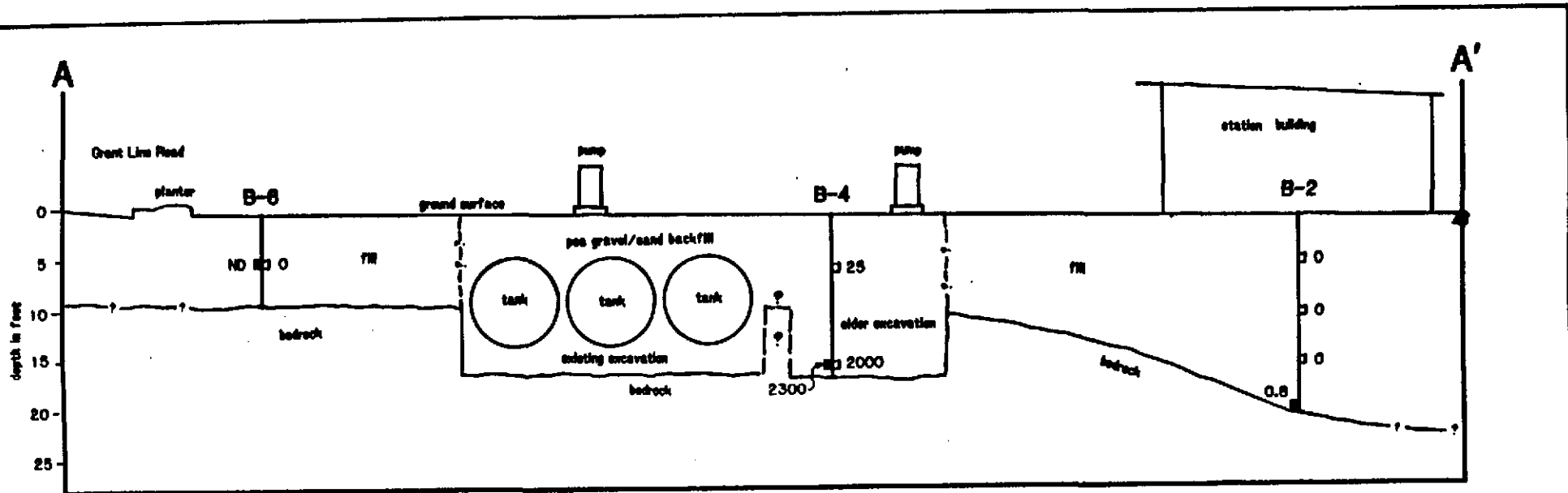
**KH** KLEINFELDER

CROSS-SECTION LOCATION MAP  
 CHEVRON, USA STATION 7127  
 GRANT LINE ROAD  
 TRACY, CALIFORNIA

PLATE

**3**

PROJECT NO. 10-1782-01



	CROSS-SECTIONS A-A' and B-B' CHEVRON, USA STATION 7127 GRANT LINE ROAD TRACY, CALIFORNIA	PLATE <b>4</b>
	PROJECT NO. 10-1782-01	

**APPENDIX A**

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**UNIFIED SOIL CLASSIFICATION SYSTEM**

MAJOR DIVISIONS		LTR	DESCRIPTION	MAJOR DIVISIONS		LTR	DESCRIPTION
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW	Well-graded gravels or gravel sand mixtures, 85% or no fines.	FINE GRAINED SOILS	SILTS AND CLAYS LL < 50	ML	Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		GP	Poorly-graded gravels or gravel sand mixture, 85% or no fines.			CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays.
		GM	Silty gravels, gravel-sand-clay mixtures.			OL	Organic silts and organic silt-clays of low plasticity.
		GC	Clayey gravels, gravel-sand-clay mixtures.			SILTS AND CLAYS LL > 50	MH
	SAND AND SANDY SOILS	SW	Well-graded sands or gravelly sands, 85% or no fines.		CH		Inorganic clays of high plasticity, fat clays.
		SP	Poorly-graded sands or gravelly sands, 85% or no fines.		OH		Organic clays of medium to high plasticity.
		SM	Silty sands, sand-silt mixtures.		HIGHLY ORGANIC SOILS		PT
		SC	Clayey sands, sand-clay mixtures.				



Standard penetration split spoon sample



Blank casing



Modified California (Porter) sample



Screened Casing



Shelby tube sample



Cement grout



Water level observed in boring



No recovery



Bentonite

NFWE

No free water encountered



Sand pack or gravel pack

NOSC

No odor, scent, or fluid cut

**NOTES:**

Blow count represents the number of blows of a 140-pound hammer falling 30 inches per blow required to drive a sampler through the last 12 inches of an 18-inch penetration.

The lines separating strata on the logs represent approximate boundaries only. The actual transition may be gradual. No warranty is provided as to the continuity of soil strata between borings. Logs represent the soil section observed at the boring location on the date of drilling only

**KH KLEINFELDER**

CHEVRON USA - STATION 7127  
GRANT LINE ROAD  
TRACY, CALIFORNIA

PLATE

**A1**

PROJECT NO. 10-1782-01

**BORING LOG LEGEND**

Blow/ Ft.	Sample No.	USCS	Description	Well Const
0			Asphalt	
2		SM	Fill - SILTY SAND - tan, light brown, NOSC	
4		CL	Fill - SILTY CLAY - brownish gray, with angular gravel	
6	24			
8				
10	80	SM	GRAVELLY SILTY SAND - gray, very dense, fine gravelly sand, well rounded gravels up to 1/2 inch, NOSC	
12				
14	85			
16				
18	14	CL	SILTY CLAY - gray, firm, low plasticity, moist, well rounded gravel, slight odor.	
20	B2 - 20			
22			Total Depth = 19 feet, 6 inches Logged By: Steve Fox Drilling Date: 12/7/87	
24			Auger refusal at 19 feet, 6 inches	
26				
28				
30				

B - 2

**K** KLEINFELDER

CHEVRON, USA - STATION 7127  
GRANT LINE ROAD  
TRACY, CALIFORNIA

PLATE

**A3**

PROJECT NO. 10-1782-01

BORING LOG - B-2

Blow/ Ft.	Sample No.	USCS	Description	Well Const
0			Asphalt	
2		CL	Fill - SILTY CLAY - tan	
4		CL	Fill - SILTY CLAY - grayish brown, very stiff, dry to moist	
6	26		- some gravel present -50 ppm tip reading	
8				
10	44			
12				
14	12	B3-14	- Auger refusal at 14 feet	
16			Total Depth = 14 feet Logged By: Steve Fox Drilling Date: 12/7/87	
18				
20				
22				
24				
26				
28				
30				

Depth (feet)

B-3



CHEVRON, USA - STATION 7127  
GRANT LINE ROAD  
TRACY, CALIFORNIA

PLATE

**A4**

PROJECT NO. 10-1782-01

**BORING LOG B-3**

Blow/ Ft.	Sample No.	USCS	Description	Well Const
0			Asphalt	
2		SM	Fill - SILTY SAND - light brown tan, NOSC	
4		CL	Fill - SILTY CLAY - grey, stiff, low plasticity, moist, slight odor	
6	12		- tip reading of 25 ppm on drill cuttings	
8			- some sand present, slight odor	
10	51			
12				
14				
16	44	B4 - 15	SP - GRAVELLY SAND - gray, dense, sand fine grained, moist, gravels from 1/4 to 1/2 inch tip reading of over 2000 ppm	
18			Total Depth = 19 feet, 6 inches Logged By: Steve Fox Drilling Date: 12/7/87	
20				
22				
24				
26				
28				
30				

B - 4



CHEVRON, USA - STATION 7127  
GRANT LINE ROAD  
TRACY, CALIFORNIA

PLATE

A5

PROJECT NO. 10-1782-01

BORING LOG B-4

Blow/ Ft.	Sample No.	USCS	Description	Well Const
0			Asphalt	●●●●
		SM	Fill - SILTY SAND - tan, small amount of gravel, NOSC	
2		SM	SILTY SAND - gray, stiff, moist, fine-grained sand, possible fill, NOSC	
4				
12	B5 - 5			
6			Total Depth = 5 feet, 8 inches Logged By: Steve Fox Drilling Date: 12/7/87	
8				
10				
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				

Depth (feet)

B - 5



CHEVRON, USA - STATION 7127  
GRANT LINE ROAD  
TRACY, CALIFORNIA

PLATE

**A6**

PROJECT NO. 10-1782-01

**BORING LOG B-5**



Blow/ Ft.	Sample No.	USCS	Description	Well Const
0			Asphalt	●●●●
2		SM	Fill - SILTY SAND, light brown, NOSC	
4		ML	SANDY SILT - gray, low plasticity, dry to moist, NOSC	
6	22	ML	GRAVELLY SANDY SILT - gray, hard, low plasticity, moist, NOSC	
8			Auger refusal at 8 feet 9 inches	
10			Total Depth = 8 feet 9 inches Logged By: Steve Fox Drilling Date: 12/7/87	
12				
14				
16				
18				
20				
22				
24				
26				
28				
30				

Depth (feet)

B - 6



CHEVRON, USA - STATION 7127  
GRANT LINE ROAD  
TRACY, CALIFORNIA

PLATE

**A7**

PROJECT NO. 10-1782-01

BORING LOG B-6

ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road • Pleasant Hill, CA 94523 • (415) 930-9090

LABORATORY ANALYSIS REPORT

J.H. Kleinfelder & Assoc.  
2121 N. California Blvd.  
Suite 570  
Walnut Creek, CA 94596  
ATTN: Mark Klaver

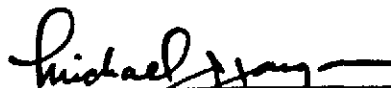
REPORT DATE: 12/31/87  
DATE RECEIVED: 12/21/87  
DATE SAMPLED: 12/21/87

CLIENT PROJECT NO.: 10-1782-01

MED-TOX JOB NO.: 8712114

ANALYSIS OF: ONE WATER SAMPLE FOR PURGEABLE AROMATICS

See attached for results.

  
\_\_\_\_\_  
Michael J. Jeger  
Organic Group Leader

J.H. Kleinfelder &amp; Assoc.

CLIENT ID: W-T-1A  
CLIENT JOB NO.: 10-1782-01MED-TOX LAB NO.: 8712114-01A  
MED-TOX JOB NO.: 8712114DATE SAMPLED: 12/21/87  
DATE RECEIVED: 12/21/87DATE ANALYZED: 12/23/87  
REPORT DATE: 12/31/87

## EPA METHOD 602

## PURGEABLE AROMATICS

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Benzene	71-43-2	2	0.5
Chlorobenzene	108-90-7	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Toluene	108-88-3	ND	0.5
Xylenes, Total	-----	ND	2

ND - Not Detected

## ENVIRONMENTAL & OCCUPATIONAL HEALTH SERVICES

3440 Vincent Road • Pleasant Hill, CA 94573 • (415) 930 9090

### LABORATORY ANALYSIS REPORT

J.H. Kleinfelder & Assoc.  
2121 N. California Blvd.  
Suite 570  
Walnut Creek, CA 94596  
ATTN: Mark Klaver

REPORT DATE: 01/07/88

DATE RECEIVED: 01/05/88

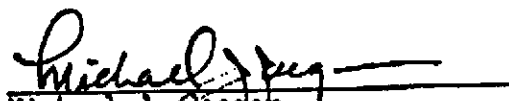
DATE SAMPLED: 01/05/87

CLIENT PROJECT NO.: 10-1782-01

MED-TOX JOB NO.: 8801010

ANALYSIS OF: ONE WATER SAMPLE FOR PURGEABLE AROMATICS

See attached for results.

  
Michael J. Jaeger  
Organic Group Leader

Results reported verbally to Mark Klaver 1/6/88

J.H. Kleinfelder &amp; Assoc.

CLIENT ID: W-T-2A  
CLIENT JOB NO.: 10-1782-01MED-TOX LAB NO.: 8801010-01A  
MED-TOX JOB NO.: 8801010DATE SAMPLED: 01/05/88  
DATE RECEIVED: 01/05/88DATE ANALYZED: 01/06/88  
REPORT DATE: 01/07/88EPA METHOD 602  
PURGEABLE AROMATICS

COMPOUND	CAS #	CONCENTRATION (ug/L)	DETECTION LIMIT (ug/L)
Benzene	71-43-2	4 *	0.5
Chlorobenzene	108-90-7	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,3-Dichlorobenzene	541-73-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Toluene	108-88-3	ND	0.5
Xylenes, Total	-----	ND	2

ND - Not Detected

\* Confirmed by GC/MS



# CHAIN OF CUSTODY RECORD

SAMPLERS: (Signature)

Megan Alexander

Phone: (415) 958-5610

SHIP TO:

MEDTOX

ATTENTION:

Phone No. \_\_\_\_\_

## SHIPPING INFORMATION

Shipper \_\_\_\_\_

Address \_\_\_\_\_

Date Shipped \_\_\_\_\_

Shipment Service \_\_\_\_\_

Airbill No. \_\_\_\_\_

Cooler No. \_\_\_\_\_

Relinquished by: (Signature) <u>Megan Alexander</u>	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received by: (Signature) <u>DVE 1-6-88</u> NF 12-23	Date/Time
Relinquished by: (Signature)	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Received for laboratory by: (Signature) <u>Julianne Stula</u>	Date/Time <u>12-21 1220</u>

\* Analysis laboratory should complete, "sample condition upon receipt", section below, sign and return top copy to J. H. KLEINFELDER & ASSOCIATES, 1901 Olympic Blvd., Suite 300, Walnut Creek, California 94596

Sample Number	Site Identification	Date Sampled	Analysis Requested	Sample Condition Upon Receipt
<u>N-T-1A</u>	<u>10-1782-01</u>	<u>12-21-87</u>	<u>EPA 602</u>	<u>GOOD</u>
<u>N-T-1B</u>	<u>10-1782-01</u>	<u>12-21-87</u>	<u>EPA 602 (HOLD)</u>	<u>✓</u>

Lower most detection limit possible @ 0.05 ppb

Results by January 6, 1988  
Written + Verbal results to Mark Klaver (possible)

LAB INSTRUCTIONS: Laboratory reports should reference and be billed by site ID# and contain the following:

- (1) summary of analytical methodology and QA work (blanks, spikes, duplicates)
- (2) dates for (a) sampling, (b) lab receipt, (c) extraction, (d) injection/analysis
- (3) detection limits for all constituents analyzed for and reporting of all constituents detected which were not specifically designated
- (4) \_\_\_\_\_
- (5) \_\_\_\_\_

