

Reviewed on 2/11/95 yarech

→ Need to discuss w/J. Shin
- see notes.



KAPREALIAN ENGINEERING
INCORPORATED

ALCO
HAZMAT

94 NOV 15 PM 4: 34

Called Consultant to ask
for field notes of sampling event. 2/2/95 Orleah

November 14, 1994

Alameda County Health Care Services
1131 Harbor Way Parkway
Alameda, CA 94501

Attention: Ms. Juliet Shin

RE: Berkeley Land Company
23555 Saklan Road
Hayward, California

Dear Ms. Shin:

Per the request of Mr. Paul Paradiso of Paradiso Mechanical, Inc.,
enclosed please find our report dated November 11, 1994, for the
above referenced site.

If you should have any questions, please feel free to call our
office at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.

Judy A. Dewey

jad\82

Enclosure

cc: Paul Paradiso, Paradiso Mechanical, Inc.



KAPREALIAN ENGINEERING
I N C O R P O R A T E D

KEI-P88-1110.QR5
November 11, 1994

Berkeley Land Company
4550 San Pablo Avenue
Emeryville, CA 94608

Attention: Mr. Norm Alberts

RE: Quarterly Report
Berkeley Land Company
23555 Saklan Road
Hayward, California

Dear Mr. Alberts:

This report presents the results of the most recent quarter of monitoring and sampling of the monitoring wells at the referenced site by Kaprealian Engineering, Inc. (KEI). All of the wells are currently monitored and sampled on a quarterly basis. This report covers the work performed by KEI from August through October of 1994.

BACKGROUND

The subject site occupies the northeast corner of the intersection of Saklan Road and Middle Lane in Hayward, California, and is situated approximately two miles from the shores of the San Francisco Bay. The site is located in a mixed light industrial and residential area. A Location Map is attached to this report. A large part of the site is used by Quality Tow, an automobile towing operation, for the storage of used vehicles.

In June of 1988, an underground fuel storage tank was reportedly removed from the site. On February 27, 1990, and March 1, 1990, two exploratory borings were drilled at the site. During the drilling of the borings, a six-inch diameter water well was discovered adjacent to the former underground fuel storage tank pit. On May 30, 1990, four exploratory borings were drilled and five monitoring wells installed at the site. KEI's initial work at the site was conducted on February 25, 1993, when the five existing monitoring wells were monitored and sampled. On June 1 and 2, 1993, seven exploratory borings, in conjunction with a Hydropunch study, were drilled at the site. A total of 13 borings have been drilled and five monitoring wells have been installed at the site.

A site description, detailed background information including a summary of all of the soil and ground water subsurface investigation/remediation work conducted to date, site hydrogeologic conditions, and tables that summarize all of the soil and ground

water sample analytical results are presented in KEI's report (KEI-P88-1110.R2) dated July 12, 1993.

RECENT ~~FIELD~~ ACTIVITIES

The five monitoring wells (MW1 through MW5) and the water well (WW1) were monitored and sampled once during the quarter. During monitoring, the wells were checked for depth to water and the presence of free product. Prior to sampling, the wells were also checked for the presence of a sheen. No free product or sheen was noted in any of the wells during the recent quarter, except for sheen detected in the water well (WW1). The monitoring data collected during the recent quarter are summarized in Table 1.

Ground water samples were collected from all of the wells on October 18, 1994. Prior to sampling, the wells were each purged of between 13.5 and 110 gallons of water by the use of a surface pump. The samples were collected by the use of a clean Teflon bailer. The samples were decanted into clean VOA vials and/or one-liter amber bottles, as appropriate, which were then sealed with Teflon-lined screw caps, labeled, and stored in a cooler, on ice, until delivery to a state-certified laboratory.

HYDROLOGY

The measured depth to ground water at the site on October 18, 1994, ranged between 13.41 and 15.47 feet. The water levels in all of the monitoring wells have shown net decreases ranging from 0.60 to 0.62 feet since August 15, 1994. Based on the water level data gathered on October 18, 1994, the ground water flow direction appeared to be predominantly to the west-southwest, as shown on the attached Potentiometric Surface Map, Figure 1. The ground water flow direction has been predominantly to the southwest since the inception of the monitoring program in May of 1993 (six consecutive quarters). The average hydraulic gradient at the site on October 18, 1994, was approximately 0.002.

ANALYTICAL RESULTS

The ground water samples collected during the quarter were analyzed at Sequoia Analytical Laboratory and were accompanied by properly executed Chain of Custody documentation. The samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline by EPA method 5030/modified 8015, TPH as diesel by EPA method 3510/modified 8015, and benzene, toluene, ethylbenzene, and xylenes (BTEX) by EPA method 8020.

The analytical results of all of the ground water samples collected from the wells to date are summarized in Table 2. The concentrations of TPH as gasoline, benzene, and TPH as diesel detected in the ground water samples collected on October 18, 1994, are shown on the attached Figure 2. Copies of the laboratory analytical results and the Chain of Custody documentation are attached to this report.

DISCUSSION

Based on the consistent ground water flow direction, and no free product detected in the wells, KEI recommends the continuation of the current quarterly ground water monitoring and sampling program. The wells are sampled for TPH as gasoline, TPH as diesel, and BTEX.

DISTRIBUTION

A copy of this report should be sent to Ms. Juliet Shin of the Alameda County Health Care Services Agency, and to the RWQCB, San Francisco Bay Region.

LIMITATIONS

Environmental changes, either naturally-occurring or artificially-induced, may cause changes in ground water levels and flow paths, thereby changing the extent and concentration of any contaminants.

Our studies assume that the field and laboratory data are reasonably representative of the site as a whole, and assume that subsurface conditions are reasonably conducive to interpolation and extrapolation.

The results of this study are based on the data obtained from the field and laboratory analyses obtained from a state-certified laboratory. We have analyzed these data using what we believe to be currently applicable engineering techniques and principles in the Northern California region. We make no warranty, either expressed or implied, regarding the above, including laboratory analyses, except that our services have been performed in accordance with generally accepted professional principles and practices existing for such work.

KEI-P88-1110.QR5
November 11, 1994
Page 4

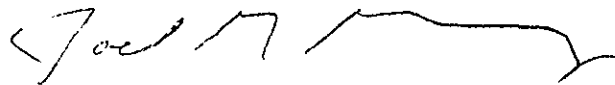
If you have any questions regarding this report, please do not hesitate to call at (510) 602-5100.

Sincerely,

Kaprealian Engineering, Inc.



Sarkis A. Soghomonian
Project Engineer



Joel G. Greger, C.E.G.
Senior Engineering Geologist

License No. EG 1633
Exp. Date 8/31/96



Robert H. Kezerian
Project Manager

\jad

Attachments: Tables 1 & 2
Location Map
Potentiometric Surface Map - Figure 1
Concentrations of Petroleum Hydrocarbons - Figure 2
Laboratory Analyses
Chain of Custody documentation

KEI-P88-1110.QR5
November 11, 1994

TABLE 1

SUMMARY OF MONITORING DATA

<u>Well #</u>	<u>Ground Water Elevation (feet)</u>	<u>Depth to Water (feet)</u>	<u>Product Thickness (feet)</u>	<u>Sheen</u>	<u>Water Purged (gallons)</u>	<u>Product Purged (ounces)</u>
(Monitored and Sampled on October 18, 1994)						
MW1	18.65	15.11	0	No	26	0
MW2	19.01	15.32	0	No	30.5	0
MW3	18.66	14.97	0	No	13.5	0
MW4	18.59	13.41	0	No	34.5	0
MW5	18.87	13.77	0	No	17.5	0
WW1	N/A	15.47	0	Yes	110	0

<u>Well #</u>	<u>Top of Casing Elevation in feet above Mean Sea Level (MSL)*</u>
MW1	33.76
MW2	34.33
MW3	33.63
MW4	32.00
MW5	32.64

N/A = Not applicable.

-- Determination was not performed.

* Based on Alameda County Benchmark located at Eden Avenue and West Street (elevation = 33.16 MSL).

KEI-P88-1110.QR5
November 11, 1994

TABLE 2

SUMMARY OF LABORATORY ANALYSES
WATER

<u>Date</u>	<u>Sample Well #</u>	<u>TPH as Diesel</u>	<u>TPH as Gasoline</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Xylenes</u>
10/18/94	MW1	ND	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	120	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	2,400	180*	ND	ND	ND	ND
7/13/94++ & 8/15/94	MW1	66♦♦	ND	ND	ND	ND	ND
	MW2	67♦♦	ND	ND	ND	ND	ND
	MW3	92♦♦	ND	ND	ND	ND	ND
	MW4	64♦♦	ND	ND	ND	ND	ND
	MW5	62♦♦	ND	ND	ND	ND	ND
	WW1	9,200	1,600*	ND	ND	ND	ND
1/20/94	MW1	73	ND	ND	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	130	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	340♦	ND	ND	ND	ND	ND
	WW1	190,000	34,000*	ND	ND	ND	ND
10/28/93	MW1	120♦	200*	1.8	ND	ND	ND
	MW2	ND	ND	ND	ND	ND	ND
	MW3	170	ND	ND	ND	ND	1.4
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
7/12/93+ & 8/20/93	MW1	200♦	150	1.1	ND	ND	0.51
	MW2	ND	ND	ND	ND	ND	ND
	MW3	ND	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					
2/25/93	MW1	5,900♦	4,600**	45	18	ND	750
	MW2	ND	ND	ND	ND	ND	ND
	MW3	200	ND	ND	ND	ND	ND
	MW4	ND	ND	ND	ND	ND	ND
	MW5	ND	ND	ND	ND	ND	ND
	WW1	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT					

KEI-P88-1110.QR5
November 11, 1994

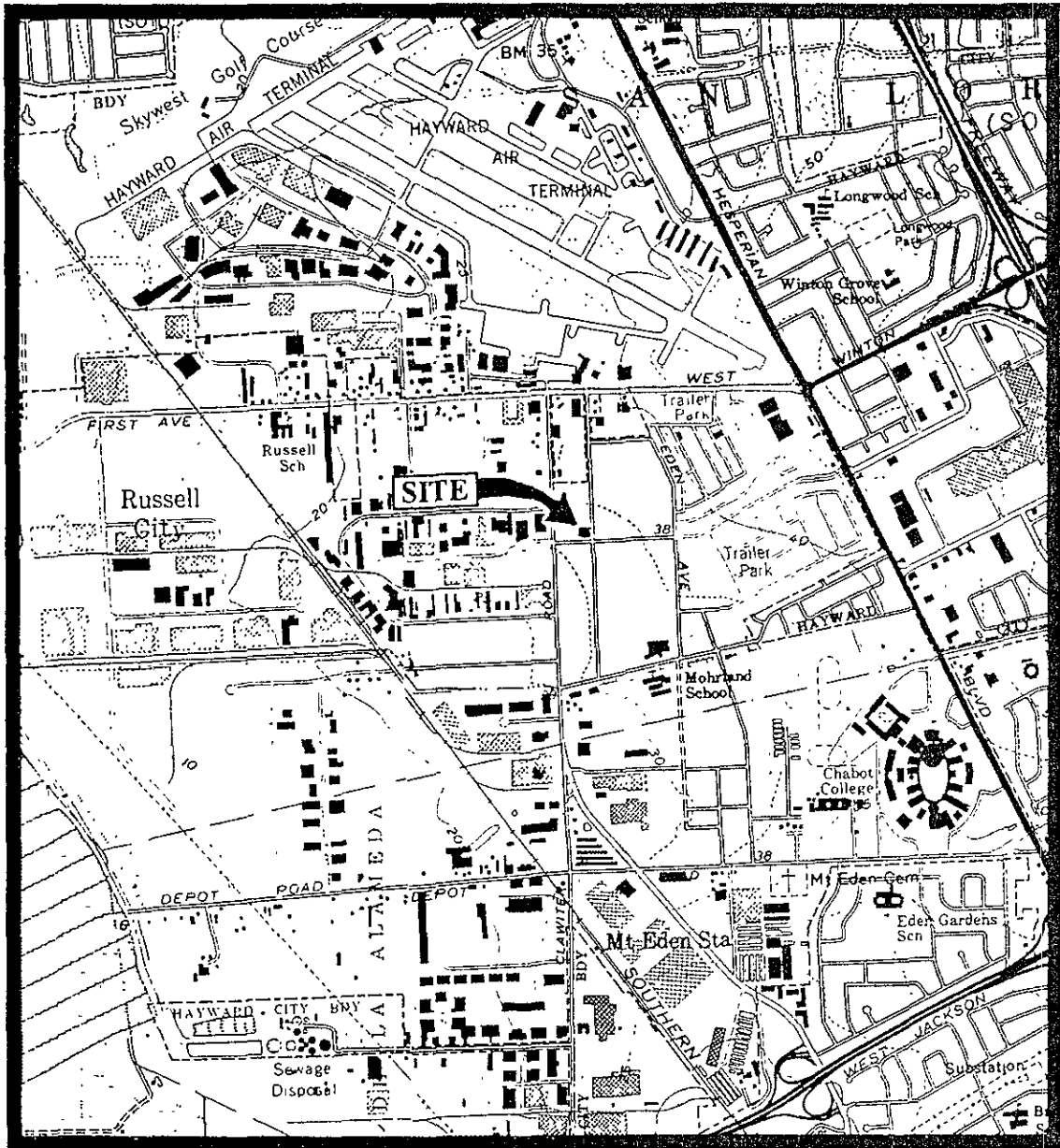
TABLE 2 (Continued)

SUMMARY OF LABORATORY ANALYSES
WATER

- ◆ Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- ◆◆ Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be diesel.
- * Sequoia Analytical Laboratory reported that the hydrocarbons detected did not appear to be gasoline.
- ** Sequoia Analytical Laboratory reported that the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- + Samples collected on July 12, 1993, were analyzed for TPH as gasoline and BTEX. Samples collected on August 20, 1993, were analyzed for TPH as diesel.
- ++ Samples collected on July 13, 1994, were analyzed for TPH as gasoline and BTEX, and for TPH as diesel for well WW1. Samples collected on August 15, 1994, were analyzed for TPH as diesel for wells MW1 through MW5.

ND = Non-detectable.

Results are in parts per billion (ppb), unless otherwise indicated.



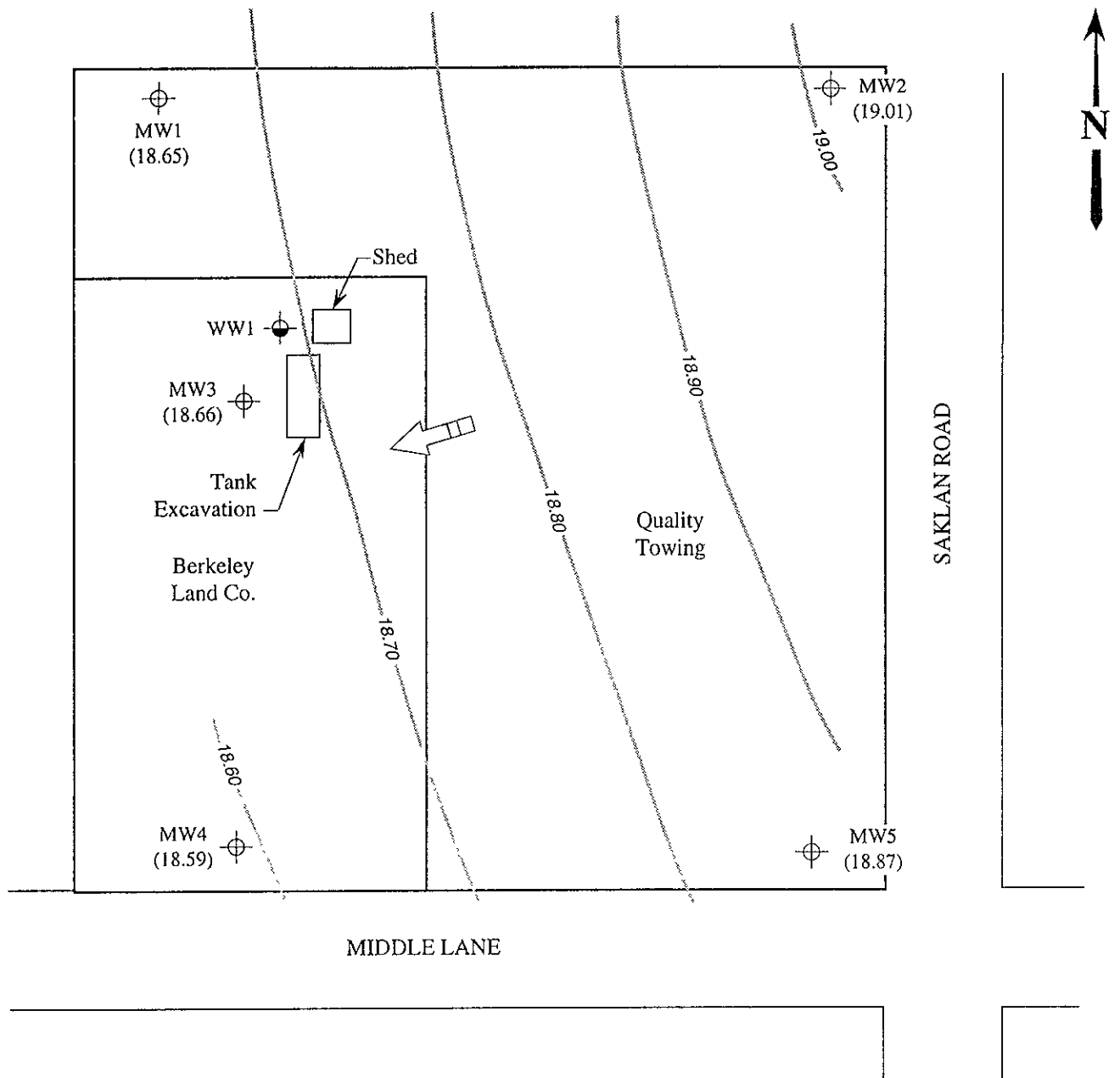
Base modified from 7.5 minute U.S.G.S.
 Hayward & San Leandro Quadrangles
 (both photorevised 1980)





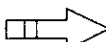


**KAPREALIAN ENGINEERING
 INCORPORATED**

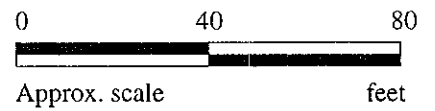
**BERKELEY LAND CO.
 23555 SAKLAN ROAD
 HAYWARD, CALIFORNIA**

**LOCATION
 MAP**



LEGEND

-  Monitoring well
-  Water well
- () Ground water elevation in feet above Mean Sea Level
-  Direction of ground water flow
-  Contours of ground water elevation

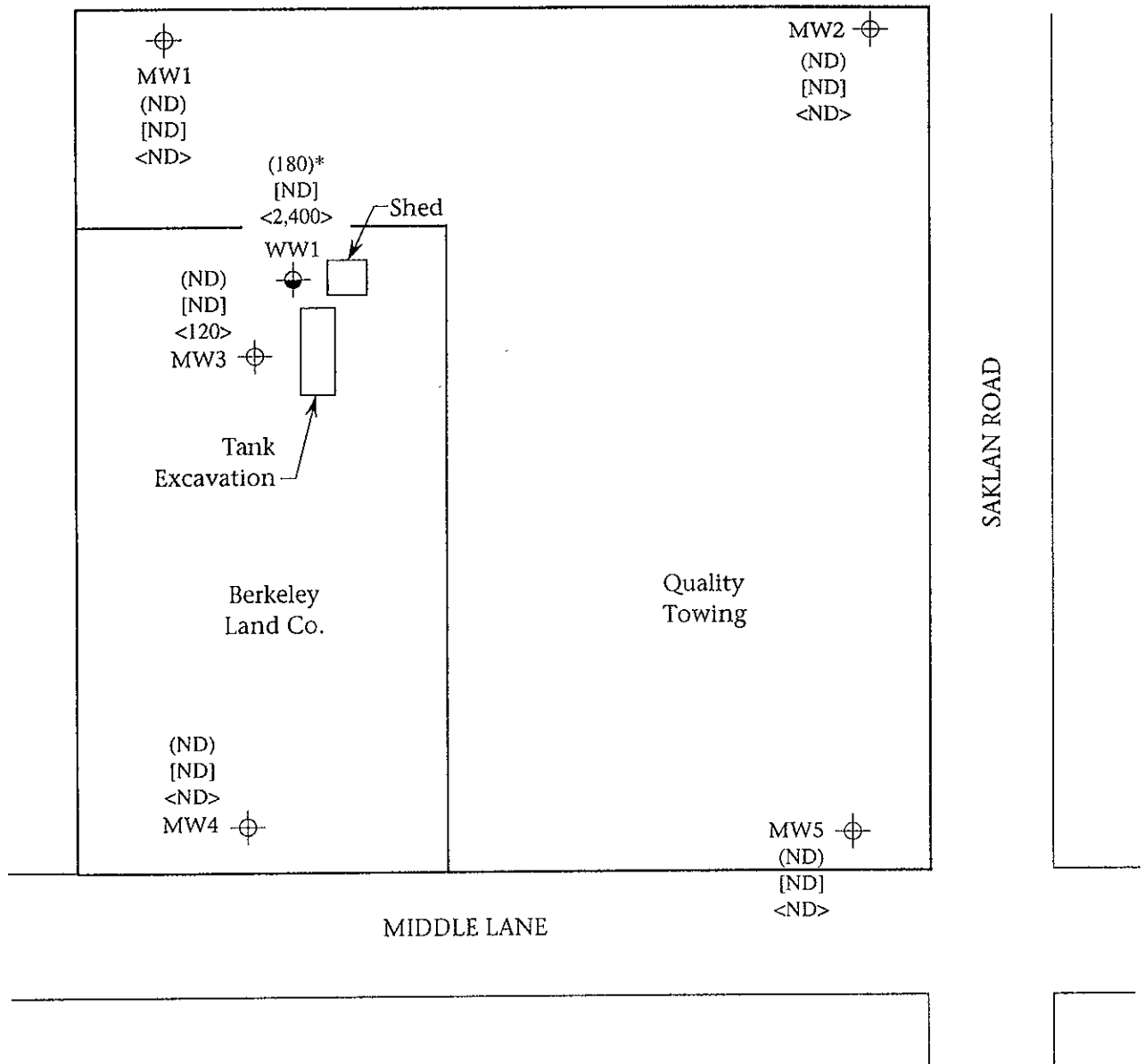


POTENTIOMETRIC SURFACE MAP FOR THE OCTOBER 18, 1994 MONITORING EVENT


**KAPREALIAN ENGINEERING
 INCORPORATED**

**BERKELEY LAND CO.
 23555 SAKLAN ROAD
 HAYWARD, CALIFORNIA**

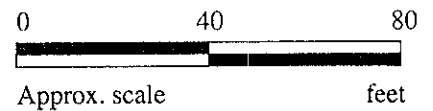
**FIGURE
 1**



LEGEND

- ⊕ Monitoring well
- ⊙ Water well
- () Concentration of TPH as gasoline in $\mu\text{g/L}$
- [] Concentration of benzene in $\mu\text{g/L}$
- < > Concentration of TPH as diesel in $\mu\text{g/L}$
- ND = Non-detectable

* The lab reported that the hydrocarbons detected did not appear to be gasoline.



PETROLEUM HYDROCARBON CONCENTRATIONS IN GROUND WATER ON OCTOBER 18, 1994



**BERKELEY LAND CO.
23555 SAKLAN ROAD
HAYWARD, CALIFORNIA**

**FIGURE
2**



Kapreallan Engineering, Inc. Client Project ID: Berkeley Land Co., 23555 Saklan Road, Sampled: Oct 18, 1994
 2401 Stanwell Dr., Ste. 400 Sample Matrix: Water Hayward Received: Oct 18, 1994
 Concord, CA 94520 Analysis Method: EPA 5030/8015/8020 Reported: Nov 2, 1994
 Attention: Avo Avedissian First Sample #: 410-1231

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 410-1231 MW-1	Sample I.D. 410-1232 MW-2	Sample I.D. 410-1233 MW-3	Sample I.D. 410-1234 MW-4	Sample I.D. 410-1235 MW-5	Sample I.D. 410-1236 WW-1*
Purgeable Hydrocarbons	50	N.D.	N.D.	N.D.	N.D.	N.D.	180
Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Toluene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Ethyl Benzene	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Total Xylenes	0.50	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

Chromatogram Pattern: Discrete Peaks and Unidentified Hydrocarbons > C9

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Analyzed:	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94
Instrument Identification:	HP-2	HP-2	HP-2	HP-2	HP-2	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	109	101	102	101	102	96

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard.
 Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271

Alan B. Kemp
 Project Manager

Please Note:
 * This sample does not appear to contain gasoline. "Discrete Peaks" refers to unidentified peaks in the EPA 8010 range; "Unidentified Hydrocarbons > C9" refers to unidentified peaks in the total extractable petroleum hydrocarbons range.





Kapreallan Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Berkeley Land Co., 23555 Saklan Road,
Sample Matrix: Water Hayward
Analysis Method: EPA 3510/8015
First Sample #: 410-1231

Sampled: Oct 18, 1994
Received: Oct 18, 1994
Reported: Nov 2, 1994

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 410-1231 MW-1	Sample I.D. 410-1232 MW-2	Sample I.D. 410-1233 MW-3	Sample I.D. 410-1234 MW-4	Sample I.D. 410-1235 MW-5	Sample I.D. 410-1236 WW-1
Extractable Hydrocarbons	50	N.D.	N.D.	120	N.D.	N.D.	2,400
Chromatogram Pattern:		--	--	Diesel	--	--	Diesel

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	10/25/94	10/25/94	10/25/94	10/25/94	10/25/94	10/25/94
Date Analyzed:	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94
Instrument Identification:	HP-3B	HP-3B	HP-3B	HP-3B	HP-3B	HP-3A

Extractable Hydrocarbons are quantitated against a fresh diesel standard.
Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL, #1271


Alan B. Kemp
Project Manager





Kapreallan Engineering, Inc.
2401 Stanwell Dr., Ste. 400
Concord, CA 94520
Attention: Avo Avedissian

Client Project ID: Berkeley Land Co., 23555 Saklan Road, Hayward
Matrix: Liquid

QC Sample Group: 4101231-36

Reported: Nov 2, 1994

QUALITY CONTROL DATA REPORT

Table with columns: ANALYTE, Benzene, Toluene, Ethyl Benzene, Xylenes, Diesel. Rows: Method, Analyst.

Table with columns: MS/MSD Batch#, Date Prepared, Date Analyzed, Instrument I.D.#, Conc. Spiked, Matrix Spike % Recovery, Matrix Spike Duplicate % Recovery, Relative % Difference.

Table with columns: LCS Batch#, Date Prepared, Date Analyzed, Instrument I.D.#, LCS % Recovery.

Table with columns: % Recovery Control Limits.

Please Note: The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

SEQUOIA ANALYTICAL, #1271
Alan B. Kemp
Project Manager



CHAIN OF CUSTODY

SAMPLER		SITE NAME & ADDRESS							ANALYSES REQUESTED						TURN AROUND TIME:		
Dirani Melkoun		Berkeley Land Co. 23555 Saklan Rd. Hayward							TPHG	BTXE	TPHD					Regular	
WITNESSING AGENCY		SAMPLE ID NO.	DATE	TIME	SOIL	WATER	GRAB	COMP									NO. OF CONT.
		MW-1	10/18/94	14:15		✓			3		✓	✓	✓			4101231	A-C ↓
		MW-2	"	14:50		✓			3		✓	✓	✓			4101232	
		MW-3	"	15:30		✓			3		✓	✓	✓			4101233	
		MW-4	"	13:30		✓			3		✓	✓	✓			4101234	
		MW-5	"	12:30		✓			3		✓	✓	✓			4101235	
		WW-1	"	16:25		✓			3		✓	✓	✓			4101236	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		The following MUST BE completed by the laboratory accepting samples for analysis: 1. Have all samples received for analysis been stored in ice? <u>yes</u> 2. Will samples remain refrigerated until analyzed? <u>yes</u> 3. Did any samples received for analysis have head space? <u>no</u> 4. Were samples in appropriate containers and properly packaged? <u>yes</u> Signature: <u>Melissa Creuser</u> Title: <u>sample control</u> Date: <u>10/18/94</u>											
Relinquished by: (Signature)		Date/Time		Received by: (Signature)													
Relinquished by: (Signature)		Date/Time		Received by: (Signature)													
Relinquished by: (Signature)		Date/Time		Received by: (Signature)													