

Unocal Refining & Marketing Division
Unocal Corporation
P.O. Box 8175
2175 North California Blvd., Suite 650
Walnut Creek, California 94596
(415) 945-7676

*File
EBL*

UNOCAL 76

Northern California Division

December 2, 1987

RECEIVED
DEC 4 1987
ENVIRONMENTAL HEALTH
ADMINISTRATION

Mr. Greg Zentner
CRWQCB
San Francisco Bay Region
1111 Jackson Street
Room 6040
Oakland, California, 94607

QUARTERLY GROUNDWATER
MONITORING
FORMER UNOCAL STATION NO.5847
2701 EAST AVENUE
HAYWARD, CALIFORNIA

Dear Mr. Zentner:

Attached is our consultant's latest report for quarterly groundwater monitoring at the subject location.

Based on the latest round of sampling which showed nondetectable levels of dissolved hydrocarbon constituents, our consultant recommends that no further work is necessary.

Unless we receive further notification from your office, Unocal shall consider this incident closed.

If you have any questions, please feel free to contact me at (415) 945-7676.

Very truly yours,

Timothy R. Ross

TIMOTHY R. ROSS
ENVIRONMENTAL ENGINEER

TRR/ges

cc: Mr. T. M. Gerow - Public Health Engineer
Alameda County Div. Environmental
470 27th Street - Room # 324
Oakland, CA 94612

R. L. Folda
R. T. Green



Applied GeoSystems

43255 Mission Blvd. Suite B Fremont, CA 94539 (415)651-1906

November 13, 1987
1113rfol
86109-2

Mr. Tim Ross
UNOCAL Corporation
2175 N. California Blvd.
Suite 650
Walnut Creek, California 94596

Subject: Letter Report No. 86109-2 regarding quarterly ground-water monitoring at former UNOCAL station No. 5874, Windfeldt Road and East Avenue, Hayward, California.

Mr. Ross:

This letter report summarizes the results of quarterly ground-water monitoring that Applied GeoSystems is performing as required by the San Francisco Bay Region of the Regional Water Quality Control Board (RWQCB).

A geologist arrived at the above-referenced site at 1:30 P.M. on October 27, 1987 to sample water from wells MW-1 and MW-2. The site is located on the corner of East Avenue and Windfeldt Road in Hayward, California, as shown on the Site Vicinity Map, Plate P-1. The locations of the wells are shown on the Generalized Site Plan, Plate P-2, enclosed with this letter report. Prior to performing the subjective analyses, the water level was measured with a Solinst water-level indicator. An initial sample was collected from each of the wells to check for visual evidence of hydrocarbon contamination. The samples were collected by gently lowering a Teflon bailer approximately halfway through the air/water interface and collecting a sample from the surface of the water in the wells. The water in the wells showed no subjective evidence of hydrocarbon contamination. Cumulative results of the subjective analyses through the October 27 sampling interval are presented in Table 1.

The wells were purged of approximately four well volumes of water and allowed to recover to static water level. Water samples for laboratory analyses were then collected with a laboratory-cleaned Teflon bailer. A sample from each well was collected from below the static water level. The samples were transferred to laboratory-cleaned, 40 milliliter glass Volatile Organic Analysis (VOA) vials. Hydrochloric acid was added to the vials to minimize bacterial degradation of the samples.

TABLE 1

CUMULATIVE RESULTS OF SUBJECTIVE ANALYSES
Former UNOCAL Station No. 5874
Hayward, California

<u>Date</u>	<u>Well No.</u>	<u>Depth to Water</u>	<u>Floating Product</u>	<u>Sheen</u>	<u>Emulsion</u>
	MW-1:				
2/87		18.73	NONE	NONE	NONE
3/87		20.18	NONE	NONE	NONE
4/87		19.48	NONE	NONE	NONE
7/87		20.55	NONE	NONE	NONE
10/87		21.48	NONE	NONE	NONE
	MW-2:				
2/87		20.77	NONE	NONE	NONE
3/87		21.75	NONE	NONE	NONE
4/87		21.79	NONE	NONE	NONE
7/87		22.82	NONE	NONE	NONE
10/87		23.78	NONE	NONE	NONE

Depth to water measured in feet below top of casing.

The samples were sealed with Teflon-lined caps, stored on ice, and delivered to State-certified laboratories for analyses. Chain of Custody Records were initiated by the sampler and are enclosed with this report. The samples were analyzed for total volatile hydrocarbons and the hydrocarbon constituents benzene, ethylbenzene, toluene, and total xylene isomers (BETX). The results of these and previous analyses are presented in Table 2. The most recent results are also presented on the laboratory documents enclosed with this report.

TABLE 2

LABORATORY TEST RESULTS
For Water Samples Collected from
Former UNOCAL No. 5874, Hayward, California

Date	Identifier	TVH	B	E	T	X	Detection Limit
MW-1:							
11/86	W-30-MW1	1.378	0.014	0.102	0.007	0.352	0.001
4/87	W-25-MW1	1.2630	0.0091	0.0824	0.0038	0.1412	0.0005
7/87	W-24-MW1	0.3677	0.0051	0.0243	0.0014	0.0267	0.0005
10/87	W-22-MW1	ND	ND	ND	ND	ND	0.0005
MW-2:							
11/86	W-32-MW2	0.084	ND	0.002	0.003	0.013	0.001
4/87	W-25-MW2	0.0125	ND	0.0008	0.0027	0.0034	0.0005
7/87	W-24-MW2	0.0057	ND	ND	0.0013	0.0009	0.0005
10/87	W-24-MW2	ND	ND	ND	ND	ND	0.0005

Note: All results in parts per million (ppm)

TVH: Total volatile hydrocarbons

BETX: Benzene, ethylbenzene, toluene, and total xylene isomers

10/87 TVH detection limit = 0.0001 ppm

The most recent analytical results show lower concentrations of dissolved hydrocarbons compared to analyses from July 1987. Because storage tanks and associated piping have been removed from the site, further introduction of hydrocarbon contaminants is unlikely. Levels of dissolved hydrocarbons and hydrocarbon constituents in water from wells MW-1 and MW-2 are nondetectable and are within the standards established by the California Department of Health Services for drinking water.

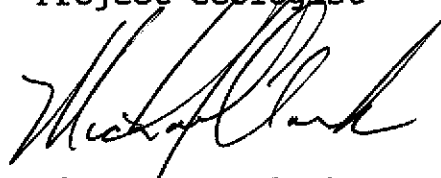
Because nondetectable levels of dissolved hydrocarbon and hydrocarbon constituents are present in ground water collected from the wells at the site, we do not see a need for continuing ground-water monitoring. In our opinion, no further work is needed at this site at this time.

A copy of this report should be forwarded to Ms. Suzanne Larson of the Hayward Fire Department, 22300 Foothill Boulevard, Hayward, California 94541 and Mr. Greg Zentner of the California Regional Water Quality Control Board, 1111 Jackson Street, Room 6040, Oakland, California 94607. Please do not hesitate to call if you have any questions regarding the material covered in this letter report.

Sincerely,
Applied GeoSystems

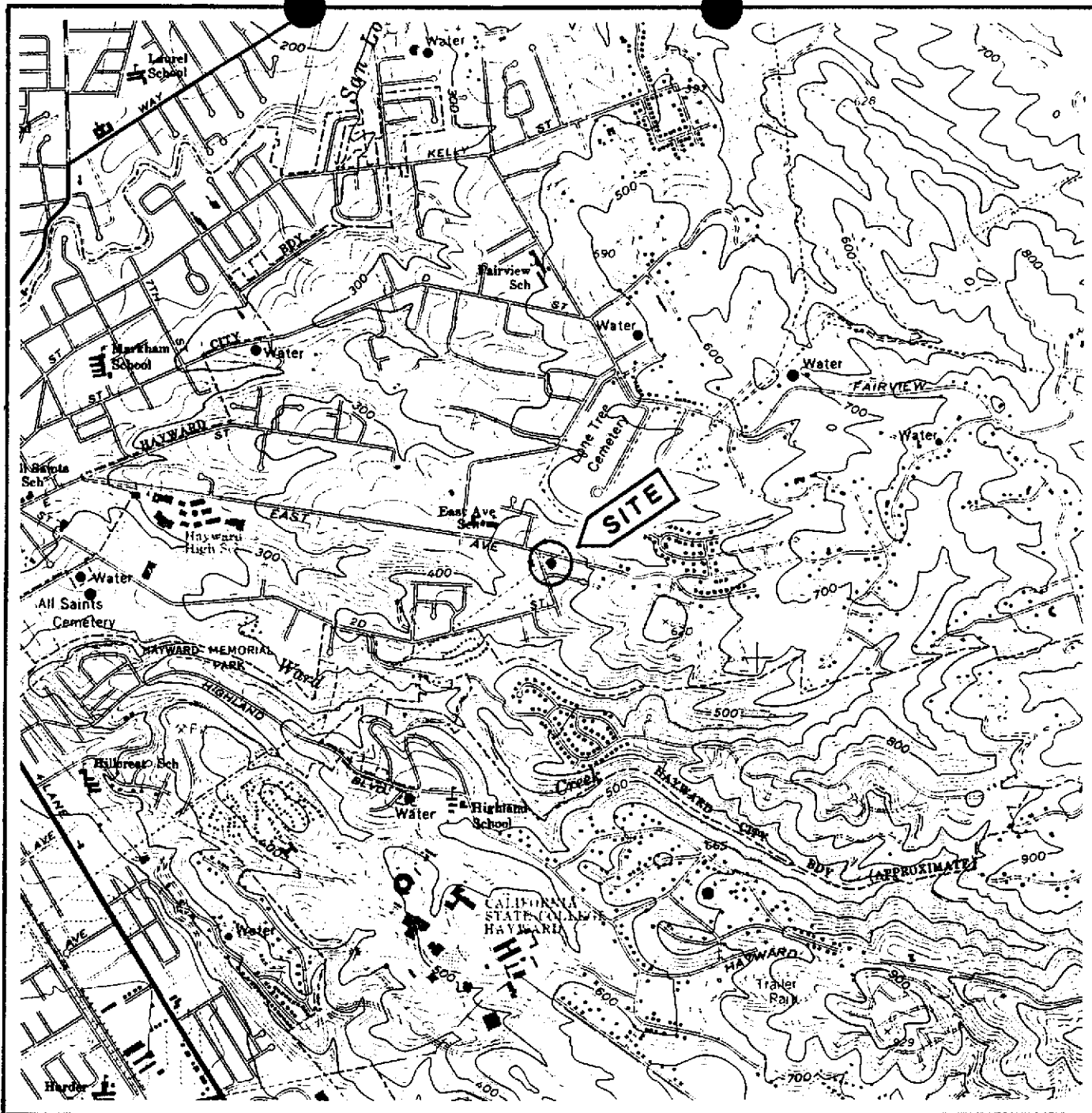


Glenn R. Dembroff
Project Geologist

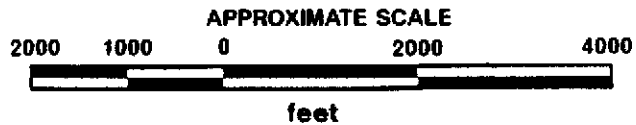


Michael N. Clark
C.E.G. 1264

Enclosures: Site Vicinity Map, Plate P-1
 Generalized Site Plan, Plate P-2
 Chain of Custody Records (2)
 Laboratory documents (4)



SOURCE: U.S. GEOLOGICAL SURVEY
 HAYWARD
 7.5-MINUTE QUADRANGLE

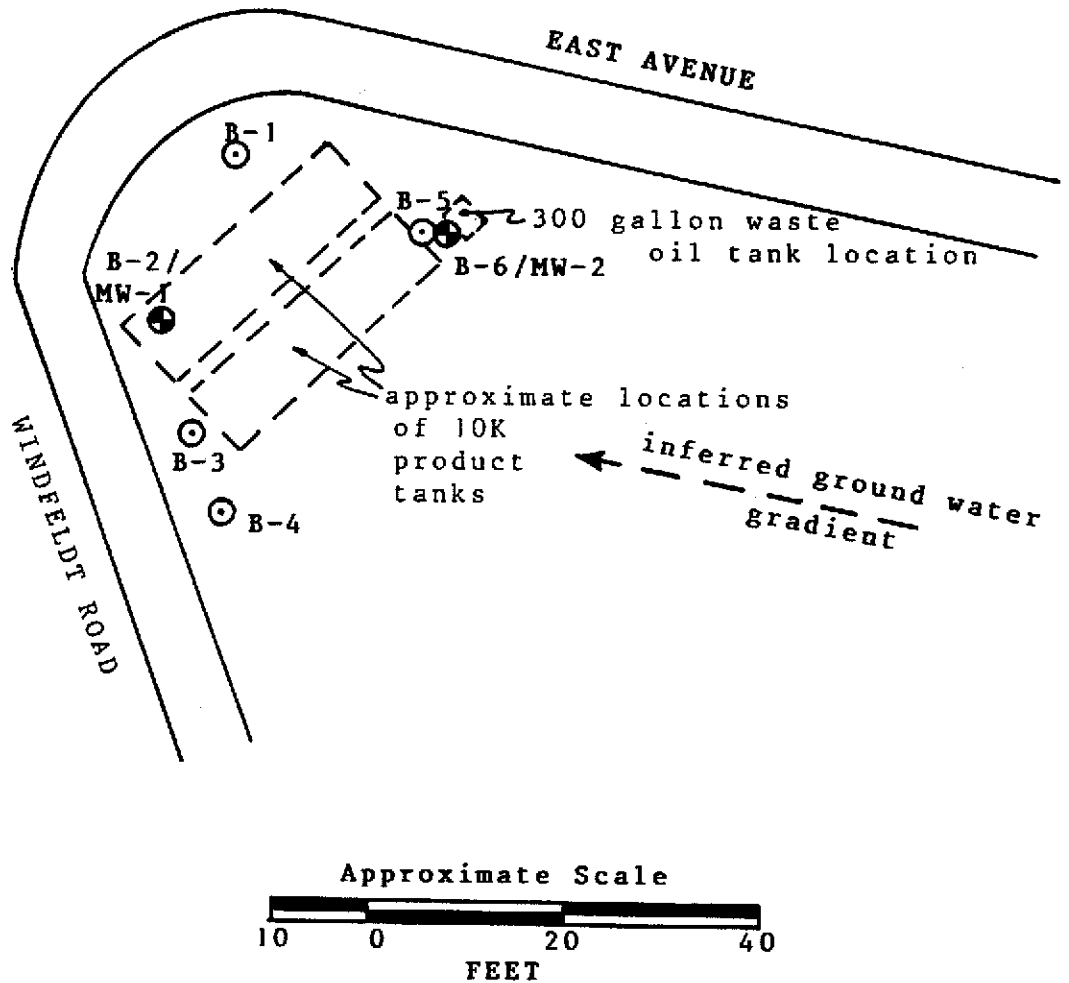


Applied GeoSystems
 41255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1900

SITE VICINITY MAP
Former UNOCAL Station No. 5847
Hayward, California

PLATE
P - 1

PROJECT NO. 86109-2



- ⊙ Soil boring location
- ⊕ Monitoring well location

Source: UNOCAL Corp.



43255 Mission Blvd. Suite B Fremont, CA 94539 415-651-9906

GENERALIZED SITE PLAN
Former UNOCAL Station No. 5847
Hayward, California

PLATE
P - 2

PROJECT NO. 86109-2

ANAMETRIX, INC.
LABORATORY SERVICES

ENVIRONMENTAL • ANALYTICAL CHEMISTRY
2754 AIELLO DRIVE • SAN JOSE, CA 95111 • (408) 629-1132

November 5, 1987
Work Order Number 8710114
Date Received 10/28/87
Project No. 86109-2

Glen Dembroff
Applied Geosystems
43255 Mission Blvd., Suite B
Fremont, CA 94539

Two water samples were received for analysis of total volatile hydrocarbons as gasoline by gas chromatography, using the following EPA method(s):

ANAMETRIX I.D.	SAMPLE I.D.	METHOD(S)
8710114-01	86109-2 W-22-MW1	8015
-02	" W-24-MW2	"

RESULTS

See enclosed data sheets, Forms 3-1 thru 3-2.

If there is any more that we can do, please give us a call. Thank you for using ANAMETRIX, INC.

Sincerely,



Sarah Schoen, Ph.D.
GC Supervisor

SRS/lar

ANALYSIS DATA SHEET -- PETROLEUM HYDROCARBON COMPOUNDS
 NAMETRIX, INC. (408) 629-32

Sample I.D.	: 86109-2 W-22-MW1	Anametrix I.D.	: 8710114-01
Matrix	: WATER	Analyst	: mh
Date sampled	: 10-27-87	Supervisor	: SJS
Date anl. TVH	: 10-30-87	Date released	: 11-05-87
Date ext. TEH	: NA	Date ext. TOG	: NA
Date anl. TEH	: NA	Date anl. TOG	: NA

CAS #	Compound Name	Det. Limit (ug/L)	Amt. Found (ug/L)	Q
71-43-2	Benzene	0.5		NR
108-88-3	Toluene	1		NR
100-41-4	Ethylbenzene	1		NR
	Total Xylenes	1		NR
	TVH as Gasoline	50		U
	TEH as Diesel	50		NR
	Total Oil & Grease	10000		NR

For reporting purposes, the following qualifiers (Q) are used:
 + : A value greater than or equal to the method detection limit.
 U : The compound was analyzed for but was not detected.
 NR: Not requested.

TVH - Total Volatile Hydrocarbons are determined by modified EPA 8015 with either headspace or purge and trap.
 TEH - Total Extractable Hydrocarbons are determined by modified EPA 8015 with direct injection following solvent extraction.
 TOG - Total Oil & Grease is determined by Standard Method 503E.
 BTEX- Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow CRWQCB Region 2 guidelines.

ANALYSIS DATA SHEET - PETROLEUM HYDROCARBON COMPOUNDS

NAMETRIX, INC. (408) 629-32

Sample I.D. : 86109-2 W-24-MW2
 Matrix : WATER
 Date sampled : 10-27-87
 Date anl. TVH : 10-30-87
 Date ext. TEH : NA
 Date anl. TEH : NA

Anamatrix I.D. : 8710114-02
 Analyst : *mk*
 Supervisor : *PS*
 Date released : 11-05-87
 Date ext. TOG : NA
 Date anl. TOG : NA

CAS #	Compound Name	Det. Limit (ug/L)	Amt. Found (ug/L)	Q
71-43-2	Benzene	0.5		NR
108-88-3	Toluene	1		NR
100-41-4	Ethylbenzene	1		NR
	Total Xylenes	1		NR
	TVH as Gasoline	50		U
	TEH as Diesel	50		NR
	Total Oil & Grease	10000		NR

For reporting purposes, the following qualifiers (Q) are used:

+ : A value greater than or equal to the method detection limit.

U : The compound was analyzed for but was not detected.

NR: Not requested.

TVH - Total Volatile Hydrocarbons are determined by modified EPA 8015 with either headspace or purge and trap.

TEH - Total Extractable Hydrocarbons are determined by modified EPA 8015 with direct injection following solvent extraction.

TOG - Total Oil & Grease is determined by Standard Method 503E.

BTEX- Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.

All testing procedures follow CRWQGB Region 2 guidelines.

Form 3-2.



Applied GeoSystems

43255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1906

RECORD OF ANALYSIS

Date 11-11-87

Applied GeoSystems
43255 Mission Blvd.
Fremont, CA. 94539

Attention: Glenn R. Dembroff

Date Received: 10-28-87

Laboratory# 8711W007

Date Analyzed: 11-03-87

Procedure:

The water samples referenced on the attached Chain-of-Custody were analyzed for the presence and concentration of Benzene, Ethyl-Benzene, Toluene, and Xylenes (BETX) by EPA method 602. The samples were concentrated on a Tekmar LSC-2 and ALS automatic sampler prior to injection into a 5890 Hewlett Packard gas chromatograph fitted with a Photo-Ionization detector (PID) and a Flame Ionization detector (FID). The limit of detection for these samples is 0.0005 milligrams/liter (parts per million = ppm).

The results are presented in the table below:

<u>SAMPLE</u>	<u>SITE</u>	<u>BENZENE</u>	<u>ETHYL BENZENE</u>	<u>TOLUENE</u>	<u>TOTAL XYLENES</u>
W-22-MW1	86109-2	ND	ND	ND	ND
W-24-MW2	86109-2	ND	ND	ND	ND

Results in milligrams/liter (parts per million = ppm).
ND=Non Detectable - Less than 0.0005 milligrams/liter (ppm).

Tia Tran, Chemist

Applied GeoSystems is a State of California, Department of Health Services Certified Hazardous Waste Testing Laboratory (No. 153).