GETTLER-RYAN INC.

TRANSMITTAL

TO: Mr. Robert A. Boust
Unocal Corporation
2121 N. California Blvd., Suite 250
Walnut Creek, California 94596

DATE: April 10, 1998
G-R #: 280036

CC: Mr. Greg Gurss
Gettler-Ryan Inc.
Rancho Cordova, California

FROM: Deanna L. Harding
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Former Unocal SS #2512
(1300 Davis Street)
San Leandro, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	March 31, 1998	Groundwater Monitoring and Sampling Report First Quarter 1998 - January 21, 1998.

COMMENTS:

This report is being sent to you for your review/comment, prior to being distributed on your behalf. If no comments are received by ***April 24, 1998***, this report will be distributed to the following:

Alameda County Health Care Services, 1131 Harbor Bay Parkway, Alameda, CA 94501
City of San Leandro, Development Services, 835 E. 14th Street, San Leandro, CA 94577

Enclosure

agency/2512rab.qmt

GETTLER-RYAN INC.

March 31, 1998
G-R Job #280036

Mr. Robert A. Boust
Unocal - DBG/AMG
2121 North California Boulevard, Suite 250
Walnut Creek, California 94596

RE: First Quarter 1998 Groundwater Monitoring & Sampling Report
Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Dear Mr. Boust:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On January 21, 1998, field personnel monitored and sampled four wells (MW-3, MW-7, MW-8 and MW-9) at the above referenced site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in the wells. Static water level data and groundwater elevations are summarized in Table 1. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are summarized in Tables 1 and 2. A Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

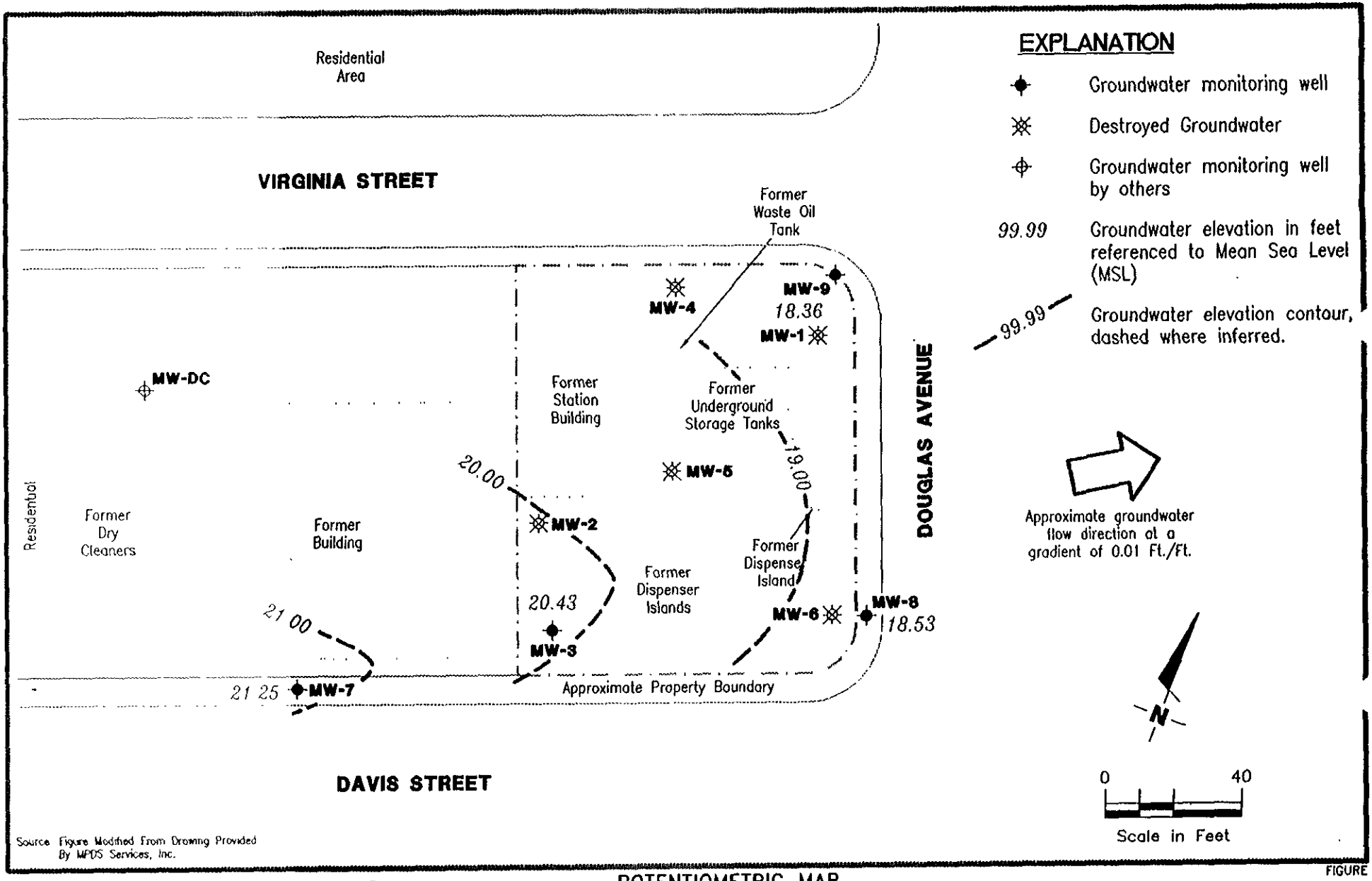
Deanna L. Harding
Project Manager

Stephen J. Carter
Senior Geologist, R.G. No. 5577

REGISTERED GEOLOGIST
STEPHEN J. CARTER
No. 5577
STATE OF CALIFORNIA

Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

2512.qml



Source: Figure Modified From Drawing Provided By MPDS Services, Inc.

Gettler - Ryan Inc.

6747 Sierra Ct., Suite J
Dublin, CA 94568
(510) 551-7555

POTENTIOMETRIC MAP
Former Unocal Service Station No. 2512
1300 Davis Street
San Leandro, California

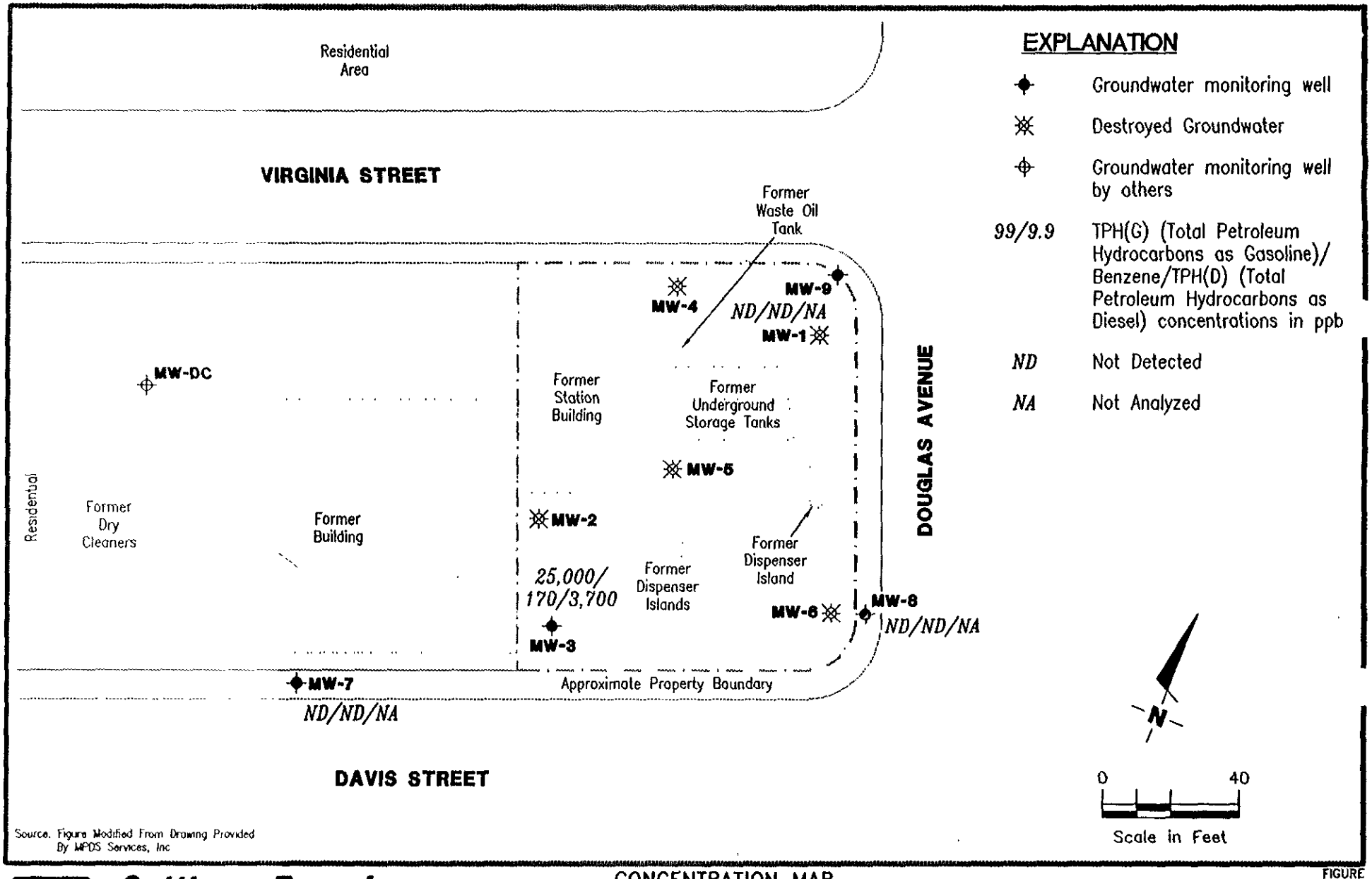
FIGURE 1

JOB NUMBER 280036

REVIEWED BY

DATE January 21, 1998

REVISED DATE



Source. Figure Modified From Drawing Provided By MPDS Services, Inc

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Dublin, CA 94568
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CONCENTRATION MAP
Former Unocal Service Station No. 2512
1300 Davis Street
San Leandro, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
280036		January 21, 1998	

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE	TOG
					<----------			ppb				---------->
MW-1	04/25/89				100	ND	0.31	ND	ND	ND	--	--
	08/10/89				ND	ND	ND	ND	ND	ND	--	ND
	11/21/89				ND	ND	ND	ND	ND	ND	--	8.9
	02/23/90				ND	ND	ND	ND	ND	ND	--	ND
	05/10/90				ND	ND	ND	ND	ND	ND	--	ND
	08/09/90				ND	ND	ND	ND	ND	ND	--	ND
	11/06/90				ND	ND	ND	ND	ND	ND	--	ND
	02/04/91				ND	ND	ND	0.31	ND	0.62	--	ND
	05/24/91				--	ND	ND	ND	ND	ND	--	ND
	08/15/91				--	--	--	--	--	--	--	--
	11/19/91				--	--	--	--	--	--	--	--
	02/27/92				--	--	--	--	--	--	--	--
	05/26/92				--	--	--	--	--	--	--	--
	10/30/92				--	--	--	--	--	--	--	--
	06/09/94				--	580[1]	ND	ND	ND	ND	--	--
	09/08/94					160[2]	ND	1.6	ND	3.1	--	--
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--	--	--	--	--
MW-2	04/25/89				ND	32	0.35	ND	ND	ND	--	--
	08/10/89				ND	ND	ND	0.39	ND	ND	--	ND
	11/21/89				ND	48	ND	0.51	ND	ND	--	1.6
	02/23/90				ND	44	ND	ND	ND	ND	--	ND
	05/10/90				ND	43	ND	1	ND	ND	--	ND
	08/09/90				ND	ND	ND	ND	ND	ND	--	ND
	11/06/90				ND	ND	ND	0.42	ND	1.4	--	ND
	02/04/91				ND	ND	ND	0.38	ND	0.87	--	ND
	05/24/91				--	ND	1.5	ND	ND	ND	--	ND
	08/15/91				--	ND	ND	ND	ND	ND	--	ND
	11/19/91				--	220	2.5	8.4	2.4	14	--	--
	02/27/92				--	330	12	12	10	93	--	--
	05/26/92				--	2,900	8.8	9.3	54	36	--	--
	10/30/92				--	1,200[1]	ND	ND	ND	ND	--	--
	06/09/94				--	1,900[2]	6.7	ND	66	ND	--	--

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE	TOG
					<--------			ppb				-------->
MW-2	09/08/94				--	3,000[1]	ND	ND	ND	17	--	--
(cont)	01/25/95	WELL WAS DESTROYED		--	--	--	--	--	--	--	--	--
MW-3	04/25/89				5,700	56	ND	ND	0.31	0.49	--	--
	08/10/89				860	3,200	73	140	35	240	--	ND
	11/21/89				110	1,900	ND	ND	ND	ND	--	3.8
	02/23/90				350	ND	0.32	ND	ND	ND	--	1.3
	05/10/90				850	6,200	94	460	160	540	--	2.8
	08/09/90				500	1,900	56	140	140	31	--	ND
	11/06/90				940	16,000	820	1,500	2,200	770	--	ND
	02/04/91				NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT					--	--	--
	05/24/91				2,000	23,000	940	3,400	590	2,600	--	ND
	08/15/91				NOT SAMPLED DUE TO A TRACE OF FREE PRODUCT					--	--	--
	11/19/91				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	02/27/92				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	5/26/92				2,400,000	1,300,000	5,100	66,000	20,000	160,000	--	880
	10/30/92				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	06/09/94				17,000[3]	69,000	1,300	7,100	1,900	11,000	--	--
	09/08/94				NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT						--	--
	10/21/95				5,900[3]	50,000	250	4,200	1,700	18,000	--[5]	--
	01/24/96				5,300[3]	100,000	950	3,300	2,500	16,000	--[6]	--
	04/23/96				4,900[3]	50,000	430	1,700	1,600	7,600	ND	--
	07/25/96				2,400[4]	17,000	170	ND	650	3,300	240	--
32.02	10/25/96	15.33	16.69	0.00	3,700[4]	26,000	420	1,100	1,800	6,400	340	--
	01/28/97	11.55	20.47	0.00	3,900[3]	32,000	230	1,000	1,000	4,500	ND	--
	04/16/97	12.05	19.97	0.00	3,100[3]	12,000	76	ND	330	1,600	ND	--
	07/21/97	15.17	16.85	0.00	2,400[3]	10,000	82	28	430	1,400	76	--
	10/20/97	15.41	16.61	Sheen	2,900[4]	12,000	200	540	1,400	4,600	210	--
	01/21/98	**11.59**	**20.43**	**0.00**	**3,700[7]**	**25,000**	**170**	**640**	**1,200**	**4,800**	**ND[8]**	**--**
MW-4	08/29/89				120	ND	ND	ND	ND	ND	--	ND
	11/21/89				ND	ND	ND	ND	ND	ND	--	ND
	02/23/90				ND	ND	ND	ND	ND	ND	--	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE	TOG
					<---ppb--->							
MW-4	05/10/90				88	54	ND	2	ND	0.37	--	ND
(cont)	08/09/90				ND	ND	ND	ND	ND	ND	--	ND
	11/06/90				ND	ND	ND	0.36	ND	0.98	--	ND
	02/04/91				ND	ND	ND	0.72	ND	1.1	--	ND
	05/24/91				ND	ND	0.64	ND	ND	ND	--	ND
	08/15/91				ND	ND	ND	ND	ND	ND	--	ND
	11/19/91				ND	ND	ND	ND	ND	ND	--	--
	02/27/92				ND	43	ND	1	0.37	2.5	--	--
	05/26/92				ND	120	0.59	0.82	ND	1.9	--	--
	10/30/92	INACCESSIBLE	--	--	--	--	--	--	--	--	--	--
	06/09/94				ND	780[1]	ND	ND	ND	ND	--	--
	09/08/94				ND	300[1]	ND	ND	ND	ND	--	--
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--	--	--	--	--
MW-5	08/29/89				100	ND	ND	0.94	0.3	ND	--	ND
	11/21/89				70	ND	ND	ND	ND	ND	--	ND
	02/23/90				ND	ND	ND	ND	ND	ND	--	ND
	05/10/90				83	ND	ND	ND	ND	0.31	--	ND
	08/09/90				ND	ND	ND	ND	ND	ND	--	ND
	11/06/90				ND	ND	ND	ND	ND	ND	--	ND
	02/04/91				ND	ND	ND	0.35	ND	ND	--	ND
	05/24/91				ND	ND	ND	ND	ND	ND	--	ND
	11/19/91				--	--	--	--	--	--	--	--
	02/27/92				--	--	--	--	--	--	--	--
	05/26/92				--	--	--	--	--	--	--	--
	10/30/92				--	--	--	--	--	--	--	--
	06/09/94	INACCESSIBLE	--	--	--	--	--	--	--	--	--	--
	09/08/94	INACCESSIBLE	--	--	--	--	--	--	--	--	--	--
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--	--	--	--	--
MW-6	08/29/89				ND	ND	ND	ND	ND	ND	--	ND
	11/21/89				ND	ND	ND	ND	ND	ND	--	ND
	02/23/90				ND	ND	ND	ND	ND	ND	--	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE	TOG
					<---ppb--->							
MW-6	05/10/90				ND	ND	ND	1.2	ND	ND	--	ND
(cont)	08/09/90				ND	ND	ND	ND	ND	ND	--	ND
	11/06/90				ND	ND	1.6	0.35	ND	ND	--	ND
	02/04/91				ND	ND	ND	ND	ND	ND	--	ND
	05/24/91				--	ND	ND	ND	ND	ND	--	ND
	08/15/91				--	ND	ND	ND	ND	ND	--	ND
	11/19/91				--	ND	ND	ND	ND	ND	--	--
	02/27/92				--	ND	3.2	ND	ND	3.8	--	--
	05/26/92				--	ND	ND	ND	ND	0.65	--	--
	10/30/92				--	ND	ND	ND	ND	ND	--	--
	06/09/94	INACCESSIBLE	--	--	--	--	--	--	--	--	--	--
	09/08/94	INACCESSIBLE	--	--	--	--	--	--	--	--	--	--
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--	--	--	--	--
MW-7	02/27/92				--	38	ND	0.97	0.69	4	--	--
	05/26/92				--	ND	ND	ND	ND	0.6	--	--
	10/30/92				--	ND	ND	ND	ND	ND	--	--
	06/09/94				--	610	ND	ND	ND	ND	--	--
	09/08/94				--	ND	ND	1.3	ND	1.6	--	--
	10/21/95				--	ND	ND	ND	ND	ND	--	--
	01/24/96				--	ND	ND	ND	ND	ND	--	--
	04/23/96				--	220	ND	0.62	0.88	5.4	ND	--
	07/25/96				--	ND	ND	ND	ND	ND	ND	--
31 71	10/25/96	15.13	16.58	0.00	--	ND	ND	ND	ND	ND	ND	--
	01/28/97	10.41	21.30	0.00	--	ND	ND	ND	ND	ND	ND	--
	04/16/97	12.12	19.59	0.00	--	ND	ND	ND	ND	ND	ND	--
	07/21/97	15.01	16.70	0.00	--	ND	ND	ND	ND	ND	ND	--
	10/20/97	15.18	16.53	0.00	--	ND	ND	ND	ND	ND	ND	--
	01/21/98	10.46	21.25	0.00	--	ND	ND	ND	ND	ND	ND	--
MW-8	10/21/95				--	ND	ND	ND	ND	ND	--	--
	01/24/96				--	ND	ND	ND	ND	ND	--	--
	04/23/96				--	ND	ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	Product Thickness (ft.)	TPH(D)	TPH(G)	B	T	E	X	MTBE	TOG
					<--------			ppb				-------->
MW-8												
(cont)	07/25/96				--	ND	ND	ND	ND	ND	ND	--
32 73	10/25/96	15.96	16.77	0.00	--	ND	ND	ND	ND	ND	ND	--
	01/28/97	13.86	18.87	0.00	--	ND	ND	ND	ND	ND	ND	--
	04/16/97	12.74	19.99	0.00	--	ND	ND	ND	ND	ND	ND	--
	07/21/97	15.71	17.02	0.00	--	ND	ND	ND	ND	ND	ND	--
	10/20/97	15.98	16.75	0.00	--	ND	ND	ND	ND	ND	ND	--
	01/21/98	**14.20**	**18.53**	**0.00**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**--**
MW-9	10/21/95				--	ND	ND	ND	ND	ND	--[5]	--
	01/24/96				--	ND	ND	ND	ND	ND	--[6]	--
	04/23/96				--	ND	ND	ND	ND	ND	ND	--
	07/25/96				--	ND	ND	ND	ND	ND	ND	--
32.33	10/25/96	15.66	16.67	0.00	--	ND	ND	ND	ND	ND	180	--
	01/28/97	13.76	18.57	0.00	--	ND	ND	ND	ND	ND	75	--
	04/16/97	12.66	19.67	0.00	--	ND	ND	ND	ND	ND	ND	--
	07/21/97	15.44	16.89	0.00	--	ND	ND	ND	ND	ND	ND	--
	10/20/97	15.67	16.66	0.00	--	ND	ND	ND	ND	ND	100	--
	01/21/98	**13.97**	**18.36**	**0.00**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**140**	**--**
Trip Blank												
TB-LB	01/21/98	--	--	--	--	ND	ND	ND	ND	ND	ND	--

Table 1

Groundwater Monitoring Data and Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

EXPLANATIONS:

Groundwater monitoring data and laboratory results prior to January 21, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing elevation
DTW = Depth to Water
(ft.) = Feet
GWE = Groundwater Elevation
msl = Relative to mean sea level
TPH(D) = Total Petroleum Hydrocarbons as Diesel
TPH(G) = Total Petroleum Hydrocarbons as Gasoline
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes
TOG = Total Oil & Grease
MTBE = Methyl tertiary butyl ether
ppb = Parts per billion
ND = Not Detected
-- = Not Measured/Not Analyzed

* The TOC elevations are relative to msl, per East Bay MUD Benchmark DAVIS FREE #2 - San Leandro 1952 (Elevation = 32.02 feet msl).

[1] Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.

[2] Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.

[3] Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.

[4] Laboratory report indicates the hydrocarbons detected did not appear to be diesel.

[5] Laboratory has potentially identified the presence of MTBE at reportable levels in the sample collected from this well.

[6] Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppm in the sample collected from this well. Free product was detected in well MW3; however, a water sample was collected and analyzed to determine if the product was predominantly hydrocarbon based.

[7] Laboratory report indicates unidentified hydrocarbons C9-C24.

[8] Detection limit raised Refer to analytical results.

Depth to water and groundwater elevation history will be updated in future reports.

Table 2

Groundwater Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

Well ID	Date	Tetrachloro-ethene	1,1-DCA	1,1,1-TCA	Chloro-methane	1,1-Dichloro-ethene	1,2-Dichloro-benzene	Trichloro-ethene
MW-1	04/25/89	3.3	ND	ND	ND	ND	ND	0.55
	11/06/90	4.8	ND	ND	ND	ND	ND	ND
	05/24/91	4.6	ND	ND	ND	ND	ND	ND
	06/09/94	1.0	ND	ND	ND	ND	ND	ND
	09/08/94	1.2	ND	ND	ND	ND	ND	ND
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--
MW-2	04/25/89	0.68	ND	ND	ND	ND	ND	ND
	11/06/90	ND	ND	ND	ND	ND	ND	ND
	05/24/91	ND	ND	ND	ND	ND	ND	ND
	08/15/91	ND	ND	ND	ND	ND	ND	ND
	11/19/91	ND	ND	ND	ND	ND	ND	ND
	02/27/92	ND	ND	ND	ND	ND	ND	ND
	05/26/92	ND	ND	ND	ND	ND	ND	ND
	10/30/92	ND	ND	ND	ND	ND	ND	ND
	06/09/94	ND	ND	ND	ND	ND	ND	ND
	09/08/94	ND	ND	ND	ND	ND	ND	ND
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--
MW-3	04/25/89	1.0	ND	ND	ND	ND	ND	ND
	11/06/90	ND	ND	ND	ND	ND	ND	ND
	05/24/91	ND	ND	ND	ND	ND	ND	ND
	08/15/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--	--
	11/19/91	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--	--
	02/27/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--	--
	05/26/92	ND	ND	ND	ND	ND	ND	ND
	10/30/92	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--	--
	06/09/94	ND	ND	ND	ND	ND	ND	ND
	09/08/94	NOT SAMPLED DUE TO THE PRESENCE OF FREE PRODUCT				--	--	--
	10/21/95	ND	ND	ND	ND	ND	ND	ND
	01/24/96	ND	ND	ND	ND	ND	ND	ND
	04/23/96	ND	ND	ND	ND	ND	ND	ND
	07/25/96	ND	ND	ND	ND	ND	ND	ND

Table 2

Groundwater Analytical Results

Former Unocal Service Station #2512

1300 Davis Street

San Leandro, California

Well ID	Date	Tetrachloro-ethene	1,1-DCA	1,1,1-TCA	Chloro-methane	1,1-Dichloro-ethene	1,2-Dichloro-benzene	Trichloro-ethene
MW-3	10/25/96	ND	ND	ND	ND	ND	ND	ND
(cont)	01/28/97	ND	ND	ND	ND	ND	ND	ND
	04/16/97	ND	ND	ND	ND	ND	ND	ND
	07/21/97	ND	ND	ND	ND	ND	ND	ND
	10/20/97	ND	ND	ND	ND	ND	ND	ND
	01/21/98	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-4	11/06/90	2.9	ND	ND	ND	ND	ND	ND
	05/24/91	4.1	2.5	3.9	ND	ND	ND	ND
	08/15/91	3.6	ND	ND	ND	ND	ND	ND
	11/19/91	3.4	ND	ND	ND	ND	ND	ND
	02/27/92	3.5	6	ND	ND	ND	ND	ND
	05/26/92	2.4	13	3.5	ND	0.83	ND	ND
	10/30/92	WELL WAS INACCESSIBLE		--	--	--	--	--
	06/09/94	2.8	8.8	0.83	ND	0.51	ND	0.70
	09/08/94[1]	1.8	ND	ND	ND	ND	ND	0.60
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--
MW-5	11/06/90	0.7	ND	ND	ND	ND	ND	ND
	05/24/91	0.89	ND	ND	ND	ND	ND	ND
	06/09/94	WELL WAS INACCESSIBLE		--	--	--	--	--
	09/08/94	WELL WAS INACCESSIBLE		--	--	--	--	--
	01/25/95	WELL WAS DESTROYED		--	--	--	--	--
MW-6	11/06/90	1.2	ND	ND	ND	ND	ND	ND
	05/24/91	0.88	ND	ND	5.6	ND	ND	ND
	08/15/91	1.2	ND	ND	ND	ND	ND	ND
	11/19/91	1.3	ND	ND	ND	ND	ND	ND
	02/27/92	1.5	ND	ND	ND	ND	1.6	ND
	05/26/92	1.1	ND	ND	ND	ND	1.7	ND
	10/30/92	1.2	ND	ND	ND	ND	ND	ND
	06/09/94	WELL WAS INACCESSIBLE		--	--	--	--	--

Table 2

Groundwater Analytical Results

Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Well ID	Date	Tetrachloro-ethene	1,1-DCA	1,1,1-TCA	Chloro-methane	1,1-Dichloro-ethene	1,2-Dichloro-benzene	Trichloro-ethene
MW-6	09/08/94	WELL WAS INACCESSIBLE		--	--	--	--	--
(cont)	01/25/95	WELL WAS DESTROYED		--	--	--	--	--
MW-7	02/27/92	2.4	ND	ND	ND	ND	ND	ND
	05/26/92	2.2	ND	ND	ND	ND	ND	ND
	10/30/92	2.2	ND	ND	ND	ND	ND	ND
	06/09/94	0.67	ND	ND	ND	ND	ND	ND
	09/08/94	0.76	ND	ND	ND	ND	ND	ND
	10/21/95	ND	ND	ND	ND	ND	ND	ND
	01/24/96	1.2	ND	ND	ND	ND	ND	ND
	04/23/96	0.84	ND	ND	ND	ND	ND	ND
	07/25/96	1.7	ND	ND	ND	ND	ND	ND
	10/25/96[2]	1.2	ND	ND	ND	ND	ND	ND
	01/28/97	1.4	ND	ND	ND	ND	ND	ND
	04/19/97	0.75	ND	ND	ND	ND	ND	ND
	07/21/97	1.5	ND	ND	ND	ND	ND	ND
	10/20/97	1.5	ND	ND	ND	ND	ND	ND
	01/21/98	**1.2**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-8	10/21/95	ND	ND	ND	ND	ND	ND	ND
	01/24/96	0.74	ND	ND	ND	ND	ND	ND
	04/23/96	1.1	ND	ND	ND	ND	ND	ND
	07/25/96	1.1	ND	ND	ND	ND	ND	ND
	10/25/96	0.90	ND	ND	ND	ND	ND	ND
	01/28/97	0.96	ND	ND	ND	ND	ND	ND
	04/16/97	0.51	ND	ND	ND	ND	ND	ND
	07/21/97	ND	ND	ND	ND	ND	ND	ND
	10/20/97	1.1	ND	ND	ND	ND	ND	ND
	01/21/98	**0.77**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-9	10/21/95	17	1.0	ND	ND	ND	ND	ND
	01/24/96	17	2.2	ND	ND	ND	ND	0.64

Table 2

Groundwater Analytical Results

Former Unocal Service Station #2512
1300 Davis Street
San Leandro, California

Well ID	Date	Tetrachloro-ethene	1,1-DCA	1,1,1-TCA	Chloro-methane	1,1-Dichloro-ethene	1,2-Dichloro-benzene	Trichloro-ethene
MW-9	04/23/96	71	ND	ND	ND	ND	ND	ND
(cont)	07/25/96	1.0	ND	ND	ND	ND	ND	ND
	10/25/96	80	ND	ND	ND	ND	ND	ND
	01/28/97	39	ND	ND	ND	ND	ND	ND
	04/16/97	0.51	ND	ND	ND	ND	ND	ND
	07/21/97	7.5	ND	ND	ND	ND	ND	ND
	10/20/97	47	ND	ND	ND	ND	ND	ND
	01/21/98	**22**	**0.73**	**ND**	**ND**	**ND**	**ND**	**0.50**
Trip Blank								
TB-LB	**1/21/98**							

EXPLANATIONS:

Groundwater analytical results prior to January 21, 1998, were compiled from reports prepared by MPDS Services, Inc.

All EPA Method 8010 constituents were ND, except for those indicated.

1,1 DCA = 1,1-Dichloroethane
1,1,1-TCA = 1,1,1-Trichlorethane
-- = Not Analyzed
ND = Not Detected

[1] 1,2-Dichlorothane was detected at a concentration of 4.8 ppb.
[2] Chloroform was detected at a concentration of 1.7 ppb.

STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe or equivalent. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

As requested by Unocal, the purge water and decontamination water generated during sampling activities is transported to Tosco - San Francisco Area Refinery, located in Rodeo, California.

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Unocal
Facility # 2512 Job#: 280036
Address: 1300 Davis st Date: 1/21/98
City: San Leandro Sampler: Vaithes

Well ID MW-3 Well Condition: OK
Well Diameter 2 in. Hydrocarbon Thickness: ϕ in. Amount Bailed (product/water): ϕ (gal.)
Total Depth 33.13 ft.
Depth to Water 11.59 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

21.54 X VF 0.17 = 3.66 X 3 (case volume) = Estimated Purge Volume: 10.98 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, Suction, Grundfos, Other:
Sampling Equipment: Disposable Bailer, Bailer, Pressure Bailer, Grab Sample, Other:

Starting Time: 11:45 Weather Conditions: Nice
Sampling Time: 12:05 Water Color: clear Odor: Y
Purging Flow Rate: 2 gpm. Sediment Description:
Did well de-water? No If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm/ice	Temperature ϕ F°	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:48	4	7.29	5.49	71.5			
11:51	8	7.07	5.64	70.3			
11:54	11	6.94	5.73	70.0			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	5	Y	HCl	Sequoia	TPHG/BTEX/MTBE
					TPHD / 8010

COMMENTS: Purged additional 100 gal. from MW-3 - after sampling.

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Unocal
Facility # 2512 Job#: 280036
Address: 1300 Davis St. Date: 1/21/98
City: San Leandro Sampler: Matthew

Well ID MW-7 Well Condition: OK
Well Diameter 2 in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
Total Depth 29.93 ft.
Depth to Water 10.46 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

19.47 X VF 0.17 = 3.31 X 3 (case volume) = Estimated Purge Volume: 9.93 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / (Suction) / Grundfos / Other:
Sampling Equipment: (Disposable Bailer) / Bailer / Pressure Bailer / Grab Sample / Other:

Starting Time: 9:52 Weather Conditions: Nice
Sampling Time: 10:10 Water Color: clear Odor: No
Purging Flow Rate: 2 gpm. Sediment Description:
Did well de-water? No If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm X 10^0	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
9:55	3.5	7.89	6.73	67.3			
9:58	7	7.65	6.91	68.1			
10:01	10	7.57	7.02	68.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-7	4	Y	HCl	Sequoia	TPHG/BTEX/MTBE
					8010

COMMENTS:

WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Facility # Unocal 2512 — Job#: 280036

Address: 1300 Davis st. — Date: 1/21/98

City: San Leandro — Sampler: Vartkes

Well ID: MW-8 — Well Condition: OK

Well Diameter: 2 in. — Hydrocarbon Thickness: 0 in. — Amount Bailed (product/water): 0 (gal.)

Total Depth: 29.80 ft.

Depth to Water: 14.20 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

15.60 X VF 0.17 = 2.65 X 3 (case volume) = Estimated Purge Volume: 7.96 (gal.)

Purge Equipment: Disposable Bailer; Bailer; Stack; (Suction); Grundfos; Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 10:28 — Weather Conditions: Nice

Sampling Time: 10:50 — Water Color: clear — Odor: no

Purging Flow Rate: 2 gpm. — Sediment Description: _____

Did well de-water? no — If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:31	2.5	7.79	7.25	69.7			
10:34	5	7.58	7.30	69.3			
10:37	8	7.50	7.41	69.1			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-8	4	Y	HCl	Sequoia	TPH G/BTEX/MTBE
					8010

COMMENTS: _____

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WELL MONITORING/SAMPLING
FIELD DATA SHEET

Client/ Unocal
Facility # 2512 Job#: 280036
Address: 1300 Davis St. Date: 1/21/98
City: San Leandro Sampler: Vartkes

Well ID MW-9 Well Condition: OK
Well Diameter 2 in. Hydrocarbon Thickness: ϕ in. Amount Bailed (product/water): ϕ (gal.)
Total Depth 29.95 ft.
Depth to Water 13.97 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

15.98 X VF 0.17 = 2.72 X 3 (case volume) = Estimated Purge Volume: 8.15 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, (Suction), Grundfos, Other:
Sampling Equipment: (Disposable Bailer), Bailer, Pressure Bailer, Grab Sample, Other:

Starting Time: 11:10 Weather Conditions: Nice
Sampling Time: 11:28 Water Color: clear Odor: NO
Purging Flow Rate: 2 gpm. Sediment Description:
Did well de-water? NO If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm x100	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:13	3	7.95	7.10	70.8			
11:15	6	7.70	7.23	70.2			
11:18	9	7.59	7.27	69.9			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-9	4	Y	HCl	Sequoia	TPHG/BTEX/MTBE
					8010

COMMENTS:

UNOCAL 76

- 680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600
- 819 Striker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600
- 404 N. Wiget Lane • Walnut Creek, CA 94598 • (510) 988-9600
- 18939 120th Ave., N.E., Suite 101 • Bothell, WA 98011 • (206) 481-9200
- East 11115 Montgomery, Suite B • Spokane, WA 99206 • (509) 924-9200
- 15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Consultant Company: GETTLER-RYAN INC.	Project Name: Former UNOCAL # 2512
Address: 6747 SIERRA COURT, SUITE J	UNOCAL Project Manager: MR. BOB BOUST
City: DUBLIN State: CA Zip Code: 94568	AFE #:
Telephone: 510-551-7555 FAX #: 510-551-7899	Site #, City, State: 1300 Davis Street, San Leandro
Report To: DEANNA HARDING Sampler: Varthes Tashjian	QC Data: ☒ Level D (Standard) ☐ Level C ☐ Level B ☐ Level A

Turnaround Time: ☒ 10 Work Days ☐ 5 Work Days ☐ 3 Work Days ☐ 2 Work Days ☐ 1 Work Day ☐ 2-8 Hours

CODE: ☐ Misc. ☐ Detect. ☐ Eval. ☐ Remed. ☐ Demol. ☐ Closure

☐ Drinking Water ☒ Waste Water ☐ Other

Analyses Requested 9801361

	Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Laboratory Sample #	TPH 5001 BTEX (Methyl TPH-Diesel)	8010								Comments
1.	T.B.			1	VOA	1	X	X	X							
2.	MW-3	1/21/98 12:05PM		5	4 VOA / Amber	2	X	X	X							
3.	MW-7	1/21/98 10:10AM		4	4 VOA	3	X		X							
4.	MW-8	1/21/98 10:50AM		4	4 VOA	4	X		X							
5.	MW-9	1/21/98 11:28AM		4	4 VOA	5	X		X							
6.																
7.																
8.																
9.																
10.																

Relinquished By: Varthes Tashjian	Date: 1/21/98 Time: 1:30PM	Received By: D. Harden	Date: 1/21/98 Time: 2:22
Relinquished By: D. Harden	Date: 1/21/98 Time:	Received By: Steve Ten	Date: 1/21/98 Time: 3:00
Relinquished By: Steve Ten	Date: 1/21/98 Time:	Received By Lab: Jeni Downs	Date: 1/21/98 Time: 1734

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page __ of __

9, 21 5, 34

To be completed upon receipt of report:

1) Were the analyses requested on the Chain of Custody reported? ☐ Yes ☐ No If no, what analyses are still needed? _____

2) Was the report issued within the requested turnaround time? ☐ Yes ☐ No If no, what was the turnaround time? _____

Approved by: Signature: Company: Date:

Pink - Client

Yellow - Laboratory

White - Laboratory

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/22/98
6747 Sierra Court Suite J	Sample Descript: TB	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/03/98
Attention: Deanna Harding	Lab Number: 9801B61-01	Reported: 02/11/98

QC Batch Number: GC020398BTEX21A
Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	86

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-3	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	Extracted: 01/22/98
	Analysis Method: EPA 8015 Mod	Analyzed: 01/23/98
Attention: Deanna Harding	Lab Number: 9801B61-02	Reported: 02/11/98

QC Batch Number: GC012298OHBPEXA
Instrument ID: GCHP19B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel	200	3700
Chromatogram Pattern:		
Unidentified HC		C9-C24

Surrogates	Control Limits %		% Recovery
n-Pentacosane (C25)	50	150	73

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-3	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/05/98
Attention: Deanna Harding	Lab Number: 9801B61-02	Reported: 02/11/98

QC Batch Number: GC020598BTEX06A
Instrument ID: GCHP6

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	5000	25000
Methyl t-Butyl Ether	250	N.D.
Benzene	50	170
Toluene	50	640
Ethyl Benzene	50	1200
Xylenes (Total)	50	4800
Chromatogram Pattern:		Gas

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	93

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-3	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 01/27/98
Attention: Deanna Harding	Lab Number: 9801B61-02	Reported: 02/11/98

QC Batch Number: GC012698801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	0.50	N.D.
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	94

Analytes reported as N D were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-7	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/02/98
Attention: Deanna Harding	Lab Number: 9801B61-03	Reported: 02/11/98

QC Batch Number: GC020298BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	88

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-7	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 01/27/98
Attention: Deanna Harding	Lab Number: 9801B61-03	Reported: 02/11/98

QC Batch Number: GC012698801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**1.2**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	101

Analytes reported as N.D were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-8	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/02/98
Attention: Deanna Harding	Lab Number: 9801B61-04	Reported: 02/11/98

QC Batch Number: GC020298BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	95

Analytes reported as N.D. were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-8	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 01/27/98
Attention: Deanna Harding	Lab Number: 9801B61-04	Reported: 02/11/98

QC Batch Number: GC012698801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	0.50	N.D.
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**0.77**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	0.50	N.D.
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	96

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-9	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: 8015Mod/8020	Analyzed: 02/02/98
Attention: Deanna Harding	Lab Number: 9801B61-05	Reported: 02/11/98

QC Batch Number: GC020298BTEX06A
Instrument ID: GCHP06

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	**2.5**	**140**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	91

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Sampled: 01/21/98
6747 Sierra Court Suite J	Sample Descript: MW-9	Received: 01/21/98
Dublin, CA 94568	Matrix: LIQUID	
	Analysis Method: EPA 8010	Analyzed: 01/27/98
Attention: Deanna Harding	Lab Number: 9801B61-05	Reported: 02/11/98

QC Batch Number: GC012698801009A
Instrument ID: GCHP09

Halogenated Volatile Organics (EPA 8010)

Analyte	Detection Limit ug/L	Sample Results ug/L
Bromodichloromethane	0.50	N.D.
Bromoform	0.50	N.D.
Bromomethane	1.0	N.D.
Carbon Tetrachloride	0.50	N.D.
Chlorobenzene	0.50	N.D.
Chloroethane	1.0	N.D.
2-Chloroethylvinyl ether	1.0	N.D.
Chloroform	0.50	N.D.
Chloromethane	1.0	N.D.
Dibromochloromethane	0.50	N.D.
1,2-Dichlorobenzene	0.50	N.D.
1,3-Dichlorobenzene	0.50	N.D.
1,4-Dichlorobenzene	0.50	N.D.
1,1-Dichloroethane	**0.50**	**0.73**
1,2-Dichloroethane	0.50	N.D.
1,1-Dichloroethene	0.50	N.D.
cis-1,2-Dichloroethene	0.50	N.D.
trans-1,2-Dichloroethene	0.50	N.D.
1,2-Dichloropropane	0.50	N.D.
cis-1,3-Dichloropropene	0.50	N.D.
trans-1,3-Dichloropropene	0.50	N.D.
Methylene chloride	5.0	N.D.
1,1,2,2-Tetrachloroethane	0.50	N.D.
Tetrachloroethene	**0.50**	**22**
1,1,1-Trichloroethane	0.50	N.D.
1,1,2-Trichloroethane	0.50	N.D.
Trichloroethene	**0.50**	**0.50**
Trichlorofluoromethane	0.50	N.D.
Vinyl chloride	1.0	N.D.

Surrogates	Control Limits %		% Recovery
1-Chloro-2-fluorobenzene	70	130	92

Analytes reported as N.D were not present above the stated limit of detection

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies	Client Proj. ID: Unocal San Leandro, #2512	Received: 01/21/98
6747 Sierra Court Suite J		
Dublin, CA 94568	Lab Proj. ID: 9801B61	Reported: 02/11/98
Attention: Deanna Harding		

LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 17 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

TPGBMW: Sample #2 was run within the fourteen day holding time. However, at a 5x dilution the results were above the calibration range. The sample was re-run past the fourteen day hold time at a 100x dilution with the results within the calibration range.

pH analysis:
The voas had a pH = 1

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal San Leandro, #2512
Matrix: Liquid
Work Order #: 9801B61 -01
Reported: Feb 11, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC020398BTEX21A	GC020398BTEX21A	GC020398BTEX21A	GC020398BTEX21A	GC020398BTEX21A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab	A. Miraftab
MS/MSD #:	9801A5204	9801A5204	9801A5204	9801A5204	9801A5204
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/3/98	2/3/98	2/3/98	2/3/98	2/3/98
Analyzed Date:	2/3/98	2/3/98	2/3/98	2/3/98	2/3/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
Result:	8.9	8.9	9.0	27	53
MS % Recovery:	89	89	90	90	88
Dup. Result:	8.0	8.0	8.1	24	49
MSD % Recov.:	80	80	81	80	82
RPD:	11	11	11	12	7.8
RPD Limit:	0-25	0-25	0-25	0-25	0-25
LCS #:	BLK020398	BLK020398	BLK020398	BLK020398	BLK020398
Prepared Date:	2/3/98	2/3/98	2/3/98	2/3/98	2/3/98
Analyzed Date:	2/3/98	2/3/98	2/3/98	2/3/98	2/3/98
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	GCHP21
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L
LCS Result:	8.3	8.3	8.5	25	50
LCS % Recov.:	83	83	85	83	83
MS/MSD Control Limits	60-140	60-140	60-140	60-140	60-140
LCS Control Limits	70-130	70-130	70-130	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

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X (510) 988-9673
X (916) 921-0100

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Client Project ID: Unocal San Leandro, #2512
Matrix: Liquid
Work Order #: 9801B61-02
Reported: Feb 11, 1998

Feb 11, 1998

QUALITY CONTROL DATA REPORT

Benzene	Toluene	Ethyl Benzene	Xylenes	Gas	Gas
C020598BTEX06A	GC020598BTEX06A	GC020598BTEX06A	GC020598BTEX06A	GC020598BTEX06A	GC020298BTEX06A
EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M	EPA 8015M
EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030
J. Minkel	J. Minkel	J. Minkel	J. Minkel	J. Minkel	J. Minkel
9801D2510	9801D2510	9801D2510	9801D2510	9801D2510	9801B5811
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
2/5/98	2/5/98	2/5/98	2/5/98	2/5/98	2/2/98
2/5/98	2/5/98	2/5/98	2/5/98	2/5/98	2/2/98
GCHP6	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L	60 µg/L
6.4	9.2	12	36	54	41
64	92	120	120	90	68
9.8	9.8	10	30	48	43
98	98	100	100	80	72
42	6.3	18	18	12	4.8
0-25	0-25	0-25	0-25	0-25	0-25
BLK020598	BLK020598	BLK020598	BLK020598	BLK020598	BLK020298
2/5/98	2/5/98	2/5/98	2/5/98	2/5/98	2/2/98
2/5/98	2/5/98	2/5/98	2/5/98	2/5/98	2/2/98
GCHP6	GCHP6	GCHP6	GCHP6	GCHP6	GCHP6
10 µg/L	10 µg/L	10 µg/L	30 µg/L	60 µg/L	60 µg/L
10	10	11	31	51	46
100	100	110	103	85	77
60-140	60-140	60-140	60-140	60-140	60-140
70-130	70-130	70-130	70-130	70-130	70-130

CAL

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.

ng the same reagents,
an aliquot of sample
alytical procedure. If
limits due to matrix

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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Gettler Ryan/Geostrategies	Client Project ID:	Unocal San Leandro, #2512	
6747 Sierra Court, Ste J	Matrix:	Liquid	
Dublin, CA 94568			
Attention: Deanna Harding	Work Order #:	9801B61-02-05	Reported: Feb 11, 1998

QUALITY CONTROL DATA REPORT

Analyte:	1,1-Dichloro-ethene	Trichloro-ethene	Chloro-Benzene
QC Batch#:	GC012698801009A	GC012698801009A	GC012698801009A
Analy. Method:	EPA 8010	EPA 8010	EPA 8010
Prep. Method:	EPA 5030	EPA 5030	EPA 5030
Analyst:	E. Cunanan	E. Cunanan	E. Cunanan
MS/MSD #:	9801B8501	9801B8501	9801B8501
Sample Conc.:	N.D.	2.1	N.D.
Prepared Date:	1/26/98	1/26/98	1/26/98
Analyzed Date:	1/26/98	1/26/98	1/26/98
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
Result:	25	25	25
MS % Recovery:	100	92	100
Dup. Result:	25	26	27
MSD % Recov.:	100	96	108
RPD:	0.0	3.9	7.7
RPD Limit:	0-25	0-25	0-25
LCS #:	BLK012798	BLK012798	BLK012798
Prepared Date:	1/27/98	1/27/98	1/27/98
Analyzed Date:	1/27/98	1/27/98	1/27/98
Instrument I.D.#:	GCHP9	GCHP9	GCHP9
Conc. Spiked:	25 µg/L	25 µg/L	25 µg/L
LCS Result:	21	20	22
LCS % Recov.:	84	80	88
MS/MSD Control Limits	60-140	60-140	60-140
LCS Control Limits	65-135	70-130	70-130

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

Please Note:
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** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Unocal San Leandro, #2512
Matrix: Liquid
Work Order #: 9801B61-02
Reported: Feb 11, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Diesel
QC Batch#:	GC0122980HBPEXA
Analy. Method:	EPA 8015M
Prep. Method:	EPA 3510
Analyst:	G. Fish
MS/MSD #:	9801B2202
Sample Conc.:	N.D.
Prepared Date:	1/22/98
Analyzed Date:	1/22/98
Instrument I.D.#:	GCHP19
Conc. Spiked:	1000 µg/L
Result:	-*
MS % Recovery:	0.0
Dup. Result:	800
MSD % Recov.:	80
RPD:	-*
RPD Limit:	0-50

*Due to extraction problem MS had no recovery

LCS #:	BLK012298
Prepared Date:	1/22/98
Analyzed Date:	1/22/98
Instrument I.D.#:	GCHP19
Conc. Spiked:	1000 µg/L
LCS Result:	830
LCS % Recov.:	83

MS/MSD	50-150
LCS	60-140
Control Limits	

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference