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Environmental Health

GETTLER-RYAN INC.

February 8, 2000
G-R Job #180022

Mr. David B. De Witt
Tosco Marketing Company
2000 Crow Canyon Place, Suite 400
San Ramon, California 94583

RE: First Quarter 2000 Groundwater Monitoring & Sampling Report
Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Dear Mr. De Witt:

This report documents the quarterly groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R). On January 3, 2000, field personnel monitored and sampled five wells (U-1, U-2, U-3, MW-4, and MW-5) 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. Dissolved Oxygen Concentrations are summarized in Table 3. 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 Coordinator

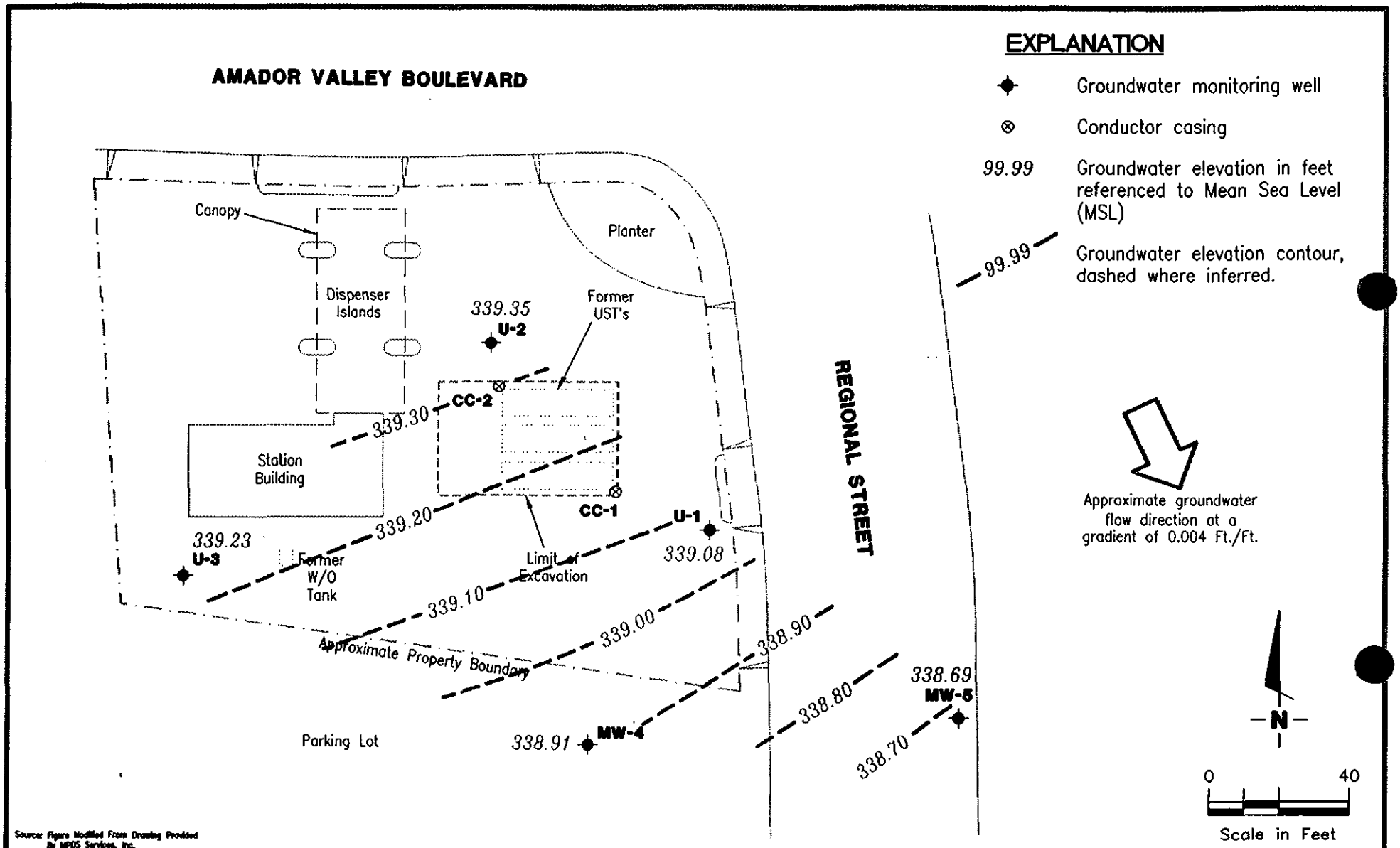
Barbara Sieminski
Project Geologist, R.G. No. 6676

REGISTERED GEOLOGIST
BARBARA SIEMINSKI
No. 6676
STATE OF CALIFORNIA

257176 SS X BP
QM X TRANSMITTAL
3 4 5 6

Figure 1: Potentiometric Map
Figure 2: Concentration Map
Table 1: Groundwater Monitoring Data and Analytical Results
Table 2: Groundwater Analytical Results - Oxygenate Compounds
Table 3: Dissolved Oxygen Concentrations
Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports

7176.qml

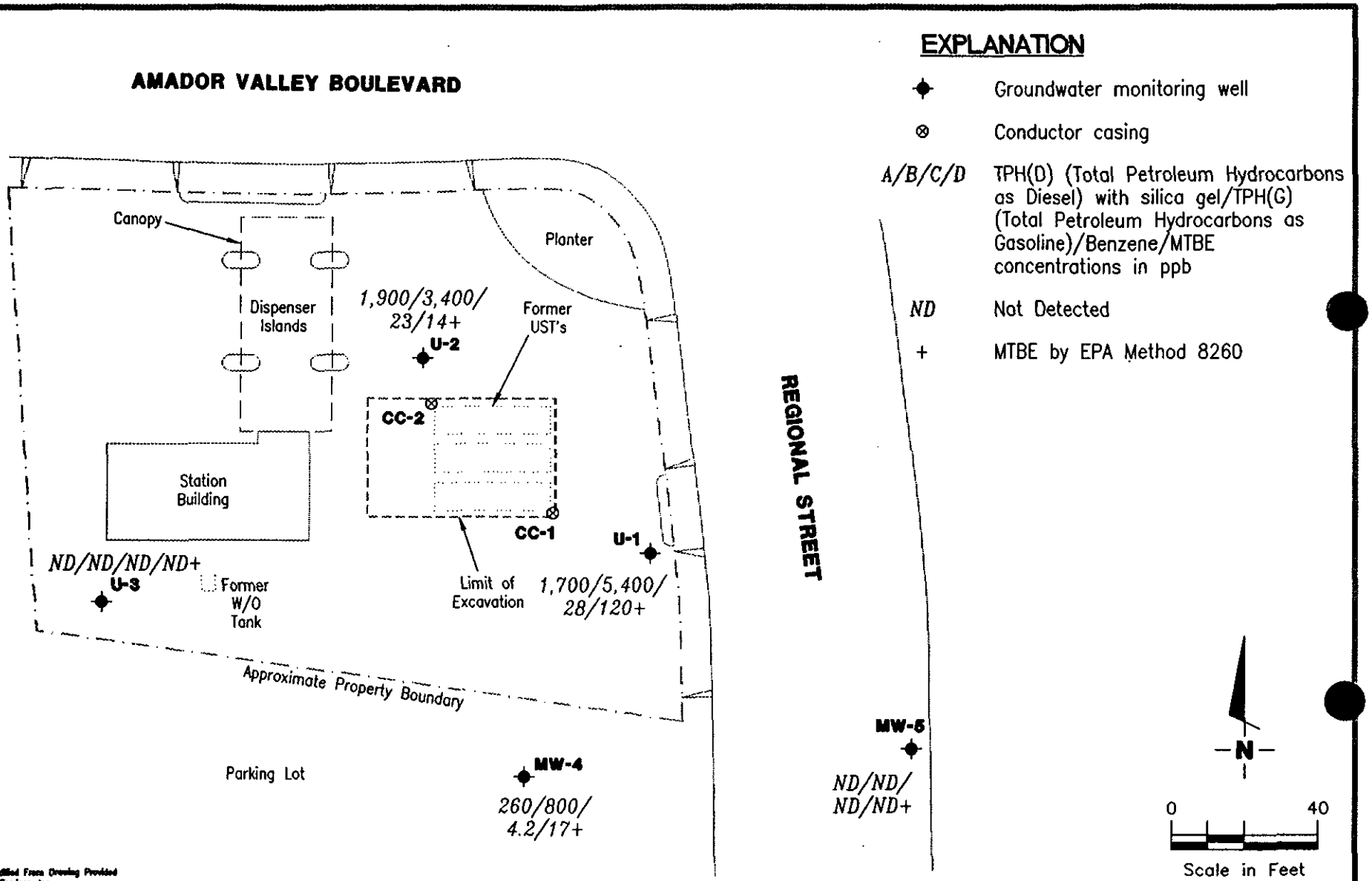


Gettler - Ryan Inc.
6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP
Tosco (Unocal) Service Station No. 7176
7850 Amador Valley Boulevard
Dublin, California

FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180022		January 3, 2000	



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Dublin, CA 94568

CONCENTRATION MAP
Tosco (Unocal) Service Station No. 7176
7850 Amador Valley Boulevard
Dublin, California

FIGURE
2

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
180022		January 3, 2000	

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7176

7850 Amador Valley Boulevard

Dublin, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	TPH(D)♦ (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-1											
355.62		07/08/95	12.59	343.03	9,400[3]	39,000	1,500	19	1,600	5,200	--
		10/12/95	15.38	340.24	4,200[5]	33,000	1,400	ND	1,400	3,100	--[7]
		01/11/96[1]	16.33	339.29	8,200[5]	8,300	690	11	680	1,500	--[8]
		04/11/96[2]	12.20	343.42	630[5]	3,200	110	ND	180	290	790
		07/10/96	13.84	341.78	2,200[5]	2,600	81	4.4	210	230	510
		10/30/96	15.85	339.77	560[5]	2,200	67	19	140	150	360
		01/27/97	12.20	343.42	2,300[5]	4,600	98	ND	360	290	150
		04/08/97	13.46	342.16	1,300[5]	2,800	50	ND	220	140	ND
		07/17/97	15.30	340.32	460[6]	2,300	30	4.5	140	94	190
		10/17/97	16.33	339.29	510[6]	1,500	31	6.7	110	88	220
		01/19/98	14.34	341.28	[10]1,900/1,300[10]	3,100	46	3.4	310	200	170
355.59	NP	04/23/98	11.16	344.43	--/1,700[11]	3,400	72	3.8	470	350	280
	NP	07/08/98	12.67	342.92	2,000[14]	4,500	51	ND[12]	590	430	190
		10/05/98	14.57	341.02	--/2,500[10]	7,500[16]	53	ND[12]	680	350	190/180[17]
		01/04/99	15.35	340.24	[11]2,700/2,500[11]	10,000[19]	ND[12]	ND[12]	1,200	540	ND[12]
		04/05/99	13.64	341.95	[10]920/570[10]	4,900	34	ND[12]	350	150	150/55[17]
		07/01/99	14.39	341.20	[10]2,700/3,600[26]	10,000	45	ND[12]	850	420	260/110[17]
		09/30/99	15.32	340.27	[10]2,360/1,680[10]	7,150[27]	ND[12]	ND[12]	415	84.4	[12]ND/195[17]
		01/03/00	**16.51**	**339.08**	**[26]2,000/1,700[26]**	**5,400[27]**	**28**	**8.4**	**180**	**33**	**160/120[17]**
U-2											
356.59		07/08/95	12.68	343.91	4,700[3]	17,000	430	ND	2,200	590	--
		10/12/95	16.01	340.58	3,600[5]	24,000	310	60	1,900	190	--[7]
		01/11/96[1]	17.06	339.53	8,600[5]	10,000	210	55	1,400	240	--[8]
		04/11/96[2]	12.75	343.84	1,900[5]	7,700	130	27	1,100	110	340
		07/10/96	14.42	342.17	2,300[5]	5,600	59	15	610	42	250
		10/30/96	16.82	339.77	1,800[5]	7,700	67	35	1,000	54	260
		01/27/97	12.91	343.68	660[5]	1,600	14	ND	130	7.0	100
		04/08/97	14.07	342.52	2,000[5]	4,300	35	ND	400	16	ND
		07/17/97	15.96	340.63	1,300[6]	6,200	17	22	410	ND	130
		10/17/97	17.03	339.56	1,400[6]	7,100	71	26	520	50	ND
		01/19/98	15.10	341.49	[10]2,100/1,500[10]	5,300	46	11	350	16	110
356.55	NP	04/23/98	11.74	344.81	--/1,200[11]	3,200	23	11	210	38	160
	NP	07/08/98	13.27	343.28	1,100[14]	1,600	34	8.5	100	7.4	190

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7176

7850 Amador Valley Boulevard

Dublin, California

Well ID/ TOC*		Date	DTW (ft.)	GWE (msl)	TPH(D)♦ (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
U-2		10/05/98	14.90	341.65	--/1,300[10]	2,900[18]	37	8.4	110	7.3	78
(cont)		01/04/99	15.94	340.61	[11]670/250[20]	2,200[21]	35	ND[12]	17	ND[12]	86
		04/05/99	14.19	342.36	[10]660/490[10]	4,900	21	77	130	310	100/6.9[17]
		07/01/99	14.98	341.57	[24]210/440[26]	1,500[25]	7.6	ND[12]	ND[12]	ND[12]	[12]ND/35[17]
		09/30/99	16.00	340.55	[10]483/340[10]	256[27]	1.85	ND[12]	2.42	ND[12]	26.3/29.8[17]
		01/03/00	**17.20**	**339.35**	**[26]2,400/1,900[26]**	**3,400[27]**	**23**	**13**	**ND[12]**	**44**	**46/14[17]**
U-3											
358.13		07/08/95	14.58	343.55	710[3]	1,100[4]	0.57	2.1	1.7	2.4	--
		10/12/95	17.60	340.53	470[6]	560	ND	0.87	0.7	1.1	--
		01/11/96[1]	18.65	339.48	260[6]	230	0.62	0.91	0.97	1.9	--
		04/11/96	13.20	344.93	ND	68[9]	ND	ND	ND	ND	ND
		07/10/96	15.98	342.15	ND	ND	ND	ND	ND	ND	ND
		10/30/96	18.24	339.89	ND	70	ND	ND	ND	ND	ND
		01/27/97	14.41	343.72	ND	ND	ND	ND	ND	ND	ND
		04/08/97	15.73	342.40	ND	ND	ND	ND	ND	ND	ND
		07/17/97	17.54	340.59	ND	ND	ND	ND	ND	ND	ND
		10/17/97	18.64	339.49	63[6]	ND	ND	ND	ND	ND	ND
		01/19/98	16.67	341.46	[10]68/ND	ND	ND	ND	ND	ND	ND
358.09	NP	04/23/98	13.28	344.81	--/ND	ND	ND	ND	ND	ND	ND
	NP	07/08/98	14.90	343.19	80[15]	ND	ND	ND	ND	ND	ND
		10/05/98	16.50	341.59	--/ND	ND	ND	ND	ND	ND	ND
		01/04/99	17.70	340.39	ND	ND	ND	ND	ND	ND	ND
		04/05/99	15.67	342.42	ND	ND	ND	ND	ND	ND	ND/ND[17]
		07/01/99	16.79	341.30	ND	ND	ND	ND	ND	ND	ND/ND[17]
		09/30/99	17.60	340.49	ND	ND	ND	ND	ND	ND	ND/ND[17]
		01/03/00	**18.86**	**339.23**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND/ND[17]**
MW-4											
356.41		04/23/98	12.11	344.30	--/1,400[11]	2,500	5.9	6.4	16	31	ND[12]
		07/08/98	13.70	342.71	1,400[11]	1,000[13]	ND[12]	ND[12]	ND[12]	ND[12]	ND[12]
		10/05/98	15.18	341.23	--/230[10]	890[16]	ND[12]	ND[12]	ND[12]	14	ND[12]
		01/04/99	16.39	340.02	[10]71/71[10]	230[22]	0.56	1.3	1.4	1.8	10
		04/05/99	14.61	341.80	[10]340/210[10]	620[23]	ND[12]	1.8	2.1	ND[12]	6.0/9.3[17]

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Well ID/ TOC*	Date	DTW (ft.)	GWE (msl)	TPH(D)♦ (ppb)	TPH(G) (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-4	07/01/99	15.43	340.98	[24]260/310[26]	700[19]	2.1	ND[12]	1.9	2.4	[12]ND/21[17]
(cont)	09/30/99	16.27	340.14	[10]420/220[10]	582[27]	2.60	1.30	1.98	ND[12]	23.1/22.5[17]
	01/03/00	**17.50**	**338.91**	**[26]250/260[26]**	**800[27]**	**4.2**	**4.6**	**3.3**	**11**	**31/17[17]**
MW-5										
355.03	04/23/98	11.15	343.88	--/100[11]	120	0.53	0.90	1.0	3.8	13
	07/08/98	12.63	342.40	170[10]	ND	ND	ND	ND	ND	12
	10/05/98	14.00	341.03	--/100[10]	ND	ND	ND	ND	ND	12
	01/04/99	15.21	339.82	ND	ND	ND	ND	ND	ND	ND
	04/05/99	13.76	341.27	ND	ND	ND	ND	ND	ND	ND/ND[17]
	07/01/99	14.48	340.55	ND	ND	ND	ND	ND	ND	[12]ND/2.3[17]
	09/30/99	15.15	339.88	[10]60.4/ND	50.8[27]	ND	ND	ND	ND	ND/ND[17]
	01/03/00	**16.34**	**338.69**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND/ND[17]**
Trip Blank										
TB-LB	01/19/98	--	--	--	ND	ND	ND	ND	ND	ND
	04/23/98	--	--	--	ND	ND	ND	ND	ND	ND
	07/08/98	--	--	--	ND	ND	ND	ND	ND	ND
	10/05/98	--	--	--	ND	ND	0.70	ND	0.71	ND
	01/04/99	--	--	--	ND	ND	0.74	ND	0.92	ND
	04/05/99	--	--	--	ND	ND	ND	ND	ND	ND
	07/01/99	--	--	--	ND	ND	ND	ND	ND	ND
	09/30/99	--	--	--	ND	ND	ND	ND	ND	ND
	01/03/00	**--**	**--**	**--**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 19, 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
MTBE = Methyl tertiary butyl ether
ppb = Parts per billion
ND = Not Detected
-- = Not Measured/Not Analyzed
NP = No purge
PNA = Polynuclear Aromatic Hydrocarbons

* TOC elevations were surveyed relative to msl, per the Benchmark AM-STW1977 located at the easterly return at the most easterly corner of intersection at Amador Valley Boulevard and Starward Street (Elevation = 344.17 feet msl).

♦ Analytical results reported as follows: TPH(D)/TPH(D) with silica gel cleanup.

1 PNA compound naphthalene was detected in well U-1 at a concentration of 320 ppb, and at a concentration of 310 ppb in well U-2. All other PNA compounds were ND in both wells.
2 PNA compounds were ND.
3 Laboratory report indicates unidentified hydrocarbons C9-C26.
4 Laboratory report indicates gasoline and unidentified hydrocarbons >C12.
5 Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
6 Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
7 Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
8 Laboratory has identified the presence of MTBE at a level above or equal to the taste and odor threshold of 40 ppb in the sample collected from this well.
9 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
10 Laboratory report indicates unidentified hydrocarbons C9-C24.
11 Laboratory report indicates diesel and unidentified hydrocarbons <C14.
12 Detection limit raised. Refer to analytical reports.
13 Laboratory report indicates unidentified hydrocarbons >C8.
14 Laboratory report indicates unidentified hydrocarbons <C14.
15 Laboratory report indicates discrete peaks.
16 Laboratory report indicates weathered gas C6-C12.
17 MTBE by EPA Method 8260.
18 Laboratory report indicates unidentified hydrocarbons <C8.
19 Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
20 Laboratory report indicates diesel and unidentified hydrocarbons <C16.
21 Laboratory report indicates unidentified hydrocarbons C6-C12.
22 Laboratory report indicates gasoline and unidentified hydrocarbons >C10.
23 Laboratory report indicates gasoline and unidentified hydrocarbons <C7.
24 Laboratory report indicates unidentified hydrocarbons C10-C24.
25 Laboratory report indicates gasoline and unidentified hydrocarbons <C6.
26 Laboratory report indicates unidentified hydrocarbons <C16.
27 Laboratory report indicates gasoline C6-C12.

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #7176

7850 Amador Valley Boulevard

Dublin, California

Well ID	Date	Ethanol (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	EDB (ppb)	1,2-DCA (ppb)
U-1	04/05/99	ND[1]	ND[1]	55	ND[1]	ND[1]	ND[1]	ND[1]	ND[1]
	07/01/99	ND	ND	110	ND	ND	ND	ND	ND
	09/30/99	ND[1]	ND[1]	195	ND[1]	ND[1]	ND[1]	ND[1]	ND[1]
	01/03/00	**ND**	**ND**	**120**	**ND**	**ND**	**ND**	**ND**	**ND**
U-2	04/05/99	ND[1]	ND[1]	6.9	ND[1]	ND[1]	ND[1]	ND[1]	ND[1]
	07/01/99	ND	ND	35	ND	ND	ND	ND	ND
	09/30/99	ND	ND	29.8	ND	ND	ND	ND	ND
	01/03/00	**ND**	**ND**	**14**	**ND**	**ND**	**ND**	**ND**	**ND**
U-3	04/05/99	ND	ND	ND	ND	ND	ND	ND	ND
	07/01/99	ND	ND	ND	ND	ND	ND	ND	ND
	09/30/99	ND	ND	ND	ND	ND	ND	ND	ND
	01/03/00	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-4	04/05/99	ND	ND	9.3	ND	ND	ND	ND	ND
	07/01/99	ND	ND	21	ND	ND	ND	ND	ND
	09/30/99	ND	ND	22.5	ND	ND	ND	ND	ND
	01/03/00	**ND**	**ND**	**17**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-5	04/05/99	ND	ND	ND	ND	ND	ND	ND	ND
	07/01/99	ND	ND	2.3	ND	ND	ND	ND	ND
	09/30/99	ND	ND	ND	ND	ND	ND	ND	ND
	01/03/00	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

EXPLANATIONS:

TBA = Tertiary Butyl Alcohol
MTBE = Methyl Tertiary Butyl Ether
DIPE = Di-isopropyl Ether
ETBE = Ethyl Tertiary Butyl Ether
TAME = Tertiary Amyl Methyl Ether
EDB = 1,2-Dibromomethane
1,2-DCA = 1,2-Dichloroethane
ppb = Parts per billion
ND = Not Detected

[1] Detection limit raised. Refer to analytical reports.

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 3

Dissolved Oxygen Concentrations

Tosco (Unocal) Service Station #7176
7850 Amador Valley Boulevard
Dublin, California

Well ID	Date	Before Purging (mg/L)	After Purging (mg/L)
U-1	01/11/96	--	3.41
	04/11/96	3.77	3.78
	07/10/96[1]	1.22	--
	10/30/96[1]	1.41	--
	01/27/97[1]	1.34	--
	04/08/97[1]	2.09	--
	07/17/97[1]	2.00	--
	10/17/97[1]	1.86	--
	01/19/98[1]	2.91	--
	04/23/98[1]	0.59	--
	07/08/98[1]	1.10	--
U-2	01/11/96	--	3.99
	04/11/96	3.32	3.41
	07/10/96[1]	1.01	--
	10/30/96[1]	1.42	--
	01/27/97[1]	1.29	--
	04/08/97[1]	1.69	--
	07/17/97[1]	2.08	--
	10/17/97[1]	1.80	--
	01/19/98[1]	2.95	--
	04/23/98[1]	0.55	--
	07/08/98[1]	1.36	--
U-3	01/11/96	--	5.05
	04/11/96	5.16	4.96
	07/10/96[1]	3.44	--
	10/30/96[1]	2.18	--
	01/27/97[1]	2.61	--
	04/08/97[1]	3.73	--
	07/17/97[1]	2.65	--
	10/17/97[1]	2.44	--
	01/19/98[1]	6.51	--
	04/23/98[1]	4.72	--
	07/08/98[1]	4.35	--
CC-1	10/02/95	2.83	--

EXPLANATIONS:

Dissolved oxygen concentrations prior to January 19, 1998, were compiled from reports prepared by MPDS Services, Inc.

CC-1 = Conductor casing in the underground storage tank backfill
-- = Not Measured
mg/L = milligrams per liter

[1] The wells were not purged on this date.

Note: Measurements were taken using a LaMotte DO4000 dissolved oxygen meter.

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. 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, temperature, pH and electrical conductivity are measured. If purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. The measurements are taken 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.

A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Tosco Marketing Company, 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/
Facility: UNOCAL SS # 7176 — Job#: 180022

Address: 7850 AMADOR VALLEY Rd. — Date: 1-3-00

City: DUBLIN, CA — Sampler: STEVE RALPH

Well ID: U-1 — Well Condition: O.K

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

Total Depth: 27.90 ft.

Depth to Water: 16.51 ft.

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

11.39 X VF 0.17 = 1.94 X 3 (case volume) = Estimated Purge Volume: 5.81 (gal.)

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

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

Starting Time: 13:49 — Weather Conditions: SUNNY

Sampling Time: 14:10 — Water Color: NOT CLEAR — Odor: YES

Purging Flow Rate: 1 gpm. — Sediment Description: _____

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
13:51	2	6.90	510	72.6			
13:53	4	6.84	510	72.5			
13:55	6	6.83	509	72.4			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-1	5-VOA's	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe (8260 from TPH(G))
U-1	1-AMBER	Y	—	"	TPH(D) w/ silica gel

COMMENTS: _____

9/97-fieldat.frm

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility UNOCAL #7176 Job#: 180022
Address: 1850 AMADOR VALLEY RD. Date: 1-3-00
City: DUBLIN, CA Sampler: STEVE BALIAN

Well ID U-2 Well Condition: O.K
Well Diameter 2" in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)
Total Depth 26.50 ft.
Depth to Water 17.20 ft.

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

9.30 X VF 0.17 = 1.58 X 3 (case volume) = Estimated Purge Volume: 4.74 (gal.)

Purge Equipment: Disposable Bailer, Bailer, Stack, (Suction), Grundfos, Other:

Sampling Equipment: (Disposable Bailer), Bailer, Pressure Bailer, Grab Sample, Other:

Starting Time: 13:07 Weather Conditions: SUNNY
Sampling Time: 13:30 Water Color: MOT CLEAR Odor: YES
Purging Flow Rate: 1 gpm. Sediment Description:
Did well de-water? NO If yes; Time: Volume: (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
13:09	2	7.05	568	70.4			
13:10	3.5	6.95	558	71.6			
13:12	5	6.92	558	72.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-2	5-VOA's	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe
U-2	1-AMBER	Y	—	"	TPH-D W/ SILICA GEL

COMMENTS:

9/97-fieldat.frm

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility UNOCAL SS # 7176 Job#: 180022

Address: 7850 AMADOR VALLEY BV. Date: 1-3-00

City: DUBLIN, CA Sampler: STEVE GALIAN

Well ID U-3 Well Condition: ~~OK~~ ONE FLANGE IS BROKEN

Well Diameter 2" in. Hydrocarbon Thickness: Ø (feet) Amount Bailed (product/water): Ø (Gallons)

Total Depth 28.50 ft.

Depth to Water 18.86 ft.

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

9.64 X VF 0.17 = 1.64 X 3 (case volume) = Estimated Purge Volume: 4.92 (gal.)

Purge Equipment: Disposable Bailer / Bailer / Stack / ~~Suction~~ / Grundfos / Other: _____

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

Starting Time: 11:17 Weather Conditions: SUNNY

Sampling Time: 11:35 Water Color: NOT CLEAR Odor: —

Purging Flow Rate: 1 gpm. Sediment Description: _____

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:19	2	7.00	588	67.7			
11:21	3.5	6.99	589	70.4			
11:23	5	6.97	583	71.3			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
U-3	5-VOA's	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe/8260 EDB, EDC
U-3	1-AMBER	Y	—	"	TPH-D /w SILICA GEL

COMMENTS: * 8' (METAL)

9/97-fieldat.frm

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility: UNOCAL SS #7176 — Job#: 180022
Address: 7850 AMADOR VALLEY RD. — Date: 1-3-00
City: DUBLIN, CA — Sampler: STEVE BALIAN

Well ID: MW-4 — Well Condition: O.K
Well Diameter: 2" in. — Hydrocarbon Thickness: 0 (feet) — Amount Bailed (product/water): 0 (Gallons)
Total Depth: 25.50 ft.
Depth to Water: 17.50 ft.

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

8.00 x VF 0.17 = 1.36 X 3 (case volume) = Estimated Purge Volume: 4.08 (gal.)

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

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

Starting Time: 12:33 — Weather Conditions: SUNNY
Sampling Time: 12:50 — Water Color: NOT CLEAN — Odor: —
Purging Flow Rate: 1 gpm. — Sediment Description: _____
Did well de-water? NO — If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
12:34	1.5	6.90	573	70.8			
12:35	3	6.89	578	71.1			
12:36	4.5	6.88	564	71.6			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	5-VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe 8260 (8021B/8015)
MW-4	1-AMBER	Y	—	"	TPH-D w/ silica gel

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/
Facility UNOCAL SS # 7176 Job#: 180022

Address: 7850 AMADOR VALLEY Rd. Date: 1-3-00

City: DUBLIN, CA Sampler: STEVE BALIAN

Well ID MW-5 Well Condition: O.K

Well Diameter 2" in. Hydrocarbon Thickness: 0 (feet) Amount Bailed (product/water): 0 (Gallons)

Total Depth 25.00 ft.

Depth to Water 16.34 ft.

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

8.66 X VF 0.17 = 1.47 X 3 (case volume) = Estimated Purge Volume: 4.42 (gal.)

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

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

Starting Time: 11:54 Weather Conditions: SUNNY

Sampling Time: 12:15 Water Color: NOT CLEAR Odor: —

Purging Flow Rate: 1 gpm. Sediment Description: _____

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

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:55	1.5	7.11	560	70.4			
11:57	3	7.03	557	70.7			
11:58	4.5	7.03	555	70.7			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-5	5-VOA	Y	HCl	SEQUOIA	TPH(G)/btex/mtbe 8260 EDB only
MW-5	1-AMBER	Y	—	"	TPH-D w/SILICA GEL

COMMENTS: _____

9/97-fieldst.frm

TOSCO

Tosco Marketing Company
2000 Crow Canyon Pl., Ste. 400
San Ramon, California 94583

Facility Number: UNOCAL SS# 7176
Facility Address: 7850 Amador Valley Blvd. Dublin, CA
Consultant Project Number: 180022.85
Consultant Name: Gettler-Ryan Inc. (G-R Inc.)
Address: 6747 Sierra Court, Suite J, Dublin, CA 94568
Project Contact (Name): Deanna L. Harding
(Phone) 510-551-7555 (Fax Number) 510-551-7888

Contact (Name): MR. DAVE DEWITT
(Phone): (925) 277-2384
Laboratory Name: Sequoia Analytical
Laboratory Release Number: W001025
Samples Collected by (Name): STEVE BALIAN
Collection Date: 1-3-00
Signature: STEVE BALIAN

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: TPH Gas + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	8260 6-oxy's + EDB + EDC				DO NOT BILL TB-LB ANALYSIS Remarks
TB-LB	01A	1	W	G		HCl	Y	X												Run Silica Gel clean-up on 8260 Diesel hits.
U-1	02A-F	6	"	"		"	Y	X	X							X				
U-2	03	6	"	"		"	Y	X	X							X				
U-3	04	6	"	"		"	Y	X	X							X				
MW-4	05	6	"	"		"	Y	X	X							X				
MW-5	06	6	"	"		"	Y	X	X							X				

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
STEVE BALIAN	G-R Inc.	1-3-00 16:05			
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time 1/3/00 16:05

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

17 January, 2000

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

RE: Unocal

Enclosed are the results of analyses for samples received by the laboratory on 03-Jan-00 16:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

for Alan B. Kemp
Laboratory Director

Sequoia Analytical

404 N. Wiget Lane
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(925) 988-9600
FAX (925) 988-9673

Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	W001025-01	Water	03-Jan-00 00:00	03-Jan-00 16:05
U-1	W001025-02	Water	03-Jan-00 00:00	03-Jan-00 16:05
U-2	W001025-03	Water	03-Jan-00 00:00	03-Jan-00 16:05
U-3	W001025-04	Water	03-Jan-00 00:00	03-Jan-00 16:05
MW-4	W001025-05	Water	03-Jan-00 00:00	03-Jan-00 16:05
MW-5	W001025-06	Water	03-Jan-00 00:00	03-Jan-00 16:05

Alan B. Kemp, Laboratory Director

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (W001025-01) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Purgeable Hydrocarbons	ND	50	ug/l	1	0A05001	05-Jan-00	05-Jan-00	EPA	
Benzene	ND	0.50	"	"	"	"	"	8015M/8020	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*92.7 %*		*70-130*	"	"	"	"	
U-1 (W001025-02) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									**P-01**
Purgeable Hydrocarbons	**5400**	250	ug/l	5	0A05001	05-Jan-00	05-Jan-00	EPA	
Benzene	**28**	2.5	"	"	"	"	"	8015M/8020	
Toluene	**8.4**	2.5	"	"	"	"	"	"	
Ethylbenzene	**180**	2.5	"	"	"	"	"	"	
Xylenes (total)	**33**	2.5	"	"	"	"	"	"	
Methyl tert-butyl ether	**160**	13	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*155 %*		*70-130*	"	"	"	"	*S-04*
U-2 (W001025-03) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									**P-01**
Purgeable Hydrocarbons	**3400**	500	ug/l	10	0A05001	05-Jan-00	05-Jan-00	EPA	
Benzene	**23**	5.0	"	"	"	"	"	8015M/8020	
Toluene	**13**	5.0	"	"	"	"	"	"	
Ethylbenzene	ND	5.0	"	"	"	"	"	"	
Xylenes (total)	**44**	5.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**46**	25	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*141 %*		*70-130*	"	"	"	"	*S-04*

for Alan B. Kemp, Laboratory Director

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673

Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-3 (W001025-04) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Purgeable Hydrocarbons	ND	50	ug/l	1	0A05001	05-Jan-00	05-Jan-00	EPA	
Benzene	ND	0.50	"	"	"	"	"	8015M/8020	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*97.0 %*		*70-130*	"	"	"	"	
MW-4 (W001025-05) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									**P-01**
Purgeable Hydrocarbons	**800**	200	ug/l	4	0A06001	06-Jan-00	06-Jan-00	EPA	
Benzene	**4.2**	2.0	"	"	"	"	"	8015M/8020	
Toluene	**4.6**	2.0	"	"	"	"	"	"	
Ethylbenzene	**3.3**	2.0	"	"	"	"	"	"	
Xylenes (total)	**11**	2.0	"	"	"	"	"	"	
Methyl tert-butyl ether	**31**	10	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*105 %*		*70-130*	"	"	"	"	
MW-5 (W001025-06) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Purgeable Hydrocarbons	ND	50	ug/l	1	0A05001	05-Jan-00	05-Jan-00	EPA	
Benzene	ND	0.50	"	"	"	"	"	8015M/8020	
Toluene	ND	0.50	"	"	"	"	"	"	
Ethylbenzene	ND	0.50	"	"	"	"	"	"	
Xylenes (total)	ND	0.50	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.5	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*86.7 %*		*70-130*	"	"	"	"	

Alan B. Kemp, Laboratory Director

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Diesel Hydrocarbons (C9-C24) with Silica Gel Cleanup by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (W001025-02) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	**1700**	50	ug/l	1	0A07001	07-Jan-00	17-Jan-00	EPA 8015M	D-11
Surrogate: n-Pentacosane		*58.0 %*	*50-140*		"	"	"	"	
U-2 (W001025-03) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	**1900**	50	ug/l	1	0A07001	07-Jan-00	17-Jan-00	EPA 8015M	D-11
Surrogate: n-Pentacosane		*50.2 %*	*50-140*		"	"	"	"	
MW-4 (W001025-05) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	**260**	50	ug/l	1	0A07001	07-Jan-00	17-Jan-00	EPA 8015M	D-11
Surrogate: n-Pentacosane		*58.0 %*	*50-140*		"	"	"	"	

Alan B. Kemp, Laboratory Director

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Diesel Hydrocarbons (C9-C24) by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (W001025-02) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	**2000**	50	ug/l	1	0A07001	07-Jan-00	10-Jan-00	EPA 8015M	D-11
Surrogate: n-Pentacosane		*70.0 %*	*50-150*		"	"	"	"	
U-2 (W001025-03) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	**2400**	50	ug/l	1	0A07001	07-Jan-00	10-Jan-00	EPA 8015M	D-11
Surrogate: n-Pentacosane		*75.1 %*	*50-150*		"	"	"	"	
U-3 (W001025-04) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	ND	50	ug/l	1	0A07001	07-Jan-00	11-Jan-00	EPA 8015M	
Surrogate: n-Pentacosane		*61.0 %*	*50-150*		"	"	"	"	
MW-4 (W001025-05) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	**250**	50	ug/l	1	0A07001	07-Jan-00	10-Jan-00	EPA 8015M	D-11
Surrogate: n-Pentacosane		*52.0 %*	*50-150*		"	"	"	"	
MW-5 (W001025-06) Water	**Sampled: 03-Jan-00 00:00**	**Received: 03-Jan-00 16:05**							
Diesel Range Hydrocarbons	ND	50	ug/l	1	0A07001	07-Jan-00	11-Jan-00	EPA 8015M	
Surrogate: n-Pentacosane		*57.1 %*	*50-150*		"	"	"	"	

Alan B. Kemp, Laboratory Director

Sequoia Analytical

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(925) 988-9600
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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Report Revised:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	28-Jan-00 01:54

Volatile Organic Compounds by EPA Method 8260A

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
U-1 (W001025-02) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Ethanol	ND	500	ug/l	1	0A11011	07-Jan-00	07-Jan-00	EPA 8260A	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**120**	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*82.0 %*	*50-150*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*76.0 %*	*50-150*		"	"	"	"	
U-2 (W001025-03) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Ethanol	ND	500	ug/l	1	0A11011	07-Jan-00	07-Jan-00	EPA 8260A	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**14**	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*80.0 %*	*50-150*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*5.40 %*	*50-150*		"	"	"	"	*S-04*
U-3 (W001025-04) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Ethanol	ND	500	ug/l	1	0A11011	07-Jan-00	07-Jan-00	EPA 8260A	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*80.0 %*	*50-150*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*70.0 %*	*50-150*		"	"	"	"	

Alan B. Kemp, Laboratory Director

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Report Revised:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	28-Jan-00 01:54

Volatile Organic Compounds by EPA Method 8260A

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (W001025-05) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Ethanol	ND	500	ug/l	1	0A11011	07-Jan-00	07-Jan-00	EPA 8260A	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	**17**	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*78.0 %*	*50-150*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*68.0 %*	*50-150*		"	"	"	"	
MW-5 (W001025-06) Water Sampled: 03-Jan-00 00:00 Received: 03-Jan-00 16:05									
Ethanol	ND	500	ug/l	1	0A11011	07-Jan-00	07-Jan-00	EPA 8260A	
tert-Butyl alcohol	ND	100	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	"	
Ethyl tert-butyl ether	ND	2.0	"	"	"	"	"	"	
tert-Amyl methyl ether	ND	2.0	"	"	"	"	"	"	
1,2-Dichloroethane	ND	2.0	"	"	"	"	"	"	
Ethylene dibromide	ND	2.0	"	"	"	"	"	"	
Surrogate: Dibromofluoromethane		*80.0 %*	*50-150*		"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*68.0 %*	*50-150*		"	"	"	"	

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0A05001: Prepared 05-Jan-00 Using EPA 5030B [P/T]										
Blank (0A05001-BLK1)										
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*30.5*		"	*30.0*		*102*	*70-130*			
LCS (0A05001-BS1)										
Benzene	17.4	0.50	ug/l	20.0		87.0	70-130			
Toluene	17.6	0.50	"	20.0		88.0	70-130			
Ethylbenzene	16.1	0.50	"	20.0		80.5	70-130			
Xylenes (total)	56.9	0.50	"	60.0		94.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	*28.4*		"	*30.0*		*94.7*	*70-130*			
Matrix Spike (0A05001-MS1)					**Source: W912588-02**					
Benzene	18.5	0.50	ug/l	20.0	ND	92.5	70-130			
Toluene	18.2	0.50	"	20.0	ND	91.0	70-130			
Ethylbenzene	16.7	0.50	"	20.0	ND	83.5	70-130			
Xylenes (total)	55.8	0.50	"	60.0	ND	93.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	*28.7*		"	*30.0*		*95.7*	*70-130*			
Matrix Spike Dup (0A05001-MSD1)					**Source: W912588-02**					
Benzene	18.5	0.50	ug/l	20.0	ND	92.5	70-130	0	20	
Toluene	18.0	0.50	"	20.0	ND	90.0	70-130	1.10	20	
Ethylbenzene	18.6	0.50	"	20.0	ND	93.0	70-130	10.8	20	
Xylenes (total)	53.8	0.50	"	60.0	ND	89.7	70-130	3.65	20	
Surrogate: a,a,a-Trifluorotoluene	*28.2*		"	*30.0*		*94.0*	*70-130*			

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0A06001: Prepared 06-Jan-00 Using EPA 5030B [P/T]										
Blank (0A06001-BLK1)										
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	"							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50	"							
Xylenes (total)	ND	0.50	"							
Methyl tert-butyl ether	ND	2.5	"							
Surrogate: a,a,a-Trifluorotoluene	*28.0*		"	*30.0*		*93.3*	*70-130*			
LCS (0A06001-BS1)										
Benzene	18.9	0.50	ug/l	20.0		94.5	70-130			
Toluene	19.1	0.50	"	20.0		95.5	70-130			
Ethylbenzene	17.5	0.50	"	20.0		87.5	70-130			
Xylenes (total)	61.0	0.50	"	60.0		102	70-130			
Surrogate: a,a,a-Trifluorotoluene	*28.6*		"	*30.0*		*95.3*	*70-130*			
Matrix Spike (0A06001-MS1)					**Source: W001027-01**					
Benzene	19.0	0.50	ug/l	20.0	ND	95.0	70-130			
Toluene	19.3	0.50	"	20.0	ND	96.5	70-130			
Ethylbenzene	19.9	0.50	"	20.0	ND	99.5	70-130			
Xylenes (total)	61.6	0.50	"	60.0	ND	103	70-130			
Surrogate: a,a,a-Trifluorotoluene	*29.2*		"	*30.0*		*97.3*	*70-130*			
Matrix Spike Dup (0A06001-MSD1)					**Source: W001027-01**					
Benzene	20.1	0.50	ug/l	20.0	ND	101	70-130	5.63	20	
Toluene	20.2	0.50	"	20.0	ND	101	70-130	4.56	20	
Ethylbenzene	21.1	0.50	"	20.0	ND	106	70-130	5.85	20	
Xylenes (total)	63.7	0.50	"	60.0	ND	106	70-130	3.35	20	
Surrogate: a,a,a-Trifluorotoluene	*29.5*		"	*30.0*		*98.3*	*70-130*			

for Alan B. Kemp, Laboratory Director

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0A07001: Prepared 07-Jan-00 Using EPA 3510B										
Blank (0A07001-BLK1)										
Diesel Range Hydrocarbons	ND	50	ug/l							
Surrogate: n-Pentacosane	*19.7*		"	*33.3*		*59.2*	*50-150*			
LCS (0A07001-BS1)										
Diesel Range Hydrocarbons	367	50	ug/l	500		73.4	60-140			
Surrogate: n-Pentacosane	*22.0*		"	*33.3*		*66.1*	*50-150*			
LCS Dup (0A07001-BSD1)										
Diesel Range Hydrocarbons	381	50	ug/l	500		76.2	60-140	3.74	50	
Surrogate: n-Pentacosane	*21.0*		"	*33.3*		*63.1*	*50-150*			

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Diesel Hydrocarbons (C9-C24) with Silica Gel Cleanup by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0A07001: Prepared 07-Jan-00 Using EPA 3510B										
Blank (0A07001-BLK1)										
Diesel Range Hydrocarbons	ND	50	ug/l							
Surrogate: n-Pentacosane	*22.7*		"	*33.3*		*68.2*	*50-140*			
LCS (0A07001-BS1)										
Diesel Range Hydrocarbons	363	50	ug/l	500		72.6	35-125			
Surrogate: n-Pentacosane	*22.3*		"	*33.3*		*67.0*	*50-140*			
LCS Dup (0A07001-BSD1)										
Diesel Range Hydrocarbons	442	50	ug/l	500		88.4	35-125	19.6	50	
Surrogate: n-Pentacosane	*24.3*		"	*33.3*		*73.0*	*50-140*			

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Volatile Organic Compounds by EPA Method 8260A - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0A11011: Prepared 07-Jan-00 Using EPA 5030B [P/T]										
Blank (0A11011-BLK1)										
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
Surrogate: Dibromofluoromethane	*54.0*		"	*50.0*		*108*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*52.0*		"	*50.0*		*104*	*50-150*			
Blank (0A11011-BLK2)										
Ethanol	ND	500	ug/l							
tert-Butyl alcohol	ND	100	"							
Methyl tert-butyl ether	ND	2.0	"							
Di-isopropyl ether	ND	2.0	"							
Ethyl tert-butyl ether	ND	2.0	"							
1,2-Dichloroethane	ND	2.0	"							
tert-Amyl methyl ether	ND	2.0	"							
Ethylene dibromide	ND	2.0	"							
Surrogate: Dibromofluoromethane	*47.0*		"	*50.0*		*94.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*44.0*		"	*50.0*		*88.0*	*50-150*			
LCS (0A11011-BS1)										
Methyl tert-butyl ether	40.9	2.0	ug/l	50.0		81.8	70-130			
Surrogate: Dibromofluoromethane	*47.0*		"	*50.0*		*94.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*45.0*		"	*50.0*		*90.0*	*50-150*			

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Reported:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	17-Jan-00 15:41

Volatile Organic Compounds by EPA Method 8260A - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0A11011: Prepared 10-Jan-00 Using EPA 5030B [P/T]										
LCS (0A11011-BS2)										
Methyl tert-butyl ether	55.5	2.0	ug/l	50.0		111	70-130			
Surrogate: Dibromofluoromethane	*50.0*		"	*50.0*		*100*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*46.0*		"	*50.0*		*92.0*	*50-150*			
LCS Dup (0A11011-BSD1)										
Methyl tert-butyl ether	39.7	2.0	ug/l	50.0		79.4	70-130	2.98	200	
Surrogate: Dibromofluoromethane	*43.0*		"	*50.0*		*86.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*41.0*		"	*50.0*		*82.0*	*50-150*			
Matrix Spike (0A11011-MS1)					**Source: W001025-06**					
Methyl tert-butyl ether	47.6	2.0	ug/l	50.0	ND	95.2	60-150			
Surrogate: Dibromofluoromethane	*41.0*		"	*50.0*		*82.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*34.0*		"	*50.0*		*68.0*	*50-150*			
Matrix Spike Dup (0A11011-MSD1)					**Source: W001025-06**					
Methyl tert-butyl ether	35.5	2.0	ug/l	50.0	ND	71.0	60-150	29.1	25	Q-07
Surrogate: Dibromofluoromethane	*40.0*		"	*50.0*		*80.0*	*50-150*			
Surrogate: 1,2-Dichloroethane-d4	*33.0*		"	*50.0*		*66.0*	*50-150*			

for Alan B. Kemp, Laboratory Director

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Gettler Ryan, Inc. - Dublin	Project: Unocal	
6747 Sierra Court Suite J	Project Number: Unocal # 7176	**Report Revised:**
Dublin CA, 94568	Project Manager: Deanna L. Harding	29-Jan-00 03:13

Notes and Definitions

D-11	Chromatogram Pattern: Unidentified Hydrocarbons < C16
P-01	Chromatogram Pattern: Gasoline C6-C12
Q-07	The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Alan B. Kemp, Laboratory Director