

GETTLER-RYAN INC.

TRANSMITTAL

JUN 0 5 2001

May 17, 2001 G-R #180065

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California

CC: Mr. Douglas Lee

Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J Dublin, California 94568 RE: Tosc

Tosco (Unocal) SS#5043

449 Hegenberger Road Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
. 1	May 9, 2001	Groundwater Monitoring and Sampling Report Second Quarter – Event of April 4, 2001

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 *May 31, 2001*, this report will be distributed to the following:

cc: Mr. Barney M. Chan, Alameda County Health Care Services, 1131 Harbor Bay Parkway, Suite 250, Alameda, California 94502

Beretta Investment Group, 39560 Stevenson Place, Suite 118, Fremont, CA 94539

Enclosure

trans/5043.dbd

May 9, 2001 G-R Job #180065

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

RE: Second Quarter Event of April 4, 2001

Groundwater Monitoring & Sampling Report

Tosco (Unocal) Service Station #5043

449 Hegenberger Road Oakland, California

Dear Mr. De Witt:

This report documents the most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Static water level data and groundwater elevations are summarized in Table 1. Product Thickness/Removal Data is 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.

No. 6882

Sincerely,

Deanna L. Harding

Project Coordinator

Senior Geologist, R.G. No. 6882

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

Table 1:

Groundwater Monitoring Data and Analytical Results Groundwater Analytical Results - Oxygenate Compounds

Table 2: Table 3:

Product Thickness/Removal Data

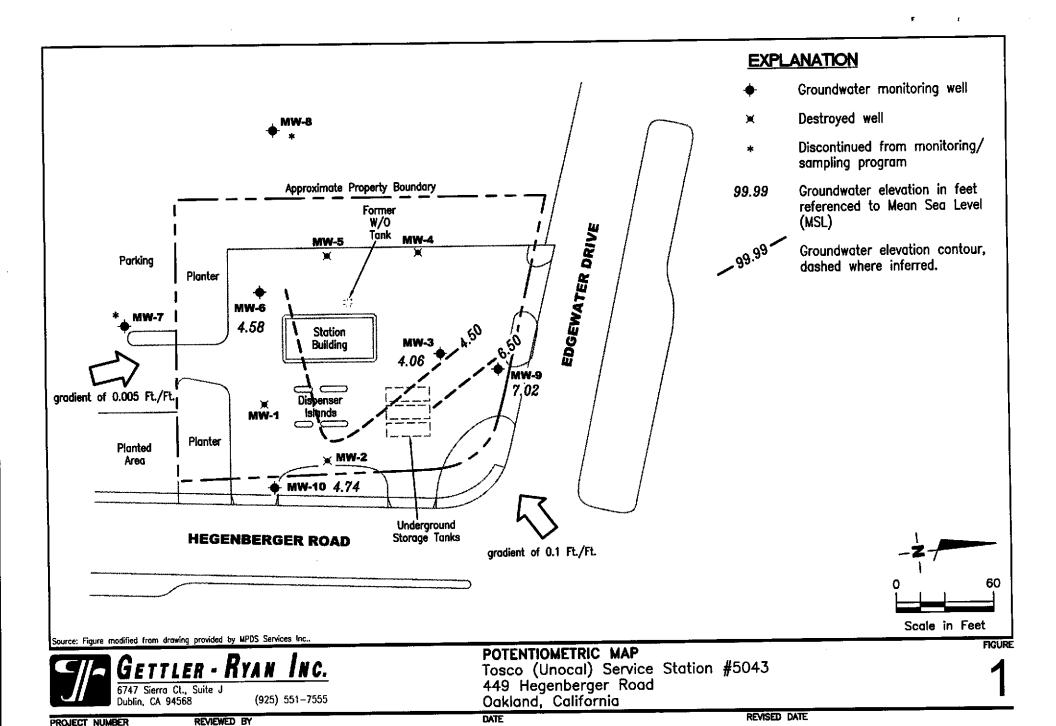
Attachments:

Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

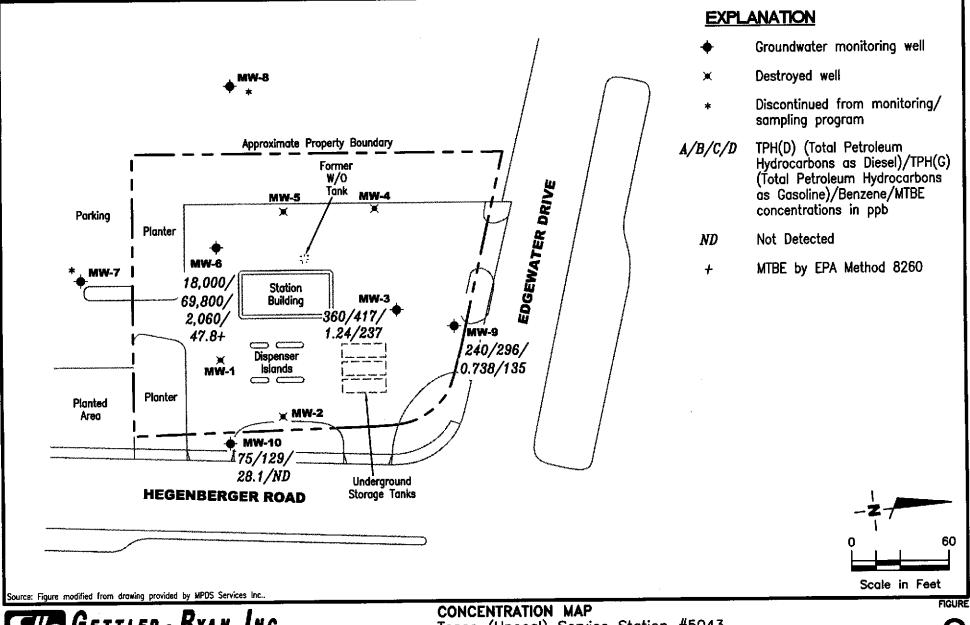
Chain of Custody Document and Laboratory Analytical Reports

5043.gml



April 4, 2000

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

REVIEWED BY

Tosco (Unocal) Service Station #5043

449 Hegenberger Road Oakland, California

DATE

April 4, 2001

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PROJECT NUMBER

REVISED DATE

Table 1 Groundwater Monitoring Data and Analytical Results

					Product							
WELL ID/	DATE	DTW	S.I.	GWE	Thickness	TPH-D	TPH-G	В	Ţ	E	X	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ft.)	(ppb)	(ppb)	(ррь)	(ppb)	(ppb)	(ррь)	(ppb)
B.4337 1	02/19/02					12 000	150,000	17,000	26,000	5,200	26,000	
MW-1	02/18/92					13,000	150,000	17,000	26,000	,		
	05/20/92					e 000 ¹	 	12.000	12.000	2.500	22.000	
	08/31/92					8,900 ¹	64,000	13,000	12,000	2,500	22,000	
	11/30/92											
	02/04/93											
8.96+	05/04/93	2.13		5.73**	0.10		ED DUE TO TI					
	08/04/93	2.92		4.88**	0.03		ED DUE TO TI					
7.38	11/03/93	3.04		4.74	<0.01		ED DUE TO TI					
	02/07/94	2.55		4.85**	0.03		ED DUE TO TI					
	05/19/94	2.23		5.16**	0.01		ED DUE TO TI					
	06/25/94	2.49		4.90**	0.01	NOT SAMPL	ED DUE TO TI	HE PRESENC	E OF FREE PR	ODUCT		
	07/27/94	3.10		4.28	0.00							
	08/15/94	2.85		4.61**	0.11		ED DUE TO TI					
	11/14/94	2.97		4.50**	0.12		ED DUE TO TI					
	02/21/95	1.53		5.87**	0.02	NOT SAMPL	ED DUE TO T	HE PRESENC	E OF FREE PR	ODUCT		
	DESTROYED											
										•		
MW-2	02/18/92					4,300	29,000	1,000	5,300	260	7,900	
	05/20/92					4,300 ¹	24,000	2,200	7,600	630	11,000	
	08/31/92					1,600 ¹	9,000	1,800	64 0	140	2,000	
	11/30/92					5,700 ¹	29,000	2,000	3,400	1,200	6,900	
	02/04/93					$6,100^{1}$	18,000	1,600	3,000	ND	6,900	
8.96+	05/04/93	2.48		6.48	0.00	7,1001	63,000	3,200	17,000	470	17,000	
	08/04/93	3.20		5.76	0.00	$1,800^2$	45,000	2,100	6,600	1,400	12,000	
8.58	11/03/93	3.37		5.21	0.00	$2,600^{2}$	72,000	3,700	16,000	3,700	20,000	
-	02/07/94	2.40		6.18	< 0.01	NOT SAMPL	ED DUE TO T		E OF FREE PR			
	05/19/94	2.13		6.45	0.00	$3,000^2$	42,000	2,500	1,300	2,300	13,000	.
	06/25/94	2.65		5.93	0.00							
	07/27/94	3.44		5.14	0.00							
	01121124	J. ~~		J. 17	0.00							

Table 1
Groundwater Monitoring Data and Analytical Results

MW-2	WELL ID/ TOC*	DATE	DTW S.I. (ft.) (ft. bgs)	GWE	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
Comi	MW-2	08/15/94	3.25	5.33	0.00	$2,800^2$	35,000	2,400				
MW-3		11/14/94	2.13	6.45	0.00		43,000		•			
DESTROYED MW-3 02/18/92	(====,		1.65	6.93	0.00	$2,000^2$	44,000	2,200	3,200	1,300	1,500	
MW-3 02/18/92												
08/31/92	MW-3	02/18/92				ND	230					
11/30/92		05/20/92	INACCESSIBLE	-								
173092		08/31/92						_				
7.84*		11/30/92										
7.84* 050/04/93 4.32 3.32 0.00 200 100 210 ⁴ ND		02/04/93										
7.42 11/03/93	7.84◆	05/04/93	4.32	3.52								
7.42		08/04/93	4.94	2.90								
02/07/94	7.42	11/03/93	4.53	2.89								
06/25/94 4.58 2.84 0.00		02/07/94	2.40	5.02								
06/25/94 4.58 2.84 0.00		05/19/94	3.60	3.82	0.00	480²	1,800	83	ND			
07/27/94 4.58 2.84 0.00 110 ² 130 1.1 0.54 ND 0.97 11/14/94 3.18 4.24 0.00 150 ² 1,600 ⁴ ND ND ND ND ND 02/21/95 1.81 5.61 0.00 850 ² 3.800 350 ND 130 22 05/18/95 4.56 2.86 0.00 150 ¹ 1,300 ³ 42 ND ND ND 08/17/95 INACCESSIBLE		06/25/94	4.58	2.84	0.00							
11/14/94 3.18 4.24 0.00 150 ² 1,600 ⁴ ND ND ND ND ND O2/21/95 1.81 5.61 0.00 850 ² 3,800 350 ND 130 22 05/18/95 4.56 2.86 0.00 150 ¹ 1,300 ³ 42 ND ND ND ND ND ND O8/17/95 INACCESSIBLE		07/27/94	4.58	2.84	0.00							
02/21/95 1.81 5.61 0.00 850 ² 3,800 350 ND 130 22 05/18/95 4.56 2.86 0.00 150 ¹ 1,300 ³ 42 ND ND ND 08/17/95 INACCESSIBLE		08/15/94	4.65	2.77	0.00							
05/18/95		11/14/94	3.18	4.24	0.00							
08/17/95 INACCESSIBLE		02/21/95	1.81	5.61	0.00							
08/17/95 INACCESSIBLE		05/18/95	4.56	2.86	0.00	150 ¹	1,300 ³	42	ND	ND	ND	
07/26/96 INACCESSIBLE		08/17/95	INACCESSIBLE									
10/28/96 INACCESSIBLE			INACCESSIBLE									
01/29/97 INACCESSIBLE			INACCESSIBLE									
04/15/97 INACCESSIBLE		01/29/97	INACCESSIBLE									
05/27/97 3.45 4.59 0.00 670 6.5 ND ND ND ND 06/01/97 3.50 4.54 0.00 610 ² 8.04 07/15/97 3.71 4.33 0.00 240 ² 240 ND ND ND ND ND ND												
06/01/97 3.50 4.54 0.00 610 ² 8.04 07/15/97 3.71 4.33 0.00 240 ² 240 ND ND ND ND ND			3.45	4.59	0.00		670	6.5	ND	ND	ND	250
8.04 07/15/97 3.71 4.33 0.00 240 ² 240 ND ND ND ND ND				4.54	0.00	610^2	••					
22 24 24 24 24 24 24 24 24 24 24 24 24 2	8.04			4.33	0.00	240^{2}	240	ND	ND	ND	ND	490
				4.34	0.00	500 ²	270	1.1	ND	2.4	1.4	910

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW	S.I.	GWE	Product Thickness	TPH-D	TPH-G	B (ppb)	T (ppb)	E (pph)	X (ppb)	MTBE (ppb)
TOC*		(ft.)	(ft. bgs)	(msl)	(ft.)	(ppb)	(ppb)	(ppo)	(рро)	(ррч)	(рро)	Дарго
MW-3	01/14/98	2.16	2.5-14.0	5.88	0.00	340 ⁷	310	ND	ND	0.62	0.65	140
(cont)	04/01/98	2.20		5.84	0.00	320 ⁷	370	5.7	ND^9	ND ⁹	ND^9	93
()	07/15/98	3.38		4.66	0.00	510 ¹⁰	46011	ND^9	ND^9	ND^9	ND^9	230
	10/16/98	2.30		5.74	0.00	67 ¹³	330 ¹⁴	4.7	ND^9	ND ⁹	ND^9	60
	01/25/99	2.42		5.62	0.00	1207	42014	1.5	ND^9	ND^9	ND^9	180
	04/15/99	2.16		5.88	0.00	170 ¹⁷	290	0.54	ND	ND	ND	160
	07/14/99	2.35		5.69	0.00	420 ^{t9}	290	3.2	ND	ND	ND	160
	10/21/99	2.49		5.55	0.00	350 ⁷	360^{23}	0.77	ND	ND	ND	82
	01/20/00	2.38		5.66	0.00	2,0601	ND	0.81	ND	ND	ND	54
	04/13/00	2.76		5.28	0.00	200^{21}	250^{23}	0.69	ND	ND	ND	91/150 ²⁶
	07/14/00	3.26		4.78	0.00	4237	345 ²⁷	ND	ND	ND	ND	94.7
	10/26/00	3.12		4.92	0.00	330^{29}	480^{23}	6.0	ND ⁹	ND^9	ND ⁹	120
	01/03/01	3.65		4.39	0.00	287 ⁷	364 ²⁷	1.59	ND	ND	ND	118
	04/04/01	3.98		4.06	0.00	360 ⁷	417 ²⁷	1.24	ND	ND	0.802	237
MW-4	08/31/92					90²	240⁴	ND	ND	ND	0.54	
IAI 44	11/30/92	 			- -	61	420 ⁴	ND	ND	ND	ND	
	02/04/93			<u></u>	~. ~~	ND	ND	ND	ND	ND	ND	
9.00+	05/04/93	4.09		4.91	0.00	ND	110 ³	0.95	ND	ND	ND	
2.00	08/04/93	5.01		3.99	0.00	81	250 ⁴	ND	3.5	ND	4.1	
8.41	11/03/93	4.23		4.18	0.00	68	130^{4}	ND	ND	ND	ND	
0.41	02/07/94	3.35		5.06	0.00	ND	56 ⁴	ND	ND	ND	ND	
	05/19/94	3.92		4.49	0.00	90 ²	140 ⁴	ND	ND	ND	ND	
	06/25/94	4.35		4.06	0.00							
	07/27/94	4.28		4.13	0.00							
	08/15/94	4.27		4.14	0.00	72^{2}	59 ⁴	ND	0.6	ND	ND	
	11/14/94	4.05		4.36	0.00	ND	130 ⁴	ND	ND	ND	ND	
	DESTROYED											

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/	DATE	DTW (ft.)	5.1. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE
		G**2	V** ** 8-2									
MW-5	08/31/92					690¹	78	0.89	ND	ND	13	
	11/30/925					470 ²	930	70	290	0.79	14	
	02/04/935					$5,500^2$	5,700	38	ND	620	170	
	05/04/93 ⁵	4.37		4.90	0.00	4,600 ¹	7,400	41	ND	1,000	35	
	08/04/93 ⁵	5.81		3.46	0.00	970^{2}	1,500	130	1	460	11	
8.95	11/03/93	5.68		3.27	0.00	$2,100^2$	13,000	350	ND	3,500	530	
	02/07/94	5.11		3.84	0.00	830^{2}	2,000	87	ND	370	110	
	05/19/94	5.09		3.86	0.00	600^{2}	260	44	ND	32	4.1	
	06/25/94	4.55		4.40	0.00							
	07/27/94	5.72		3.23	0.00							
	08/15/94	5.68		3.27	0.00	860^{2}	1,600	110	ND	340	72	
	11/14/94	5.63		3.32	0.00	290^{1}	250	40	ND	ND	5	
	DESTROYED											
						7502	ND	ND	ND	ND	ND	
MW-6	08/31/92		2.5-13.5			750 ²	ND	ND 550	ND ND	740	1,600	
	11/30/92					1,400 ¹ 890 ²	9,200	550	ND ND	290	550	
	02/04/93						3,600	340	18	450	430	
9.12	05/04/93	3.72		5.40	0.00	1,800 ¹	4,900	360	ND	440	190	
	08/04/93	5.15		3.97	0.00	$1,100^2$ 390^2	3,400	390	ND ND	200	7.7	
8.87	11/03/93	5.25		3.62	0.00	390 970 ²	1,400	320	ND	250	35	
	02/07/94	4.55		4.32	0.00		4,900	650		210	41	
	05/19/94	4.62		4.25	0.00	1,400 ²	3,600	300	1.7		57	
	08/15/94	5.08		3.79	0.00	790 ²	1,300	130	6.7	54 ND		
	11/14/94	5.30		3.57	0.00	800 ²	730	50	ND	ND	39	
	02/21/95	5.37	•	3.50	0.00	730 ²	2,000	250	4.6	25	30	
	05/18/95	INACCESSIB										
	08/17/95	INACCESSIB	LE						 			
	07/26/96	6.40		5.03**	3.33		ED DUE TO T					
	10/28/96	4.10	•	4.93**	0.21	NOT SAMPI	ED DUE TO T	HE PRESENC	E OF FREE PE	RODUCT		
	11/13/96	4.02		5.04**	0.25			·				

Table 1 Groundwater Monitoring Data and Analytical Results

					Product					_	•	SATES
WELL ID/	DATE	DTW	S.1.	GWE	Thickness	TPH-D	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ррв)
					0.75							
MW-6	11/25/96	4.01	2.5-13.5	5.44**	0.75	~-						
(cont)	12/04/96	3.65		5.61**	0.50							
	12/19/96	4.80		5.76**	2.20							
	01/08/97	4.84		5.38**	1.75							
	01/14/97	4.51		5.25**	1. 15							
	01/27/97	4.00		6.22**	1.75							
	01/29/97	3.24		5.87**	0.31	NOT SAMPL	ED DUE TO TI	HE PRESENC	E OF FREE PR			
	02/11/97	4.65		5.14**	1.20							
	02/24/97	4.81		4.91**	1.10							
	03/10/97	4.60		5.00**	0.95							
	03/17/97	4.50		5.06**	0.89							
	03/31/97	4.65		4.99**	1.00							
	04/15/97	4.90		4.76**	1.03	NOT SAMPL	ED DUE TO TI	HE PRESENC	E OF FREE PR	RODUCT		
	04/28/97	4.78		4.11**	0.03							
	05/15/97	4.60		4.46**	0.25					·		
	05/27/97	4.50		4.56**	0.25							
	06/09/97	4.60		4.42**	0.20							
	06/24/97	4.50		4.56**	0.25							
	07/09/97	4.80		4.53**	0.60							
	07/15/97	4.63		4.56**	0.42	NOT SAMPL	ED DUE TO T	HE PRESENC	E OF FREE PE	RODUCT		
	07/21/97	4.75		4.31**	0.25							
	08/06/97	4.50		4.45**	0.10							
	08/20/97	4.55		4.40**	0.10							
	09/02/97	4.75		4.16**	0.05							
	10/09/97	4.84		4.06**	0.04	NOT SAMPL	ED DUE TO T	HE PRESENC	E OF FREE P	RODUCT		
	01/14/98	3.90		5.69**	0.94	NOT SAMPL	ED DUE TO T	HE PRESENC	E OF FREE P	RODUCT		
	02/12/98	3.35		6.01**	0.64		**					
	03/03/98	4.51		4.38**	0.02							
	04/01/98	3.67		6.43**	1.60	NOT SAMPI	ED DUE TO T	HE PRESENC	E OF FREE P	RODUCT	••	
	05/26/98	4.11		5.15**	0.50							'
		5.03		4.07**	0.30							
	06/15/98	5.03		4.07	0.50						*	

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5043

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G <i>(ppb)</i>	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-6	07/15/98	4.56	2.5-13.5	4.35**	0.05	NOT SAMPLE	ED DUE TO TH	E PRESENCI	E OF FREE PR	ODUCT		
	08/21/98	4.77	2.5-15.5	4.12**	0.02							~ ~
(cont)	09/30/98	5.08		3.81**	0.03							
	10/16/98	4.31		6.41**	2.40	NOT SAMPLE	ED DUE TO TH	E PRESENCI	E OF FREE PR	ODUCT		
	11/06/98	3.98		5.02**	0.17					-		
	11/25/98	3.92		5.03**	0.10							
	12/28/98	3.90		5.12**	0.20							
	01/25/99	4.18		5.15**	0.60	NOT SAMPLE	ED DUE TO TH	E PRESENCI	E OF FREE PR	ODUCT		
	02/22/99	4.07		4.97**	0.22							
	03/22/99	4.32		4.67**	0.15							
	04/15/99	4.23		5.37**	0.95	NOT SAMPLE	ED DUE TO TH	E PRESENCI	E OF FREE PR	ODUCT		
	05/28/99	4.38		4.79**	0.39							
	06/29/99	4.12		4.77**	0.02							
	07/14/99	4.20		4.69**	0.03	NOT SAMPLI	ED DUE TO TH	E PRESENC	E OF FREE PR	ODUCT		
	08/23/99	4.51		4.54**	0.24							
	09/30/99	4.17		4.83**	0.17							
	10/21/99	4.27		4.69**	0.12	NOT SAMPLI	ED DUE TO TH	IE PRESENC	E OF FREE PR	ODUCT		
	11/29/99	4.18		4.69	< 0.01					. 		
	12/20/99	4.26		4.62**	0.01							
	01/20/00	4.31		4.56	< 0.01	67,600 ¹	$130,000^{23}$	2,900	8,600	2,000	16,000	ND^9
	02/26/00	3.98		4.89	0.00							
	03/31/00	4.14		4.73	0.00							
	04/13/00	4.04		4.83	0.00	8,700 ⁷	$140,000^{23}$	5,000	14,000	3,600	27,000	7,700
	05/26/00	4.41		4.46	0.00					•-		
	06/17/00	4.35		4.52	0.00							
	07/14/00	4.47	•	4.40	< 0.01	133,000 ⁷	$259,000^{23}$	7,670	13,700	6,860	40,700	9ND/ND ^{9,20}
	08/24/00	3.71		5.16	0.00					•-		
	09/27/00	4.33		4.54	0.00	••						
	10/26/00	4.32		4.55	0.00	$61,000^{28}$	$110,000^{23}$	7,000	6,200	3,700	12,000	670/43 ³⁰
	01/03/01	4.52		4.35	0.00	929 ⁷	$84,700^{23}$	3,950	4,130	3,650	11,800	9ND/ND ^{9,20}
	04/04/01	4.29		4.58	0.00	$18,000^{28}$	69,800 ²³	2,060	2,840	3,650	10,900	⁹ ND/47.8 ²⁰

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5043

8.83 06/01/97 4.54 4.29 0.00 69 ²	WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
1.8.3	MW-7	05/27/97	4.50	3.0-13.0	4.33	0.00		68	ND	ND	ND	ND	ND
07/15/97 4.70 4.13 0.00 ND						0.00	69 ²						
10/09/97					4.13	0.00	ND	ND	ND	ND	ND	ND	ND
01/14/98 2.88 5.95 0.00 65 ⁷ ND					4.53	0.00	190¹	ND	ND	ND	ND	ND	ND
04/01/98 3.13 5.70 0.00 ND					5.95	0.00	65 ⁷	ND	ND	ND	ND	ND	36
07/15/98 4.45 4.38 0.00 74 ¹² ND					5.70	0.00	ND	ND	ND	ND	ND	ND	ND
10/16/98 3.45 5.38 0.00 ND					4.38	0.00	7412	ND	ND	ND	ND	ND	ND
01/25/99 3.22 5.61 0.00 ND					5.38	0.00	ND	ND	ND	ND	ND	ND	ND
04/15/99 3.11 5.72 0.00 ND						0.00	ND	ND	ND	ND	ND	ND	ND
07/14/99 3.34 5.49 0.00 69 ²⁰ ND						0.00	ND	ND	ND	ND	ND	ND	ND
10/21/99 3.43 5.40 0.00 ND						0.00	69^{20}	ND	ND	ND	ND	ND	ND
01/20/00 3.29 5.54 0.00 ND						0.00	ND	ND	ND	ND	ND	ND	ND
04/13/00 3.39 5.44 0.00 ND						0.00	ND	ND	ND	ND	ND	ND	4.2
NOT MONITORED/SAMPLED MW-8 8.52 06/01/97 3.46 5.06 0.00 320² 07/15/97 3.49 5.03 0.00 ND							ND^9	ND	ND	ND	ND	ND	ND
NOT MONITORED/SAMPLED MW-8 05/27/97 3.42 3.0-15.0 5.10 0.00 310 0.88 0.67 15 70 ND 8.52 06/01/97 3.46 5.06 0.00 320 ²						0.00	68.0 ⁷	ND	ND	ND	ND	ND	7.83
8.52 06/01/97 3.46 5.06 0.00 320 ²				LED									
07/15/97 3.49 5.03 0.00 ND ND ND ND ND ND 2.7 3.8 ND 10/09/97 3.73 4.79 0.00 390¹ 590 1.4 ND	MW-8	05/27/97	3.42	3.0-15.0	5.10	0.00		310	0.88	0.67	15	70	ND
10/09/97 3.73 4.79 0.00 390 ¹ 590 1.4 ND 32 4.1 ND 01/14/98 1.92 6.60 0.00 230 ⁷ ND	8.52	06/01/97	3.46		5.06	0.00	320^{2}						
01/14/98 1.92 6.60 0.00 230 ⁷ ND ND		07/15/97	3.49		5.03	0.00		ND	ND				
04/01/98 2.38 6.14 0.00 510 ⁷ ND ND		10/09/97	3.73		4.79	0.00		590	1.4				
07/15/98 3.53 4.99 0.00 140 ¹² ND ND ND 0.56 1.1 ND 10/16/98 3.04 5.48 0.00 170 ¹⁵ ND ND		01/14/98	1.92		6.60	0.00		ND	ND	ND	ND	ND	
10/16/98 3.04 5.48 0.00 170 ¹⁵ ND		04/01/98	2.38		6.14	0.00		ND	ND	ND	ND	ND	
01/25/99 2.92 5.60 0.00 ND		07/15/98	3.53		4.99	0.00		ND	ND	ND	0.56		
04/15/99 2.40 6.12 0.00 91 ¹² ND		10/16/98	3.04		5.48	0.00		ND	ND	ND	ND		
07/14/99 3.03 5.49 0.00 120 ²¹ ND ND ND ND ND ND ND		01/25/99	2.92		5.60	0.00		ND	ND	ND	ND	ND	ND
07/14/99 3.03 5.49 0.00 120 ²¹ ND ND ND ND ND ND ND			2.40		6.12	0.00	91 ¹²	ND	ND	ND	ND	ND	ND
24					5.49	0.00	120^{21}	ND	ND	ND	ND	ND	ND
		10/21/99	3.11		5.41	0.00	110^{24}	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	T PH- G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8	01/20/00	3.06	3.0-15.1	5.46	0.00	583¹	ND	ND	ND	ND	ND	ND
(cont)	04/13/00	2.84		5.68	0.00	80^{24}	ND	ND	ND	ND	ND	ND
(\$0.00)	07/14/00	3.39		5.13	0.00	1137	ND	ND	ND	ND	ND	ND
	NOT MONITOI		ÆD									
MW-9	02/21/95	1.98	3.0-13.0	6.31	0.00	71 ²	70 ⁴	ND	ND	ND	ND	
8.29	05/18/95	3.47		4.82	0.00	ND	52	ND	1.1	ND	1.9	
	08/17/95	1.49		6.80	0.00	ND	ND	ND	ND	ND	ND	
	07/26/96	0.28		8.01	0.00	98	ND	ND	ND	ND	ND	ND
	10/28/96	1.15		7.14	0.00	991	ND	ND	ND	ND	ND	7.6
	01/29/97	1.05		7.24	0.00	54	ND	ND	ND	ND	ND	5.4
	04/15/97	1.88		6.41	0.00	94 ¹	ND	ND	ND	ND	ND	5.4
	05/27/97	1.05		7.24	0.00							
	07/15/97	1.90		6.39	0.00	ND	ND	ND	ND	ND	ND	ND
	10/09/97	1.76		6.53	0.00	160¹	ND	ND	ND	ND	ND	ND
	01/14/98	1.26		7.03	0.00	1107	ND	ND	ND	ND	ND	3.0
	04/01/98	0.85		7.44	0.00	1107	ND	ND	ND	ND	ND	ND
	07/15/98	1.52		6.77	0.00	200^{12}	ND	ND	ND	ND	ND	ND
	10/16/98	0.81		7.48	0.00	ND	ND	ND	ND	ND	ND	ND
	01/25/99	0.92		7.37	0.00	ND	ND	ND	ND	ND	ND	ND
	04/15/99	0.90		7.39	0.00	ND	75 ¹⁸	21	ND	ND	1.1	680
	07/14/99	1.04		7.25	0.00	140^{21}	ND	1.9	ND	ND	ND	260
	10/21/99	1.23		7.06	0.00	210^{24}	ND	ND	ND	ND	ND	170
	01/20/00	1.18		7.11	0.00	519 ¹	ND	1.1	ND	ND	ND	35
	04/13/00	1.08		7.21	0.00	81 ²⁵	160^{23}	0.64	ND	ND	ND	53
	07/14/00	1.43		6.86	0.00	107 ⁷	ND	ND	ND	ND	NĐ	20.2
	10/26/00	1.38		6.91	0.00	240 ⁷	240^{23}	2.9	ND	ND	ND	56
	01/03/01	1.66		6.63	0.00	164 ⁷	166 ²⁷	0.763	0.776	ND	1.28	50.2
	04/04/01	1.27		7.02	0.00	240 ⁷	296 ²⁷	0.738	ND	ND	0.907	135

As of 04/04/01

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #5043

449 Hegenberger Road
Oakland, California

WELL ID/	DATE	DTW	S.I.	GWE	Product Thickness	TPH-D	TPH-G	В	Т	E	X	MTBE
TOC*		(ft.)	(ft. bgs)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)	(ppb)
	_					•						
MW-10	02/21/95	4.69	3.0-13.0	3.93	0.00	270²	1,500	250	26	9.1	160	
8.62	05/18/95	4.92		3.70	0.00	75 ¹	810	520	ND	18	23	
	08/17/95	4.05		4.57	0.00	ND	67	25	ND	2.4	ND	
	07/26/96	4.08		4.54	0.00	ND	ND	3.7	ND	ND	ND	ND
	10/28/96	4.09		4.53	0.00	ND	ND	1.1	ND	ND	ND	ND
	01/29/97	2.94		5.68	0.00	ND	210	41	0.67	7.2	4.8	11
	04/15/97	4.07		4.55	0.00	ND	110	12	ND	0.77	ND	9.7
	05/27/97	4.40		4.22	0.00							
	07/15/97	4.19		4.43	0.00	ND	ND	2.1	ND	0.67	0.73	ND
	10/09/97	4.75		3.87	0.00	ND	190	38	0.92	6.6	7.6	ND
	01/14/98	2.66		5.96	0.00	8	59	9.5	0.85	1.2	1.7	4.5
	04/01/98	3.45		5.17	0.00	62 ⁷	230	66	1.7	12	17	6.4
	07/15/98	4.21		4.41	0.00	78 ¹²	290	98	45	21	38	21
	10/16/98	4.11		4.51	0.00	ND	160 ¹⁶	44	0.96	2.5	10	17
	01/25/99	3.26		5.36	0.00	ND	140	27	ND	2.8	6.8	23
	04/15/99	3.63		4.99	0.00	ND	120	18	ND	1.8	5.1	14
	07/14/99	3.89		4.73	0.00	180^{22}	280	55	3.2	11	31	6.1
	10/21/99	4.09		4.53	0.00	96 ⁷	140^{23}	22	0.59	1.7	7.7	5.3
	01/20/00	3.92		4.70	0.00	252 ¹	ND	0.73	0.86	ND	ND	5.2
	04/13/00	3.85		4.77	0.00	69^{24}	67 ²³	54	ND	2.6	ND	3.8
	07/14/00	4.18		4,44	0.00	149 ⁷	ND	0.547	ND	ND	ND	ND
	10/26/00	3.96		4.66	0.00	83 ²⁴	ND	3.3	ND	0.83	1.5	ND
	01/03/01	4.14		4.48	0.00	126 ⁷	52.7 ²³	5.15	ND	0.823	1.57	ND
	04/04/01	3.88		4.74	0.00	75 ²⁴	129 ²³	28.1	1.67	4.97	10.1	ND
	04/04/01	5.66		4.74	0.00							
Trip Blank							ND	ND	ND	ND	ND	ND
TB-LB	01/14/98									ND	ND ND	ND
	04/01/98					•-	ND	ND	ND			
	07/15/98						ND	ND	ND	ND	ND	ND
	10/16/98						ND	ND	ND	ND	ND	ND

Table 1 Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043

449 Hegenberger Road Oakland, California

WELL ID/	DATE	DTW (ft.)	S.I. (ft. bgs)	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (pph)	E (ppb)	X (ppb)	MTBE (ppb)
TB-LB	01/25/99						ND	ND	ND	ND	ND	ND
(cont)	04/15/99						ND	ND	ND	ND	ND	ND
	07/14/99						ND	ND	ND	ND	ND	ND
	10/21/99						ND	ND	ND	ND	ND	ND
	01/20/00						ND	ND	ND	ND	ND	ND
	04/13/00						ND	ND	ND	ND	ND	ND
	07/14/00						ND	ND	ND	ND	ND	ND
	10/26/00						ND	ND	ND	ND	ND	ND
	01/03/01						ND	ND	ND	ND	ND	ND
	04/04/01				••		ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043 449 Hegenberger Road Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to January 14, 1998, were compiled from reports prepared by MPDS Services, Inc.

TOC = Top of Casing

B = Benzene

(ppb) = Parts per billion

DTW = Depth to Water

T = Toluene

ND = Not Detected

(ft.) = Feet

E = Ethylbenzene

-- = Not Measured/Not Analyzed

S. I. = Screen Interval

X = Xylenes

(ft. bgs) = Feet Below Ground Surface

MTBE = Methyl tertiary butyl ether

GWE = Groundwater Elevation

(msl) = Mean sea level

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

- TOC elevations are relative to msl, per the City of Oakland Benchmark #3880, (Elevation = 20.37 feet, msl).
- GWE corrected for the presence of free product; correction factor: [(TOC DTW) + (Product Thickness x 0.77)].
- Elevations were based on the top of the well covers and were surveyed relative to msl, per the City of Oakland Benchmark #3880, (Elevation = 20.37 feet).
- Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- 2 Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- 4 Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- 5 Total Oil and Grease (TOG) was ND.
- 6 The well was obstructed with debris at 0.55 feet. A water sample was collected but was not analyzed as it was considered not representative of groundwater in this well.
- Laboratory report indicates unidentified hydrocarbons C9-C24
- Sample bottle broken at laboratory.
- 9 Detection limit raised. Refer to analytical reports.
- 10 Laboratory report indicates unidentified hydrocarbons >C14 and <C12.
- 11 Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
- Laboratory report indicates unidentified hydrocarbons >C14.
- Laboratory report indicates non diesel mix >C14.
- Laboratory report indicates gasoline and unidentified hydrocarbons C6-C12.
- Laboratory report indicates non diesel mix C9-C27.
- 16 Laboratory report indicates unidentified hydrocarbons <C7.
- Laboratory report indicates unidentified hydrocarbons >C10.
- Laboratory report indicates unidentified hydrocarbons C6-C12.

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #5043 449 Hegenberger Road Oakland, California

EXPLANATIONS: (cont)

- 19 Laboratory report indicates unidentified hydrocarbons >C9.
- Laboratory report indicates discrete peaks and unidentified hydrocarbons >C20.
- ²¹ Laboratory report indicates discrete peaks and unidentified hydrocarbons >C16.
- Laboratory report indicates unidentified hydrocarbons <C14 and >C16.
- ²³ Laboratory report indicates gasoline C6-C12.
- ²⁴ Laboratory report indicates unidentified hydrocarbons >C16.
- 25 Laboratory report indicates discrete peaks.
- ²⁶ MTBE by EPA Method 8260.
- ²⁷ Laboratory report indicates weathered gasoline C6-C12.
- Laboratory report indicates unidentified hydrocarbons <C16</p>
- ²⁹ Laboratory report indicates unidentified hydrocarbons C9-C40.
- MTBE by EPA Method 8260 was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

Table 2

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #5043 449 Hegenberger Road Oakland, California

WELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPE (ppb)	ETBE (ppb)	TAME (ppb)	1,2-DCA (ppb)	EDB (ppb)
MW-3	04/13/00	ND	ND	150	ND	ND	ND	ND	ND
MW-6	07/14/00 10/26/00 01/03/01 04/04/01	 ND ¹	 ND¹	ND ¹ 43 ² ND ¹ 47.8	 ND ¹	 ND ¹	 ND ¹	 ND¹	 ND ¹

EXPLANATIONS:

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

1,2-DCA = 1,2-Dichloroethane

EDB = Ethylene dibromide/1,2-Dibromoethane

(ppb) = Parts per billion

ND = Not Detected

-- = Not Analyzed

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Detection limit raised. Refer to analytical reports.

Laboratory report indicates sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

Table 3 Product Thickness/Removal Data

WDLLES	DATE	DTW	Product Thickness	Amount Bailed (Product + Water)
WELL ID	DAIL	(ft.)	(ft.)	(gallons)
	<u></u>	U*/	V**/	2000 p. 100 p
MW-6	07/26/96	6.40	3.33	2.10
	10/28/96	4.10	0.21	0.14
	11/13/96	4.02	0.25	0.09
	11/25/96	4.01	0.75	0.47
	12/04/96	3.65	0.50	0.43
	12/19/96	4.80	2.20	1.02
	01/08/97	4.84	1.75	0.59
	01/14/97	4.51	1.15	0.66
	01/27/97	4.00	1.75	0.78
	01/29/97	3.24	0.31	0.25
	02/11/97	4.65	1.20	0.62
	02/24/97	4.81	1.10	0.50
	03/10/97	4.60	0.95	0.47
	03/17/97	4.50	0.89	0.35
	03/31/97	4.65	1.00	0.50
	04/15/97	4.90	1.03	0.51
	04/28/97	4.78	0.03	0.20
	05/15/97	4.60	0.25	0.20
	05/27/97	4.50	0.25	0.00
	06/09/97	4.60	0.20	0.23
	06/24/97	4.50	0.25	0.25
	07/09/97	4.80	0.60	0.25
	07/15/97	4.63	0.42	0.20
	07/21/97	4.75	0.25	0.27
	08/06/97	4.50	0.10	0.16
	08/20/97	4.55	0.10	0.20
	09/02/97	4.75	0.05	0.12 0.12
	10/09/97	4.84	0.04	1.50
	01/14/981	3.90	0.94	0.32
	02/12/98 ¹	3.35	0.64	2.00
	03/03/981	4.51	0.02	0.50
	04/01/98 ¹	3.67	1.60	0.08
	05/26/98 ¹	4.11	0.50	0.08
	06/15/98 ¹	5.03	0.30	0.10
	07/15/981	4.56	0.05	0.10
	08/21/981	4.77	0.02 0.03	0.027
	09/30/98 ¹	5.08		0.98
	10/16/98 ¹	4.32	2.40	0.98
	11/06/98 ¹	3.98	0.17	0.10
	11/25/98 ¹	3.92	0.10	0.12
	12/28/98 ¹ 01/25/99 ¹	3.90	0.20 0.60	0.27
		4.18		0.078 product/3.0 water
	02/22/99 ¹	4.07	0.22	0.039 product/5.0 water
	03/22/99 ¹	4.32	0.15	0.059 produces.to water

Table 3 Product Thickness/Removal Data

Tosco (Unocal) Service Station #5043 449 Hegenberger Road Oakland, California

WELL ID	DATE	DTW	Product Thickness	Amount Bailed (Product + Water) (gallons)
		(ft.)	(ft.)	(gauons)
MW-6	04/15/99 ¹	4.23	0.95	1.0 product
(cont)	05/28/99 ¹	4.38	0.39	0.141 product/1.0 water
•	06/29/99 ¹	4.12	0.02	0.054 product/8.0 water
	07/14/99 ¹	4.20	0.03	0.039 product/2.0 water
	08/23/99 ¹	4.51	0.24	0.094 product/1.0 water
	09/30/991	4.17	0.17	0.141 product/1.0 water
	10/21/99 ¹	4.27	0.12	0.070 product/1.0 water
	11/29/99 ²	4.18	<0.01	0.0078 product/1.0 water
	12/20/99 ²	4.26	0.01	0.0156 product/1.0 water
	01/20/00 ²	4.31	<0.01	0.00
	02/26/00	3.98	0.00	0.00
	03/31/00	4.14	0.00	0.00
	04/13/00	4.04	0.00	0.00
	05/26/00	4.41	0.00	0.00
	06/17/00	4.35	0.00	0.00
	07/14/00	4.47	< 0.01	<1 ounce
	08/24/00	3.71	0.00	0.00
	09/27/00	4.33	0.00	0.00
	10/26/00	4.32	0.00	0.00
	01/03/01	4.52	0.00	0.00
	04/04/01	4.29	0.00	0.00

EXPLANATIONS:

Product Thickness/Removal Data prior to January 14, 1998, were compiled from reports prepared by MPDS Services, Inc.

DTW = Depth to Water

(ft.) = Feet

Skimmer present in well.

No skimmer found in well.

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 an 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.

Client/ Facility # <u>50</u>	43		J	ob#: _	180065		
		ger Rd	<u>. </u>	ate: .	4-4-0		
City: <u> </u>	kland, CA	·	s	ampler: _	Joe_		
Well ID	Intro						
Well Diameter	2 _{in}			-in.			(gal.)
Total Depth	13.92	Γ			-		= 0.66
Depth to Water	<u>5.98</u>	Fac	tor (VF)	6*:	= 1.50	12" = 5.80	
	9.94	x vf <u>0.17</u>	= <u>1.69</u> x 3	(case volume	e) = Estimated Pu	rge Volume: 🚅	ioal)
Purge Equipment:	Bailer Stack Suction Grundfos	er		ment:	Bailer Pressure Baile Grab Sample		· · · · · · · · · · · · · · · · · · ·
Sampling Time: Purging Flow Ra Did well de-wate	te:		Sediment De If yes; Tim	escription: e:	Volum	ne:	(gal.)
Time		يتمير	hos/cm ×	F	-	(mV)	(bbw)
7:50							
7:53 -		<u> </u>	74	64.6			
SAMPLE ID	(#) - CONTAINER				N ABORATORY	ANAL	YSES
		Y	HCL		Seq.		EX, MTBE
	1 Amb	4			!!	TPHP	
-							
	<u>, l ,</u>				·		
COMMENTS:	······································						
						···-	

lient/						
acility # 5043			_ Job#:	1800	65	
ddress: 449 H	egenberger	Rd.	Date:	4-4-	01	
ity: <u>Oakla</u>	Ы, СВ.		. Sampl	ler: <u>To c</u>	<u>. </u>	
Well ID	uw-6	Well Co	ndition:	0.K		
Vell Diameter	2 in	Hydroca		-	t Bailed	(gal)
	2.71 #	Volume Factor (2" = 0.3	· · · · · · · · · · · · · · · · · · ·		' = 0.66
Depth to Water	1.21 #					
	8.42 x vi	<u>0.17</u>	1.4.3 X 3 (case v	volume) = Estimate	id Purge Volume:	4 Joses
Purge Dispo Equipment: Bailer Stack	¢	•	Sampling Equipment:	Disposable Bailer Pressure E		,
Grun				Grab Sam Other:		
Starting Time:	8:55		eather Condition	•	1000	
Sampling Time:	9:304		ater Color:		Odor: y	<u>eş</u>
Purging Flow Rate:	@\S.gpm			tion:		(gal.)
Did weil de-water?			•		olume:	; tuatr
Time Volume (gal.)	pH	µmhos/		(mg/		Alkalinity (ppm)
9:06 1.5	680		0 64	1.4		-
9) 10 3	- 6-87	0.75	64	4.5		· ——
9:13 4.5	<u> </u>			<u></u>		
						
		-				
		LABORAT	ORY INFORMA	TION	•	
	CONTAINER		RESERV, TYPE	LABORATORY		YSES
SAMPLE ID (#) -		Y	HCL	Seq		TEX, MTBE
	SYOK.				377 \ 20	
ww-6 3	210A	il .	"	li		L DCA, EDB 44
ww-6 3		1/		11	TPHI	

acility #_ 504	13		_ Job#:		80065		
	1 Hegenbera	or Rd.	_ Date:		- 4-0	<u> </u>	
	kland, CA.	1		ler:	Jo e		
Well ID	mw-01	Well Co	ndition:	0.K	· <u>·····</u>	· · · · · · · · · · · · · · · · · · ·	· ·
Well Diameter	2 _{in}	Hydroca Thickne			Amount Ba		(nal.)
Total Depth	11:90 #	Volume			3" = 0.38		4" = 0.66
Depth to Water	1.27	Factor (-	6" = 1.5	0	12* = 5.80	
	<u>)0.63</u> x	VF 0-17 =	/ ₁₈ / x 3 (case :	volume) = I	Estimated Pu	urge Volume:	Si Sigal)
Purge	Disposable Bailer Bailer	•	Sampling Equipment:	Dist	osable Ba	niler	· ·
Equipment:	Stack	•	Edopinonia	Bail	e r		·
	Suction Grundfos	. .			ssure Baile b Sample		
	Other:			Other:		_	
Starting Time:	7:0		eather Condition		loudy		
Starting Time: Sampling Time: Purging Flow Rate Did well de-water	7:0 7:30 7:30	pm. Se	eather Conditionater Color:	ns: <u>c</u>	loudy	Odor:S	
Sampling Time: Purging Flow Rate Did well de-water Time V	7:0 7:30 7:30	War War Se	eather Conditionater Color: diment Descrip yes; Time:	ns: Clear	loudy		
Sampling Time: Purging Flow Rate Did well de-water Time V	7:0 '7:30 e: 0 \(\sigma_g\)	Wann. Se Conduct pmhos/	eather Conditionater Color: diment Descrip yes; Time: tivity C Temper from K	ns: Clear	Volum	ne:	(gal.) ; Alkalinity
Sampling Time: Purging Flow Rate Did well de-water Time V	7:0 7:30 7:30 77 7 70iume pH (gal.) 1:5 7:39 7:45	Conduct umhos	eather Conditionater Color: diment Descrip yes; Time: civity C Tempore from X	erature	Volum	ne:	(gal.) ; Alkalinity
Sampling Time: Purging Flow Rate Did well de-water Time V	7:6 7:30 7:30 77 70 100 1.5 7.39	Conduct umhos	eather Conditionater Color: diment Descrip yes; Time: tivity C Temper from K	erature	Volum	ne:	(gal.) ; Alkalinity
Sampling Time: Purging Flow Rate Did well de-water Time V	7:0 7:30 7:30 77 7 70iume pH (gal.) 1:5 7:39 7:45	Conduct umhos	eather Conditionater Color: diment Descrip yes; Time: civity C Tempore from X	erature	Volum	ne:	(gal.) ; Alkalinity
Sampling Time: Purging Flow Rate Did well de-water Time V	7:0 7:30 7:30 77 7 70iume pH (gal.) 1:5 7:39 7:45	Conduct pmhos/	eather Conditionater Color: Idiment Descrip yes; Time: Invity Tempore Con X G G G G FORY INFORMA	rion:	Volum D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-water Time V 7:16 7:17 7:10 SAMPLE ID	7:6 7:30 7:30 7:30 7:30 7:37 7:45 7:45 7:46	Conduct pmhos/ Se Conduct pmhos/ S.1 S.2 S.2 LABORAT REFRIG. F	eather Conditionater Color: Idiment Descrip yes; Time: Sivity Conditionate Conditionat	rion:	Volum D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-water Time V	7:0 7:30 7:30 7:30 7:45 7:45 7:45 3.9 7:45 3.9 7:45	Conduct Conduct Conduct Ann Conduct Ann Conduct Ann C	eather Conditionater Color: Idiment Descrip yes; Time: Invity Tempore Con X G G G G FORY INFORMA	rion:	Volum D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-water Time V 7:16 7:17 7:20 SAMPLE ID	7:6 7:30 7:30 7:30 7:30 7:37 7:45 7:45 7:46	Conduct pmhos/ Se Conduct pmhos/ S.1 S.2 S.2 LABORAT REFRIG. F	eather Conditionater Color: Idiment Descrip yes; Time: Sivity Conditionate Conditionat	crature STON LABOR Sec	Volum D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-water Time V 7:16 7:17 7:20 SAMPLE ID	7:0 7:30 7:30 7:30 7:45 7:45 7:45 3.9 7:45 3.9 7:45	Conduct Conduct Conduct Ann Conduct Ann Conduct Ann C	eather Conditionater Color: Idiment Descrip yes; Time: Sivity Conditionate Conditionat	crature STON LABOR Sec	Volum D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
Sampling Time: Purging Flow Rate Did well de-water Time V 7:16 7:17 7:20 SAMPLE ID	7:0 7:30 7:30 7:30 7:45 7:45 7:45 3.9 7:45 3.9 7:45	Conduct Conduct Conduct Ann Conduct Ann Conduct Ann C	eather Conditionater Color: Idiment Descrip yes; Time: Sivity Conditionate Conditionat	crature STON LABOR Sec	Volum D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)

Client/ Facility # <u>50</u>	43		Job#:	180065		_
Address: 44	9 Hegenberg	er Rd	Date:	<u>4-4-0</u>	1	-
	kland, CA.			ler: <u>50 e</u>		_
Well ID	ww-10	Well	Condition:	0.K	<u>.</u>	-
Well Diameter	2 _{in}	-	rocarbon	Amount Ba		43
Total Depth	12.81 #		kness:			Ī.
Depth to Water	3.88 +		tor (VF)	6" = 1.50	12" = 5.80	
Program	<u>8.93</u> x Disposable Bailer	vf <u>0·17</u>	= 1.52 x 3 (case x	volume) = Estimated Po	urge Volume:	П
Purge Equipment:	Bailer		Equipment:	Disposable Ba	iler /	
	Stack Suction	•,		Pressure Baile	er	
	Grundfos Other:			Grab Sample Other:	_	
	Valet,					_
Starting Time: Sampling Time:	8:1 8:4 e:	OA.m	Weather Condition Water Color: Sediment Descrip	clear	Odor: 40.5	
Did well de-wate		_		Volun	ne:	<u> </u>
	Volume pH (gal.) 1. \(\frac{7}{10} \) \(\frac{10}{116} \) \(\frac{7}{12} \)	<u>4</u>	ductivity 1 Tempe 163 64.	D.O. (mg/L)	ORP Alkalini (mV) (ppm	
			RATORY INFORMA	TION LABORATORY	ANALYSES	
SAMPLE ID	3 YO A	REFRIG.	HCL_	Seq.	TPHG, BTEX, MTB	E
44.00 = 10	1 Ams.	C.		11	TPHP	
				·		_
COLUMN 472 1770			. •		· 	
COMMENTS: _		1				
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			Faci	illy Addres	<u>. 449</u>	CAL SS# Hegenber 18006	гдет.	Road,	_Oak	land,	CA.	- -	aboralory		(Nome) (Phone) Se (925-	277-	2384		
•		Cons	uttant P	rojeot Nun	nber			D To	- Y			Ι.									
TOSC		Cons	ukanl X	am o <u>Ge</u> 4747 c	rerer.	-Ryan Inc Court, S	ortro	.T. D:	ıbl.tr	CA	9456		oborotor) iamplee (Collected	by (No	m•)	JOE	<u> </u>	EMIL	AN.	
Years Markeling 2008 Gase Garyte San Farms, Calls	Company PL St. 400	1 1	ddress_	0/4/_0	TELTY.	eanna L.	Hard	ing				_ 0	olleotion	Date	4-	4-0	1				
Sua Flarena, Calle	200 P4343	"	roject u	oproer (v e)	hone151(0-551-755	5_(Fox	Number	<u>)510-</u>	·551-	7888		ignoture .			<u>) </u>					
		 	_	 				Τ.				•	Analyse	a To Be	Perton	med					DO NOT BILL
104028 1	Sample Number	of Containers	X C = Charboo	a Grab Composite Discrete		Sample Preservation	or No)	TPH Gart BTEX WANTEE	ē	Gross	urgeable Halocarbons (8010)	ole Aromotice	ie Organice	Extractable Organics (8270)	12. (A)	1,12 RINGTO 260					TB-LB ANALYS
Sample Number	Lab Samp	Number	Kotrk S = Soli W = Water	000 25 25	th.	Sample P	load (Yos or No)	TPH Gas +	TPH Diosed (8015)	Oil and Gradee (5520)	Purpeable (8010)	Purgeable (8020)	Purgeoble (8240)	(8270)	Metals Cd.Cr.Pb.Zn.Ni (ICVP or AA)	(8) oxy		·			Remarks
TB-LB	01	vot	W	G	_	HCL	Υ	V										<u> -</u>			
MW-3	07	3 VOA I AML	,	,	8:05	/	/	/	/				ļ <u>.</u>	ļ	ļ <u>.</u>	 	<u> </u>		 		
MW-6	0%	5004	,	 	9:30	/	1	7	1					<u></u>	<u> </u>	<u> </u>		<u> </u>	-	<u> </u>	
	ÓY	j Aus	1	+	7:30	/	1	1	1					<u> </u>				<u> </u>	ļ		
MW-9	10/	3404	 	+,-	8:40	,	1	1	1									<u> </u>			
MW-10	05	1 A MG	1		 			<u> </u>							<u> .</u>						
	<u> </u>		-	+	 	 	1	-	1	-						<u> </u>	<u> </u>	ļ			
(A)	 		 	╁	 		1		1		1						<u> </u>				
8, 3, 4, 3 7, 3	 			-			╁	-	 	1	-							\ 	<u> </u>	<u></u>	
	<u> </u>			<u> </u>	 	 	┼		-	1	-	<u> </u>									
		-	 	_		 	┼		+	-	1				<u> </u>	1	1				
							-	_		-	-	- 		-	-	1	1	1	1		
						<u> </u>	-		<u> </u>	-	-	-	- -	-	-	 	-	1	- - 		
			<u> </u>					_	 			 		 	-	-}	 		- 	-	
	1					·		<u> </u>	<u>ل</u>	ــــــــــــــــــــــــــــــــــــــ	<u>, </u>	<u> </u>	ــِـــــــــــــــــــــــــــــــــــ	<u></u>		<u> </u>	<u>ــــــــــــــــــــــــــــــــــــ</u>	1	Tuen Ac	ound Ti	me (Circle Chalce)
profes B	(Signolum)		rganizatlor G—R In		Date/Time 3: 4-4-01	5.m	teoelved	By (5101) Zu		Organiza		4	4/01	1520		1914 A	24	1 Hrs.
منابعة	Standure	<u> </u>		rganizatier		Date/Time	B	lecelyed	By (Šlg:	naturø)			Organiza	tion	Do	le/Time	-			40	, fu v ,

Realeved For Laboratory By (Signature)

Date/Time

Organization

Organization

whed By (Signature)

had By (Signature)

8 Days 10 Doye

As Contracted

Date/Time



April 19, 2001

Deanna Harding Gettler-Ryan/Geostrategies(1) 6747 Sierra Court, Suite J Dublin, CA 94568 RE: Tosco(1) / L104028

Enclosed are the results of analyses for samples received by the laboratory on 04/04/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Latonya Pelt Project Manager

CA ELAP Certificate Number 2360

onya K. Pult

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5043 Project Manager: Deanna Harding Reported: 04/19/01 09:47

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	L104028-01	Water	04/04/01 00:00	04/04/01 17:01
MW-3	L104028-02	Water	04/04/01 08:05	04/04/01 17:01
MW-6	L104028-03	Water	04/04/01 09:30	04/04/01 17:01
MW-9	L104028-04	Water	04/04/01 07:30	04/04/01 17:01
MW-10	L104028-05	Water	04/04/01 08:40	04/04/01 17:01

Project: Tosco(1)

6747 Sierra Court, Suite J

Project Number: Unocal SS#5043

Dublin CA, 94568

Project Manager: Deanna Harding

Reported: 04/19/01 09:47

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (L104028-01) Water Sai	mpled: 04/04/01 00:00	Received: (04/04/01	17:01					
Purgeable Hydrocarbons as Gasolin	ie ND	50.0	ug/l	1	1040049	04/13/01	04/13/01	DHS LUFT	
Benzene	ND	0.500			*	"	11	m	
Toluene	ND	0.500		71	**	Ħ	21	H .	
Ethylbenzene	ND	0.500	11	11	"	"		Ħ	
Xylenes (total)	ND	0.500	н	11	п	**	*	-	
Methyl tert-butyl ether	ND	5.00	#	77	Ħ				
Surrogate: a,a,a-Trifluorotoluene	<u> </u>	107 %	70-	-130	11	#	"	*	
MW-3 (L104028-02) Water San	npled: 04/04/01 08:05	Received: 0	4/04/01	17:01					
Purgeable Hydrocarbons as Gaso	line 417	50.0	ug/l	1	1040049	04/13/01	04/13/01	DHS LUFT	P-02
Benzene	1.24	0.500	#1	**	н	n	11	Ħ	
Toluene	ND	0.500	11	Ħ	11	n	"	n	
Ethylbenzene	ND	0.500	H	tt	Ħ	m	11	H	
Xylenes (total)	0.802	0.500	n	**	Ħ		R	н	
Methyl tert-butyl ether	237	5.00	n	"	"			п	
Surrogate: a,a,a-Trifluorotoluene		107 %	70	-130	n	"		ri	
MW-6 (L104028-03) Water San	mpled: 04/04/01 09:30	Received: (04/04/01	17:01					
Purgeable Hydrocarbons as Gaso	line 69800	10000	ug/l	200	1040049	04/13/01	04/14/01	DHS LUFT	P-01
Benzene	2060	100	Ħ	n	11	H	H	#	
Toluene	2840	100		n	н	**	н	,,	
Ethylbenzene	3650	100			H	**	IP	Ħ	
Xylenes (total)	10900	100	77	*		*1	•	#	
Methyl tert-butyl ether	ND	1000	**		11	# #	11	,	
Surrogate: a,a,a-Trifluorotoluene		107 %	70	-130	"	n	"	n	

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5043

Reported: 04/19/01 09:47

Project Manager: Deanna Harding

Fotal Purgeable Hydrogarbons (C6-C12), RTEX and

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

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (L104028-04) Water Sampled: 0	4/04/01 07:30	Received: 0	4/04/01	17:01					
Purgeable Hydrocarbons as Gasoline	296	50.0	ug/l	1	1040052	04/14/01	04/14/01	DHS LUFT	P-02
Benzene	0.738	0.500	11	**	"	Ħ	-	11	
Toluene	ND	0.500		9	п	11	•		
Ethylbenzene	ND	0.500	*	11	n	n	#	n	
Xylenes (total)	0.907	0.500	**	11	n	n	Ħ	H	
Methyl tert-butyl ether	135	5.00	н	n	**	H		**	
Surrogate: a,a,a-Trifluorotoluene		97.4 %	70-	-130	"	Ħ	n	H	
MW-10 (L104028-05) Water Sampled:	04/04/01 08:46	Received:	04/04/01	17:01					
Purgeable Hydrocarbons as Gasoline	129	50.0	ug/l	1	1040052	04/14/01	04/14/01	DHS LUFT	P-01
Benzene	28.1	0.500	**	11	*	n	**	H	
Toluene	1.67	0.500	**	"		n	**	H	
Ethylbenzene	4.97	0.500	44	*	н	**	Ħ	■ .	
Xylenes (total)	10.1	0.500	Ħ		**	-	н	H	
Methyl tert-butyl ether	ND	5.00	n		н		н	11	
Surrogate: a,a,a-Trifluorotoluene	<u></u>	99.6 %	70	-130	*	*	n	"	

Project: Tosco(1)

6747 Sierra Court, Suite J

Project Number: Unocal SS#5043

Dublin CA, 94568

Project Manager: Deanna Harding

Reported: 04/19/01 09:47

Volatile Organic 8 Oxyganated Compounds by EPA Method 8260B

Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6 (L104028-03) Water	Sampled: 04/04/01 09:30	Received: 0	4/04/01 1	7:01					O-04
Ethanol	ND	20000	ug/l	20	1040017	04/05/01	04/05/01	EPA 8260B	
1,2-Dibromoethane	ND	40.0	**	"	Ħ	**	**	n	
1,2-Dichloroethane	ND	40.0		**	41	•	H	#	
Di-isopropyl ether	ND	40.0	11	Ħ	n	Ħ	н	**	
Ethyl tert-butyl ether	ND	40.0	#	•		Ħ	•	Ħ	
Methyl tert-butyl ether	47.8	40.0		**	*		**	n	
Tert-amyl methyl ether	ND	40.0	ir	**	**	Ħ	**	H	
Tert-butyl alcohol	ND	2000	n	#	n		***		
Surrogate: 1,2-Dichloroethan	e-d4	92.2 %	76-	114	"	"	"	"	
Surrogate: Toluene-d8		106 %	88-	110	"	"		*	

6747 Sierra Court, Suite J **Dublin CA, 94568**

Diesel Range Hydrocarbons

Surrogate: n-Pentacosane

Project: Tosco(1)

Project Number: Unocal SS#5043 Project Manager: Deanna Harding

Reported: 04/19/01 09:47

Diesel Hydrocarbons (C9-C24) by DHS LUFT Sequoia Analytical - Walnut Creek

Reporting Method Notes Analyzed Batch Prepared Limit Units Dilution Result Analyte Sampled: 04/04/01 08:05 Received: 04/04/01 17:01 MW-3 (L104028-02) Water **EPA 8015M** D-14 04/14/01 04/13/01 50 ug/l 1D13005 Diesel Range Hydrocarbons 360 50-150 Surrogate: n-Pentacosane 75.1 % Sampled: 04/04/01 09:30 Received: 04/04/01 17:01 MW-6 (L104028-03) Water D-11 EPA 8015M 04/16/01 1D13005 04/13/01 18000 500 ug/l Diesel Range Hydrocarbons 50-150 70.0 % Surrogate: n-Pentacosane Sampled: 04/04/01 07:30 Received: 04/04/01 17:01 MW-9 (L104028-04) Water EPA 8015M D-14 04/13/01 04/14/01 1D13005 50 Diesel Range Hydrocarbons 240 83.2 % 50-150 Surrogate: n-Pentacosane Sampled: 04/04/01 08:40 Received: 04/04/01 17:01 MW-10 (L104028-05) Water D-12 **EPA 8015M** 04/14/01 1D13005 04/13/01 75 50

50-150

78.1%

Project: Tosco(1)

6747 Sierra Court, Suite J Dublin CA, 94568 Project Number: Unocal SS#5043 Project Manager: Deanna Harding Reported: 04/19/01 09:47

RPD

%REC

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

Reporting

Spike

Source

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1040049 - EPA 5030B (P/T)						-				
Blank (1040049-BLK1)				Prepared a	& Analyz	ed: 04/13/0	01		·	
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	Ħ							
Foluene	ND	0.500	Ħ							
Ethylbenzene	ND	0.500	H							
Xylenes (total)	ND	0.500	#				•			
Methyl tert-butyl ether	ND	5.00	•							
Surrogate: a,a,a-Trifluorotoluene	10.3		tt	10.0		103	70-130			
LCS (1040049-BS1)				Prepared	& Analyz	ed: 04/13/	01			
Benzene	10.0	0.500	ug/l	10.0		100	70-130			
l'oluene	9.91	0.500	Ħ	10.0		99.1	70-130			
Ethylbenzene	10.1	0.500	n	10.0		101	70-130			
Xylenes (total)	30.4	0.500	н .	30.0		101	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.4		"	10.0		104	70-130			
LCS (1040049-BS2)				Prepared	& Analyz	ed: 04/13/	01			
Purgeable Hydrocarbons as Gasoline	226	50.0	ug/l	250		90.4	70-130			
Surrogate: a,a,a-Trifluorotoluene	11.4		**	10.0		114	70-130			
Matrix Spike (1040049-MS1)	Sou	rce: L10403	8-04	Prepared	& Analyz	ed: 04/13/	01			
Purgeable Hydrocarbons as Gasoline	255	50.0	ug/l	250	ND	102	60-140			
Surrogate: a,a,a-Trifluorotoluene	11.4		11	10.0		114	70-130			·
Matrix Spike Dup (1040049-MSD1)	Sou	rce: L10403	8-04	Prepared	& Analyz	ed: 04/13/	01		_	
Purgeable Hydrocarbons as Gasoline	240	50.0	ug/l	250	ND	96.0	60-140	6.06	25	
Surrogate: a,a,a-Trifluorotoluene	11.3		,,	10.0		113	70-130			

6747 Sierra Court, Suite J Dublin CA, 94568 Project: Tosco(1)

Project Number: Unocal SS#5043 Project Manager: Deanna Harding Reported: 04/19/01 09:47

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1040052 - EPA 5030B (P/T)										
Blank (1040052-BLK1)				Prepared	& Analyz	ed: 04/14/0	01			
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	H							
Toluene	ND	0.500	**							
Ethylbenzene	ND	0.500	**							
Xylenes (total)	ND	0.500	"							
Methyl tert-butyl ether	ND	5.00	"							
Surrogate: a,a,a-Trifluorotoluene	9.97		İt	10.0		99.7	70-130			
Blank (1040052-BLK2)				Prepared	& Analyz	ed: 04/16/	01			
Purgeable Hydrocarbons as Gasoline	ND	50.0	ug/l							
Benzene	ND	0.500	н							
Toluene	ND	0.500								
Ethylbenzene	ND	0.500	*							
Xylenes (total)	ND	0.500	Ħ							
Methyl tert-butyl ether	ND	5.00	н							
Surrogate: a,a,a-Trifluorotoluene	11.7		"	10.0		117	70-130	···		
LCS (1040052-BS1)				Prepared	& Analyz	zed: 04/14/	/01			
Benzene	10.9	0.500	ug/l	10.0		109	70-130			
Toluene	10.7	0.500	**	10.0		107	70-130			
Ethylbenzene	11.3	0.500	н	10.0		113	70-130			
Xylenes (total)	34.0	0.500	н	30.0		113	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.5		pp.	10.0		105	70-130			
LCS (1040052-BS2)				Prepared	l & Analy	zed: 04/14				
Purgeable Hydrocarbons as Gasoline	266	50.0	ug/l	250		106	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.8			10.0		108	70-130			

Project: Tosco(1)

6747 Sierra Court, Suite J

Dublin CA, 94568

Project Number: Unocal SS#5043

Project Manager. Deanna Harding

Reported: 04/19/01 09:47

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1040052 - EPA 5030В (Р/Г)										
LCS (1040052-BS3)				Prepared	& Analyze	:d: 04/16/	01			
Benzene	10.2	0.500	ug/l	10.0		102	70-130			
Toluene	10.2	0.500	#	10.0		102	70-130			
Ethylbenzene	10.4	0.500	**	10.0		104	70-130			
Xylenes (total)	31.1	0.500	Ħ	30.0		104	70-130			
Surrogate: a,a,a-Trifluorotoluene	12.6		,,	10.0		126	70-130			
LCS (1040052-BS4)				Prepared	& Analyz	ed: 04/16/	/01			
Purgeable Hydrocarbons as Gasoline	241	50.0	ug/l	250		96.4	70-130			
Surrogate: a,a,a-Trifluorotoluene	12.5		n	10.0		125	70-130		-	· · · · · ·
Matrix Spike (1040052-MS1)	So	urce: L10403	7-02	Prepared	& Analyz	ed: 04/1 <u>4</u> /	/01			
Benzene	10.6	0.500	ug/l	10.0	ND	106	60-140			
Toluene	10.5	0.500		10.0	ND	105	60-140			
Ethylbenzene	10.7	0.500	"	10.0	ND	107	60-140			
Xylenes (total)	32.2	0.500	11	30.0	ND	107	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.95		"	10.0		99.5	70-130			
Matrix Spike Dup (1040052-MSD1)	So	urce: L10403	37-02	Prepared	& Analyz	ed: 04/14	/01			
Benzene	10.9	0.500	ug/l	10.0	ND .	109	60-140	2.79	25	
Toluene	10.6	0.500	•	10.0	ND	106	60-140	0.948	25	
Ethylbenzene	10.8	0.500		10.0	ND	108	60-140	0.930	25	
Xylenes (total)	32.4	0.500	"	30.0	ND	108	60-140	0.619	25	
Surrogate: a,a,a-Trifluorotoluene	9.94		,,	10.0		99.4	70-130			

Project: Tosco(1)

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Project Number: Unocal SS#5043 Project Manager: Deanna Harding Reported: 04/19/01 09:47

Volatile Organic 8 Oxyganated Compounds by EPA Method 8260B - Quality Control Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	100011								•	
Batch 1040017 - EPA 5030B [P/T]										
Blank (1040017-BLK1)				Prepared	& Analyze	ed: 04/05/0)1			
Ethanol	ND	1000	ug/l							
1,2-Dibromoethane	ND	2.00	"				·			
1,2-Dichloroethane	ND	2.00	**							
Di-isopropyl ether	ND	2.00	**							
Ethyl tert-butyl ether	ND	2.00	п							
Methyl tert-butyl ether	ND	2.00	11							
Tert-amyl methyl ether	ND	2.00	n							
Tert-butyl alcohol	ND	100	н							
Surrogate: 1,2-Dichloroethane-d4	48.0		"	50.0		96.0	76-114			
Surrogate: Toluene-d8	52.7		n	50.0		105	88-110			
LCS (1040017-BS1)				Prepared	& Analyz	ed: 04/05/				
Methyl tert-butyl ether	44.5	2.00	ug/l	50.0	_	89.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	45.8		,,	50.0		91.6	76-114			
Surrogate: Toluene-d8	51.2		"	50.0		102	88-110			
Matrix Spike (1040017-MS1)	So	urce: L10402	25-05	Prepared	& Analyz	ed: 04/05/	01			
Methyl tert-butyl ether	80.0	2.00	ug/l	50.0	38.2	83.6	60-140			
Surrogate: 1,2-Dichloroethane-d4	47.0		п	50.0		94.0	76-114			
Surrogate: Toluene-d8	51.7		77	50.0		103	88-110			
				D	I O. A	-ad- 04/05	/O1			
Matrix Spike Dup (1040017-MSD1)		urce: L1040				zed: 04/05/ 82,2	60-140	0.879	25	
Methyl tert-butyl ether	79.3	2.00	ug/l	50.0	38.2					
Surrogate: 1,2-Dichloroethane-d4	47.6		"	50 .0		95.2	76-114			
Surrogate: Toluene-d8	51.1		#	50.0		102	88-110			

Project: Tosco(1)

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Dublin CA, 94568

Project Number: Unocal SS#5043 Project Manager: Deanna Harding Reported: 04/19/01 09:47

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 1D13005 - EPA 3510B										
Blank (1D13005-BLK1)	·			Prepared:	04/13/01	Analyzed	l: 04/14/01			
Diesel Range Hydrocarbons	ND	50	ug/l							
Surrogate: n-Pentacosane	27.7		"	33.3		83.2	50-150			
LCS (1D13005-BS1)				Prepared:	04/13/01	Analyzed	1: 04/14/01		·	
Diesel Range Hydrocarbons	337	50	ug/l	500		67.4	60-140			
Surrogate: n-Pentacosane	22.7		"	33.3	<u> </u>	68.2	50-150			
LCS Dup (1D13005-BSD1)				Prepared:	04/13/01	Analyzeo	1: 04/14/01			
Diesel Range Hydrocarbons	396	50	ug/l	500		79.2	60-140	16.1	50	
Surrogate: n-Pentacosane	33.3		77	33.3		100	50-150			

Gettler-Ryan/Geostrategies(1)	Project: Tosco(1)	
6747 Sierra Court, Suite J	Project Number: Unocal SS#5043	Reported:
Dublin CA, 94568	Project Manager: Deanna Harding	04/19/01 09:47

Notes and Definitions

D-11	Chromatogram Pattern: Unidentified Hydrocarbons < C16
D-12	Chromatogram Pattern: Unidentified Hydrocarbons > C16
D-14	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
O-04	This sample was diluted due to high non-target compounds.
P-01	Chromatogram Pattern: Gasoline C6-C12
P-02	Chromatogram Pattern: Weathered Gasoline C6-C12
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