TRANSMITTAL

AUG 0 7 2001

July 17, 2001 G-R #180075

TO:

Mr. David B. De Witt

Tosco Marketing Company

2000 Crow Canyon Place, Suite 400

San Ramon, California 94583

CC:

Mr. David Vossler

Gettler-Ryan Inc.

Petaluma, California

FROM:

Deanna L. Harding

Project Coordinator Gettler-Ryan Inc.

6747 Sierra Court, Suite J

Dublin, California 94568

RE:

Tosco (Unocal) SS #7376

4191 First Street

Pleasanton, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	July 9, 2001	Groundwater Monitoring and Sampling Report Second Quarter - Event of June 14, 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 August 2, 2001, this report will be distributed to the following:

cc: Mr. Scott Seary, Alameda County Department of Environmental Health, 1131 Harbor Bay Parkway, Alameda, CA 94502

Ms. Carol Mahoney, Zone 7 Water District, 5997 Parkside Drive, Pleasanton, CA 94588

Enclosure

trans/7376-dbd



July 9, 2001 G-R Job #180075

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

Second Quarter Event of June 14, 2001 RE:

Groundwater Monitoring & Sampling Report

Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, 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. Separate-phase hydrocarbons were present in one well (MW-5). Static water level data and groundwater elevations are summarized in Table 1. Product Thickness/Removal Data is summarized in Table 2. 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 3, and a Concentration Map is included as Figure 2. The chain of custody document and laboratory analytical reports are also attached.

Sincerely,

Project Coordinator

Hagop Kevork P.E. No. C55734

Figure 1:

Potentiometric Map

Figure 2:

Concentration Map

Table 1:

Groundwater Monitoring Data and Analytical Results

Table 2:

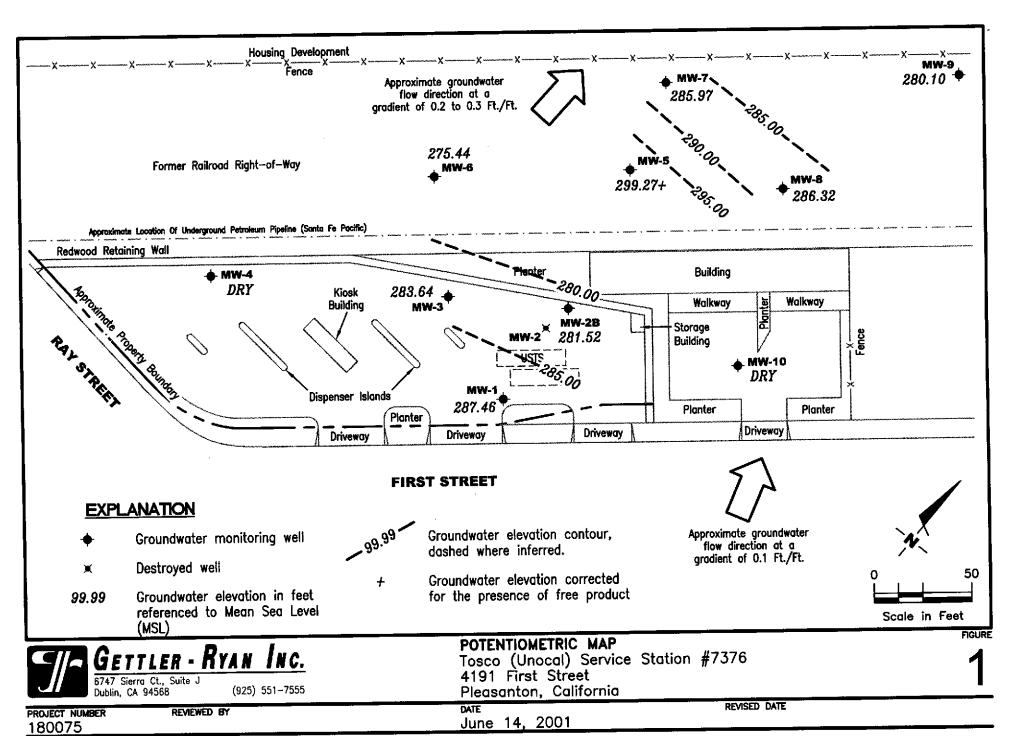
Product Thickness/Removal Data

Table 3: Attachments: Groundwater Analytical Results - Oxygenate Compounds Standard Operating Procedure - Groundwater Sampling

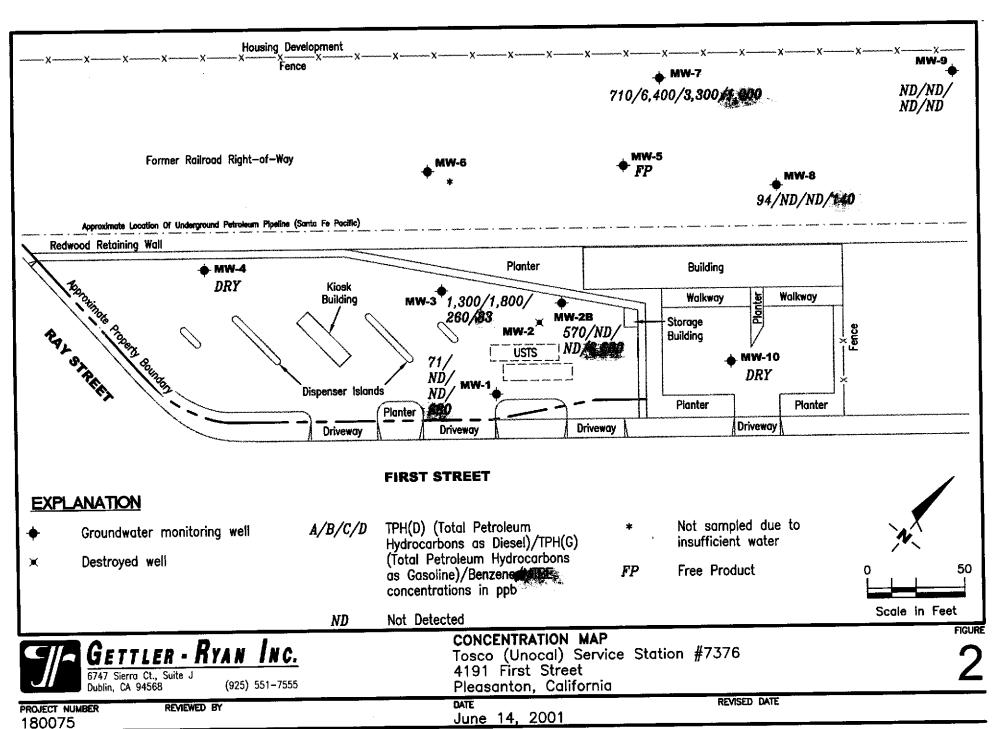
Field Data Sheets

7376.qml

Chain of Custody Document and Laboratory Analytical Reports



FILE NAME: P:\ENVIRO\TOSCO\7376\Q01-7376.DWG | Layout Tab: Pot2



FILE NAME: P:\ENVIRO\TOSCO\7376\Q01-7376.DWG | Layout Tab: Con2

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)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-1												
	12/08/871		65.0-95.0			$2,100^2$	50 ³	58	8.0	ND	10	
366.99	12/07/94	81.04		285.95	0.00		ND	ND	ND	ND	ND	
	03/01/95	80.09		286.90	0.00	120	ND	ND	1.1	ND	1.3	
	06/01/95	77.53		289.46	0.00	54 ⁵	130	1.0	2.9	0.79	4.5	
	09/06/95	79.00		287.99	0.00	690	ND	ND	ND	ND	ND	6
	12/12/95	77.55		289.44	0.00	1905	ND	ND	ND	ND	ND	
	03/01/96	75.09		291.90	0.00	56	ND	ND	ND	ND	ND	370
	06/15/96	75.07		291.92	0.00	ND	ND	ND	ND	ND	ND	270
	09/18/96	79.90		287.09	0.00	130 ⁵	ND	ND	ND	ND	ND	590
	12/21/96	78.96		288.03	0.00	ND	ND	ND.	ND	ND	ND	150
	03/07/97	71.49		295.50	0.00	ND	ND	ND	ND	ND	ND	220
	06/27/97	80.05		286.94	0.00	ND	ND	ND	ND	ND	ND	17
	09/29/97	80.04		286.95	0.00	ND	ND	ND	ND	ND	ND	24
	12/15/97	80.07		286.92	0.00	ND	ND	ND	ND	ND	ND	25
	03/16/98	71.00		295.99	0.00	ND	ND	ND	0.52	ND	0.71	190
366.98	06/26/98	79.29		287.69	0.00	ND	59 ¹³	0.90	ND	ND	ND	570
3.00.30	08/18/98	79.93		287.05	0.00							
	09/22/98	79.99		286.99	0.00	240 ²⁰	ND	ND	ND	ND	ND	170
	12/15/98	80.02		286.96	0.00	ND	ND	ND	ND	ND	ND	63
	12/23/98	80.02		286.96	0.00							
	03/15/99	78.95		288.03	0.00	67 ²⁴	ND^{11}	ND ¹¹	ND^{11}	NDII	ND^{11}	520
	03/23/99	78.69		288.29	0.00							
	06/07/99	79.82		287.16	0.00	ND	ND	ND	ND	ND	ND	310
	09/03/99	79.74		287.24	0.00	76 ¹⁹	ND	ND	ND	ND	ND	67/55.2 ²⁷
	12/06/99	79.74		287.24	0.00	ND	ND	ND	ND	ND	ND	120
	03/10/00	79.66		287.32	0.00	51 ¹⁹	ND	ND	ND	ND	ND	100
	06/08/00	79.57		287.41	0.00	68.2^{20}	ND	ND	ND	ND	ND	98.9

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #7376

4191 First Street
Pleasanton, California

					1 icasanton,							
WELL ID/	DATE	DTW	S.I.	GWE (msl)	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
TOC*		(ft.)	(ft.bgs)	(msı)	ys.)	(PPV)	(PP#)	NPP V 1	N. E. Co.	······································	······································	
MW-1	09/25/00	79.48	65.0-95.0	287.50	0.00	ND	ND	ND	ND	ND	ND	145
(cont)	12/19/00	79.64	05.0 75.0	287.34	0.00	ND	ND	ND	ND	ND	ND	330
(COIII)	03/05/01	80.03		286.95	0.00	505 ²⁰	ND	ND	ND	ND	ND	71 1
	06/14/01	79.52		287.46	0.00	71 ²⁰	ND	ND	ND	ND	ND	680
MW-2	12/08/87					620^{2}	1,800 ³	910	800	260	1,200	
	12/07/94	DAMAGED										
	DESTROYED											
MW-2B												
365.05	03/01/95	80.80	65.0-85.0	284.25	0.00	320	ND	ND	ND	ND	ND	
	06/01/95	75.69		289.36	0.00	280	350	19	5.8	ND	7.7	
	09/06/95	77.54		287.51	0.00	ND	ND	90	ND	ND	ND	6
	12/12/95	75.96		289.09	0.00	850 ⁴	1,200	630	ND	15	57	7
	03/01/96	73.27		291.78	0.00	870 ⁴	1,000	620	ND	ND	5.3	4,300
	06/15/96	73.21		291.84	0.00	420	910	350	ND	ND	ND	3,700
	09/18/96	81.08		283.97	0.00	600	1,200	95	ND	ND	ND	5,200
	12/21/96	77.35		287.70	0.00	470	3308	57	ND	ND	ND	2,900
	03/07/97	69.67		295.38	0.00	870 ⁴	190	28	0.64	ND	1.5	4,300
	06/27/97	82.40		282.65	0.00	680 ⁴	98	3.4	1.0	0.53	ND	3,100
	09/29/97	82.72		282.33	0.00	430	ND	ND	ND	ND	ND	3,000
	12/15/97	82.57		282.48	0.00	490	54 ⁹	ND	ND	ND	ND	4,100
	03/16/98	69.13		295.92	0.00	4,00010	NDIL	17	ND ¹¹	ND ¹¹	ND ¹¹	4,400
365.05	06/26/98	77.78		287.27	0.00	79014	ND	ND	ND	ND	ND	4,000
	08/18/98	83.99		281.06	0.00							
	09/22/98	83.89		281.16	0.00	930 ²⁰	ND ¹¹	ND^{11}	ND^{11}	ND ¹¹	21	4,600
	12/15/98	82.84		282.21	0.00	600	ND	ND	ND	ND	ND	5,100
	12/23/98	82.55		282.50	0.00							
	03/15/99	77.31		287.74	0.00	390 ²⁵	ND^{11}	ND^{11}	ND ¹¹	ND^{11}	ND11	4,300/4,800 ²⁷

Table 1
Groundwater Monitoring Data and Analytical Results

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WELL ID/	DATE	DTW	S.I.	GWE	Product Thickness	TPH-D	TPH-G	В	Т	E	x	МТВЕ
TOC*		(ft.)	(ft,bgs)	(mst)	(ft.)	(ppb)	(pph)	(ppb)	(ppb)	(ppb)	(ppb)	(ррь)
MW-2B	03/23/99	77.06	65.0-85.0	287.99	0.00	25	 	ND ^{†1}	ND ¹¹	ND ¹¹	ND ¹¹	5,100
(cont)	06/07/99	82.96		282.09	0.00	770 ²⁵	ND ¹¹		ND ¹¹	ND ¹¹	ND ^{II}	6,300/4,400 ²⁷
	09/03/99	84.16		280.89	0.00	870 ²⁰	ND ¹¹	ND ¹¹	ND ¹¹	ND ¹¹	ND ¹¹	4,400
	12/06/99	84.41		280.64	0.00	850 ³²	ND ^{II}	NDII	ND ¹¹	ND ¹¹	ND ¹¹	
	03/10/00	82.42		282.63	0.00	1,500 ²⁰	ND ¹¹	ND ¹¹		ND ¹¹	ND ¹	6,900
	06/08/00	82.73		282.32	0.00	³⁴	ND ¹¹	ND ¹¹	ND ¹¹			7,780
	09/25/00	84.24		280.81	0.00	$2,900^{20}$	52.9 ³⁰	8.83	6.58	0.932	5.60 ND ¹¹	12,200
	12/19/00	84.39		280.66	0.00	700 ¹⁹	ND ¹¹	ND ¹¹	ND ¹¹	ND ¹¹		
	03/05/01	84.61		280.44	0.00	36	ND	ND	ND	ND	ND	5,890
NP	06/14/01	83.53	·	281.52	0.00	570 ²⁰	ND	ND	ND	ND	ND	6,600
MW-3	12/08/87		76.5-96.5			$2,300^2$	24,000 ³	2,600	1,300	160	660	
3.67.01	12/08/87	85.54	70.3-90.5	281.47	0.00	-,	ND	ND	ND	ND	ND	
367.01	03/01/95	83.20		283.81	0.00	140 ⁴	ND	ND	1.1	ND	1.1	
	06/01/95	77.60		289.41	0.00	1405	62	7.8	0.90	ND	1.6	
	09/06/95	79.28		287.73	0.00	8805	4,100	380	490	130	710	⁶
	12/12/95	77.73		289.28	0.00	$3,100^4$	19,000	600	380	2,100	5,300	7
	03/01/96	75.18		291.83	0.00	1,500 ⁵	3,400	950	3.2	1,900	290	59
	05/01/96	75.13		291.88	0.00	400 ⁴	780	190	8.8	3.8	4.0	630
	09/18/96	82.84		284.17	0.00	170	2,800	340	12	11	110	2,500
	12/21/96	79.29		287.72	0.00	64 ⁴	51	1.3	ND	ND	0.53	20
	03/07/97	71.58		295.43	0.00	570 ⁴	1,400	53	14	29	68	220
	05/07/97	83.27		283.74	0.00	ND	ND	ND	ND	ND	ND	27
	09/29/97	83.33		283.68	0.00	ND	ND	ND	ND	ND	ND	11
	12/15/97	83.35		283.66	0.00	ND	. ND	ND	ND	ND	ND	19
	03/16/98	71.07		295.94	0.00	670 ¹⁰	13012	6.5	1.9	1.5	1.6	210
267.02	05/16/98	71.07 7 9.65		287.38	0.00	63 ¹³	40015	15	ND^{11}	ND ¹¹	1.9	490
367.03	08/18/98	83.29		283.74	0.00							
		83.33		283.74	0.00	95 ²⁰	ND	ND	ND	ND	ND	24
	09/22/98	83.33		203.10	0.00	7.5	שויו	1417	140	1.455	112	

Table 1 Groundwater Monitoring Data and Analytical Results Tosco (Unocal) Service Station #7376

4191 First Street

Pleasanton, California

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE	Product Thickness (ft.)	TPH-D (ppb)	TPH-G (ppb)	B (ppb)	T (ppb)	E (pph)	X (ppb)	MTBE (ppb)
		22.20	7/50/5	283.74	0.00	ND	ND	ND	ND	ND	ND	18
MW-3	12/15/98	83.29	76.5-96.5	283.74	0.00							
(cont)	12/23/98	83.28		283.75 287.84	0.00	$3,500^{26}$	26,000	3,100	270	2,200	3,100	1,300
	03/15/99	79.19		287.64	0.00							
	03/23/99	78.92		283.81	0.00	ND	ND	ND	ND	0.63	ND	29
	06/07/99	83.22		283.72	0.00	$2,900^{20}$	23,000 ³⁰	770	ND^{11}	980	6,400	280/82.4 ²⁷
	09/03/99	83.31		283.62	0.00	4,200 ²⁰	41,000 ³⁰	3,200	3,500	1,300	8,300	ND ¹¹
	12/06/99	83.41		283.80	0.00	$2,500^{20}$	$5,100^{30}$	340	ND^{11}	97	450	200
	03/10/00	83.23 83.22		283.81	0.00	489 ²⁰	$1,200^{30}$	52.0	ND^{11}	41.7	356	55.8
	06/08/00	83.22		283.66	0.00	4,380 ²⁰	$3,400^{30}$	305	ND^{11}	25.4	512	137
	09/25/00	83.37 83.27		283.76	0.00	5,600 ³⁵	6,800 ³⁰	260	ND^{11}	120	950	130
	12/19/00			283.69	0.00	$3,790^{20}$	16,800 ³⁰	1,100	48.6	637	4,260	224
	03/05/01 06/14/01	83.34 83.39		283.64	0.00	$1,300^{20}$	1,800 ³⁰	260	ND ¹¹	5.5	25	83
MW-4			72 0 02 0	295.36	0.00	200	160	14	ND	ND	1.6	ND
369.03	09/18/96	73.67	73.0-93.0	293.36 291.34	0.00	ND	ND	ND	ND	ND	ND	ND
	12/21/96	77.69		300.99	0.00	ND	ND	1.9	0.99	ND	1.5	ND
	03/07/97	68.04		289.97	0.00	ND	ND	ND	ND	ND	ND	ND
	06/27/97	79.06		283.20	0.00	ND	ND	ND	ND	ND	ND	ND
	09/29/97	85.83		283.20	0.00	ND	ND	ND	ND	ND	ND	ND
	12/15/97	87.26 75.09		293.94	0.00	ND	ND	ND	0.69	ND	0.82	ND
268.01	03/16/98	73.81		295.00	0.00	630 ¹⁶	10013	62	ND	ND	ND	ND
368.81	06/26/98 08/18/98	73.61 78.75		290.06	0.00							
	08/18/98	78.73 83.95		284.86	0.00	74 ²⁰	ND	ND	ND	ND	ND	2.8
	12/15/98	85.41		283.40	0.00	ND	ND	ND	ND	ND	ND	ND
	12/13/98	84.95		283.86	0.00							
	03/15/99	78.47		290.34	0.00	ND	ND	ND	, ND	ND	ND	ND
	03/13/99	77.37		291.44	0.00							
	06/07/99	76.60		292.21	0.00	ND	ND	ND	ND	ND	ND	ND

Table 1
Groundwater Monitoring Data and Analytical Results

MW-4 (cont)	09/03/99 12/06/99 03/10/00 06/08/00 09/25/00 12/19/00 03/05/01 06/14/01	87.23 92.23 88.54 86.98 DRY DRY DRY DRY	73.0-93.0	281.58 276.58 280.27 281.83 	0.00 0.00 0.00 0.00	66 ¹⁹ 95 ¹³ ND 72.8 ²⁰	ND ND ND ND	ND ND ND ND	ND ND ND ND	ND ND ND	ND ND ND	ND/ND ²⁷ ND ND
	12/06/99 03/10/00 06/08/00 09/25/00 12/19/00 03/05/01	92.23 88.54 86.98 DRY DRY	73.0-93.0	276.58 280.27	0.00 0.00 0.00 	95 ¹³ ND 72.8 ²⁰	ND ND ND	ND ND	ND ND	ND ND	ND ND	ND
(cont)	03/10/00 06/08/00 09/25/00 12/19/00 03/05/01	88.54 86.98 DRY DRY DRY		280.27	0.00 0.00 	ND 72.8 ²⁰	ND ND	ND	ND	ND	ND	
	06/08/00 09/25/00 12/19/00 03/05/01	86.98 DRY DRY DRY			0.00	72.8 ²⁰	ND					ND
	09/25/00 12/19/00 03/05/01	DRY DRY DRY		281.83 				ND	NI I			ND
	12/19/00 03/05/01	DRY DRY		 						ND	ND	
	03/05/01	DRY										.
												
	06/14/01	DRY									**	
				••								
MW-5												
363.23	09/18/96	64.20	52.0-72.0	299.03	0.00	4,700 ⁵	36,000	6,700	410	730	6,500	4,100
	12/21/96	61.77		301.46	Sheen	4,700 ⁴	25,000	3,200	300	780	3,600	2,600
	03/07/97	56.30		306.93	Sheen	$2,100^4$	14,000	1,300	120	410	1,200	1,700
	06/27/97	68.88		295.03***	0.90	NOT SAMPLE						- -
	09/29/97	69.47		294.02***	0.35	NOT SAMPLE	D DUE TO T	HE PRESE	NCE OF FR	EE PRODU	CT	
	12/15/97	64.92		298.54***	0.30	NOT SAMPLE						
	03/16/98	49.63		313.67***	0.09	NOT SAMPLE		HE PRESE	NCE OF FR	EE PRODU		
363.21	06/26/98	64.13		299.08	Sheen	$230,000^{17}$	490 18	6.3	2.8	4.2	5.1	10
	08/18/98	70.40		292.81**	0.005							
	09/22/98	69.10		294.16**	0.06	NOT SAMPLE	D DUE TO T	HE PRESE	NCE OF FR	EE PRODU	CT	
	12/15/98	68.84		294.50**	0.17	NOT SAMPLE	D DUE TO T	HE PRESE	NCE OF FR	EE PRODU	CT	
	12/23/98	68.42		295.18**	0.50	 .						
	03/15/99	63.81		299.59**	0.25							
	03/23/99	63.59		299.72**	0.13							
	06/07/99	68.25		295.59**	0.82	$4,700,000^{26}$	210,000	6,700	3,700	5,000	20,000	11,000/4,000 ²⁷
	09/03/99	69.38		294.37**	0.70	NOT SAMPLE	ED DUE TO T	HE PRESE	NCE OF FR	EE PRODU	CT	
	12/06/99	70.02		293.82**	0.82	NOT SAMPLE	D DUE TO T	HE PRESE	NCE OF FR	EE PRODU	CT	
	03/10/00	64.56		299.14**	0.64	NOT SAMPLE	ED DUE TO T	HE PRESE	NCE OF FR	EE PRODU	CT	
	06/08/00	66.47		297.13**	0.51	NOT SAMPLE	ED DUE TO T	THE PRESE	NCE OF FR	EE PRODU	СТ	

Table 1
Groundwater Monitoring Data and Analytical Results

WELL ID/ TOC*	DATE	DTW (ft.)	S.I. (ft.bgs)	GWE (msl)	Product Thickness (fi.)	TPH-D (ppb)	TPH-G (ppb)	В (<i>ppb</i>)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
		V / /										
MW-5	09/25/00	69.02	52.0-72.0	294.65**	0.60	NOT SAMPLE						
(cont)	12/19/00	68.31		295.01**	0.14	NOT SAMPLE						
	03/05/01	64.19		299.08**	0.08	NOT SAMPLE						
	06/14/01	64.02		299,27**	0.11	NOT SAMPLE	ED DUE TO	THE PRES	ENCE OF 1	FREE PRO	DUCT	
MW-6												
363.12	09/18/96	79.07	68.0-88.0	284.05	0.00	ND	160	5.4	ND	ND	ND	ND
	12/21/96	75.40		287.72	0.00	ND	300 ⁸	96	1.3	ND	1.7	21
	03/07/97	67.61		295.51	0.00	190⁴	1,800 ⁸	920	18	ND	31	290
	06/27/97	80.45		282.67	0.00	7 3 ⁵	ND	0.73	ND	ND	38	38
	09/29/97	86.02		277.10	0.00	ND	62 ⁹	ND	ND	ND	ND	43
	12/15/97	84.03		279.09	0.00	ND	78 ⁹	ND	ND	ND	ND	39
	03/16/98	67.15		295.97	0.00	100 ¹⁰	210^{12}	36	2.5	ND	3.0	64
363.13	06/26/98	75.71		287.42	0.00	18014	530	300	8.3	2.8	8.7	81
	08/18/98	74.86		288.27	0.00							
	09/22/98	UNABLE TO L	OCATE									
	12/15/98	UNABLE TO L	OCATE									
	12/23/98	80.80		282.33	0.00		120^{23}	1.1	ND	ND	0.78	25
	01/23/99	80.68		282.45	0.00	ND						
	03/15/99	75.29		287.84	0.00	71 ²⁴	62 ²²	1.4	ND	ND	ND	23
	03/23/99	75.03		288.10	0.00							
	06/07/99	82.27		280.86	0.00	160^{28}	ND	ND	ND	ND	ND	18
	09/03/99	87.49		275.64	0.00	NOT SAMPLI	ED DUE TO I	NSUFFICIE	ENT WATE	₹.		
	12/06/99	DRY										
	03/10/00	85.61		277.52	0.00	ND	ND	ND	ND	ND	ND	64
	06/08/00	87.36		275.77	0.00	NOT SAMPLI	ED DUE TO I	NSUFFICIE	ENT WATE	R		
	09/25/00	DRY										
	12/19/00	87.73		275.40	0.00	NOT SAMPL	ED DUE TO I	NSUFFICII	ENT WATE	R		
	03/05/01	87.82		275.31	0.00	NOT SAMPL	ED DUE TO I	NSUFFICII	ENT WATE	R		
	06/14/01	87.69		275.44	0.00	NOT SAMPL					••	

Table 1
Groundwater Monitoring Data and Analytical Results

					Product							
WELL ID/	DATE	DTW	S.I.	GWE	Thickness	TPH-D	TPH-G	В	T	E	X	MTBE
TOC*		(ft.)	(ft.bgs)	(msl)	(ft.)	(ppb)	(ppb)	(ppb)	(ppb)	(рръ)	(ppb)	(ppb)
MW-7	04/04/00		55 A 75 A									
355.97	06/26/98	 75	55.0-75.0	 287.22	0.00	1,400 ²⁰	4,000	1,900	48	160	ND^{11}	1,700
	08/18/98	68.75		289.62	0.00	780 ²⁰	3,200	1,100	ND	22	ND	1,500
	09/22/98	66.35 65.03		290.94	0.00	350 ²¹	1,900 ²²	180	2.7	2.9	3.8	1,400
	12/15/98	64.82		291.15	0.00							
	12/23/98 03/15/99	60.44		295.53	0.00	460^{26}	2,700	1,100	ND^{11}	30	16	1,400/970 ²⁷
		60.43		295.54	0.00							
	03/23/99 06/07/99	64.48		291.49	0.00	550 ²⁵	$2,600^{29}$	180	21	ND	13	1,200
	09/03/99	69.98		285.99	0.00	550 ²⁰	870 ³⁰	69	ND^{11}	ND^{11}	ND^{11}	1,100/872 ²⁷
	12/06/99	70.18		285.79	0.00	220^{20}	$1,900^{31}$	350	ND^{11}	ND^{11}	ND^{11}	1,100
	03/10/00	67.36		288.61	0.00	930 ²⁰	$2,900^{31}$	1,600	ND^{11}	40	54	1,100
	06/08/00	69.81		286.16	0.00	463 ²⁰	625 ³⁰	30.8	ND	0.761	0.940	$1,290^{35}$
	09/25/00	70.15		285.82	0.00	1.810^{20}	$2,180^{22}$	423	ND^{11}	ND^{11}	ND^{11}	1,510
	12/19/00	70.13		285.86	0.00	930^{32}	$5,900^{31}$	1,000	ND^{11}	ND^{11}	ND^{11}	1,300
	03/05/01	68.72		287.25	0.00	801 ²⁰	$13,200^{30}$	5,070	195	306	385	1,530
	06/14/01	70.00		285.97	0.00	710 ²⁰	6,400 ³⁰	3,300	85	96	170	1,000
	00/14/01	70.00		200.5			·	ŕ				
MW-8						10						
362.37	06/26/98	63.00	66.0-86.0	299.37	0.00	80 ¹⁹	ND	6.0	ND	ND	ND	150
	08/18/98	73.38		288.99	0.00							
	09/22/98	70.89		291.48	0.00	120^{20}	ND	ND	ND	ND	ND	9.5
	12/15/98	70.29		292.08	0.00	ND	ND	ND	ND	ND	ND	3.0
	12/23/98	70.03		292.34	0.00					'		
	03/15/99	UNABLE TO L	OCATE									
361.83	03/23/99	64.86		296.97	0.00	60 ²⁴	ND	ND	0.77	ND	0.96	190
	06/07/99	68.30		293.53	0.00	ND	ND	ND	ND	ND	ND	ND
	09/03/99	73.92		287.91	0.00	130 ¹⁹	ND	ND	0.57	ND	ND	170/146 ²⁷
	12/06/99	74.98		286.85	0.00	16019	ND	ND	ND	ND	ND	150
	03/10/00	71.54		290.29	0.00	61 ¹⁹	ND	ND	ND	ND	ND	150

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)	TPH-G (ppb)	B (ppb)	T (ppb)	E (ppb)	X (ppb)	MTBE (ppb)
MW-8	06/08/00	72.60	66.0-86.0	289.23	0.00	135 ²⁰	ND	ND	ND	ND	ND	42.8
(cont)	09/25/00	75.31		286.52	0.00	518 ²⁰	ND	ND	ND	ND	ND	227
	12/19/00	75.54		286.29	0.00	10019	ND	ND	ND	ND	ND	160
	03/05/01	75.91		285.92	0.00	161 ²⁰	ND	ND	ND	ND	ND	125
	06/14/01	75.51		286.32	0.00	94 ²⁰	ND	ND	ND	ND	ND	140
MW-9												
354.85	11/29/99	74.50		280.35	0.00							
	12/06/99	74.35		280.50	0.00	ND	ND	ND	ND	ND	ND	$3.0/2.7^{27}$
	03/10/00	65.94		288.91	0.00	150 ¹⁹	ND	ND	ND	ND	ND	2.5
	06/08/00	70.77		284.08	0.00	67.8^{20}	ND	ND	ND	ND	ND	ND
	09/25/00	74.75		280.10	0.00	903 ²⁰	ND	ND	0.516	ND	ND	10.5
	12/19/00	74.43		280.42	0.00	ND	ND	ND	ND	ND	ND	ND
	03/05/01	74.63		280.22	0.00	96.5^{20}	ND	ND	ND	ND	ND	ND
	06/14/01	74.75		280.10	0.00	ND	ND	ND	ND	ND	ND	ND
MW-10												
362.62	11/29/99	DRY										
	12/06/99	DRY										
	03/10/00 ³³	85.04		277.58	0.00	78^{20}	ND	ND	ND	ND	ND	130/150 ²⁷
	06/08/00	DRY										
	09/25/00	DRY										
	12/19/00	DRY										
	03/05/01	DRY			-+						~~	
	06/14/01	DRY		••	••							

Table 1
Groundwater Monitoring Data and Analytical Results
Tosco (Unocal) Service Station #7376

4191 First Street
Pleasanton, California

WELL ID/	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 (pph)	MTBE (ppb)
- montainment - montain -	<u> </u>											
Trip Blank									* 15°	NID	ND	ND
TB-LB	03/16/98						ND	ND	ND	ND		ND ND
	06/26/98						ND	ND	ND	ND	ND	
	08/18/98						ND	ND	ND	ND	ND	ND
	09/22/98						ND	ND	ND	ND	ND	ND
	12/15/98						ND	ND	ND	ND	ND	ND
	12/23/98						ND	ND	ND	ND	ND	ND
	03/15/99						ND	ND	ND	ND	ND	ND
							ND	ND	ND	ND	ND	ND
	03/23/99						ND	ND	ND	ND	ND	ND
	06/07/99						ND	ND	ND	ND	ND	ND
	09/03/99						ND	ND	ND	ND	ND	ND
	1 2/06/99						ND	ND	ND	ND	ND	ND
	03/10/00						ND	ND	ND	ND	ND	ND
	06/08/00							ND	ND	ND	ND	ND
	09/25/00						ND				ND	ND
	12/19/00						ND	ND	ND	ND		ND
	03/05/01						ND	ND	ND	ND	ND	
	06/14/01				` 		ND	ND	ND	ND	ND	ND

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street Pleasanton, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to March 16, 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

NP = No Purge

(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 have been surveyed relative to msl per City of Pleasanton Benchmark V1, a brass disk on the north curb of Ray Street, approximately 200 feet northwest of the centerline of First Street (Elevation = 367.17 feet msl). On March 22, 1999, MW-8 was re-surveyed and on November 26, 1999, MW-9 and MW-10 were surveyed, the Benchmark was a cut "+" on a concrete transformer pad on the north side of the property to the northwest, (Elevation = 353.92 feet, msl).
- ** GWE corrected for the presence of free product; correction factor: [(TOC DTW) + (Product Thickness x 0.77)].
- *** GWE corrected for the presence of free product; correction factor: [(TOC DTW) + (Product Thickness x 0.75)].
- 1,2-Dichloroethene (1,2-DCE) was detected at a concentration of 18 ppb.
- ² Reported as Total Extractable Hydrocarbons (TEH).
- Reported as Total Petroleum Hydrocarbons (TPH).
- Laboratory report indicates the hydrocarbons detected appeared to be a diesel and non-diesel mixture.
- Laboratory report indicates the hydrocarbons detected did not appear to be diesel.
- Laboratory has potentially identified the presence of MTBE at reportable levels in the groundwater sample collected from this well.
- 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.
- Laboratory report indicates the hydrocarbons detected appeared to be a gasoline and non-gasoline mixture.
- Laboratory report indicates the hydrocarbons detected did not appear to be gasoline.
- Laboratory report indicates diesel and unidentified hydrocarbons >C16.
- Detection limit raised. Refer to analytical reports.
- Laboratory report indicates gasoline and unidentified hydrocarbons <C7.</p>
- Laboratory report indicates discrete peaks.
- Laboratory report indicates diesel and unidentified hydrocarbons >C20.
- Laboratory report indicates discrete peaks and unidentified hydrocarbons < C7.
- Laboratory report indicates diesel and unidentified hydrocarbons < C15.

Table 1

Groundwater Monitoring Data and Analytical Results

Tosco (Unocal) Service Station #7376 4191 First Street Pleasanton, California

EXPLANATIONS: (cont)

- Laboratory report indicates diesel and unidentified hydrocarbons <C15 and >C20.
- Laboratory report indicates gasoline and unidentified hydrocarbons >C8.
- Laboratory report indicates unidentified hydrocarbons >C16.
- Laboratory report indicates unidentified hydrocarbons C9-C24.
- Laboratory report indicates diesel and unidentified hydrocarbons <C12.
- Laboratory report indicates unidentified hydrocarbons C6-C12.
- ²³. Laboratory report indicates unidentified hydrocarbons C6-C9.
- Laboratory report indicates unidentified hydrocarbons >C14.
- Laboratory report indicates unidentified hydrocarbons >C10.
- Laboratory report indicates unidentified hydrocarbons >C9.
- MTBE by EPA Method 8260.
- Laboratory report indicates unidentified hydrocarbons >C15.
- ²⁹ Laboratory report indicates gasoline and unidentified hydrocarbons >C6.
- Laboratory report indicates gasoline C6-C12.
- Laboratory report indicates gasoline C6-C12 + unidentified hydrocarbons <C6.
- Laboratory report indicates unidentified hydrocarbons C9-C40.
- 33 Well re-developed.
- The diesel container for MW-2 was broken at lab, therefore; unable to report diesel result.
- 35 Laboratory report indicates unidentified hydrocarbons <C16.</p>
- 36 Laboratory was unable to report diesel result due to insufficient amount of sample.

Table 2
Product Thickness/Removal Data

WELL ID	DATE	DTW (ft)	Product Thickness (ft.)	Amount Bailed (Product + Water) (gallons)
		(ft.)	U+/	10
MW-5	03/07/97	56.30	Sheen	
	06/27/97	68.88	0.90	
	09/29/97	69.47	0.35	
	12/15/97	64.92	0.30	
	03/16/98	49.63	0.09	0.25
	06/26/98	63.00	Sheen	
	08/18/98	70.40	0.005	
	09/22/98	69.10	0.06	
	12/15/98	68.84	0.17	
	12/23/98	68.42	0.50	
	03/15/99	63.81	0.25	0.13
	03/23/99	63.59	0.13	0.00
	06/07/99	68.25	0.82	0.94
	09/03/99	69.38	0.70	0.078
	12/06/99	70.02	0.82	0.00
	03/10/00	64.56	0.64	0.00
	06/08/00	66.47	0.51	0.00
	09/25/00	69.02	0.60	0.00
	12/19/00	68.31	0.14	0.00
	03/05/01	64.19	0.08	0.00
	06/14/01	64.02	0.11	0.00

EXPLANATIONS:

Product thickness/removal data prior to March 16, 1998, were compiled from reports prepared by MPDS Services, Inc.

DTW = Depth to water

(ft.) = Feet

-- = Not Measured/Not Available

Table 3
Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #7376 4191 First Street

Pleasanton, California

				aliton, Camerine			error of the company
VELL ID	DATE	ETHANOL (ppb)	TBA (ppb)	MTBE (ppb)	DIPĒ (ppb)	ETBE (ppb)	TAME (ppb)
MW-1	09/03/99	ND	ND	55.2	ND	ND	ND
MW-2B	03/15/99 09/03/99	ND ND ²	3,800 3,480	4,800 4,400	13 ND ²	ND ND ²	ND ND ²
MW-3	09/03/99	ND	ND	82.4	ND	ND	ND
MW-4	09/03/99	ND	ND	ND	ND	ND	ND
MW-5	06/07/99 09/03/99	ND ² NOT SAMPLED DUE	ND ² TO THE PRESENCI	4,000 ¹ E OF FREE PRODUCT	ND^2	ND ² 	ND²
MW-7	03/15/99 09/03/99	ND ND ²	610 460	970 872	4.3 4.36	ND ND ²	ND ND ²
MW-8	09/03/99	ND	ND	146	12.4	ND	ND
MW-9	12/06/99 ³		ND	2.7	ND	ND	ND
MW-10	03/10/00 ⁴		ND	150	ND	ND	ND

Table 3

Groundwater Analytical Results - Oxygenate Compounds

Tosco (Unocal) Service Station #7376 4191 First Street Pleasanton, California

EXPLANATIONS:

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

TBA = Tertiary butyl alcohol

MTBE = Methyl tertiary butyl ether

DIPE = Di-isopropyl ether

ETBE = Ethyl tertiary butyl ether

TAME = Tertiary amyl methyl ether

(ppb) = Parts per billion

ND = Not Detected

-- = Not Analyzed

Laboratory results indicate sample contains high concentration of Hexane.

- Detection limit raised. Refer to analytical reports.
- Laboratory report indicates 1,2-Dichloroethane (1,2-DCA) and Ethylene dibromide (EDB) were ND.
- Laboratory report indicates 1,2-DCA was detected at 22 ppb and EDB was ND.

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.

		FIELD L	MIN SUEE	•			
ient/ cility #_ <u>Tosc</u> ddress: <u>4/9/</u> ty: <u>Pleas</u> ,	First st		Job#: Date: Samp		0075 14/01 utles		
		Well Co	ndition:	9 K			,·
Well ID	2 in	Hydroc	arbon		mount Bail		<u>(0al.)</u>
otal Depth	86.45		e 2° = 0.	17	3" = 0.38	·	- 0.66
epth to Water	29.52	Factor				3	 دری کی:چ
Purge Equipment:	Disposable Bail Bailer Stack Suction Grundfos Other:) .	Sampling Equipment	: Disp Baile Pres	osable Bail er sure Bailer o Sample	ler	
Starting Time: Sampling Time: Purging Flow Rat		V	Veather Condition Vater Color: — Gediment Descri f yes; Time: —	<u>ve.</u> ption:	clean ax Volum	Odor:	
Did well de-wate	Volume pl (gal.)	I Condu	ectivity Tem	perature F	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
11:15 11:21 11:27	1 76 2 7.5 35 7.1	7	43 6	5.9 6.5 6.8			
							
			ATORY INFORM	AATION LABO	RATORY	ANA	LYSES
SAMPLE ID	(#) - CONTAIN	ER REFRIG.	PRESERV. TYPE	MOITAN	RATORY		
	3 × VDA VI	ER REFRIG.	PRESERV. TYPE	AATION LABO		TPHG BTE	
SAMPLE ID		ER REFRIG.	PRESERV. TYPE	LABO SEQU		TPHG BTE	
SAMPLE ID	3 × VDA VI	ER REFRIG.	PRESERV. TYPE	LABO SEQU		TPHG BTE	
SAMPLE ID	3 × VDA VI	ER REFRIG.	PRESERV. TYPE	LABO SEQU		TPHG BTE	

cility #_ Tos	co # 7376		Job#:	6/	14/01		
idress: <u>4/9/</u>	First st.		Date:				
ty: <u>Pleas</u>	anton, Ca.		Samp	ler: <i>Va</i>	VIRS,		
Well ID	MW_2B	Well Cond	ition: —	9K			•
ell Diameter	2 in	Hydrocart Thickness		_	mount Baile product/weter): <u> </u>	(gel.)
otal Depth	85.25 m	Volume	2* = 0.	17 6 = 1.5	3" = 0.38	4" 12" = 5.80	- 0.66
epth to Water	83.53 4	Factor (V.					ı.
	x v	1 0.12 -0.		volume) = [stimated Pun	ge Volume: <u> </u>	<u> </u>
Purge quipment:	Disposable Bailer Bailer Stack		Sampling Equipment	Bail		ef	•
	Suction				ssure Bailer b Sample		
	Grundfos Other:	<u>.</u>		Other:			
Starting Time:	#50		ther Condition	/143. _/ /	clear		11
Sampling Time:	17:00		er Color:			Odor:	1.
Purging Flow Ra	te:on		iment Descri		Volume	b:	los
Did well de-wate	pr?	_ If y	es; Time: _				
Time	Volume pH (gal.)	Conduction prohos/c	m.	F	D.O. (mg/L)	ORP (mV)	Alkalinit (ppm)
,	* 7.53	<u>967</u>	6	2.7			
						·	
			ORY INFORM	ATION	RATORY	ANA	YSES
SAMPLE ID	(#) - CONTAINER		RESERV. TYPE	SEQU		TPHG BTE	x MISE
4W-2B	3 x VDA VIAL	4	NONE	7		TPH-D	
"	1 Amber	 -	NUNL				
					· · · · · · · · · · · · · · · · · · ·	<u></u>	
		,					
	* Insufficient	سر مرک در در	K. Bum	90.			

		HELD I	•			
ient/ cility #	co # 7376		_ Job#:	180075	,	
deces: 4/9/	First st.		_ Date:	6/14/01		
/2/	anton, Ca.		Sample	er: <u>Vartkes</u>		
ty: $\frac{reas}{r}$	andon, car					
Well ID	MW-3	Well Co	ondition:	K		
fell Diameter	<u></u>	Hydroc Thickn		Amount Ba		(oel
otal Depth	94.10 #	Volum		7 3" = 0.38 6" = 1.50	4" = 0.66 12" = 5.80	
epth to Water	83.39 n	Factor	· (VF)	6-= 150		
epui to viota		0:17		rolume) = Estimated Pu	orge Volume: 5,5	<u>lost</u>
Purge	Disposable Bailer		Sampling Equipment:	Disposable Ba	iler	
quipment:	Bailer Stack	•		Bailer Pressure Baile	er	
	Suction			Grab Sample		
	Other:	<u>.</u>	<u>.</u>	Other:	-	
		<u></u>	Veather Condition	dear		
Starting Time:	14:52	_ ,	Vestner Color:	dear	Odor: 4	
Sampling Time:	15:15		Sediment Descrip			_
Purging Flow Rat	te:	11.	if yes; Time:	Volum	ne:	<u></u> {gs
				•		
Did well de-wate	A		_	DO	ORP All	لتسليد
•	Volume pH	Condo		erature D.O. (mg/L)		bbw) eriun
Time	Volume pH (gal.)	μ mh	04/cm 1	(mg/L)		
Time 14.54	Volume pH (gal.)	µmh 	81 71. 93 70.	(mg/L)		
Time	Volume pH (gal.)	µmh 	81 <u>71.</u>	(mg/L)		
Time 14.54	Volume pH (gal.)	µmh 	81 71. 93 70.	(mg/L)		
Time 14.54	Volume pH (gal.)	µmh 	81 71. 93 70.	(mg/L)		
Time 14.54	Volume pH (gal.)	μmh	98 69	(mg/L)		
Time 14.54	Volume pH (gal.)	μmh	93 70 98 69	(mg/L)		
Time 14.54	Volume pH (gal.)	LABOF	18/ 7/. 93 70. 98 69 WATORY INFORM. PRESERV. TYPE	ATION LABORATORY	ANALYSES	ppm)
14:54 14:56 14:58	Volume pH (gal.) 7 7.41. 4 7.23. 5.5 7.19. (2) - CONTAINER 3 × VDA VIAL.	LABOF	181 71. 93 70. 98 69 LATORY INFORM. PRESERV. TYPE:	(mg/L)	(mV) (ppm)
14:54 14:56 14:58	Volume pH (gal.) 2	LABOF	18/ 7/. 93 70. 98 69 WATORY INFORM. PRESERV. TYPE	ATION LABORATORY SEQUOID	ANALYSES	ppm)
14:54 14:56 14:58 3 SAMPLE ID	Volume pH (gal.) 7 7.41. 4 7.23. 5.5 7.19. (2) - CONTAINER 3 × VDA VIAL.	LABOF	181 71. 93 70. 98 69 LATORY INFORM. PRESERV. TYPE:	ATION LABORATORY SEQUOID	ANALYSES	ppm)
14:54 14:56 14:58 3 SAMPLE ID	Volume pH (gal.) 7 7.41. 4 7.23. 5.5 7.19. (2) - CONTAINER 3 × VDA VIAL.	LABOF	181 71. 93 70. 98 69 LATORY INFORM. PRESERV. TYPE:	ATION LABORATORY SEQUOID	ANALYSES	ppm)

ient/ cility #_ <u>7osc</u>	to # 7376		Job#:	180075		
ddress: _ <i>4/9/</i>	First st.		Date:	6/14/01		
ty: <u>Pleas</u>	anton, Ca.		Sample	er: Varthes		
Well ID	MW-4	Well Condi	tion:	Amount Ba	ilad	
eli Diameter	2 h	Hydrocarb Thickness:		in. (product/wa	ter): P	(Jac)
otal Depth	92.85 #	Volume Factor (VF	2" = 0.1°	7 3° = 0.38 6° = 1.50	12" = 5.80	0.66
epth to Water	DRY_#			olume) = Estimated Po	urge Volume:	(gal.)
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		Sampling Equipment:	Disposable Baller Baller Pressure Balle Grab Sample Other:	ailer er	,
- -	te:	_ Wat	Descrip	tion: Volu	Odor:	
Did well de-wate	Volume pH (gal.)	Conducth µmhos/ci	rity Temp	erature D.O.	ORP (mV)	Alkalinity (ppm)
		LABORAT	ORY INFORMA	ÁTION	ANAL	/ese
SAMPLE ID	(#) - CONTAINER	REFRIG. P	RESERV. TYPE	LABORATORY	TPHG BTEX	
MW-	3 K VD4 VIAL	*	HOLE	25.6001#	TP#- 0	
1,	1 Auber		NONE			
				<u> </u>		
COMMENTS	Will is dr	4				
F'CAMAIT141D-						

		LICED DATE	•			•
ent/	0 # 7376		Job#:	180075		
	First st.	<u>.</u>	Date:	6/14/01		
idress:	11131		Sampler:	Varthes	<u> </u>	
y: Pleas	enton Cai					<u> </u>
			n: _ <i></i>	٥		
Well ID	MW-5	Well Conditio	, ,		ed	-
ell Diameter		Hydrocarbon Thickness: _	0-1/		n: <u>\$</u>	(gel_)
otal Depth	72.50 m	Volume Factor (VF)	2" = 0.17	3" = 0.38 5" = 1.50	4" = 12" = 5.80	0.66
epth to Water	64.02 1					
	x vi		X 3 (cese volui	ne) = Estimated Pur	ge Volume:	<u></u>
Purga quipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:		ampling quipment: Oti	Disposable Bail Bailer Pressure Bailer Grab Sample ner:		
		Weath	er Conditions:			
Starting Time: Sampling Time:	•	· ·	Color:		Odor	
Sampling Time. Purging Flow Rat	te:		ent Description	n:		foe
Did well de-wate	/	_ if yes:	Time:	Volum	6:	
•	Volume pH (gal.)	Conductivity umhos/cm	Tempera	mg/L)	ORP (mV)	Alleslinit (ppm)
	<u> </u>	- ; /				
<i></i>				·		
/ -			/_			
				<u> </u>	<u></u>	
_		LABORATOR	Y INFORMAT	ION LABORATORY	ANAL	YSES
SAMPLE ID	(#) - CONTAINER	,	SERV. TYPE	SPRUOIA	TPHE BIEN	MIDE
MW-	3 X VOA VIAL		10 th		TPH-D	
),	1 Auter	N N	ONE			
		 				
14 <u>2</u> -				3 /	and the total	
COLUMENTS.	Not Somethal a	the totte	are lence	of tree pa	3000 Z	
COMMENTS:	Not Saupled a	7				· · · · · · · · · · · · · · · · · · ·
				_		

lient/ acility #_ <u>70</u> 50	× # 7376		Job#:	180075		
Address: <u>4/9/</u>	First st.		Date:	6/14/01		
City: Pleas	arton, ca.		Sample	er: Varthes		
Well ID	MW-6	Well Co	ndition:	. K		
Well Diameter		Hydroca Thickne		Amount Ba		(Jed.)
Total Depth	88.00 m	Volume Factor	2" = 0.1"	7 3" = 0.38 6" = 1.50	12" = 5.80	0.66
Depth to Water	87.69 m	F	X 3 (case v	olume) = Estimated Pu	irge Volume;	. <u>(gal.)</u>
Purge Equipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	_	Sampling Equipment:	Disposable Ba Bailer Pressure Baile Grab Sample Other:		
Starting Time:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	w		<u></u>	Odor	
Purging Flow Rat	e:op		ediment Descriptyes; Time:		ne:	(gel
Did well de-wate	/olume pH (gal.)	Condu µmho	ctivity Tempe	rature D.O.	ORP (mV)	Allcalinity (ppm)
	\angle		Z =			
				*	<u> </u>	-
SAMPLE ID	(#) - CONTAINER	LABOR/	ATORY INFORMÜ PRESERV. TYPE		ANAL	
MW>-	3 × VDA VIAL	4	HCG	SEQUOIR	TPHE BEE	MIDE
),-	1 Amber	-	NONE		TP4-0	
				·		
	Insufficient	· · · · · · · · · · · · · · · · · · ·	in E Sa	mde.		
	7 mm 11 m					

		FIELD DA	ATA SHEET				-
ent/	0 # 7376		Job#:	1800	075		
cility #_ 1030	0 71 12.		Date:	6/14	101		
idress: <u>4/9/</u>	First st.		Date.	4.57	4.		
ty: <u>Pleaso</u>	arton, Car		Sample	er: <u>Va</u> v7			
Well ID	MW-7	Well Cor	dition:	jk			
ell Diameter	2_in_	Hydroca Thickne	rbon ss: <u> </u>	•	ount Baild	<u>" — — — — — — — — — — — — — — — — — — —</u>	(cel.)
otal Depth	7680 m	Volume Factor (2* = 0.1	7 5° = 1.50	s" = 0.38	4" • 12" = 5,80	- 0.66
epth to Water	70.00 m					3	ا اسما ک
	6.80 x VI	<u>0.17</u>	X 3 (case)	rokume) = Esti	mated Purp	ge Volume: 🚣	
Purge · <	Disposable Bailer	•	Sampling Equipment:		able Bail	er .	
Equipment:	Bailer Stack	•	· <u>-</u>	Bailer Press	ıre Bailer	•	
	Suction			Grab	Sample		
	Grundfos			Other:	-		
	Other:	- 					
	14:05	 _ w	eather Conditio	U2: —	Jear_	Oder Y	<u></u>
Starting Time:	14:30		later Color:	bre		USBR-13-4-	
Sampling Time:		_ _ S	ediment Descrip	otion:	: <u>'/</u>		
Purging Flow Rat			yes; Time: _		Volum	e:	
Did well de-wate	017	_	•	·	D.O.	ORP	Alkalinity
Time	Volume pH (gal.)	Condu µmho	e/cm	F.	(m g/ L)	(mV)	(bpm)
11/10	7.50	118		<u>. ج</u>			
14:10 -	2 7.35	119	1 10	<u> </u>			
14:22	3.5 7.30	: 1/9	8_6	1.7			
19,00	7					 	
						-	
			· .				
		LABOR	ATORY INFORM	IATION	ATORY _	ANA	LYSES
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	SEQUE		TPHE BTE	X MIDE
aw-7	3 x VDA VIAL	4	Her			TPH-D	
1,	1 Amber	-	NONE	1 2		1	
						1	
				l		_1	
		\					
		<u></u>					
COMMENTS:							

lient/ acility #_ <u>70\$</u>	0 # 7376		Job#: Date:		114/01		
ddress: <u>4191</u> ity: <u>Pleas</u>	First st.		Sampl	er: _ <i>Va</i>	extles		
Well ID	MW-8	Well	Condition:	9K			
/ell Diameter	Zin_		ocarbon kness: ০ <u>০-</u>	_	Amount Ba		(gal.)
otal Depth	84.50 m	Volu	me 2" = 0. for (VF)		3" = 0.38 60	12" = 5.80	* = 0.66
Purge		F & 17	X X 3 (case)			`	45 10=1
cuige Equipment:	Bailer Stack Suction Grundfos Other:	_	Equipment:	Bail Pre	posable Ba ler ssure Baile lb Sample		
Starting Time: Sampling Time: Purging Flow Rat		 	Weather Conditio Water Color: Sediment Descrip if yes: Time:	<i>bro</i> etion: \$	m	Odor:r_	C (pal
Did well de-wate	Volume pH (gal.)		ductivity Temp	crature S	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
12:3) 12:37 12:45	1,5 7.68 3 7.50 4.5 7.47	. 9	736 £6 73 69	7.9 7.7 1.6			
			RATORY INFORM	ÁTION	DRATORY	ANA	ALYSES
HW- 8	(#) - CONTAINER	REFRIG.	HCL	SEQU		TPHG BT	EX MTOE
1,	1 Amber		NONE	1		TP#-0	
COMMENTS:	<u> </u>						

		HELD DA	IV 0			
ent/ cility #_ <u>Toso</u>	0 # 7376		Job#:	180075		
idress: <u>4/9/</u>	First st.	<u>.</u>	Date:	6/14/01		
ty: Pleaso	enton, Car		Sample	r: Varthes		
Well ID	MW-9	Well Cond	ition:	K	-	·
'ell Diameter	2_ in	Hydrocarb Thickness	on <u> </u>	Amount Ba	ailed ter):	(gal.)
otal Depth	78.05 m	Volume Factor (VI	2" = 0.17	3" = 0.38 6" = 1.50	3 4" = 12" = 5.80	0.66
epth to Water	74.75 4					
Purge quipment:	Disposable Bailer Bailer Stack Suction Grundfos Other:	-	Sampling Equipment:	Disposable Baller Pressure Ball Grab Sample Other:	ailer	
Starting Time: Sampling Time: Purging Flow Rate Did well de-water		_ Wat _ Sed	ther Condition er Color: iment Descript es; Time:	<u>brn</u> tion: <u> </u>	Odor: <u>no</u>	
	olume pH (gal.)	Conducti umhos/c	m 1		ORP (mV)	Alkalinity (ppm)
13:19 13:24 13:37	.5 7.65 1 7.50 2 7.48	#94 805 812	<u>69.</u>			
			<u> </u>	<i>.</i>	-	-
- A A A MILE 150	(#) - CONTAINER	LABORAT REFRIG. F	ORY INFORM	CABORATORI		YSES
SAMPLE ID	3 × VDA VIAL	4	Her	SEQUOIA	TPHG BTE	MIDE
7,	1 Amber	~	NONE	ユ	TPH-D	
COMMENTS: .						·

•	io # 7376		_ Job#:		20075	<u> </u>	
Address: 4/9/	First st.	<u> </u>	_ Date:	<u>6/</u>	14/0/		
City: <u>Pleas</u>	anton, Ca		Samp	ler: <i>_Va</i>	rtkes		
Well ID	MW-10	Well Co	ondition: —	OK_			
Well Diameter	2 In.	Hydroc Thickn			mount Bail		(cel.)
Total Depth	93.40 #	Volum		17 6" = 1 <i>5</i> 4	3" = 0.38 0	12" - 5.80	- 0.66
Depth to Water	DRY .						
	. ——— × '	VF =		volume) = E	etimated Pun	ge Volume:	(g=1.)
Purge Equipment:	Disposable Bailer Bailer		Samplin g Equipment	Dist Baile	osable Bail	er	•
- 1	Stack				ssure Bailer	•	
	Suction Grundfos			Gra	b Sample		
	Other:	<u> </u>	,	Other:		·	
Starting Time:	. / .	·	Veather Condition	ons:			
Sampling Time:		v	Vater Color:			Odor:	
Purging Flow Rate			ediment Descri	ption:		/	
Did well de-wate			f yes; Time: _		Volume	8: <u>- </u>	(g=i
	/olume pH (gal.)	Condu	ctivity Tem	perature C	D.Q. (mg/L)	ORP (mV)	Alcalinity (ppm)
<u>/-</u> -		- :/		/			
<u> </u>		-/ 	$\overline{}$	<u> </u>		<u> </u>	
	<u> </u>	LABOR	ATORY INFORM	ATION	-		
SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABO	RATORY	TPHG BTE	YSES
HW-	3 × VDA VIAL	17	Hec	SZQQ	O14-	TPHGIOTE	
1+	1 Auber		NONE	1			
						<u> </u>	<u>. </u>
COMMENTS:	well is	dry.	· · · · · · · · · · · · · · · · · · ·	· 			<u> </u>

		7					-										<u> 2114</u>	111	V I	<u>ous</u>	nous nousi
						SCO (UNO								Contac	t (Nom	•)	MO	100	- <u>232</u> D€ M	117.	
11		Cor				80075.85	<u>orree</u>	<u> </u>	easa	ncon,	<u>CA</u>	-			•					<u>-'</u>	
TOS	co	1				r-Ryan In	c. (6		nc)				Laborota					alyti	.cal		<u> </u>
Tooce Marketin	a Company					Court,						68	Loborato Samples	ry Rele	oss Nun	nber	1/22/11	44.0		chira	
2000 Cear Conyo San Ramon, Cal	on FL, 514. 400	1				Deanna L.					1 1 1	- 1	Samples Collection				VOC	11/67	10	3///102	37
				-	-	0-551-75			r) 510	-551-	7888	_	Signature		stt	06	di-				
······			₹	T	T /=										Be Perío		7				
	,	Ę	Ar Charcoal	Į į		-		<u> </u>	T	T	2	8	⊤		P F 6110	111100	Ţ	T	 		DO NOT BILL TB-LB ANALYSIS
Sample Number	Lob Sample Numbe	Number of Containers	Metric S = Soll A = A W = Woter C = C	Type 6 = Grab C = Composite D = Discrete	- E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E-E	Sample Preservation	load (Yes or No)	1PH Gat 8 TEX W/MTBE (8015)	TPH Dissed (8015)	Oil and Grease (5520)	Purpeable Halocarbons (8010)	Purgeable Aromatica (8020)	Purgeable Organica (8240)	Extractable Organica (8270)	Metals CA.Cr.Pb.Zn.Ni (ICAP or AA)						MKF0408
TB-LB		1	W	a		#1	4	K													61
MW-1 =	/	4	٠	~	11:35	4	uc.	×	Х												62
MW-2B-		4	ı	íų.	12/00	ય	a	X	χ												03
MW-3		4	٨.	·e	كازكا	ie	٠	X	Χ								1				cy
MN-7- A		4	بب		14:30	વ	Ţ	X	X												05
MW-8 /	/	4	•	·¥	13,00	u	ad.m	X	Χ						,						. 04
m-9	<i>y</i>	4	٠.	w	13:40	n	u	X	Х							•					67
			,																		
					,																
		,																			
alinquished By (his		- 1	rization R Inc.	0d	te/Ilme 1630 14/01) Rece	lved by	(Signat	ure)	—— <u>I</u> 2,	Oi	ganizatio	n n	16/.	/Time	160	T	um Arou	and Time	• (Circle Cholce)
Sulehed By (Signature)		Organ	alzation	Do	te/Time	Rece	Ived By	(Signat		. / C		gonizatio		Date	Time				48 (Hre.
94 1	Signature)	-		dzatlon		[15[0] tg/Time					NAS	<u>'</u>	<i>ĉe</i>	·	1	51	130			бр. 10_b	•
, , , , , , , , , , , , , , , , , , ,	-	w/A	1 7	2Q	1 /	15 1805		oved For	\sim	tory by Mu			ĴEQ.	-	Date/	1 1	605	(As Cont	
	1,						- 17	4414		٠	7	<u>u-/-</u> '				JVI	7 1				





28 June, 2001

Deanna Harding Gettler Ryan/Geostrategies - Tosco/Unocal 6747 Sierra Ct, Suite J Dublin, CA 94568

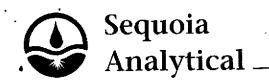
RE: TOSCO Sequoia Report: MKF0408

Enclosed are the results of analyses for samples received by the laboratory on 06/14/01 16:30. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

James Hartley Project Manager

CA ELAP Certificate #1210



885 Jarvis Drive Morgan Hill, CA 95037 (408) 776-9600 FAX (408) 782-6308 www.sequolalabs.com

Gettler Ryan/Geostrategies - Tosco/Unocal

6747 Sierra Ct, Suite J

Dublin CA, 94568

Project: TOSCO

Project Number: Tosco SS# 7376

Project Manager: Deanna Harding

Reported:

06/28/01 08:57

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
TB-LB	MKF0408-01	Water	06/14/01 00:00	06/14/01 16:30
MW-1	MKF0408-02	Water	06/14/01 11:35	06/14/01 16:30
MW-2B	MKF0408-03	Water	06/14/01 12:00	06/14/01 16:30
MW-3	MKF0408-04	Water	06/14/01 15:15	06/14/01 16:30
MW-7	MKF0408-05	Water	06/14/01 14:30	06/14/01 16:30
MW-8	MKF0408-06	Water	06/14/01 13:00	06/14/01 16:30
MW-9	MKF0408-07	Water	06/14/01 13:40	06/14/01 16:30

Sequoia Analytical - Morgan Hill

James Hartley, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



6747 Sierra Ct, Suite J Dublin CA, 94568 Project: TOSCO

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding Reported:

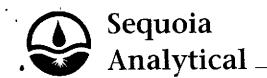
06/28/01 08:57

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-LB (MKF0408-01) Water	Sampled: 06/14/01 00:00	Received	: 06/14/0	1 16:30					
Purgeable Hydrocarbons	ND	50	ug/l	1	1F21027	06/20/01	06/20/01	DHS LUFT	
Benzene	ND	0.50	#	н		н	Hr .	*	
Toluene	ND	0.50	"	Ħ	*	lı	n	•	•
Ethylbenzene	ND	0.50	n	u	п	н	•		
Xylenes (total)	ND	0.50			**	н	"	•	
Methyl tert-butyl ether	ND	2.5	п	н	n	н	n		
Surrogate: a,a,a-Trifluorotoluen	ue .	94.6 %	70-	130	"	,,	77	77	
MW-1 (MKF0408-02) Water	Sampled: 06/14/01 11:35	Received:	06/14/0	1 16:30					
Purgeable Hydrocarbons	ND	50	ug/l	1	1F21027	06/20/01	06/20/01	DHS LUFT	
Benzene	ND	0.50	*	n n	Ħ	н	10	n	
Toluene	ND	0.50		11		н	n	*	
Ethylbenzene	ND	0.50	*	"	*	н	•	н	
Xylenes (total)	ND	0.50		H	-	п	n	W	
Methyl tert-butyl ether	680	12	-	5	11	н	06/21/01		M-03
Surrogate: a,a,a-Trifluorotoluen	ne .	102 %	70-	130	rt .	н	06/20/01	**	
MW-2B (MKF0408-03) Water	Sampled: 06/14/01 12:00	Receive	d: 06/14/	01 16:30					
Purgeable Hydrocarbons	ND	50	ug/l	1	1F21027	06/20/01	06/20/01	DHS LUFT	
Benzene	ND	0.50	n	11	n	н	*	н	
Toluene	ND	0.50	10	н	P	n	H	n	
Ethylbenzene	ND	0.50	"	11	n	н	n	n	
Xylenes (total)	ND	0.50	11	"	n	H	H	и	
Methyl tert-butyl ether	6600	100	H	40	n	н	06/21/01	н	M-03
Surrogate: a,a,a-Trifluorotoluen	ue	101 %	70-	130	,,	,,	06/20/01	,,	

Sequoia Analytical - Morgan Hill





Project: TOSCO

6747 Sierra Ct, Suite J Dublin CA, 94568

Sequoia Analytical - Morgan Hill

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding

Reported: 06/28/01 08:57

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

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3 (MKF0408-04) Water	Sampled: 06/14/01 15:15	Received:	06/14/01	16:30					
Purgeable Hydrocarbons	1800	250	ug/l	5	1F24002	06/25/01	06/25/01	DHS LUFT	P-01
Benzene	260	2.5	и	И	"	н		и	
Toluene	ND	2.5	H		#	ŧi	n	**	
Ethylbenzene	5.5	2.5	**	n	Ħ	*	•		
Xylenes (total)	25	2.5	*	•	н	•	*	п	
Methyl tert-butyl ether	83	12	**	*	P	n		71	
Surrogate: a,a,a-Trifluorotolue	ne	91.1 %	70-	130	,,	"	*	*	
MW-7 (MKF0408-05) Water	Sampled: 06/14/01 14:30	Received:	06/14/0	16:30					
Purgeable Hydrocarbons	6400	500	ug/l	10	1F21005	06/21/01	06/21/01	DHS LUFT	P-01
Benzene	3300	50	Ħ	100	n	н	06/25/01	11	
Toluene	85	5.0	v	10	77	"	06/21/01	Ħ	
Ethylbenzene	96	5.0	4	u	91	п	n	Ħ	
Xylenes (total)	170	5.0	H	n.	11	*	*	И	
Methyl tert-butyl ether	1000	25	,	"	н			n	
Surrogate: a,a,a-Trifluorotolue	ne	114%	70-	-130	n	n	H	. "	
MW-8 (MKF0408-06) Water	Sampled: 06/14/01 13:00	Received	06/14/0	1 16:30					
Purgeable Hydrocarbons	ND	50	ս ջ/ I	1	1F24003	06/25/01	06/25/01	DHS LUFT	
Benzene	ND	0.50	11	19	*	И	Ħ	₩	
Toluene	ND	0.50	•	н	n	H	ıt	n	
Ethylbenzene	ND	0.50			n	•			
Xylenes (total)	ND	0.50	0 " "		Ħ	и .	n	•	
Methyl tert-butyl ether	140	2.5	я #		н				
Surrogate: a,a,a-Trifluorotolue	ene	104 %	70	-130	"	•	*	**	



Project: TOSCO

6747 Sierra Ct, Suite J Dublin CA, 94568 Project Number: Tosco SS# 7376
Project Manager: Deanna Harding

Reported: 06/28/01 08:57

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

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-9 (MKF0408-07) Water	Sampled: 06/14/01 13:40	Received:	06/14/01	16:30					
Purgeable Hydrocarbons	ND	50	ug/l	1	1F21005	06/21/01	06/21/01	DHS LUFT	
Benzene	ND	0.50	n	*	19	*	h	**	
Toluene	ND	0.50	DF	"	h	*	n	#	
Ethylbenzene	ND	0.50	n'	n	н	•	н	•	
Xylenes (total)	ND	0.50			н	*	н	,	
Methyl tert-butyl ether	ND	2.5	*	Ħ	н		n	*	
Surrogate: a,a,a-Trifluorotolue	ne	101 %	70-	130	**	"	н	rr	



6747 Sierra Ct, Suite J Dublin CA, 94568 Project: TOSCO

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding Reported: 06/28/01 08:57

Diesel Hydrocarbons (C9-C24) by DHS LUFT Sequoia Analytical - Morgan Hill

		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1 (MKF0408-02) Water	Sampled: 06/14/01 11:35	Received:	06/14/01	16:30					
Diesel Range Hydrocarbons	71	50	ug/l	1	1F21032	06/21/01	06/26/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		92.5 %	50-	150	"	"	n	rr .	
MW-2B (MKF0408-03) Water	Sampled: 06/14/01 12:0	0 Receive	d: 06/1 <u>4/</u>	01 16:30					
Diesel Range Hydrocarbons	570	50	ug/l	1	1F21032	06/21/01	06/26/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		85.0 %	50-	150	"	#	*	u	
MW-3 (MKF0408-04) Water	Sampled: 06/14/01 15:15	Received:	06/14/0	16:30					
Diesel Range Hydrocarbons	1300	50	ug/l	11	1F21032	06/21/01	06/26/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		75.3 %	50-	150	n	7	"	tr .	
MW-7 (MKF0408-05) Water	Sampled: 06/14/01 14:30	Received:	06/14/0	16:30					
Diesel Range Hydrocarbons	710	50	ug/l	1	1F21032	06/21/01	06/26/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		72.7 %	50-	150	~	"	"	"	
MW-8 (MKF0408-06) Water	Sampled: 06/14/01 13:00	Received:	06/14/0	1 16:30					
Diesel Range Hydrocarbons	94	50	ug/l	1	1F21032	06/21/01	06/26/01	DHS LUFT	D-15
Surrogate: n-Pentacosane		80.2 %	50-	-150	n	n	**	n	
MW-9 (MKF0408-07) Water	Sampled: 06/14/01 13:40	Received	06/14/0	1 16:30				·	
Diesel Range Hydrocarbons	ND	50	ug/l	1	1F21032	06/21/01	06/26/01	DHS LUFT	
Surrogate: n-Pentacosane		77.2 %	50	-150	rr	"	H	Ħ	

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6747 Sierra Ct, Suite J

Dublin CA, 94568

Project: TOSCO

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding

Reported: 06/28/01 08:57

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1F21005 - EPA 5030B [P/T]										
Blank (1F21005-BLK1)				Dranged	& Analyze		n1			
Purgeable Hydrocarbons	ND	50	ug/l	richated	& Allalyzo	Ju. 00/21/	01			
Benzene	ND	0.50	n Riti							
Toluene	ND	0.50	•				•			
Ethylbenzene	ND	0.50	10							
Xylenes (total)	ND	0.50	77							
Methyl tert-butyl ether	ND	2.5	11							
Surrogate: a,a,a-Trifluorotoluene	9.83		"	10.0		98.3	70-130			
LCS (1F21005-BS1)				Prepared	& Analyza	ed: 06/21/	01			
Benzene	9.10	0.50	ug/l	10.0		91.0	70-130			· · · · · · · · · · · · · · · · · · ·
Toluene	9.57	0.50	н	10.0		95.7	70-130			
Ethylbenzene	9.85	0.50	n	10.0		98.5	70-130			
Xylenes (total)	28.2	0.50	н	30.0		94.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.48		"	10.0		94.8	70-130			
Matrix Spike (1F21005-MS1)	So	urce: MKF0	408-07	Prepared	& Analyza	ed: 06/21/	01			
Benzene	10.5	0.50	ug/l	10.0	ND	105	60-140			
Toluene	11.1	0.50	н	10.0	ND	111	60-140			
Ethylbenzene	11.1	0.50	n	10.0	ND	111	60-140			
Xylenes (total)	32.3	0.50	H	30.0	ND	108	60-140			
Surrogate: a,a,a-Trifluorotoluene	10.8		17	10.0		108	70-130		,	
Matrix Spike Dup (1F21005-MSD1)	So	urce: MKF0	408-07	Prepared	& Analyza	ed: 06/21/0	01			
Benzene	10.2	0.50	ug/l	10.0	ND	102	60-140	2.90	25	
Toluene	10.5	0.50	Ħ	10.0	ND	105	60-140	5.56	25	
Ethylbenzene	10.7	0.50	#	10.0	ND	107	60-140	3.67	25	
Xylenes (total)	31.2	0.50	**	30.0	ND	104	60-140	3.46	25	
Surrogate: a,a,a-Trifluorotoluene	10.8		,,,	10.0		108	70-130		,	

6747 Sierra Ct, Suite J Dublin CA, 94568 Project: TOSCO

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding Reported: 06/28/01 08:57

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
	7,00011									
Batch 1F21027 - EPA 5030B [P/T]										
Blank (1F21027-BLK1)			_	Prepared	& Analyz	ed: 06/20/0	01			
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	**							
Toluene	ND	0.50	7							
Ethylbenzene	ND	0.50								
Xylenes (total)	ND	0.50	**							
Methyl tert-butyl ether	ND	. 2.5	t9							
Surrogate: a,a,a-Trifluorotoluene	9.96	•	н	10.0		99.6	70-130			
LCS (1F21027-BS1)		_		Prepared	& Analyz	ed: 06/20/	01			
Benzene	9.43	0.50	ug/l	10.0		94.3	70-130			
Toluene	9.89	0.50	*	10.0		98.9	70-130			
Ethylbenzene	10.1	0.50		10.0		101	70-130			
Xylenes (total)	29.2	0.50	. 0	30.0		97.3	70-130			
Surrogate: a,a,a-Triftuorotoluene	9.99		"	10.0		99.9	7 0 -130			
Matrix Spike (1F21027-MS1)	So	urce: MKF0	379-02	Prepared	& Analyz	ed: 06/20/	01			
Benzene	10.1	0.50	ug/l	10.0	ND	101	60-140			
Toluene	10.9	0.50	•	10.0	ИD	109	60-140			
Ethylbenzene	10.9	0.50	•	10.0	ND	109	60-140			
Xylenes (total)	31.3	0.50	н	30.0	ND	104	60-140			
Surrogate: a,a,a-Trifluorotoluene	10.1		"	10.0		101	70-130		<u>-</u>	
Matrix Spike Dup (1F21027-MSD1)	So	urce: MKF0	379-02	Prepared	& Analyz	ed: 06/20/	01			
Benzene	10.1	0.50	ug/l	10.0	ND	101	60-140	0.00	25	
Toluene	10.7	0.50	•	10.0	ND	107	60-140	1.85	25	
Ethylbenzene	10.9	0.50		10.0	ND	109	60-140	0.00	25	
Xylenes (total)	31.5	0.50	n	30.0	ND	105	60-140	0.637	25	
Surrogate: a,a,a-Trifluorotoluene	10.4		fi.	10.0		104	70-130			



Reported:

06/28/01 08:57

Gettler Ryan/Geostrategies - Tosco/Unocal

Project: TOSCO

6747 Sierra Ct, Suite J Dublin CA, 94568

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1F24002 - EPA 5030B [P/T]				· · ·						
Blank (1F24002-BLK1)				Prepared	& Analyze	ed: 06/25/	01			
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	**							
Toluene	ND	0.50	n							
Ethylbenzene	ND	0.50	и							
Xylenes (total)	ND	0.50	n							
Methyl tert-butyl ether	ND	2.5	н							
Surrogate: a,a,a-Trifluorotoluene	9.23		"	10.0		92.3	70-130			
LCS (1F24002-BS1)				Prepared	& Analyze	ed: 06/25/	01	_		
Benzene	9.33	0.50	ug/l	10.0		93.3	70-130			
Toluene	9.80	0.50	H	10.0		98.0	70-130			
Ethylbenzene	10.2	0.50		10.0		102	70-130			
Xylenes (total)	28.9	0.50	H	30.0		96.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.84		"	10.0		98.4	70-130			-
LCS (1F24002-BS2)				Prepared	& Analyze	ed: 06/25/	01			
Purgeable Hydrocarbons	219	50	ug/l	250		87.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.2	·	"	10.0		102	70-130	*		
Matrix Spike (1F24002-MS1)	So	urce: MKF0	412-05	Prepared	& Analyze	ed: 06/25/	01			
Benzene	10.1	0.50	ug/l	10.0	ND	101	60-140			
Toluene	10.5	0.50	•	10.0	ND	105	60-140			
Ethylbenzene	10.6	0.50	м	10.0	ND	106	60-140			
Xylenes (total)	30.9	0.50	W	30.0	ND	103	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.99		"	10.0		99.9	70-130			
Matrix Spike Dup (1F24002-MSD1)	So	urce: MKF0-	412-05	Prepared	& Analyze	ed: 06/25/	01			
Benzene	9.91	0.50	ug/l	10.0	ND	99.1	60-140	1.90	25	
Toluene	10.6	0.50	#*	10.0	ND	106	60-140	0.948	25	
Ethylbenzene	10.7	0.50	*	10.0	ND	107	60-140	0.939	25	
Xylenes (total)	30.9	0.50	*	30.0	ND	103	60-140	0.00	25	
Surrogate: a,a,a-Trifluorotoluene	10.1		"	10.0		101	70-130			



6747 Sierra Ct, Suite J Dublin CA, 94568 Project: TOSCO

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding Reported: 06/28/01 08:57

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD_	RPD Limit	Notes
Batch 1F24003 - EPA 5030B [P/T]										
Blank (1F24003-BLK1)				Prepared	& Analyze	ed: 06/25/	D1			
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	н							
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	9.99		"	10.0		99.9	70-130			
LCS (1F24003-BS1)				Prepared	& Analyz	ed: 06/25/	01			
Benzene	9.75	0.50	ug/l	10.0	•	97.5	70-130			
Toluene	10.1	0.50	н	10.0		101	70-130			
Ethylbenzene	10.4	0.50	Ħ	10.0		104	70-130			
Xylenes (total)	30.8	0.50	H	30.0		103	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.0		**	10.0		100	70-130			
LCS (1F24003-BS2)	•			Prepared	& Analyz	ed: 06/25/	01	<u> </u>		
Purgeable Hydrocarbons	237	50	ug/l	250		94.8	70-130			
Surrogate: a,a,a-Trifluorotoluene	14.1		"	10.0		141	70-130			S-02
Matrix Spike (1F24003-MS1)	So	urce: MKF0	516-03	Prepared	& Analyz	ed: 06/25/	01			
Purgeable Hydrocarbons	243	50	ug/l	250	ND	97.2	60-140			
Surrogate: a,a,a-Trifluorotoluene	13.7	1-1	,,	10.0		137	70-130			S-02
Matrix Spike Dup (1F24003-MSD1)	So	urce: MKF0	516-03	Prepared	& Analyz	ed: 06/25/	01			
Purgeable Hydrocarbons	219	50	ug/l	250	ND	87.6	60-140	10.4	25	
Surrogate: a,a,a-Trifluorotoluene	13.0		Ħ	10.0		130	70-130			

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6747 Sierra Ct, Suite J Dublin CA, 94568 Project: TOSCO

Project Number: Tosco SS# 7376 Project Manager: Deanna Harding Reported:

06/28/01 08:57

Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1F21032 - EPA 3510B					_					
Blank (1F21032-BLK1)				Prepared:	06/21/01	Analyzed	: 06/26/01	·		
Diesel Range Hydrocarbons	ND	50	ug/l							
Surrogate: n-Pentacosane	75.3		**	100		75.3	50-150			
LCS (1F21032-BS1)				Prepared:	06/21/01	Analyzed	: 06/26/01			
Diesel Range Hydrocarbons	660	50	ug/i	1000		66.0	60-140			
Surrogate: n-Pentacosane	96.7		"	100		96.7	50-150			
Matrix Spike (1F21032-MS1)	Sou	rce: MKF03	322-03	Prepared:	06/21/01	Analyzed	1: 06/26/01			
Diesel Range Hydrocarbons	642	50	ug/l	1000	ND	64.2	50-150			
Surrogate: n-Pentacosane	80.7		,,	100		80.7	50-150			
Matrix Spike Dup (1F21032-MSD1)	Source: MKF0322-03		Prepared:	06/21/01	Analyzed	l: 06/26/01				
Diesel Range Hydrocarbons	640	50	ug/l	1000	ND	64.0	50-150	0.312	50	
Surrogate: n-Pentacosane	80.1		"	100		80.1	50-150			



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Gettler Ryan/Geostrategies - Tosco/Unocal

6747 Sierra Ct, Suite J Dublin CA, 94568 Project: TOSCO
Project Number: Tosco SS# 7376

Project Manager: Deanna Harding

Reported: 06/28/01 08:57

Notes and Definitions

D-15	Chromatogram Pattern: Unidentified Hydrocarbons C9-C24
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M-03 Sample was analyzed at a second dilution.

P-01 Chromatogram Pattern: Gasoline C6-C12

S-02 The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds

present in the sample.

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

Sequoia Analytical - Morgan Hill