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Environmental Management**

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10-216  
Alameda County  
MAY 21 2003  
Environmental Health

May 15, 2003

Scott Seery  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Room 250  
Alameda, CA 94502-6577

Alameda County  
MAY 21 2003  
Environmental Health

**Site:** TESORO STATION # 67106 (former Beacon # 3720), 1088 Marina Blvd, San Leandro, CA  
**Re:** Technical report submittal

Dear Mr. Seery:

Please find enclosed herewith a copy of the following technical report prepared by RDM, Roseville, CA:

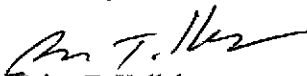
*Quarterly Groundwater Monitoring and Remediation Status Report First Quarter 2003* dated May 12, 2003.

As an authorized representative of Tesoro Petroleum and Refining Company (Tesoro), I have reviewed the enclosed report and declare under penalty of perjury that to the best of my knowledge the information contained in the report is true and correct.

The report covers the groundwater-monitoring event Doulas Environmental conducted on February 20, 2003 during which they sounded, purged and sampled nine wells and provided for certified analyses of total petroleum hydrocarbon constituents, BTEX, and MTBE using EPA Method 8260B. The next groundwater-monitoring event is scheduled for the first quarter 2003.

The report also covers operation of sparging-enhanced soil vapor extraction (SESVE) remedial processes during the first quarter 2003. During this period the SESVE system extracted 16 pounds of gasoline vapors. Based on the collective groundwater monitoring data, RDM is recommending the conduct of additional feasibility studies with an eye toward improving remediation system performance and accelerating the attainment of cleanup objectives.

Sincerely,



Brian T. Kelleher  
Project Coordinator

Enclosure: CC with enclosure: Robert Donovan, Tesoro; Glenn Dembroff, Ultramar; Richard Munsch, RDM (cover letter only).



Environmental

1704 Via Riata, Roseville, CA 95747

Tel: (916) 771-7098, FAX: (916) 771-4584

May 12, 2003

Mr. Rob Donovan  
Tesoro Petroleum Companies  
3450 S. 344<sup>th</sup> Way Suite 100  
Auburn, WA 98001-5931

Subject: *Quarterly Ground Water Monitoring and  
Remediation System Status Report, First Quarter 2003*  
Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California  
RDM Project No. 00-67106

Alameda County  
MAY 21 2003  
Environmental Health

Dear Mr. Donovan:

On Behalf of Tesoro Refining and Marketing Company, RDM Environmental (RDM) has prepared the following quarterly ground water monitoring and remediation system status report for the subject site. This report describes quarterly ground water monitoring and remediation system status for the **First Quarter 2003**.

**Work Performed During the First Quarter 2003:**

- Doulos Environmental Inc. performed ground water sampling on **February 20, 2003**.
- RDM continued operation and maintenance on the remediation system.

**STATUS OF GROUND WATER MONITORING**

Cumulative ground water sampling information is tabulated in Table 1. A site topographic map, site map, and ground water elevation contour map are shown as Figures 1 through 3, respectively. Analytical isoconcentration maps are presented as Figures 4 through 6. The site history is included in Enclosure A, the quarterly monitoring data sheets are included in Enclosure B and the ground water analytical results are included in Enclosure C. Historical ground water monitoring data is included in Enclosure D.

- Historical ground water flow direction is to the southwest.

**STATUS OF REMEDIATION SYSTEM**

Operation and maintenance is performed bi-monthly by RDM on a remediation system consisting of ground water treatment, soil vapor extraction (SVE) and air sparging components. A process flow diagram showing details of the system is shown as Figure 7.

**Operation & Maintenance Site Visits:**

- Operation and maintenance site visits were conducted for the **First Quarter 2003** on:
  - **January 3 and 29, 2003**
  - **February 18 and 20, 2003**
  - **March 4 and 20, 2003**

**Ground Water Extraction System Performance:**

- The ground water treatment system did not operate during the **First Quarter 2003**.
- During the **First Quarter 2003**, the ground water system processed **Zero (0)** gallons. The ground water treatment system was shut off in March 1998 at which time the ground water system had processed approximately **228,500** gallons.
- Monitoring wells MW-4, MW-5 and MW-9 are used as recovery wells.

**Soil Vapor Extraction System Performance:**

- The SVE system operated continuously during the **First Quarter 2003**.
- During the **First Quarter 2003**, the SVE system removed approximately **16** pounds of vapor equivalent gasoline.
- As of **March 20, 2003**, the SVE system has removed approximately **2,587** pounds (**424** gallons) of vapor equivalent gasoline.
- Soil vapor extraction is conducted on MW-1 through MW-5, MW-8, MW-9 and vapor well VW-1.
- The SVE analytical results are included in Table 2 and the SVE performance data is included in Table 3. Remediation system analytical results are included in Enclosure E.

**Air Sparging System Performance:**

- The air sparging system operated continuously during the **First Quarter 2003**.
- Air sparging system is connected to sparge points SP-1 through SP-6.

**CONCLUSIONS/RECOMMENDATIONS**

RDM recommends continued operation of the SVE and air sparge system and quarterly ground water monitoring. In view of the elevated levels of dissolved BTEX, TPHg and MTBE concentrations in MW-1 thru MW-5, RDM recommends the conducting of additional feasibility studies and pilot testing to develop an optimal strategy for remediation of the ground water. The alternatives that will be evaluated include re-commissioning the existing ground water system, ozone sparging, and enhanced bioremediation.

The interpretations contained in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

Mr. Rob Donovan  
Tesoro Petroleum  
May 12, 2003  
Page 3

RDM recommends a copy of this report be forward to the following people.

Mr. Scott Seery  
Alameda County Health Care Agency  
Department of Environmental Health  
1131 Harbor Parkway, Room 250  
Alameda, CA 94502-6577

Mr. Paul Zolfarelli  
Environmental Compliance Inspector  
City of San Leandro  
3000 Davis Street  
San Leandro, CA 94577

Case Worker  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

If you have any questions concerning this project, please contact Richard Munsch at (916) 771-7098.

**RDM ENVIRONMENTAL**

  
Richard D. Munsch  
Project Manager

  
Michael G. Lee, P.E.  
California Registered Civil Engineer No. C055795



RDM (67106 1Q GWM 2-20-03)

**Enclosures:**

- Enclosure A: Site Background Information
- Enclosure B: Ground Water Sampling Information
- Enclosure C: Ground Water Analytical Results
- Enclosure D: Historical Ground Water Monitoring Data
- Enclosure E: Remediation System Analytical Results

TABLE 1

## GROUND WATER MONITORING DATA

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-1	03/12/98	33.10	11.09	22.01	<0.5	<0.5	5.0	2.8	100	<5.0	NA	No sheen
	05/28/98		11.36	21.74	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	08/31/98		12.61	20.49	<0.5	<0.5	6.4	1.4	130	<5.0	NA	No sheen
	11/19/98		13.84	19.26	0.75	<0.5	<0.5	3.0	120	<5.0	NA	No sheen
	03/15/99		11.95	21.15	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/07/99		13.45	19.65	1.6	1.9	230	110	5,200	<5.0	NA	No sheen
	09/07/99		13.10	20.00	1.0	<0.5	22	15	490	<5.0	NA	No sheen
	12/13/99		14.29	18.81	<2.5	<2.5	170	110	4,100	<25	NA	No sheen
	03/08/00		11.22	21.88	<0.5	<0.5	21	7.7	1,200	150	NA	No sheen
	06/12/00		12.85	20.25	1.5	0.9	160	98	3,000	34	NA	No sheen
	11/15/00	14.19	18.91	<20	<20	470	390	8,500	14,000	NA	No sheen	
	02/27/01	12.35	20.75	5.4	2.6	260	190	6,100	4,300	NA	No sheen	
	05/22/01	14.18	18.92	8.9	13	1,100	1,300	21,000	2,300	NA	No sheen	
	09/05/01	13.70	19.10	<2.0	3.6	600	850	12,000	93	NA	No sheen	
	11/07/01	14.25	18.85	<5.0	<5.0	1,300	1,600	23,000	87	NA	No sheen	
	02/11/02	35.47	13.05	22.42	<0.5	<0.5	140	150	4,500	18	NA	No sheen
	06/03/02	13.31	22.16	<2.5	<2.5	520	460	12,000	12	NA	No sheen	
08/06/02	13.75	21.72	<0.5	<0.5	710	580	22,000	15	NA	No sheen		
11/14/02	14.10	21.37	<5.0	<5.0	300	250	16,000	8.1	ND	No sheen		
02/20/03	12.80	22.67	<1.5	<1.5	130	89	7,300	9.3	ND	No sheen		
MW-2	03/12/98	32.80	10.92	21.88	32	1.0	12	6.5	440	20	NA	No sheen
	05/28/98		10.41	22.39	<0.5	<0.5	<0.5	<0.5	<50	27	NA	No sheen
	08/31/98		12.29	20.51	9.3	0.95	4.9	8.8	270	20	NA	No sheen
	11/19/98		13.47	19.33	16	0.72	<0.5	4.3	180	7.4	NA	No sheen
	03/15/99		11.95	20.85	12	3.5	59	840	2,400	10	NA	No sheen
	06/07/99		13.11	19.69	21	0.99	6.9	10	690	6.1	NA	No sheen
	09/07/99		12.92	19.88	7.8	1.2	42	100	610	<5.0	NA	No sheen
	12/13/99		13.96	18.84	26	0.93	52	96	3,000	<5.0	NA	No sheen
	03/08/00		10.87	21.93	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		12.53	20.27	51	17	170	320	5,500	18	NA	No sheen
	11/15/00	13.96	18.84	75	48	1,200	2,800	16,000	19,000	NA	No sheen	
	02/27/01	12.29	20.51	54	24	320	870	10,000	6,000	NA	No sheen	
	05/22/01	15.51	17.29	12	5.0	79	100	2,400	3,500	NA	No sheen	
	09/05/01	13.75	19.05	120	180	1,500	5,100	34,000	400	NA	No sheen	
	11/07/01	13.99	18.81	87	170	1,400	3,700	32,000	870	NA	No sheen	
	02/11/02	35.11	12.98	22.13	170	250	1,600	4,700	34,000	390	NA	No sheen
	06/03/02	13.24	21.87	130	260	1,700	5,100	29,000	110	NA	No sheen	
08/06/02	13.73	21.38	110	240	1,700	4,700	34,000	84	NA	No sheen		
11/14/02	13.55	21.56	51	150	1,300	3,600	35,000	39	ND	No sheen		
02/20/03	11.80	23.31	67	130	1,100	2,800	23,000	71	ND	No sheen		

TABLE 1

## GROUND WATER MONITORING DATA

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-3	03/12/98	32.30	10.81	21.49	0.67	<0.5	7.1	3.4	1,200	7.3	NA	No sheen
	05/28/98		11.45	20.85	<0.5	0.5	<0.5	<0.5	350	<5.0	NA	No sheen
	08/31/98		12.21	20.09	<0.5	0.89	0.69	<0.5	240	<5.0	NA	No sheen
	11/19/98		13.26	19.04	5.3	0.72	0.86	4.2	440	<5.0	NA	No sheen
	03/15/99		11.89	20.41	3.3	1.3	0.77	<0.5	410	<5.0	NA	No sheen
	06/07/99		12.91	19.39	<0.5	2.0	<0.5	0.66	680	<5.0	NA	No sheen
	09/07/99		12.81	19.49	<0.5	0.62	<0.5	8.7	150	12	NA	No sheen
	12/13/99		13.75	18.55	<0.5	0.52	<0.5	1.0	830	<5.0	NA	No sheen
	03/08/00		11.39	20.91	0.58	<0.5	0.77	<0.5	960	<5.0	NA	No sheen
	06/12/00		12.58	19.72	1.7	<0.5	46	6.3	1,700	<5.0	NA	No sheen
	11/15/00	13.85	18.45	<200	<200	<200	<200	<20,000	84,000	NA	No sheen	
	02/27/01	12.22	20.08	98	<20	130	30	3,500	16,000	NA	No sheen	
	05/22/01	13.66	18.64	41	<20	20	<20	<2,000	5,800	NA	No sheen	
	09/05/01	13.41	18.89	9.9	1.5	49	8.2	5,300	430	NA	No sheen	
	11/07/01	13.85	18.45	9.4	1.8	47	8.8	6,500	1,600	NA	No sheen	
	02/11/02	34.84	12.86	21.98	8.9	<2.0	14	<2.0	2,400	530	NA	No sheen
	06/03/02		13.10	21.74	13	0.77	19	0.94	2,100	110	NA	No sheen
	08/06/02		13.52	21.32	25	2.5	12	1.1	2,800	120	NA	No sheen
	11/14/02		13.49	21.35	29	0.89	3.7	<0.5	2,200	420	1.1 <sup>b</sup> , 19 <sup>c</sup>	No sheen
	02/20/03		12.92	21.92	2.5	<0.5	<0.5	<0.5	2,400	340	13 <sup>c</sup>	No sheen
MW-4	03/12/98	32.90	11.31	21.59	2,200	1,500	630	3,000	14,000	440	NA	No sheen
	05/28/98		10.40	22.50	<0.5	0.75	0.68	6.9	67	26	NA	No sheen
	08/31/98		12.54	20.36	1.8	2.5	0.65	3.4	<50	<5.0	NA	No sheen
	11/19/98		13.99	18.91	<0.5	<0.5	<0.5	0.61	<50	17	NA	No sheen
	03/15/99		12.06	20.84	1.2	1.6	0.76	4.5	160	9.3	NA	No sheen
	06/07/99		13.57	19.33	210	370	350	2,000	5,800	<20	NA	No sheen
	09/07/99		10.30	22.60	2.2	2.8	4.8	25	130	12	NA	No sheen
	12/13/99		14.18	18.72	1.3	1.0	1.2	4.8	<50	12	NA	No sheen
	03/08/00		11.77	21.13	78	200	160	750	3,700	11	NA	No sheen
	06/12/00		13.47	19.43	<0.5	<0.5	<0.5	<0.5	<50	24	NA	No sheen
	11/15/00	14.33	18.57	12	38	28	130	710	1,300	NA	No sheen	
	02/27/01	14.25	18.65	67	300	310	1,400	6,500	1,000	NA	No sheen	
	05/22/01	13.99	18.91	2.1	5.6	4.8	20	130	350	NA	No sheen	
	09/05/01	15.75	17.15	110	670	250	1,300	6,200	600	NA	No sheen	
	11/07/01	16.10	16.80	40	270	180	940	4,100	110	NA	No sheen	
	02/11/02	35.33	15.04	20.29	91	590	620	3,000	14,000	350	NA	No sheen
	06/03/02		13.61	21.72	69	390	190	1,100	4,300	240	NA	No sheen
	08/06/02		15.01	20.32	100	690	570	2,900	13,000	170	NA	No sheen
	11/14/02		13.98	21.35	65	380	550	3,400	20,000	130	ND	No sheen
	02/20/03		13.33	22.00	57	240	650	3,700	18,000	98	ND	No sheen

TABLE 1

## GROUND WATER MONITORING DATA

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-5	03/12/98	32.70	11.11	21.59	2,600	160	470	2,200	12,000	<250	NA	No sheen
	05/28/98		10.92	21.78	480	99	160	730	4,700	<250	NA	No sheen
	08/31/98		12.79	19.91	200	14	55	220	1,400	180	NA	No sheen
	11/19/98		13.39	19.31	1.4	<0.5	<0.5	<0.5	<50	39	NA	No sheen
	03/15/99		11.71	20.99	320	17	290	780	3,400	33	NA	No sheen
	06/07/99		13.26	19.44	220	8.9	240	290	3,200	<25	NA	No sheen
	09/07/99		9.70	23.00	8.5	<0.5	8.5	12	140	38	NA	No sheen
	12/13/99		14.06	18.64	<0.5	<0.5	<0.5	13	140	<5.0	NA	No sheen
	03/08/00		11.80	20.90	0.66	<0.5	2.5	30	280	<5.0	NA	No sheen
	06/12/00		12.99	19.71	22	1.2	79	170	2,700	6.4	NA	No sheen
	11/15/00		14.23	18.47	36	1.6	180	180	4,500	10	NA	No sheen
	02/27/01		12.66	20.04	33	1.6	160	220	2,800	110	NA	No sheen
	05/22/01		13.58	19.12	49	2.2	180	230	3,200	240	NA	No sheen
	09/05/01	14.05	18.65	28	1.0	100	100	2,400	560	NA	No sheen	
	11/07/01	14.32	18.38	<2.0	<2.0	2.1	20	390	590	NA	No sheen	
	02/11/02	35.09	13.31	21.78	19	<5.0	59	52	1,200	1,800	NA	No sheen
	06/03/02		13.55	21.54	44	<2.0	150	210	3,200	610	NA	No sheen
	08/06/02		14.10	20.99	42	<2.0	140	150	3,200	820	NA	No sheen
	11/14/02		14.03	21.06	29	1.3	94	100	2,900	560	100 <sup>c</sup>	No sheen
	02/20/03		13.35	21.74	22	<1.0	81	77	2,900	270	170 <sup>c</sup>	No sheen
MW-6	03/12/98	30.40	10.49	19.91	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	05/28/98		10.58	19.82	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	08/31/98		10.85	19.55	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	11/19/98		10.88	19.52	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	03/15/99		10.83	19.57	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/07/99		11.01	19.39	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	09/07/99		11.89	18.51	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	12/13/99		12.09	18.31	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	03/08/00		10.02	20.38	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		11.07	19.33	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	11/15/00		12.34	18.06	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	02/27/01		10.75	19.65	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	05/22/01		11.55	18.85	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	09/05/01	12.10	18.30	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	11/07/01	12.31	18.09	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	02/11/02	32.74	11.05	21.69	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	06/03/02		11.70	21.40	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	08/06/02		12.28	20.46	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen
	11/14/02		12.46	20.28	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen
	02/20/03		11.26	21.48	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen

TABLE 1

## GROUND WATER MONITORING DATA

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) *	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments	
MW-7	03/12/98	31.20	10.14	21.06	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	05/28/98		10.93	20.27	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	08/31/98		12.01	19.19	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	11/19/98		12.54	18.66	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	03/15/99		10.94	20.26	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	06/07/99		12.05	19.15	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	09/07/99		12.67	18.53	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	12/13/99		12.73	18.47	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	03/08/00		10.90	20.30	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	06/12/00		12.61	18.59	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	11/15/00		13.06	18.14	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	02/27/01		11.85	19.35	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	05/22/01		12.31	18.89	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	09/05/01		12.85	18.35	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	11/07/01		12.75	18.45	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	02/11/02		33.64	NM	NC	NS	NS	NS	NS	NS	NS	NA	
	06/03/02		12.58	21.06	<0.5	<0.5	<0.5	<0.5	<50	0.95	NA	No sheen	
	08/06/02		12.93	20.71	<0.5	<0.5	<0.5	<0.5	<50	<0.5	NA	No sheen	
	11/14/02		13.04	20.60	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen	
	02/20/03	12.75	20.89	<0.5	<0.5	<0.5	<0.5	<50	<0.5	ND	No sheen		
MW-8	03/12/98	33.80	11.81	21.99	1.4	<0.5	<0.5	<0.5	72	<5.0	NA	No sheen	
	05/28/98		12.14	21.66	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	08/31/98		13.16	20.64	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	11/19/98		14.56	19.24	510	24	1,200	2,800	14,000	<5.0	NA	No sheen	
	03/15/99		12.40	21.40	160	16	910	2,100	14,000	<50	NA	No sheen	
	06/07/99		14.06	19.74	330	14	470	880	7,800	<50	NA	No sheen	
	09/07/99		14.01	19.79	150	2.6	260	370	3,200	<5.0	NA	No sheen	
	12/13/99		14.91	18.89	35	<5.0	280	730	6,700	<50	NA	No sheen	
	03/08/00		11.85	21.95	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen	
	06/12/00		13.59	20.21	4.0	<0.5	4.9	2.1	140	<5.0	NA	No sheen	
	11/15/00		14.94	18.86	2.0	<0.5	3.1	2.6	100	110	NA	No sheen	
	02/27/01		NM	NC	NS	NS	NS	NS	NS	NS	NA	Tank Over Well	
	05/22/01		NM	NC	NS	NS	NS	NS	NS	NS	NA	Tank Over Well	
	09/05/01		14.68	19.12	160	<2.0	200	330	4,800	850	NA	No sheen	
	11/07/01		15.10	18.70	1.1	<1.0	2.0	6.1	<100	590	NA	No sheen	
	02/11/02		36.08	14.06	22.02	7.9	<5.0	16	22	<500	1,700	NA	No sheen
	06/03/02		14.25	21.83	20.0	<2.0	19	35	550	650	NA	No sheen	
	08/06/02		14.55	21.53	220	<2.0	170	280	4,800	1,000	NA	No sheen	
	11/14/02		14.73	21.35	250	<2.5	160	220	4,800	1,200	47 <sup>c</sup>	No sheen	
	02/20/03	13.81	22.27	17	<1.0	19	42	760	520	16 <sup>c</sup>	No sheen		



TABLE 1

## GROUND WATER MONITORING DATA

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Monitoring Well	Date	Reference Elevation (ft) <sup>a</sup>	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Oxygenates (µg/L)	Comments
MW-9	03/12/98	32.56	10.93	21.63	320	23	180	720	3,700	190	NA	No sheen
	05/28/98		11.31	21.25	110	6.4	87	300	2,200	220	NA	No sheen
	08/31/98		12.16	20.40	240	23	690	1,900	11,000	<50	NA	No sheen
	11/19/98		11.04	21.52	7.7	<0.5	10	22	280	67	NA	No sheen
	03/15/99		11.81	20.75	<0.5	<0.5	<0.5	1.2	<50	<5.0	NA	No sheen
	06/07/99		12.21	20.35	9.3	0.86	9.7	12	340	<5.0	NA	No sheen
	09/07/99		10.10	22.46	0.76	<0.5	1.9	0.8	72	9.9	NA	No sheen
	12/13/99		13.64	18.92	<0.5	<0.5	<0.5	<0.5	60	<5.0	NA	No sheen
	03/08/00		10.88	21.68	<0.5	<0.5	<0.5	<0.5	<50	<5.0	NA	No sheen
	06/12/00		12.50	20.06	0.9	<0.5	2.7	1.3	640	10	NA	No sheen
	11/15/00		13.60	18.96	<0.5	<0.5	0.69	<0.5	200	12	NA	No sheen
	02/27/01		12.15	20.41	0.61	<0.5	2.2	1.2	360	42	NA	No sheen
	05/22/01		13.20	19.36	0.57	<0.5	2.1	0.61	330	290	NA	No sheen
	09/05/01		13.10	19.46	<2.0	<2.0	<2.0	<2.0	<200	1,100	NA	No sheen
	11/07/01		13.85	18.71	1.0	<1.0	<1.0	<1.0	230	510	NA	No sheen
	02/11/02	34.63	12.98	21.65	<0.5	<0.5	<0.5	<0.5	<50	41	NA	No sheen
	06/03/02		12.48	22.15	<0.5	<0.5	<0.5	<0.5	<50	55	NA	No sheen
	08/06/02	34.63	13.16	21.47	<0.5	<0.5	<0.5	<0.5	<50	65	NA	No sheen
	11/14/02		13.15	21.48	<0.5	<0.5	<0.5	<0.5	<50	47	ND	No sheen
	02/20/03		12.46	22.17	<0.5	<0.5	<0.5	<0.5	<50	28	ND	No sheen

a =Referenced to mean sea level.

b =tert-amyl methyl ether

c = tert-butanol

TPH = Total petroleum hydrocarbons.

MTBE = Methyl tertiary butyl ether.

µg/L = Micrograms per liter.

Oxygenates = methyl-t-butyl ether, diisopropyl ether, ethyl-t-butyl ether, tert-amyl methyl ether, tert-butanol, 1,2-dichloroethane, 1,2-dibromoethane

TABLE 2

## SVE SYSTEM ANALYTICAL RESULTS

Tesoro Station No. 67106  
 Former Beacon Station No. 3720  
 1088 Marina Boulevard  
 San Leandro, California

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)	MTBE (ppmv)
Influent	06/05/97	3.2	0.72	1.2	2.5	220	NA
Effluent	06/05/97	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	07/03/97	0.30	0.67	0.23	1.8	86	NA
Effluent	07/03/97	<0.05	0.054	<0.05	0.13	<5.0	NA
Influent	07/22/97	0.76	1.6	0.92	5.3	270	NA
Effluent	07/22/97	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	08/07/97	2.0	1.3	0.53	2.7	130	NA
Effluent	08/07/97	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	09/04/97	1.8	0.73	1.3	5.9	190	NA
Effluent	09/04/97	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	10/24/97	0.49	0.52	0.35	2.3	54	NA
Effluent	10/24/97	<0.05	<0.05	<0.05	0.057	<5.0	NA
Effluent	11/26/97	0.094	0.089	<0.05	0.062	5.3	NA
Influent	12/10/97	<0.05	0.44	0.076	0.37	5.8	NA
Effluent	12/10/97	<0.05	0.062	<0.05	<0.05	<5.0	NA
Influent	12/12/97	0.59	0.17	0.49	2.0	26	NA
Effluent	12/12/97	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	01/12/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/12/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	04/23/98	0.18	0.32	0.072	0.47	18	NA
Mid-Carbon	04/23/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	04/23/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	06/09/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Mid-Carbon	06/09/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	06/09/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	07/07/98	0.067	<0.05	<0.05	<0.05	<5.0	NA
Mid-Carbon	07/07/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	07/07/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA

TABLE 2

## SVE SYSTEM ANALYTICAL RESULTS

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)	MTBE (ppmv)
Mid-Carbon	07/21/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	08/11/98	<0.05	0.06	<0.05	0.071	<5.0	NA
Mid-Carbon	08/11/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	08/11/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	09/10/98	0.16	0.46	0.062	0.20	16	NA
Mid-Carbon	09/10/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	09/10/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	09/23/98	0.16	0.32	<0.05	0.20	9.4	NA
Mid-Carbon	09/23/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	10/20/98	0.63	0.19	0.062	0.17	28	NA
Mid-Carbon	10/20/98	0.79	0.37	<0.05	0.088	48	NA
Effluent	10/20/98	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	11/26/97	0.13	0.43	0.072	0.35	9.2	NA
Influent	12/08/99	0.73	2.2	0.15	0.71	43	NA
Mid-Carbon	12/08/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	12/08/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	01/13/99	0.068	0.057	<0.05	0.095	6.5	NA
Mid-Carbon	01/13/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/13/99	<0.05	<0.05	<0.05	<0.05	5.4	NA
Effluent	01/28/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	02/10/99	1.1	1.2	0.071	0.28	56	NA
Mid-Carbon	02/10/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	02/10/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	03/10/99	0.070	<0.05	<0.05	<0.05	<5.0	NA
Mid-Carbon	03/10/99	0.069	<0.05	<0.05	<0.05	28	NA
Effluent	03/10/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	04/07/99	0.22	0.078	<0.05	0.060	17	NA

TABLE 2

## SVE SYSTEM ANALYTICAL RESULTS

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)	MTBE (ppmv)
Influent	06/08/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Mid-Carbon	06/08/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	06/08/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	07/12/99	0.16	0.77	<0.05	0.18	11	NA
Mid-Carbon	07/12/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	07/12/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	08/09/99	0.092	1.0	0.20	0.94	12	NA
Mid-Carbon	08/09/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	08/09/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	09/07/99	0.069	0.41	0.07	0.38	16	NA
Mid-Carbon	09/07/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	09/07/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	10/12/99	0.96	8.6	1.1	4.7	150	NA
Mid-Carbon	10/12/99	<0.05	<0.05	<0.05	0.064	<5.0	NA
Effluent	10/12/99	<0.05	<0.05	<0.05	0.063	<5.0	NA
Influent	11/17/99	0.22	1.9	0.32	1.7	21	NA
Mid-Carbon	11/17/99	0.067	<0.05	<0.05	<0.05	<5.0	NA
Effluent	11/17/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	12/28/99	1.2	22	2.4	12	570	NA
Mid-Carbon	12/28/99	0.052	<0.05	<0.05	<0.05	<5.0	NA
Effluent	12/28/99	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	01/12/00	0.45	1.7	0.18	1.0	110	NA
Mid-Carbon	01/12/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/12/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	01/26/00	0.059	0.77	0.19	1.1	14	NA
Mid-Carbon	01/26/00	0.20	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/26/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	02/06/00	0.095	1.4	0.18	0.87	22	NA
Mid-Carbon	02/06/00	0.20	<0.05	<0.05	<0.05	<5.0	NA
Effluent	02/06/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	02/09/00	0.45	3.1	0.52	2.8	59	NA
Mid-Carbon	02/09/00	0.18	<0.05	<0.05	<0.05	<5.0	NA
Effluent	02/09/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	03/16/00	0.10	3.5	0.54	4.1	46	NA
Mid-Carbon	03/16/00	0.83	0.31	<0.05	<0.05	22	NA
Effluent	03/16/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA

TABLE 2

## SVE SYSTEM ANALYTICAL RESULTS

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)	MTBE (ppmv)
Influent	04/04/00	0.17	1.9	0.29	2.0	23	NA
Mid	04/04/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	04/04/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	05/12/00	<0.05	0.059	<0.05	0.091	<5.0	NA
Mid	05/12/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	05/12/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	06/19/00	<0.05	0.12	<0.05	<0.05	<5.0	NA
Mid	06/19/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	06/19/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	07/25/00	2.4	8.1	0.80	3.5	140	NA
Mid	07/25/00	<0.050	0.07	<0.050	<0.050	12	NA
Effluent	07/25/00	<0.05	<0.05	<0.05	<0.05	5.4	NA
Influent	07/25/00	2.4	8.1	0.80	3.5	140	NA
Mid	07/25/00	<0.050	0.07	<0.050	<0.050	12	NA
Effluent	07/25/00	<0.05	<0.05	<0.05	<0.05	5.4	NA
Influent	08/09/00	2.4	8.1	0.80	3.5	140	NA
Mid	08/09/00	<0.050	0.07	<0.050	<0.050	12	NA
Effluent	08/09/00	<0.05	<0.05	<0.05	<0.05	5.4	NA
Influent	09/06/00	2.4	8.1	0.80	3.5	140	NA
Mid	09/06/00	<0.050	0.07	<0.050	<0.050	12	NA
Effluent	09/06/00	<0.05	<0.05	<0.05	<0.05	5.4	NA
Influent	10/17/00	<0.05	0.075	<0.05	0.14	<5.0	NA
Mid	10/17/00	<0.050	0.07	<0.050	<0.050	<5.0	NA
Effluent	10/17/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	11/29/00	<0.05	0.24	0.08	0.29	<5.0	NA
Mid	11/29/00	<0.05	0.07	<0.05	0.18	<5.0	NA
Effluent	11/29/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	12/07/00	<0.05	0.13	<0.05	0.064	<5.0	NA
Mid	12/07/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	12/07/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA

TABLE 2

## SVE SYSTEM ANALYTICAL RESULTS

Tescoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)	MTBE (ppmv)
Influent	01/07/01	0.12	0.85	0.16	0.92	17	NA
Mid	01/07/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/07/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	02/23/01	0.19	1.6	0.19	1.1	32	NA
Mid	02/23/01	<0.05	0.07	<0.05	<0.05	<5.0	NA
Effluent	02/23/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	03/01/01	0.97	1.2	0.13	0.64	18	NA
Mid	03/01/01	<0.05	0.053	<0.05	<0.098	<5.0	NA
Effluent	03/01/01	<0.05	0.053	<0.05	0.13	<5.0	NA
Influent	10/17/2000	<0.05	0.075	<0.05	0.14	<5.0	NA
Mid-Carbon	10/17/2000	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	10/17/2000	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	11/29/2000	<0.05	0.24	0.08	0.29	<5.0	NA
Mid-Carbon	11/29/2000	<0.05	0.07	<0.05	0.18	<5.0	NA
Effluent	11/29/2000	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	12/07/00	<0.05	0.13	<0.05	0.064	<5.0	NA
Mid-Carbon	12/07/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	12/07/00	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	01/07/01	0.12	0.85	0.16	0.92	17	NA
Mid-Carbon	01/07/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/07/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	02/23/01	0.19	1.6	0.19	1.1	32	NA
Mid-Carbon	02/23/01	<0.05	0.07	<0.05	<0.05	<5.0	NA
Effluent	02/23/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	03/01/01	0.97	1.2	0.13	0.64	18	NA
Mid-Carbon	03/01/01	<0.05	0.053	<0.05	0.098	<5.0	NA
Effluent	03/01/01	<0.05	0.11	<0.05	0.13	<5.0	NA

TABLE 2

## SVE SYSTEM ANALYTICAL RESULTS

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)	MTBE (ppmv)
Influent	04/18/01	0.1	0.63	0.12	0.56	18	NA
Mid-Carbon	04/18/01	<0.05	<0.05	<0.05	0.078	<5.0	NA
Effluent	04/18/01	<0.05	<0.05	<0.05	0.11	<5.0	NA
Influent	05/21/01	0.088	1.0	0.31	1.5	20	NA
Mid-Carbon	05/21/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	05/21/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	06/05/01	0.15	1.5	0.36	1.6	24	NA
Mid-Carbon	06/05/01	<0.05	0.053	<0.05	0.098	9.1	NA
Effluent	06/05/01	<0.05	<0.05	<0.05	<0.05	5.6	NA
Influent	07/16/01	<0.05	0.11	<0.05	0.14	<5.0	NA
Mid-Carbon	07/16/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	07/16/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	08/24/01	0.15	1.1	0.16	0.71	19	NA
Mid-Carbon	08/24/01	<0.05	0.055	<0.05	<0.05	<5.0	NA
Effluent	08/24/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	09/06/01	0.28	1.8	0.38	1.6	37	NA
Mid-Carbon	09/06/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	09/06/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	11/23/01	0.11	0.17	<0.05	0.10	<5.0	NA
Mid-Carbon	11/23/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	11/23/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	12/13/01	0.076	0.16	<0.05	0.063	<5.0	NA
Mid-Carbon	12/13/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	12/13/01	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	01/29/02	<0.05	0.12	<0.05	0.067	<5.0	NA
Mid-Carbon	01/29/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/29/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	03/20/02	0.054	0.12	<0.05	<0.05	<5.0	NA
Mid-Carbon	03/20/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	03/20/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA

TABLE 2

## SVE SYSTEM ANALYTICAL RESULTS

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)	MTBE (ppmv)
Influent	04/18/02	<0.05	0.076	<0.05	0.092	<5.0	0.16
Mid-Carbon	04/18/02	<0.05	<0.05	<0.05	<0.05	<5.0	2.1
Effluent	04/18/02	<0.05	<0.05	<0.05	<0.05	<5.0	0.32
Influent	05/13/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Mid-Carbon	05/13/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	05/13/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	06/13/02	<0.05	0.07	<0.05	<0.05	<5.0	NA
Mid-Carbon	06/13/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	06/13/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	07/22/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Mid-Carbon	07/22/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	07/22/02	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	08/21/02	<0.05	<0.05	<0.05	<0.05	<5.0	0.2
Mid-Carbon	08/21/02	<0.05	<0.05	<0.05	<0.05	<5.0	0.94
Effluent	08/21/02	<0.05	<0.05	<0.05	<0.05	<5.0	1.5
Influent	09/23/02	<0.05	0.19	<0.05	0.12	<5.0	1.2
Mid-Carbon	09/23/02	<0.05	<0.05	<0.05	<0.05	<5.0	1.9
Effluent	09/23/02	<0.05	<0.05	<0.05	<0.05	<5.0	2.0
Influent	10/21/02	<0.05	0.46	0.068	0.33	7.3	0.93
Mid-Carbon	10/21/02	<0.05	<0.05	<0.05	<0.05	<5.0	<0.1
Effluent	10/21/02	<0.05	<0.05	<0.05	<0.05	<5.0	<0.1
Influent	11/24/02	0.064	0.8	0.11	0.56	12	2.3
Mid-Carbon	11/24/02	<0.05	<0.05	<0.05	<0.05	<5.0	<0.1
Effluent	11/24/02	<0.05	<0.05	<0.05	<0.05	<5.0	<0.1
Influent	12/20/02	0.18	2.6	0.34	1.4	27	4.7
Mid-Carbon	12/20/02	<0.05	<0.05	<0.05	<0.05	<5.0	0.63
Effluent	12/20/02	<0.05	0.13	<0.05	0.052	<5.0	0.24
Influent	01/29/03	<0.05	0.11	<0.05	0.071	<5.0	NA
Mid-Carbon	01/29/03	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Effluent	01/29/03	<0.05	<0.05	<0.05	<0.05	<5.0	NA
Influent	02/20/03	<0.05	0.19	<0.05	0.17	<5.0	0.61
Mid-Carbon	02/20/03	<0.05	<0.05	<0.05	<0.05	<5.0	<0.10
Effluent	02/20/03	<0.05	<0.05	<0.05	<0.05	<5.0	<0.10
Influent	03/20/03	<0.05	0.12	<0.05	0.11	<5.0	0.59
Mid-Carbon	03/20/03	<0.05	<0.05	<0.05	<0.05	<5.0	<0.10
Effluent	03/20/03	<0.05	<0.05	<0.05	<0.05	<5.0	<0.10

TPH = Total petroleum hydrocarbons.

MTBE = methyl t-butyl ether

mg/L = Micrograms per liter.

ppmv = parts per million by volume.



**TABLE 3  
SVE SYSTEM THROUGHPUT CALCULATIONS**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Date	Influent	Effluent	TPH Influent (ppmv)	TPH Effluent (ppmv)	Benzene Influent (ppmv)	Benzene Effluent (ppmv)	TPH Removal (%)	Benzene Removal (%)	TPH	TPH	Benzene	Benzene	FID or LAB	Cumulative	Cumulative	Total Hours	Change in hours of operation
	Flow Rate (ft <sup>3</sup> /min)	Flow Rate (ft <sup>3</sup> /min)							Extraction Rate (lbs/day)	Mass Emission (lbs/day)	Extraction Rate (lbs/day)	Emission Rate (lbs/day)		TPH Extraction (lbs)	TPH Extraction (gallons)		
08/18/98	---	---	---	---	---	---	---	---	---	---	---	---	---	1,715	---	---	---
09/10/98	98	98	16	<5.0	0.16	<0.05	NC	NC	0.50	< 0.16	0.005	< 0.002	LAB	1,721	282	2,587	552
09/23/98	98	98	9.4	<5.0	0.16	<0.05	NC	NC	0.29	< 0.16	0.005	< 0.002	LAB	1,726	283	2,907	320
10/20/98	59	59	28	<5.0	0.63	<0.05	NC	NC	0.53	< 0.09	0.012	< 0.001	LAB	1,727	283	2,962	55
12/08/98	49	49	43	<5.0	0.73	<0.05	NC	NC	0.67	< 0.08	0.011	< 0.001	LAB	1,727	283	3,803	0*
01/13/99	49	49	6.5	5.4	0.068	<0.05	16.9	NC	0.10	0.08	0.001	< 0.001	LAB	1,738	285	4,495	692
02/10/99	44	44	56	<5.0	1.1	<0.05	NC	NC	0.79	< 0.07	0.016	< 0.001	LAB	1,738	285	4,496	1
03/10/99	15	15	<5.0	<5.0	0.07	<0.05	NC	NC	< 0.02	< 0.02	0.001	< 0.001	LAB	1,750	287	5,172	676
06/08/99	35	35	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	1,750	287	5,173	1
07/12/99	39	39	11	<5.0	0.16	<0.05	NC	NC	0.14	< 0.06	0.002	< 0.001	LAB	1,753	287	5,982	809
08/04/99	39	39	12	<5.0	0.092	<0.05	NC	NC	0.15	< 0.06	0.001	< 0.001	LAB	1,756	288	6,534	552
09/07/99	39	39	16	<5.0	0.069	<0.05	NC	NC	0.20	< 0.06	0.001	< 0.001	LAB	1,762	289	7,351	817
10/12/99	54	54	150	<5.0	0.96	<0.05	NC	NC	2.59	< 0.09	0.015	< 0.001	LAB	1,772	290	7,998	167**
11/17/99	49	49	21	<5.0	0.22	<0.05	NC	NC	0.33	< 0.08	0.003	< 0.001	LAB	1,825	299	8,866	868
12/28/00	49	49	570	<5.0	1.2	<0.05	NC	NC	8.96	< 0.08	0.017	< 0.001	LAB	1,825	299	8,867	1
01/12/00	79	79	110	<5.0	0.45	<0.05	NC	NC	2.77	< 0.13	0.010	< 0.001	LAB	1,907	313	9,202	335
01/26/00	79	79	14	<5.0	0.059	<0.05	NC	NC	0.35	< 0.13	0.001	< 0.001	LAB	1,929	316	9,540	338
02/09/00	79	79	59	<5.0	0.45	<0.05	NC	NC	1.48	< 0.13	0.010	< 0.001	LAB	1,933	317	9,662	122
03/16/00	79	79	46	<5.0	0.1	<0.05	NC	NC	1.16	< 0.13	0.002	< 0.001	LAB	1,981	325	10,525	863
04/04/00	41	41	23	<5.0	0.17	<0.05	NC	NC	0.30	< 0.07	0.002	< 0.001	LAB	1,981	325	10,526	2
05/12/00	41	41	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.07	< 0.07	< 0.001	< 0.001	LAB	1,986	326	11,164	638
06/19/00	41	41	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.07	< 0.07	< 0.001	< 0.001	LAB	1,988	326	12,071	907
07/11/00	41	41	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.07	< 0.07	< 0.001	< 0.001	LAB	1,990	326	12,601	530
07/25/00	41	41	140	< 5.4	2.4	<0.05	96.1	NC	1.85	0.07	0.029	< 0.001	LAB	2,003	328	12,937	336
08/09/00	41	41	2200	<5.0	25	<0.05	NC	NC	29.05	< 0.07	0.299	< 0.001	LAB	2,004	329	12,938	1
09/06/00	41	41	6.8	<5.0	<0.05	<0.05	NC	NC	0.09	< 0.07	< 0.001	< 0.001	LAB	2,409	395	13,606	668

**TABLE 3  
SVE SYSTEM THROUGHPUT CALCULATIONS**

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

Date	Influent	Effluent	TPH Influent (ppmv)	TPH Effluent (ppmv)	Benzene Influent (ppmv)	Benzene Effluent (ppmv)	TPH Removal (%)	Benzene Removal (%)	TPH	TPH	Benzene	Benzene	FID or LAB	Cumulative	Cumulative	Total Hours	Change in hours of operation
	Flow Rate (ft <sup>3</sup> /min)	Flow Rate (ft <sup>3</sup> /min)							Extraction Rate (lbs/day)	Mass Emission (lbs/day)	Extraction Rate (lbs/day)	Emission Rate (lbs/day)		TPH Extraction (lbs)	TPH Extraction (gallons)		
10/17/00	40	40	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	2,411	395	14,054	448
11/29/00	40	40	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	2,414	396	15,062	1,008
12/07/00	40	40	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	2,414	396	15,328	266
01/19/01	87	87	17.0	<5.0	0.12	<0.05	NC	NC	< 0.47	< 0.14	< 0.003	< 0.001	LAB	2,425	397	16,259	931
02/23/01	67	67	32.0	<5.0	0.19	<0.05	NC	NC	< 0.69	< 0.11	< 0.004	< 0.001	LAB	2,445	401	17,096	837
03/01/01	60	60	18.0	<5.0	0.097	<0.05	NC	NC	< 0.35	< 0.10	< 0.002	< 0.001	LAB	2,448	401	17,247	151
04/18/01	62	62	18.0	<5.0	0.1	<0.05	NC	NC	< 0.36	< 0.10	< 0.002	< 0.001	LAB	2,465	404	18,396	1,149
05/21/01	65	65	20.0	<5.0	0.088	<0.05	NC	NC	< 0.42	< 0.10	< 0.002	< 0.001	LAB	2,477	406	19,160	764
06/05/01	78	78	24.0	<5.0	0.15	<0.05	NC	NC	< 0.60	< 0.12	< 0.003	< 0.001	LAB	2,485	407	19,514	354
07/16/01	40	40	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	2,494	409	20,157	643
08/24/01	45	45	19.0	<5.0	0.15	<0.05	NC	NC	< 0.27	< 0.07	< 0.002	< 0.001	LAB	2,500	410	21,098	941
09/06/01	50	50	37.0	<5.0	0.28	<0.05	NC	NC	< 0.59	< 0.08	< 0.004	< 0.001	LAB	2,506	411	21,406	308
11/23/01	60	60	<5.0	<5.0	0.11	<0.05	NC	NC	< 0.10	< 0.10	< 0.002	< 0.001	LAB	2,518	413	22,246	840
12/13/01	65	65	<5.0	<5.0	0.076	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,520	413	22,728	482
01/29/02	62	62	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,525	414	23,850	1,122
03/20/02	65	65	<5.0	<5.0	0.054	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,530	415	25,054	1,204
04/18/02	65	65	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,533	415	25,743	689
05/13/02	64	65	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,535	416	26,358	615
06/13/02	65	65	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,538	416	27,071	713
07/22/02	68	68	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.11	< 0.11	< 0.001	< 0.001	LAB	2,543	417	28,027	956
08/21/02	68	68	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.11	< 0.11	< 0.001	< 0.001	LAB	2,546	417	28,750	722
09/23/02	65	65	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,549	418	29,536	787
10/21/02	69	69	7.3	<5.0	<0.05	<0.05	NC	NC	< 0.16	< 0.11	< 0.001	< 0.001	LAB	2,553	419	30,212	676
11/24/02	70	70	12.0	<5.0	0.064	<0.05	NC	NC	< 0.27	< 0.11	< 0.001	< 0.001	LAB	2,560	420	31,024	812
12/20/02	62	62	27.0	<5.0	0.18	<0.05	NC	NC	< 0.54	< 0.10	< 0.003	< 0.001	LAB	2,571	421	31,654	630
01/29/03	65	65	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,584	424	32,613	959
02/20/03	68	68	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.11	< 0.11	< 0.001	< 0.001	LAB	2,586	424	33,138	525
03/20/03	62	62	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.10	< 0.10	< 0.001	< 0.001	LAB	2,587	424	33,426	288

\* The system was running on ambient air, thus change in hours are zero.

\*\* The system was running on ambient air from 9/22/99 to 10/12/99, the change in hours only represents time the system was extracting soil vapor.

NC = Not Calculated



R.3 W.

GENERAL NOTES:  
 BASE MAP FROM U.S.G.S.  
 SAN LEANDRO, CA  
 7.5 MINUTE TOPOGRAPHIC  
 PHOTOREVISED 1980



QUADRANGLE LOCATION

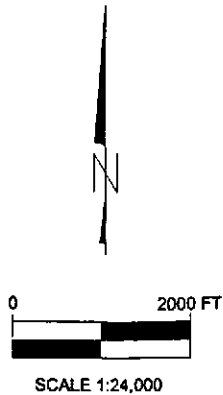


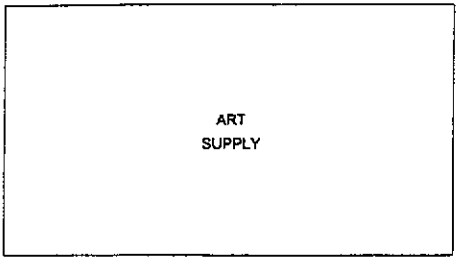
FIGURE 1  
 SITE LOCATION MAP

TESORO STATION NO. 67106  
 (FORMER BEACON STATION NO. 3720)  
 1088 MARINA BOULEVARD  
 SAN LEANDRO, CA.

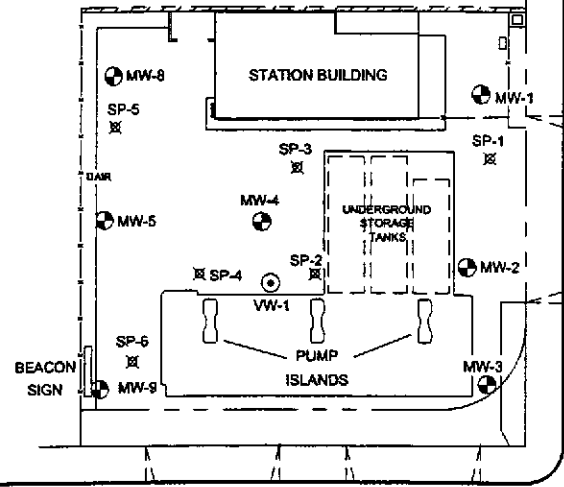
PROJECT NO. 00-3720	DRAWN BY M.L. 12/18/01
FILE NO. 00-3720-1A	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY



WAYNE AVENUE



MW-7

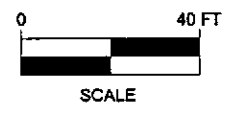


MARINA BOULEVARD

MW-6

LEGEND:

- PROPERTY LINE
- FENCE
- ⊕ MW-1 MONITORING WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SP-1 AIR SPARGING WELL LOCATION



NOTES:

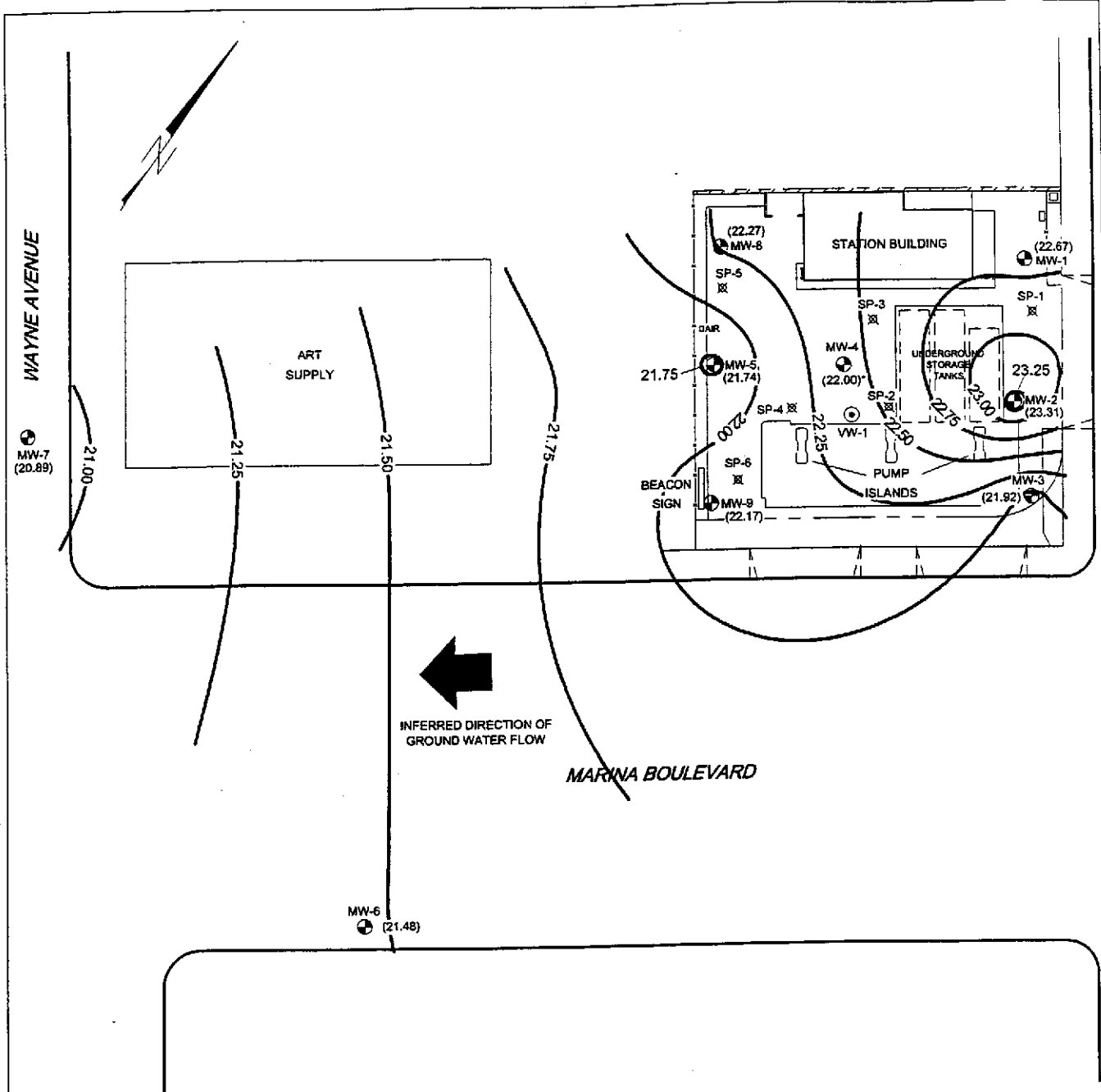
1. BASE MAP ADAPTED FROM FUGRO FIGURE DATED 10/24/95  
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
2. MONITORING WELLS MW-6 AND MW-7 ARE OFF-SITE.

FIGURE 2  
SITE MAP

TESORO STATION NO. 67106  
(FORMER BEACON STATION NO. 3720)  
1088 MARINA BOULEVARD  
SAN LEANDRO, CA.

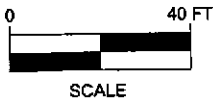
PROJECT NO. 00-3720	DRAWN BY M.L. 12/18/01
FILE NO. 00-3720-6	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY





**LEGEND:**

- PROPERTY LINE
- - - FENCE
- ⊙ MW-1 MONITORING WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SP-1 AIR SPARGING WELL LOCATION
- (22.67) GROUND WATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- 21.75— WATER ELEVATION CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL
- \* NOT USED FOR CONTOUR CONSTRUCTION

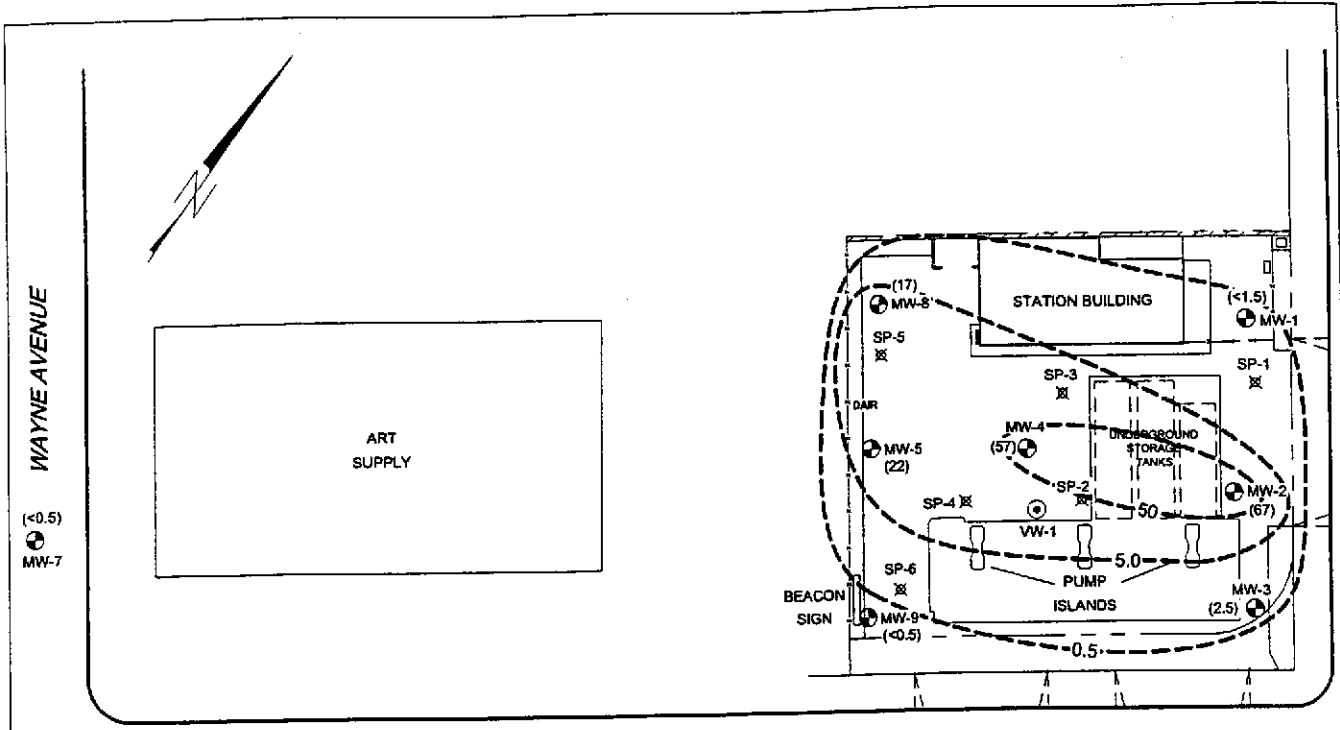


**FIGURE 3**  
**GROUND WATER ELEVATION CONTOUR MAP**  
 2/20/03  
 TESORO STATION NO. 67106  
 (FORMER BEACON STATION NO. 3720)  
 1088 MARINA BOULEVARD  
 SAN LEANDRO, CA.

- NOTES:**
1. BASE MAP ADAPTED FROM FUGRO FIGURE DATED 10/24/95  
 SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
  2. MONITORING WELLS MW-6 AND MW-7 ARE OFF-SITE.

PROJECT NO. 00-3720	DRAWN BY M.L. 4/3/03
FILE NO. 00-3720-6	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY





MARINA BOULEVARD

LEGEND:

- PROPERTY LINE
- FENCE
- ⊙ MW-1 MONITORING WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SP-1 AIR SPARGING WELL LOCATION
- ⊙ (<1.5) BENZENE CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
- 5.0— BENZENE ISOCONCENTRATION CONTOUR



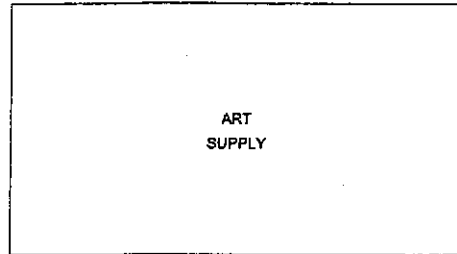
FIGURE 4  
 BENZENE ISOCONCENTRATION MAP  
 2/20/03  
 TESORO STATION NO. 67106  
 (FORMER BEACON STATION NO. 3720)  
 1088 MARINA BOULEVARD  
 SAN LEANDRO, CA.

- NOTES:
1. BASE MAP ADAPTED FROM FUGRO FIGURE DATED 10/24/95  
 SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
  2. MONITORING WELLS MW-6 AND MW-7 ARE OFF-SITE.

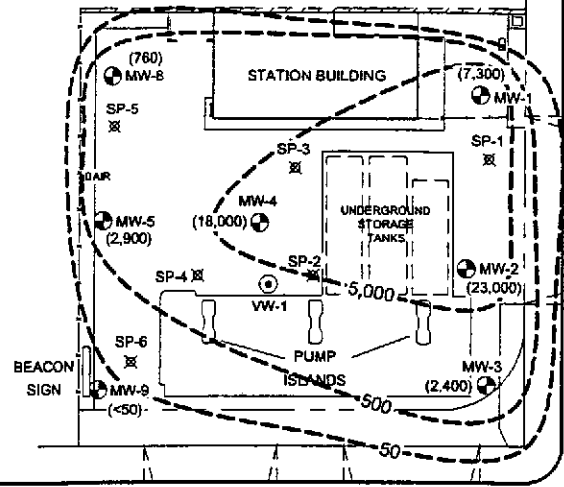
PROJECT NO. 00-3720	DRAWN BY M.L. 4/3/02
FILE NO. 00-3720-6	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY



WAYNE AVENUE



(<50)  
MW-7



MARINA BOULEVARD

MW-6  
(<50)

LEGEND:

- PROPERTY LINE
- FENCE
- MW-1 MONITORING WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SP-1 AIR SPARGING WELL LOCATION
- (23,000) TPHg CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
- 500— TPHg ISOCONCENTRATION CONTOUR



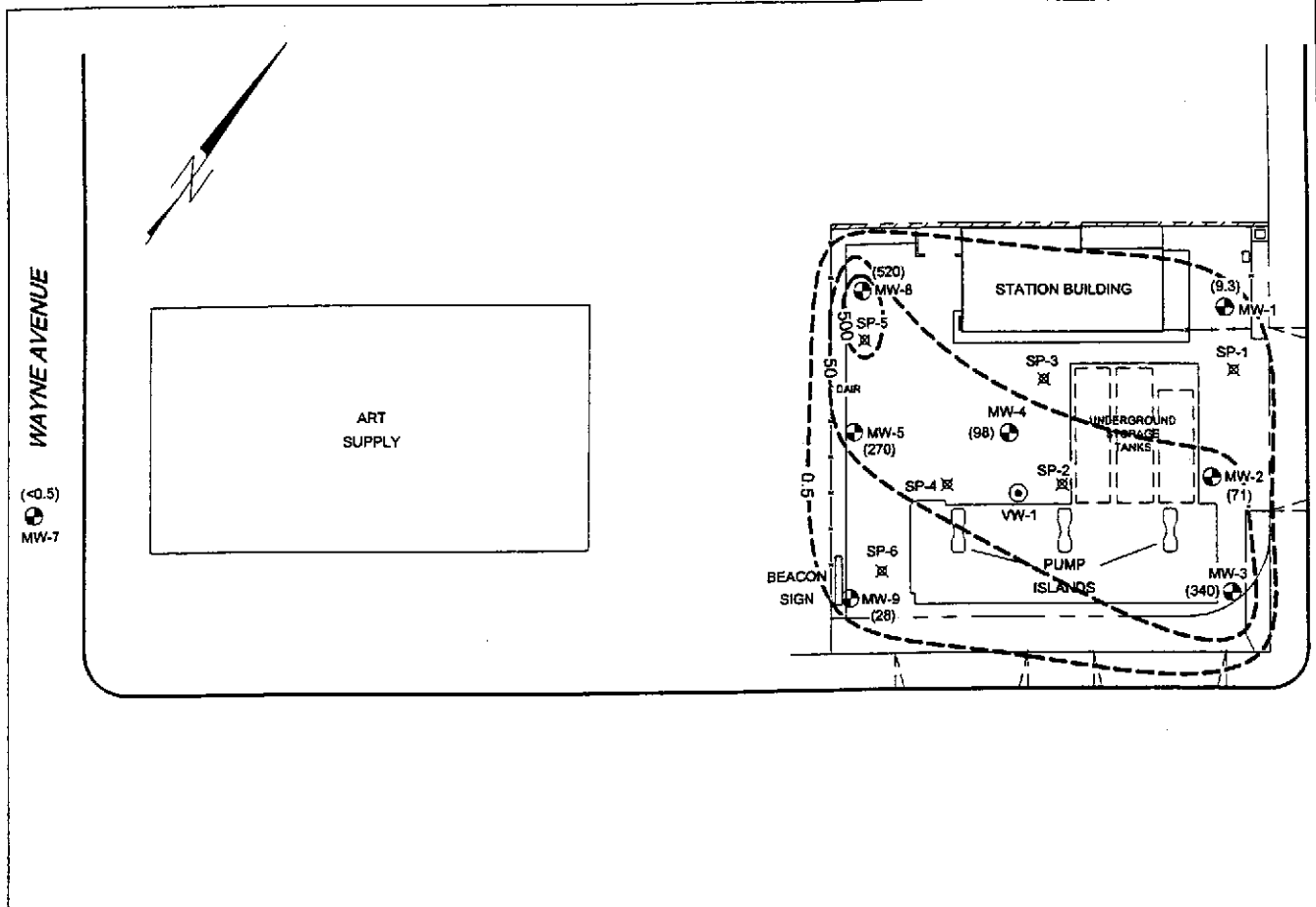
NOTES:

1. BASE MAP ADAPTED FROM FUGRO FIGURE DATED 10/24/95  
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
2. MONITORING WELLS MW-6 AND MW-7 ARE OFF-SITE.

**FIGURE 5**  
**TPHg ISOCONCENTRATION MAP**  
**2/20/03**  
**TESORO STATION NO. 67106**  
**(FORMER BEACON STATION NO. 3720)**  
**1088 MARINA BOULEVARD**  
**SAN LEANDRO, CA.**

PROJECT NO. 00-3720	DRAWN BY M.L. 4/3/03
FILE NO. 00-3720-6	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY





MARINA BOULEVARD

MW-6  
⊕ (<0.5)

LEGEND:

- PROPERTY LINE
- x-x- FENCE
- ⊕ MW-1 MONITORING WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SP-1 AIR SPARGING WELL LOCATION
- (520) MTBE CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
- 5.0- MTBE ISOCONCENTRATION CONTOUR



NOTES:

1. BASE MAP ADAPTED FROM FUGRO FIGURE DATED 10/24/95. SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
2. MONITORING WELLS MW-5 AND MW-7 ARE OFF-SITE.

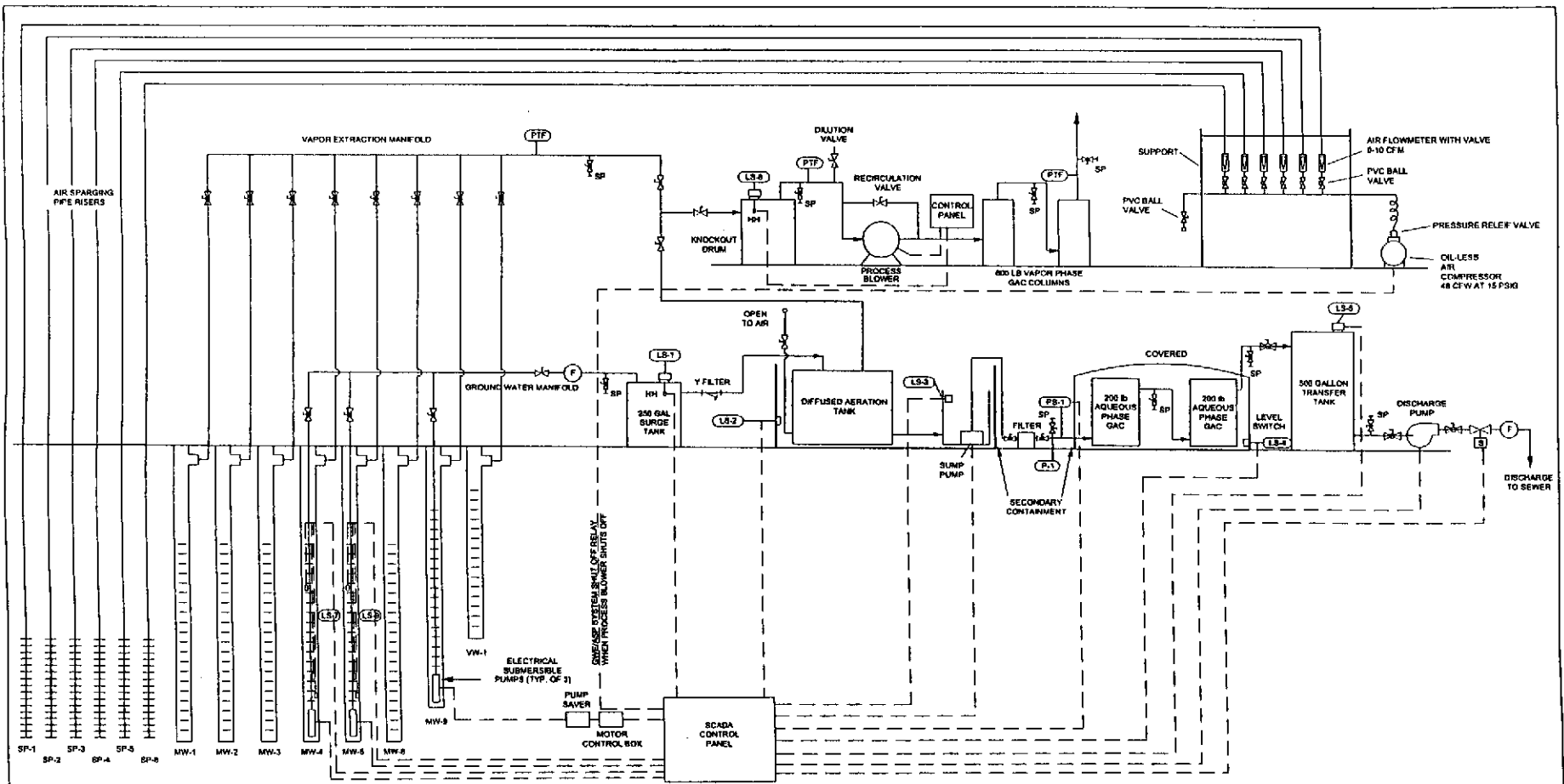
FIGURE 6  
MTBE ISOCONCENTRATION MAP  
2/20/03

TESORO STATION NO. 67106  
(FORMER BEACON STATION NO. 3720)  
1088 MARINA BOULEVARD  
SAN LEANDRO, CA.

PROJECT NO. 00-3720	DRAWN BY M.L. 4/3/03
FILE NO. 00-3720-6	PREPARED BY RDM
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- (LS-1) SURGE TANK:  
HIGH-HIGH SHUTS OFF WELL PUMPS (W/REMOTE RESET)
- (LS-2) SECONDARY CONTAINMENT VESSEL FOR DATS:  
HIGH-HIGH SHUTS OFF WELL PUMPS
- (LS-3) DATS/SUMP:  
HIGH-HIGH SHUTS OFF WELL PUMPS  
HIGH-TURNS ON DATS SUMP PUMP  
LOW-TURNS OFF DATS SUMP PUMP
- (LS-4) SECONDARY CONTAINMENT VESSEL FOR AQUEOUS PHASE CARBON:  
HIGH-HIGH SHUTS OFF DATS/SUMP PUMP AND WELL PUMPS
- (LS-5) DISCHARGE HOLDING TANK:  
HIGH-HIGH SHUTS OFF DATS SUMP PUMP (W/REMOTE RESET)  
HIGH-TURNS ON TRANSFER PUMP AND OPENS SEWER SOLENOID VALVE  
LOW-TURNS OFF TRANSFER PUMP AND CLOSES SEWER SOLENOID VALVE
- (LS-7) RECOVERY WELL PROBES:  
HIGH-TURNS ON SUBMERSIBLE WELL PUMP (MW-4)-TO BE CONTROLLED BY RELAY IN PANEL  
LOW-TURNS OFF SUBMERSIBLE WELL PUMP (MW-4)-TO BE CONTROLLED BY RELAY IN PANEL
- (LS-8) RECOVERY WELL PROBES:  
HIGH-TURNS ON SUBMERSIBLE WELL PUMP (MW-5)-TO BE CONTROLLED BY RELAY IN PANEL  
LOW-TURNS OFF SUBMERSIBLE WELL PUMP (MW-5)-TO BE CONTROLLED BY RELAY IN PANEL

- LEGEND:**
- BALL VALVE
  - GATE VALVE
  - SOLENOID VALVE
  - SAMPLE PORT
  - PTF - SP  
PRESSURE, TEMPERATURE, FLOW MONITORING POINT
  - FLOW TOTALIZER
  - P-1  
PRESSURE GAUGE
  - PS-1  
AQUEOUS PHASE CARBON PRESSURE SWITCH-  
PRESSURE SWITCH SHUTS DATS/SUMP PUMP AND WELL PUMPS (W/REMOTE RESET)

**FIGURE 7**  
**SOIL VAPOR EXTRACTION, AIR SPARGING,**  
**& GROUNDWATER PUMPING SYSTEM SCHEMATIC**  
**TESORO STATION NO. 67106**  
**(FORMER BEACON STATION NO. 3720)**  
**1088 MARINA BLVD.**  
**SAN LEANDRO, CA.**

PROJECT NO. 00-3720	DRAWN BY M.L. 6/1/01
FILE NO. 00-3720-3	PREPARED BY RDM
REVISION NO. 4	REVIEWED BY

**RDM**  
**Environmental**

## HISTORICAL BACKGROUND INFORMATION

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

### PREVIOUS OWNER

- January 1987 - Three underground gasoline storage tanks and one waste oil tank were excavated and removed from two tank cavities. Samples collected from beneath the former tanks indicated that hydrocarbons were present in the soil.
- March 1987 - Five monitoring wells (MW-1 through MW-5) were installed by Conoco. Hydrocarbons were detected in soil and ground-water samples collected from the wells with the highest concentrations being detected in the area of MW-4.
- July 1987 - Four soil borings were drilled in the vicinity of MW-4 to further characterize the soil contamination in that area. TPH concentrations above 100 ppm were detected in each boring. The site has been on a monitoring program since June 1987.

### ULTRAMAR INC.

- July 1990 - The site was purchased by Ultramar Inc. from Conoco. The monitoring program has continued.
- August 1991 - A shallow ground water study was performed as a screening tool to locate wells.
- October 1991 - Three additional wells were installed to further define the extent of the dissolved hydrocarbon plume.
- October 1993 - Performed a ground-water pump test, a vapor extraction test, and an air-sparging test.
- May 1994 - A Problem Assessment Report/Remedial Action Plan was submitted.
- December 1994 - One additional monitoring well, six air sparging points and one vapor extraction well were installed.
- June 1997 - Began operation of vapor extraction system.
- July 1997 - The ground water recovery system and the air sparging system began operation.
- September 7, 1999 - Performed quarterly monitoring. Continued to operate the vapor extraction and air sparging systems. The ground-water system did not operate during the quarter.
- As of March 1998, the ground water extraction system has processed approximately 228,850 gallons of water.
- On October 4, 2000, 1,500 gallons of ground water were over purged from Monitoring wells MW-2 and MW-3 using a vacuum truck. Analytical results are included in Table 2.
- On October 17, 2000, 1,200 gallons of ground water were over purged from Monitoring wells MW-2 and MW-3 using a vacuum truck. Analytical results are included in Table 2.

## HISTORICAL BACKGROUND INFORMATION

Tesoro Station No. 67106  
Former Beacon Station No. 3720  
1088 Marina Boulevard  
San Leandro, California

- On November 29, 2000, approximately 1,800 gallons of ground water were extracted during the dual phased extraction (DPE) test from MW-1 and MW-2.
- On December 4, 2000, approximately 1,600 gallons of ground water were extracted during the DPE test.
- On January 4, 2001, approximately 1,000 gallons of ground water were extracted during the DPE test.
- The evaluation of these interim remediation events is included in the Doulos report entitled *Evaluation of Interim Remediation with Vacuum Truck/Dual Phase Extraction Events*.
- On May 17, 2002, Tesoro Petroleum purchased the facility from Ultramar.

**ENCLOSURE B**

Ground Water Sampling Information

DOULOS ENVIRONMENTAL, INC.  
GROUNDWATER/LIQUID LEVEL DATA  
(measurements in feet)

Project Address: 1088 Marina Blvd.

Date: 9/20/03

San Leandro

Project No.: 67106

Recorded by: \_\_\_\_\_

Well No.	Time	Well Elev. TOC	Depth to Groundwater	Measured Total Depth	Groundwater Elevation	Depth to Product	Product Thickness	Comments
MW-1	11:26		12.80	17.74				
MW-2	11:20		11.80	22.71				U.V. = UNDER VAC.
MW-3	11:17		12.92	28.40				
MW-4	11:30		13.33	27.45				UNDER PRESSURE
MW-5	11:36		13.35	28.80				
MW-6	11:14		11.26	14.86				
MW-7	11:10		12.75	25.45				
MW-8	11:38		13.81	28.05				U.P.
MW-9	11:40		12.46	24.60				

Notes:

Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-1

Is setup of traffic control devices required?  YES

time: \_\_\_\_\_ hours

Is there standing water in the well box?  YES

Above TOC Below TOC

Is top of casing cut level?  NO  YES

If no, see remarks

Is well cap sealed and locked?  NO  YES

If no, see remarks

Height of well casing riser (in inches): 6

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP

12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 11:26 Time: 1:05 Calculated purge: 32 gal

Depth of well: 17.74 Depth to water: 13.05 Actual purge: 3.2"

Depth to water: 12.80

Start purge: 12:53

Sampling time: 1:06

Time	Temperature	E.C.	pH	Turbidity	Volume
12:54	69.6	410	7.20		1
12:55	70.0	400	7.18		2
12:56	70.1	361	7.13		3
12:57	71.3	346	7.10		4

Sample appearance: Cloudy

Lock: [Signature]

Equipment replaced: (check all that apply)

Note condition of replaced item(s)

2" Locking Cap: \_\_\_\_\_

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

**DOULOS ENVIRONMENTAL, INC.**

**SAMPLING INFORMATION SHEET**

Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-2

Is setup of traffic control devices required?  NO  YES

time: \_\_\_\_\_ hours

Is there standing water in the well box?  NO  YES

Above TOC \_\_\_\_\_ Below TOC \_\_\_\_\_

Is top of casing cut level?  NO  YES

If no, see remarks

Is well cap sealed and locked?  NO  YES

If no, see remarks

Height of well casing riser (in inches): 4

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_

12" CNI  36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 \_\_\_\_\_ 0.65 \_\_\_\_\_ 1.47 \_\_\_\_\_ 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 11:20 \_\_\_\_\_ Time: 12:43 \_\_\_\_\_ Calculated purge: 7 gal

Depth of well: 22.71 \_\_\_\_\_ Depth to water: 13.41 \_\_\_\_\_ Actual purge: 7 ft

Depth to water: 11.80

Start purge: 12:35 Sampling time: 12:44

Time	Temperature	E.C.	pH	Turbidity	Volume
12:36	69.7	590	7.16		1
12:37	70.0	490	7.10		2
12:38	71.3	461	7.09		3
12:39	71.9	490	7.06		4

Sample appearance: clean

Lock: Dolphin

Equipment replaced: (check all that apply)

Note condition of replaced item(s)

2" Locking Cap: \_\_\_\_\_

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-3

Is setup of traffic control devices required? NO YES

Is there standing water in the well box? NO YES

Is top of casing cut level? NO YES

Is well cap sealed and locked? NO YES

Height of well casing riser (in inches): 4

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP X

12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good X Fair \_\_\_\_\_ Poor \_\_\_\_\_

time: \_\_\_\_\_ hours  
Above TOC \_\_\_\_\_ Below TOC  
If no, see remarks  
If no, see remarks

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
\_\_\_\_\_ 4" PVC bailer X Centrifugal pump

Sampled with: Disposable bailer X Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2" X 4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Time: 11:17

Depth of well: 28.40

Depth to water: 12.92

Recharge Measurement

Time: 12:27

Depth to water: 13.40

Calculated purge: 9.9 gal

Actual purge: 10"

Start purge: 12:17

Sampling time: 12:30

Time	Temperature	E.C.	pH	Turbidity	Volume
12:18	72.3	406	7.31		1
12:19	73.0	391	7.17		2
12:20	73.4	370	7.13		3
12:21	73.6	360	7.10		4

Sample appearance: clear

Lock: Dolphin

Equipment replaced: (check all that apply)

2" Locking Cap: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Note condition of replaced item(s)

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_



Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-4

Is setup of traffic control devices required?  NO  YES

time: \_\_\_\_\_ hours

Is there standing water in the well box?  NO  YES

Above TOC \_\_\_\_\_ Below TOC \_\_\_\_\_

Is top of casing cut level?  NO  YES

If no, see remarks

Is well cap sealed and locked?  NO  YES

If no, see remarks

Height of well casing riser (in inches): 3

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_

12" CNI 24 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: \_\_\_\_\_ 0.16 \_\_\_\_\_ 0.65 \_\_\_\_\_ 1.47 \_\_\_\_\_ 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 11:30

Time: 1:20

Calculated purge: 9 gal

Depth of well: 27.45

Depth to water: 74.40

Actual purge: 9 u

Depth to water: 13.33

Start purge: 1:12

Sampling time: 1:21

Time	Temperature	E.C.	pH	Turbidity	Volume
1:13	71.5	493	7.30		1
1:14	72.6	430	7.14		2
1:15	73.0	411	7.10		3
1:16	73.4	404	7.06		4

Sample appearance: Clear

Lock: Dolphin

Equipment replaced: (check all that apply)

Note condition of replaced item(s)

2" Locking Cap: \_\_\_\_\_

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-5

Is setup of traffic control devices required?  NO  YES time: \_\_\_\_\_ hours  
 Is there standing water in the well box?  NO  YES Above TOC \_\_\_\_\_ Below TOC \_\_\_\_\_  
 Is top of casing cut level?  NO  YES If no, see remarks \_\_\_\_\_  
 Is well cap sealed and locked?  NO  YES If no, see remarks \_\_\_\_\_  
 Height of well casing riser (in inches): 5  
 Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_  
 12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_  
 12" CNI 24 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_  
 General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer  Centrifugal pump  
 Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.  
Initial Measurement Recharge Measurement  
 Time: 11:36 Time: 2:00 Calculated purge: 9.9 gal  
 Depth of well: 24.80 Depth to water: 14.30 Actual purge: 10 "  
 Depth to water: 13.35

Start purge: 1:50 Sampling time: 2:03

Time	Temperatures	E.C.	pH	Turbidity	Volume
1:51	72.6	580	7.30		1
1:52	73.0	570	7.16		2
1:53	73.3	483	7.12		3
1:54	73.5	481	7.11		4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

DOULOS ENVIRONMENTAL, INC.

SAMPLING INFORMATION SHEET

Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-6

Is setup of traffic control devices required?  NO  YES

Is there standing water in the well box?  NO  YES

Is top of casing cut level?  NO  YES

Is well cap sealed and locked?  NO  YES

time: \_\_\_\_\_ hours  
 Above TOC \_\_\_\_\_ Below TOC  
 If no, see remarks  
 If no, see remarks

Height of well casing riser (in inches): 3

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_

12" CNI  36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 11:14

Time: 12:10

Calculated purge: 2.300

Depth of well: 14.86

Depth to water: 72.40

Actual purge: 2.30

Depth to water: 11.26

Start purge: 11:58

Sampling time: 12:13

Time	Temperature	E.C.	pH	Turbidity	Volume
11:59	70.5	670	7.30		1
11:59	73.0	651	7.14		2
12:00	73.2	640	7.03		3
12:01	73.6	635	7.02		4

Sample appearance: Clear

Lock: Dolphin

Equipment replaced: (check all that apply)

Note condition of replaced item(s)

2" Locking Cap: \_\_\_\_\_

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

**DOULOS ENVIRONMENTAL, INC.**

**SAMPLING INFORMATION SHEET**

Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-7

Is setup of traffic control devices required?  NO  YES

time: \_\_\_\_\_ hours

Is there standing water in the well box?  NO  YES

Above TOC \_\_\_\_\_ Below TOC \_\_\_\_\_

Is top of casing cut level?  NO  YES

If no, see remarks

Is well cap sealed and locked?  NO  YES

If no, see remarks

Height of well casing riser (in inches): 6

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_

12" CNI  36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good  Fair \_\_\_\_\_ Poor \_\_\_\_\_

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer  Centrifugal pump

Sampled with: Disposable bailer  Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2"  4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_

Purge Vol. Multiplier: 0.16 \_\_\_\_\_ 0.65 \_\_\_\_\_ 1.47 \_\_\_\_\_ 2.61 gal/ft.

Initial Measurement

Recharge Measurement

Time: 11:10

Time: 11:51

Calculated purge: 8.1 gal

Depth of well: 25.45

Depth to water: 13.73

Actual purge: 8.1 u

Depth to water: 12.72

Start purge: 11:43

Sampling time: 11:52

Time	Temperature	E.C.	pH	Turbidity	Volume
11:44	72.5	541	7.01		1
11:45	72.9	490	7.02		2
11:46	73.4	405	6.89		3
11:46	73.8	389	6.88		4

Sample appearance: Clear

Lock: Relief

Equipment replaced: (check all that apply)

Note condition of replaced item(s)

2" Locking Cap: \_\_\_\_\_

Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_

4" Locking Cap: \_\_\_\_\_

Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_

6" Locking Cap: \_\_\_\_\_

Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

Client: Tesoro 67106

Sampling Date: 2-28-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-8

Is setup of traffic control devices required? NO YES

Is there standing water in the well box? NO YES

Is top of casing cut level? NO YES

Is well cap sealed and locked? NO YES

Height of well casing riser (in inches): 6

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP X

12" CNI \_\_\_\_\_ 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good X Fair \_\_\_\_\_ Poor \_\_\_\_\_

time: \_\_\_\_\_ hours  
Above TOC \_\_\_\_\_ Below TOC  
If no, see remarks  
If no, see remarks

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump  
 \_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer  
 \_\_\_\_\_ 4" PVC bailer X Centrifugal pump

Sampled with: Disposable bailer X Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2" X 4" \_\_\_\_\_ 6" \_\_\_\_\_ 8" \_\_\_\_\_  
 Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement

Time: 11:33

Depth of well: 28.05

Depth to water: 13.81

Recharge Measurement

Time: 1:39

Depth to water: 14.16

Calculated purge: 9.1 gal

Actual purge: 9.1 "

Start purge: 1:26 Sampling time: 1:42

Time	Temperature	E.C.	pH	Turbidity	Volume
1:27	70.5	541	7.16		1
1:28	70.9	503	7.10		2
1:29	71.6	491	7.03		3
1:30	73.2	480	6.96		4

Sample appearance: Clear Lock: [Signature]

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
 2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
 4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
 6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

Client: Tesoro 67106

Sampling Date: 2-20-03

Site: 1088 Marina Blvd.

Project No.: \_\_\_\_\_

San Leandro, Ca.

Well Designation: MW-9

Is setup of traffic control devices required? NO YES

Is there standing water in the well box? NO YES

Is top of casing cut level? NO YES

Is well cap sealed and locked? NO YES

Height of well casing riser (in inches): 5

Well cover type: 8" or 12" UV \_\_\_\_\_ 12" EMCO \_\_\_\_\_ 8" or 12" BK \_\_\_\_\_ 8" Christy \_\_\_\_\_

12" Christy \_\_\_\_\_ 8" M&D \_\_\_\_\_ 12" M&D \_\_\_\_\_ 12" DWP \_\_\_\_\_

12" CNI 94 36" CNI \_\_\_\_\_ 12" Pomeco \_\_\_\_\_ Other: \_\_\_\_\_

General condition of wellhead assembly: Excellent \_\_\_\_\_ Good X Fair \_\_\_\_\_ Poor \_\_\_\_\_

time: \_\_\_\_\_ hours  
Above TOC \_\_\_\_\_ Below TOC  
If no, see remarks  
If no, see remarks

Purging Equipment: \_\_\_\_\_ 2" disposable bailer \_\_\_\_\_ Submersible pump

\_\_\_\_\_ 2" PVC bailer \_\_\_\_\_ Dedicated bailer

\_\_\_\_\_ 4" PVC bailer X Centrifugal pump

Sampled with: Disposable bailer X Teflon bailer \_\_\_\_\_ Disposable Tubing \_\_\_\_\_

Well Diameter: 2" \_\_\_\_\_ 4" X 6" \_\_\_\_\_ 8" \_\_\_\_\_  
Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.

Initial Measurement Time: 11:40 Recharge Measurement Time: 2:24 Calculated purge: 7.8 gal  
Depth of well: 24.60 Depth to water: 14.16 Actual purge: 8.0  
Depth to water: 12.46

Start purge: 2:15 Sampling time: 2:26

Time	Temperature	E.C.	pH	Turbidity	Volume
2:16	73.1	490	7.18		1
2:17	73.4	413	7.12		2
2:18	73.2	411	7.01		3
2:19	73.5	409	7.00		4

Sample appearance: Clear Lock: NA

Equipment replaced: (check all that apply) Note condition of replaced item(s)  
2" Locking Cap: \_\_\_\_\_ Lock: \_\_\_\_\_ 7/32 Allenhead: \_\_\_\_\_  
4" Locking Cap: \_\_\_\_\_ Lock-Dolphin: \_\_\_\_\_ 9/16 Bolt: \_\_\_\_\_  
6" Locking Cap: \_\_\_\_\_ Pinned Allenhead (DWP): \_\_\_\_\_

Remarks: \_\_\_\_\_

Signature: \_\_\_\_\_

**ENCLOSURE C**

**Ground Water Analytical Results**



Report Number : 31648

Date : 2/28/2003

Richard Munsch  
RDM Environmental  
1704 Via Riata  
Roseville, CA 95747

Subject : 9 Water Samples  
Project Name : Tesoro  
Project Number : 67106 San Leandro  
P.O. Number : AFE 23139622

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, looped initial "J".

Joel Kiff





Report Number : 31648

Date : 2/28/2003

Subject : 9 Water Samples  
Project Name : Tesoro  
Project Number : 67106 San Leandro  
P.O. Number : AFE 23139622

## Case Narrative

Tert-Butanol results for samples MW-3 and MW-8 may be biased slightly high. A fraction of MtBE (typically less than 1%) converts to Tert-Butanol during the analysis. We consider this conversion effect to be mathematically significant in samples that contain MtBE/Tert-Butanol in ratios of over 20:1.

Matrix Spike/Matrix Spike Duplicate Results associated with sample MW-3 for the analyte Methyl-t-butyl ether were affected by the analyte concentrations already present in the un-spiked sample.

The Method Reporting Limit for Tert-amyl methyl ether has been increased due to the presence of an interfering compound for sample MW-3.

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-1

Matrix : Water

Lab Number : 31648-01

Sample Date :2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 1.5	1.5	ug/L	EPA 8260B	2/24/2003
Toluene	< 1.5	1.5	ug/L	EPA 8260B	2/24/2003
Ethylbenzene	130	1.5	ug/L	EPA 8260B	2/24/2003
Total Xylenes	89	1.5	ug/L	EPA 8260B	2/24/2003
Methyl-t-butyl ether (MTBE)	9.3	1.5	ug/L	EPA 8260B	2/24/2003
Diisopropyl ether (DIPE)	< 1.5	1.5	ug/L	EPA 8260B	2/24/2003
Ethyl-t-butyl ether (ETBE)	< 1.5	1.5	ug/L	EPA 8260B	2/24/2003
Tert-amyl methyl ether (TAME)	< 1.5	1.5	ug/L	EPA 8260B	2/24/2003
Tert-Butanol	< 20	20	ug/L	EPA 8260B	2/24/2003
TPH as Gasoline	7300	200	ug/L	EPA 8260B	2/24/2003
1,2-Dichloroethane	< 1.5	1.5	ug/L	EPA 8260B	2/24/2003
1,2-Dibromoethane	< 1.5	1.5	ug/L	EPA 8260B	2/24/2003
Toluene - d8 (Surr)	97.8		% Recovery	EPA 8260B	2/24/2003
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	2/24/2003
Dibromofluoromethane (Surr)	99.5		% Recovery	EPA 8260B	2/24/2003
1,2-Dichloroethane-d4 (Surr)	97.7		% Recovery	EPA 8260B	2/24/2003

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-2

Matrix : Water

Lab Number : 31648-02

Sample Date : 2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	67	10	ug/L	EPA 8260B	2/25/2003
Toluene	130	10	ug/L	EPA 8260B	2/25/2003
Ethylbenzene	1100	10	ug/L	EPA 8260B	2/25/2003
Total Xylenes	2800	10	ug/L	EPA 8260B	2/25/2003
Methyl-t-butyl ether (MTBE)	71	10	ug/L	EPA 8260B	2/25/2003
Diisopropyl ether (DIPE)	< 10	10	ug/L	EPA 8260B	2/25/2003
Ethyl-t-butyl ether (ETBE)	< 10	10	ug/L	EPA 8260B	2/25/2003
Tert-amyl methyl ether (TAME)	< 10	10	ug/L	EPA 8260B	2/25/2003
Tert-Butanol	< 100	100	ug/L	EPA 8260B	2/25/2003
TPH as Gasoline	23000	1000	ug/L	EPA 8260B	2/25/2003
1,2-Dichloroethane	< 10	10	ug/L	EPA 8260B	2/25/2003
1,2-Dibromoethane	< 10	10	ug/L	EPA 8260B	2/25/2003
Toluene - d8 (Surr)	94.6		% Recovery	EPA 8260B	2/25/2003
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	2/25/2003
Dibromofluoromethane (Surr)	105		% Recovery	EPA 8260B	2/25/2003
1,2-Dichloroethane-d4 (Surr)	103		% Recovery	EPA 8260B	2/25/2003

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-3

Matrix : Water

Lab Number : 31648-03

Sample Date : 2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	2.5	0.50	ug/L	EPA 8260B	2/23/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/23/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/23/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/23/2003
Methyl-t-butyl ether (MTBE)	340	0.50	ug/L	EPA 8260B	2/23/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/23/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/23/2003
Tert-amyl methyl ether (TAME)	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Tert-Butanol	13 J	5.0	ug/L	EPA 8260B	2/23/2003
TPH as Gasoline	2400	50	ug/L	EPA 8260B	2/23/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/23/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/23/2003
Toluene - d8 (Surr)	103		% Recovery	EPA 8260B	2/23/2003
4-Bromofluorobenzene (Surr)	98.4		% Recovery	EPA 8260B	2/23/2003
Dibromofluoromethane (Surr)	94.9		% Recovery	EPA 8260B	2/23/2003
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	2/23/2003

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-4

Matrix : Water

Lab Number : 31648-04

Sample Date : 2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	57	5.0	ug/L	EPA 8260B	2/24/2003
Toluene	240	5.0	ug/L	EPA 8260B	2/24/2003
Ethylbenzene	650	5.0	ug/L	EPA 8260B	2/24/2003
Total Xylenes	3700	5.0	ug/L	EPA 8260B	2/24/2003
Methyl-t-butyl ether (MTBE)	98	5.0	ug/L	EPA 8260B	2/24/2003
Diisopropyl ether (DIPE)	< 5.0	5.0	ug/L	EPA 8260B	2/24/2003
Ethyl-t-butyl ether (ETBE)	< 5.0	5.0	ug/L	EPA 8260B	2/24/2003
Tert-amyl methyl ether (TAME)	< 5.0	5.0	ug/L	EPA 8260B	2/24/2003
Tert-Butanol	< 50	50	ug/L	EPA 8260B	2/24/2003
TPH as Gasoline	18000	500	ug/L	EPA 8260B	2/24/2003
1,2-Dichloroethane	< 5.0	5.0	ug/L	EPA 8260B	2/24/2003
1,2-Dibromoethane	< 5.0	5.0	ug/L	EPA 8260B	2/24/2003
Toluene - d8 (Surr)	97.5		% Recovery	EPA 8260B	2/24/2003
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	2/24/2003
Dibromofluoromethane (Surr)	94.1		% Recovery	EPA 8260B	2/24/2003
1,2-Dichloroethane-d4 (Surr)	94.2		% Recovery	EPA 8260B	2/24/2003

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-5

Matrix : Water

Lab Number : 31648-05

Sample Date : 2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	22	1.0	ug/L	EPA 8260B	2/23/2003
Toluene	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Ethylbenzene	81	1.0	ug/L	EPA 8260B	2/23/2003
Total Xylenes	77	1.0	ug/L	EPA 8260B	2/23/2003
Methyl-t-butyl ether (MTBE)	270	1.0	ug/L	EPA 8260B	2/23/2003
Diisopropyl ether (DIPE)	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Ethyl-t-butyl ether (ETBE)	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Tert-amyl methyl ether (TAME)	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Tert-Butanol	170	10	ug/L	EPA 8260B	2/23/2003
TPH as Gasoline	2900	100	ug/L	EPA 8260B	2/23/2003
1,2-Dichloroethane	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
1,2-Dibromoethane	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Toluene - d8 (Surr)	98.4		% Recovery	EPA 8260B	2/23/2003
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/23/2003
Dibromofluoromethane (Surr)	95.9		% Recovery	EPA 8260B	2/23/2003
1,2-Dichloroethane-d4 (Surr)	92.0		% Recovery	EPA 8260B	2/23/2003

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-6

Matrix : Water

Lab Number : 31648-06

Sample Date : 2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/22/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/22/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene - d8 (Surr)	94.1		% Recovery	EPA 8260B	2/22/2003
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	2/22/2003
Dibromofluoromethane (Surr)	98.6		% Recovery	EPA 8260B	2/22/2003
1,2-Dichloroethane-d4 (Surr)	95.5		% Recovery	EPA 8260B	2/22/2003

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-7

Matrix : Water

Lab Number : 31648-07

Sample Date : 2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/22/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/22/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene - d8 (Surr)	95.5		% Recovery	EPA 8260B	2/22/2003
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	2/22/2003
Dibromofluoromethane (Surr)	98.2		% Recovery	EPA 8260B	2/22/2003
1,2-Dichloroethane-d4 (Surr)	98.1		% Recovery	EPA 8260B	2/22/2003

Approved By:  Joel Kiff





Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-8

Matrix : Water

Lab Number : 31648-08

Sample Date :2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	17	1.0	ug/L	EPA 8260B	2/23/2003
Toluene	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Ethylbenzene	19	1.0	ug/L	EPA 8260B	2/23/2003
Total Xylenes	42	1.0	ug/L	EPA 8260B	2/23/2003
Methyl-t-butyl ether (MTBE)	520	1.0	ug/L	EPA 8260B	2/23/2003
Diisopropyl ether (DIPE)	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Ethyl-t-butyl ether (ETBE)	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Tert-amyl methyl ether (TAME)	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Tert-Butanol	16 J	10	ug/L	EPA 8260B	2/23/2003
TPH as Gasoline	760	100	ug/L	EPA 8260B	2/23/2003
1,2-Dichloroethane	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
1,2-Dibromoethane	< 1.0	1.0	ug/L	EPA 8260B	2/23/2003
Toluene - d8 (Surr)	95.7		% Recovery	EPA 8260B	2/23/2003
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	2/23/2003
Dibromofluoromethane (Surr)	95.0		% Recovery	EPA 8260B	2/23/2003
1,2-Dichloroethane-d4 (Surr)	96.8		% Recovery	EPA 8260B	2/23/2003

Approved By:  Joel Kiff



Report Number : 31648

Date : 2/28/2003

Project Name : Tesoro

Project Number : 67106 San Leandro

Sample : MW-9

Matrix : Water

Lab Number : 31648-09

Sample Date :2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Methyl-t-butyl ether (MTBE)	28	0.50	ug/L	EPA 8260B	2/22/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/22/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/22/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene - d8 (Surr)	85.4		% Recovery	EPA 8260B	2/22/2003
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	2/22/2003
Dibromofluoromethane (Surr)	116		% Recovery	EPA 8260B	2/22/2003
1,2-Dichloroethane-d4 (Surr)	105		% Recovery	EPA 8260B	2/22/2003

Approved By:  Joel Kiff

Report Number : 31648

Date : 2/28/2003

## QC Report : Method Blank Data

Project Name : Tesoro

Project Number : 67106 San Leandro

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/22/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/22/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene - d8 (Surr)	115		%	EPA 8260B	2/22/2003
4-Bromofluorobenzene (Surr)	98.2		%	EPA 8260B	2/22/2003
Dibromofluoromethane (Surr)	100		%	EPA 8260B	2/22/2003
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	2/22/2003
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/22/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/22/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene - d8 (Surr)	92.8		%	EPA 8260B	2/22/2003
4-Bromofluorobenzene (Surr)	98.4		%	EPA 8260B	2/22/2003
Dibromofluoromethane (Surr)	108		%	EPA 8260B	2/22/2003
1,2-Dichloroethane-d4 (Surr)	102		%	EPA 8260B	2/22/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/22/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/22/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/22/2003
Toluene - d8 (Surr)	96.2		%	EPA 8260B	2/22/2003
4-Bromofluorobenzene (Surr)	104		%	EPA 8260B	2/22/2003
Dibromofluoromethane (Surr)	97.5		%	EPA 8260B	2/22/2003
1,2-Dichloroethane-d4 (Surr)	97.8		%	EPA 8260B	2/22/2003
Benzene	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Toluene	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	2/24/2003
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	2/24/2003
1,2-Dichloroethane	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
1,2-Dibromoethane	< 0.50	0.50	ug/L	EPA 8260B	2/24/2003
Toluene - d8 (Surr)	101		%	EPA 8260B	2/24/2003
4-Bromofluorobenzene (Surr)	95.8		%	EPA 8260B	2/24/2003
Dibromofluoromethane (Surr)	89.7		%	EPA 8260B	2/24/2003
1,2-Dichloroethane-d4 (Surr)	96.2		%	EPA 8260B	2/24/2003

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 31648

Date : 2/28/2003

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : Tesoro

Project Number : 67106 San Leandro

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	31635-02	<0.50	39.9	40.0	38.4	38.6	ug/L	EPA 8260B	2/22/03	96.3	96.6	0.311	70-130	25
Toluene	31635-02	<0.50	39.9	40.0	38.1	38.5	ug/L	EPA 8260B	2/22/03	95.5	96.4	0.886	70-130	25
Tert-Butanol	31635-02	<5.0	200	200	186	194	ug/L	EPA 8260B	2/22/03	93.4	96.8	3.63	70-130	25
Methyl-t-Butyl Ether	31635-02	1.6	39.9	40.0	41.7	39.8	ug/L	EPA 8260B	2/22/03	100	95.5	4.97	70-130	25
Benzene	31648-09	<0.50	40.0	40.0	37.9	38.0	ug/L	EPA 8260B	2/22/03	94.7	94.9	0.185	70-130	25
Toluene	31648-09	<0.50	40.0	40.0	33.5	33.4	ug/L	EPA 8260B	2/22/03	83.7	83.6	0.209	70-130	25
Tert-Butanol	31648-09	<5.0	200	200	194	196	ug/L	EPA 8260B	2/22/03	96.8	98.1	1.39	70-130	25
Methyl-t-Butyl Ether	31648-09	28	40.0	40.0	67.7	69.9	ug/L	EPA 8260B	2/22/03	99.6	105	5.37	70-130	25
Benzene	31657-01	<0.50	40.0	40.0	36.7	36.2	ug/L	EPA 8260B	2/22/03	91.7	90.6	1.21	70-130	25
Toluene	31657-01	<0.50	40.0	40.0	36.1	35.4	ug/L	EPA 8260B	2/22/03	90.2	88.6	1.84	70-130	25
Tert-Butanol	31657-01	<5.0	200	200	189	199	ug/L	EPA 8260B	2/22/03	94.6	99.4	4.97	70-130	25
Methyl-t-Butyl Ether	31657-01	<0.50	40.0	40.0	37.9	37.8	ug/L	EPA 8260B	2/22/03	94.6	94.6	0.106	70-130	25
Benzene	31648-03	2.5	40.0	40.0	41.3	39.8	ug/L	EPA 8260B	2/23/03	97.0	93.3	3.86	70-130	25
Toluene	31648-03	<0.50	40.0	40.0	39.3	37.9	ug/L	EPA 8260B	2/23/03	98.3	94.6	3.81	70-130	25
Tert-Butanol	31648-03	13	200	200	203	201	ug/L	EPA 8260B	2/23/03	95.0	94.3	0.713	70-130	25
Methyl-t-Butyl Ether	31648-03	340	40.0	40.0	359	367	ug/L	EPA 8260B	2/23/03	53.0	72.9	31.5	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 31648

Date : 2/28/2003

QC Report : Laboratory Control Sample (LCS)

Project Name : Tesoro

Project Number : 67106 San Leandro

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	2/22/03	102	70-130
Toluene	40.0	ug/L	EPA 8260B	2/22/03	97.7	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/22/03	94.6	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/22/03	104	70-130
Benzene	40.0	ug/L	EPA 8260B	2/22/03	91.8	70-130
Toluene	40.0	ug/L	EPA 8260B	2/22/03	91.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/22/03	96.4	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/22/03	99.3	70-130
Benzene	40.0	ug/L	EPA 8260B	2/22/03	92.7	70-130
Toluene	40.0	ug/L	EPA 8260B	2/22/03	91.0	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/22/03	94.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/22/03	96.2	70-130
Benzene	40.0	ug/L	EPA 8260B	2/23/03	96.0	70-130
Toluene	40.0	ug/L	EPA 8260B	2/23/03	91.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	2/23/03	94.0	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	2/23/03	88.0	70-130

KIFF ANALYTICAL, LLC

Approved By:  Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800



720 Olive Drive, Suite D  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4808

Lab No. 31648

Page 1 of 1

Project Contact (Hardcopy or PDF to):  
 Richard Munsch

EDF Report?  Yes  No

Company/Address:  
 RDM

Recommended but not mandatory to complete this section:  
 Sampling Company Log Code: DEIO

771-7098      771-4584      Global ID: T0600101409

Project Number: 67106 San Leandro      P.O. No.: AFE 23139622      EDF Deliverable to (Email Address): rmunsch@rcsis.com

Project Name: Tesoro      Project Address: San Leandro

Sampler Signature (below):  
 Project Address:

**Chain-of-Custody Record and Analysis Request**

**Analysis Request**

Sample Designation	Sampling		Container							WATER	SOIL	BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	12 hr/24 hr/48 hr/72 hr/1 wk	TAT	For Lab Use Only					
	Date	Time	40 ml VOA	SLEEVE	HCl	HNO <sub>3</sub>	ICE	NONE																								
✓ MW-1	2-20-08	1:06	3		X	X			X						X																	
✓ MW-2		12:44																														
✓ MW-3		12:30																														
✓ MW-4		1:21																														
✓ MW-5		2:03																														
✓ MW-6		12:13																														
✓ MW-7		11:52																														
✓ MW-8		1:42																														
✓ MW-9		2:26																														

Relinquished by: <u>[Signature]</u>	Date	Time	Received by:	Remarks:
Relinquished by: <u>[Signature]</u>	Date	Time	Received by:	
Relinquished by: _____	Date	Time	Received by Laboratory: <u>Kiff Analytical</u>	
				Bill to: <u>ROB JONOVAN</u>

**ENCLOSURE D**

Historical Ground Water Monitoring Data

TABLE 1  
GROUND WATER ELEVATION DATA  
BEACON STATION #527  
601 RIVERSIDE BOULEVARD, ROSEVILLE, CALIFORNIA  
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Ground water <sup>1</sup>	Ground Water Elevation <sup>2</sup>	Well Depth
MW-1	7/26/93	140.37	25.77	114.60	----
	9/28/93		25.55	114.82	----
	12/21/93		25.79	114.58	----
	2/10/94		25.96	114.41	36.68
	4/23/94		25.89	114.48	36.68
	7/25/94		26.12	114.25	36.68
	10/13/94		26.11	114.26	36.51
	1/12/95		26.34	114.03	36.51
	4/11/95		25.32	115.05	36.54
	8/5/95		25.22	115.15	36.67
	10/31/95		25.38	114.99	36.65
	2/1/96		25.54	114.83	36.65
	4/10/96		25.25	115.12	36.64
	7/17/96		25.14	115.23	36.64
	11/5/96		25.41	114.96	36.63
	1/28/97		25.32	115.05	36.61
	4/30/97		25.10	115.27	36.54
	7/24/97		25.39	114.98	36.54
	10/21/97		25.61	114.76	36.53
	1/19/98		25.69	114.68	36.54
	5/28/98		24.75	115.62	---
	7/21/98		24.85	115.52	36.57
	11/4/98		25.13	115.24	36.56
	1/25/99		25.23	115.14	36.57
	8/12/99		25.48	114.89	36.56
	11/1/99		25.55	114.82	36.56
	3/7/00		25.53	114.84	36.56
	5/10/00		25.14	115.23	36.56
	9/14/00		25.31	115.06	36.56
1/17/01	26.07	114.30	36.56		
3/26/01	25.88	114.49	36.56		
6/18/01	25.82	114.55	36.53		
8/6/01	26.04	114.33	36.53		
MW-2	7/26/93	141.04	11.43	129.61	----
	9/28/93		11.70	129.34	----
	12/21/93		11.86	129.18	----
	2/10/94		11.63	129.41	23.10
	4/23/94		11.73	129.31	23.11
	7/25/94		11.85	129.19	23.11
	10/13/94		11.91	129.13	22.92
	1/12/95		9.27	131.77	22.91
	4/11/95		8.97	132.07	22.94
	8/5/95		11.12	129.92	23.10
10/31/95	11.63	129.41	23.17		

NOTES: 1 = Measurement/reference elevation taken from notch on top north side of well casing  
2 = Elevation referenced to an arbitrary bench mark  
---- = Not measured  
Well depth = Measurement from top of casing to bottom of well



TABLE 1  
GROUND WATER ELEVATION DATA  
BEACON STATION #527  
601 RIVERSIDE BOULEVARD, ROSEVILLE, CALIFORNIA  
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Ground water <sup>1</sup>	Ground Water Elevation <sup>2</sup>	Well Depth
MW-2 (cont.)	2/1/96		11.02	130.02	23.19
	4/10/96	141.04	10.19	130.85	23.19
	7/17/96		11.05	129.99	23.18
	11/5/96		11.81	129.23	23.19
	1/28/97		9.55	131.49	23.17
	4/30/97		11.06	129.98	22.95
	7/24/97		11.37	129.67	22.95
	10/21/97		11.73	129.31	22.97
	1/19/98		10.45	130.59	22.98
	5/28/98		10.26	130.78	----
	7/21/98		10.92	130.12	22.97
	11/4/98		11.54	129.50	22.99
	1/25/99		11.46	129.58	22.97
	8/12/99		11.35	129.69	22.94
	11/1/99		11.74	129.30	22.93
	3/7/00		9.60	131.44	22.93
	5/10/00		10.61	130.43	22.93
	9/14/00		11.75	129.29	22.93
	1/17/01		12.30	128.74	22.93
	3/26/01		11.61	129.43	22.93
	6/18/01		11.82	129.22	22.98
	8/6/01		11.71	129.33	22.98
MW-3	07/26/93	140.82	28.42	112.40	
	9/28/93		28.31	112.51	
	12/21/93		28.57	112.25	
	2/10/94		28.72	112.10	39.71
	4/23/94		28.67	112.15	39.70
	7/25/94		28/87	111.95	39.70
	10/13/94		28.92	111.90	39.48
	1/12/95		29.07	111.75	39.47
	4/11/95		28.26	112.56	39.51
	8/05/95		27.98	112.84	39.71
	10/31/95		26.21	114.61	39.74
	2/01/96		28.46	112.36	39.73
	4/10/96		28.19	112.63	39.74
	7/17/96		28.06	112.76	39.69
	11/05/96		28.41	112.41	39.68
	1/28/97		28.22	112.60	39.65
	4/30/97		28.06	112.76	39.55
	7/24/97		28.22	112.60	39.54
	10/21/97		28.56	112.26	39.58
	1/19/98		28.55	112.27	39.54
	5/28/98		26.61	114.21	----
	7/21/98		27.82	113.00	39.53

NOTES: 1 = Measurement/reference elevation taken from notch on top north side of well casing  
2 = Elevation referenced to an arbitrary bench mark  
--- = Not measured  
Well depth = Measurement from top of casing to bottom of well

TABLE 1  
GROUND WATER ELEVATION DATA  
BEACON STATION #527  
601 RIVERSIDE BOULEVARD, ROSEVILLE, CALIFORNIA  
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) <sup>1</sup>	Depth to Ground water <sup>1</sup>	Ground Water Elevation <sup>2</sup>	Well Depth		
MW-3 (cont.)	11/04/98	140.82	27.87	112.95	39.54		
	1/25/99		28.05	112.77	39.53		
	8/12/99		28.21	112.61	39.54		
	11/01/99		28.31	112.51	39.54		
	3/7/00		28.36	112.46	39.54		
	5/10/00		28.09	112.73	39.54		
	9/14/00		28.17	112.65	39.54		
	1/17/01		28.52	112.30	35.53		
	3/26/01		28.62	112.20	35.53		
	6/18/01		28.64	112.18	39.53		
	8/6/01		28.75	112.07	39.54		
	MW-4		5/28/98	142.00	27.71	114.29	----
			7/21/98		26.89	115.11	37.93
11/04/98		27.16	114.84		37.91		
1/25/99		26.76	115.24		37.90		
8/12/99		24.18	114.82		37.88		
11/01/99		27.10	114.90		37.87		
3/7/00		26.65	115.35		37.83		
5/10/00		26.40	115.60		37.83		
9/14/00		26.45	115.55		37.83		
1/17/01		27.21	114.79		37.38		
3/26/01		26.90	115.10		37.83		
6/18/01		26.83	115.17		37.92		
8/6/01		27.05	114.95		37.93		
MW-5	3/7/00	134.75	4.81	129.94	22.53		
	5/10/00		5.08	129.67	22.53		
	9/14/00		5.22	129.53	22.53		
	1/17/01		5.09	129.66	22.53		
	3/26/01		5.01	129.74	22.53		
	6/18/01		4.97	129.78			
	8/6/01		4.37	130.38	22.50		

NOTES: 1 = Measurement/reference elevation taken from notch on top north side of well casing  
2 = Elevation referenced to an arbitrary bench mark  
--- = Not measured  
Well depth = Measurement from top of casing to bottom of well

TABLE 2  
GROUND WATER ANALYTICAL RESULTS  
BEACON STATION #527  
601 RIVERSIDE BOULEVARD, ROSEVILLE, CALIFORNIA  
(All Results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics							Benzene	Toluene	Ethylbenzene	Total Xylenes	
			Gasoline	MTBE	DIPE	ETBE	TAME	Tert-Butanol	Methanol					Ethanol
MW-1	7/26/93	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	0.64
	12/21/93	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	2/10/94	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	4/23/94	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	7/25/94	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	10/13/94	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	1/12/95	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	4/11/95	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	8/5/95	<50	NA				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	10/31/95	<50	NA				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	2/1/96	<50	NA				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	4/10/96	<50	NA				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	7/17/96	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	11/5/96	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	1/28/97	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	4/30/97	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	7/24/97	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	10/21/97	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	1/19/98	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	5/28/98	<1.0	0.15				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	7/21/98	<50	<0.50				<0.50	<5.0	<100	NA	<0.50	<0.50	<0.50	<0.50
	11/4/98	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	1/25/99	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	8/12/99	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	11/1/99	<50	<0.50				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	3/07/00	<50	<0.50				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	5/10/00	<50	<0.50				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	9/14/00	<50	<0.50				<0.50	<5.0	95	<0.50	<0.50	<0.50	<0.50	<0.50
	01/17/01	<50	<0.50	<0.50	<0.50		<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	3/26/01	<50	<0.50	<0.50	<0.50		<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	6/18/01	<50	<0.50	NA	NA		NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
MW-2	7/26/93	470	NA				NA	NA	NA	NA	10	2.8	38	89

NOTES: MTBE<sup>1</sup> = Methyl-Tertiary-Butyl Ether.  
 < = Below indicated detection limit.  
 NS = Not sampled.  
 NA = Sample not Analyzed for this Analyte.

TABLE 2  
GROUND WATER ANALYTICAL RESULTS  
BEACON STATION #527  
601 RIVERSIDE BOULEVARD, ROSEVILLE, CALIFORNIA  
(All Results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics							Benzene	Toluene	Ethyl-benzene	Total Xylenes	
			Gasoline	MTBE	DIPE	ETBE	TAME	Tert-Butanol	Methanol					Ethanol
MW-2 (continued)	12/21/93	510	NA				NA	NA	NA	NA	10	<0.5	32	67
	2/10/94	1,700	NA				NA	NA	NA	NA	27	0.99	130	160
	4/23/94	2,200	NA				NA	NA	NA	NA	53	21	280	430
	7/25/94	1,500	NA				NA	NA	NA	NA	46	11	190	190
	10/13/94	1,200	NA				NA	NA	NA	NA	39	1.3	170	100
	1/12/95	2,300	NA				NA	NA	NA	NA	78	2.2	210	650
	4/11/95	2,600	NA				NA	NA	NA	NA	48	53	220	870
	8/05/95	340	NA				NA	NA	NA	NA	7.2	<0.50	24	65
	10/31/95	450	NA				NA	NA	NA	NA	14	<0.50	27	31
	2/01/96	590	NA				NA	NA	NA	NA	12	<0.50	44	97
	4/10/96	2,300	NA				NA	NA	NA	NA	53	13	250	490
	7/17/96	1,500	<13				NA	NA	NA	NA	27	<1.3	140	270
	11/05/96	470	<5.0				NA	NA	NA	NA	41	0.56	38	1.9
	1/28/97	2,700	<13				NA	NA	NA	NA	44	<1.3	230	510
	4/30/97	1,800	<13				NA	NA	NA	NA	56	7.8	170	54
	7/24/97	200	<5.0				NA	NA	NA	NA	4.6	<0.50	5.4	18
	10/21/97	730	<5.0				NA	NA	NA	NA	56	1.1	120	7.9
	1/19/98	850	<5.0				NA	NA	NA	NA	19	1.8	83	99
	5/28/98	600	<5.0				NA	NA	NA	NA	15	1.3	66	53
	7/21/98	330	<0.50				<0.50	<5.0	<5.0	NA	11	<0.50	40	21
	11/04/98	180	<5.0				NA	NA	NA	NA	5.4	<0.50	18	5.2
	1/25/99	56	<5.0				NA	NA	NA	NA	4.8	<0.50	5.6	2.9
	8/12/99	1,100	<5.0				NA	NA	NA	NA	53	20	95	27
	11/01/99	200	0.82				<0.50	<5.0	<50	<5.0	2.9	<0.50	0.95	<0.50
	3/07/00	880	1.5				<0.50	<5.0	<50	<25	9.1	<0.50	44	6.4
	5/10/00	540	0.51				<0.50	<5.0	<50	<5.0	5.9	0.80	34	17
	9/14/00	91	<0.50				<0.50	<5.0	<50	<5.0	0.60	<0.50	0.59	<0.50
	1/17/01	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	3/26/01	210	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<50	<5.0	2.2	<0.50	2.3	<0.50
	6/18/01	<50	<0.50	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
MW-3	7/26/93	<50	NA				NA	NA	NA	NA	<0.5	<0.5	0.70	2.5
	12/21/93	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5

NOTES: MTBE<sup>1</sup> = Methyl-Tertiary-Butyl Ether.  
 < = Below indicated detection limit.  
 NS = Not sampled.  
 NA = Sample not Analyzed for this Analyte.

TABLE 2  
GROUND WATER ANALYTICAL RESULTS  
BEACON STATION #527  
601 RIVERSIDE BOULEVARD, ROSEVILLE, CALIFORNIA  
(All Results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics							Benzene	Toluene	Ethyl-benzene	Total Xylenes	
			Gasoline	MTBE	DIPE	ETBE	TAME	Tert-Butanol	Methanol					Ethanol
MW-3 continued	2/10/94	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	4/23/94	<50	NA				NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5
	10/13/94	<50	NA							NA	4.7	44	13	62
	1/12/95	<50	NA							NA	<0.5	<0.5	<0.5	<0.5
	4/11/95	<50	NA							NA	<0.5	<0.5	<0.5	<0.5
	8/05/95	<50	NA							NA	<0.50	<0.50	<0.50	<0.50
	10/31/95	<50	NA							NA	<0.50	<0.50	<0.50	<0.50
	2/01/96	<50	NA							NA	<0.50	<0.50	<0.50	<0.50
	4/10/96	<50	NA							NA	<0.50	<0.50	<0.50	<0.50
	7/17/96	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	11/05/96	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	1/28/97	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	4/30/97	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	7/24/97	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	10/21/97	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	1/19/98	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	5/28/98	<50	<5.0							NA	<0.50	<0.50	<0.50	<0.50
	7/21/98	<50	<0.50				<0.50	<5.0	<100	NA	<0.50	<0.50	<0.50	<0.50
	11/04/98	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	1/25/99	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	8/12/99	<50	<5.0				NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
	11/01/99	<50	<0.50				<0.50	<5.0	<50	NA	<0.50	<0.50	<0.50	<0.50
	3/07/00	<50	0.72				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	5/10/00	<50	<0.50				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	9/14/00	<50	<0.50				<0.50	<5.0	120	<5.0	<0.50	<0.50	<0.50	<0.50
	1/17/01	<50	<0.50	<0.50	<0.50		<0.50	<5.0	64	<5.0	<0.50	<0.50	<0.50	<0.50
	3/26/01	<50	<0.50	<0.50	<0.50		<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	6/18/01	<50	<0.50	NA	NA		NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50
MW-4	5/28/98	5,400	1,600				NA	NA	NA	NA	460	270	42	740
	7/21/98	13,000	1,900				21	320	7,200	NA	1,300	1,400	460	2,800
	11/04/98	12,000	2,200				NA	NA	NA	NA	860	1,200	530	2,000

NOTES: MTBE<sup>1</sup> = Methyl-Tertiary-Butyl Ether.  
 < = Below indicated detection limit.  
 NS = Not sampled.  
 NA = Sample not Analyzed for this Analyte.

TABLE 2  
GROUND WATER ANALYTICAL RESULTS  
BEACON STATION #527  
601 RIVERSIDE BOULEVARD, ROSEVILLE, CALIFORNIA  
(All Results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics							Benzene	Toluene	Ethyl-benzene	Total Xylenes	
			Gasoline	MTBE	DIPE	ETBE	TAME	Tert-Butanol	Methanol					Ethanol
MW-4 continued	1/25/99	12,000	2,100				NA	NA	NA	NA	660	910	480	2,500
	8/12/99	9,000	2,000				NA	NA	NA	NA	290	300	250	1,300
	11/01/99	6,600	1,500				12	160	2,200	<20	270	99	180	540
	3/7/00	1,600	305				3.9	38	<1,000	<50	49	34	33	220
	5/10/00	1,600	300				1.7	28	<100	<5.0	58	18	41	120
	9/14/00	3800	730				6.8	78	<50	<5.0	97	26	57	150
	1/17/01	3500	970	<2.0	<2.0	7.6	99	<200	<20	110	24	20	20	220
	3/26/01	1500	460	<0.50	<0.50	4.6	48	<150	<5.0	57	9.4	4.8	4.8	82
	6/18/01	2700	410	NA	NA	NA	NA	NA	NA	NA	100	17	11	160
	MW-5	3/7/00	<50	1.0				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50
5/10/00		<50	<0.50				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
9/14/00		<50	<0.50				<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
1/17/01		<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
3/26/01		<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<50	<5.0	<0.50	<0.50	<0.50	<0.50
6/18/01		<50	1.2	NA	NA	NA	NA	NA	NA	NA	<0.50	<0.50	<0.50	<0.50

NOTES: MTBE<sup>1</sup> = Methyl-Tertiary-Butyl Ether.  
 < = Below indicated detection limit.  
 NS = Not sampled.  
 NA = Sample not Analyzed for this Analyte.

**ENCLOSURE E**

Remediation System Analytical Results



Report Number : 31186

Date : 2/6/03

Richard Munsch  
RDM Environmental  
1704 Via Riata  
Roseville, CA 95747

Subject : 3 Air Samples  
Project Name : Former Beacon 3720  
Project Number : 67106  
P.O. Number : 67106

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, looped "J" and a long, sweeping "K".

Joel Kiff





Report Number : 31186

Date : 2/6/03

Project Name : Former Beacon 3720

Project Number : 67106

Sample : SVE-Inf

Matrix : Air

Lab Number : 31186-01

Sample Date :1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/30/03
Toluene	0.11	0.050	Molar ppm	EPA 8260B	1/30/03
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/30/03
Total Xylenes	0.071	0.050	Molar ppm	EPA 8260B	1/30/03
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	1/30/03
Toluene - d8 (Surr)	97.1		% Recovery	EPA 8260B	1/30/03
4-Bromofluorobenzene (Surr)	92.2		% Recovery	EPA 8260B	1/30/03

Sample : SVE-MID2

Matrix : Air

Lab Number : 31186-02

Sample Date :1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/30/03
Toluene	< 0.050	0.050	Molar ppm	EPA 8260B	1/30/03
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/30/03
Total Xylenes	< 0.050	0.050	Molar ppm	EPA 8260B	1/30/03
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	1/30/03
Toluene - d8 (Surr)	88.9		% Recovery	EPA 8260B	1/30/03
4-Bromofluorobenzene (Surr)	98.8		% Recovery	EPA 8260B	1/30/03

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



Report Number : 31186

Date : 2/6/03

Project Name : **Former Beacon 3720**

Project Number : **67106**

Sample : **SVE-Eff**

Matrix : Air

Lab Number : 31186-03

Sample Date :1/29/03

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	1/30/03
<b>Toluene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	1/30/03
<b>Ethylbenzene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	1/30/03
<b>Total Xylenes</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	1/30/03
<b>TPH as Gasoline</b>	<b>&lt; 5.0</b>	5.0	Molar ppm	EPA 8260B	1/30/03
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	1/30/03
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/30/03

Approved By: Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4808

Lab No. 31186 Page 1 of 1

Project Contact (Hardcopy or PDF To): Richard Munsh  
 California EDF Report?  Yes  No

Company/Address: RMR Environmental  
 Recommended but not mandatory to complete this section:  
 Sampling Company Log Code: \_\_\_\_\_

Phone No.: (916) 771-7046 FAX No.: (916) 771-4184  
 Global ID: \_\_\_\_\_

Project Number: 67106 P.O. No: 67106  
 EDF Deliverable To (Email Address): \_\_\_\_\_

Project Name: Corner Beacon 3720  
 Sampler Signature: [Signature]

Project Address: San Lorenzo CA

Sampling Container Preservative Matrix

Sample Designation Date Time 40 ml VOA SLEEVE HCl HNO3 ICE NONE WATER SOIL

SVE-Inf 1/29/03 1:20

SVE-MIDZ 1/29/03

SVE-EFF 1/29/03 1:16

**Chain-of-Custody Record and Analysis Request**

**Analysis Request**

BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239-2) TOTAL (X) W.E.T. (X)	TAT
				X									12 hr/24 hr/48 hr/72 hr/1 wk
				X									For Lab Use Only
				X									01
				X									02
				X									03

Relinquished by: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received by: \_\_\_\_\_

Remarks: STAT

Received by Laboratory: John Cattle/Kiff Analytical

Bill to: Teresa Petrus  
Rob Pomoy



Report Number : 31631

Date : 2/27/2003

Richard Munsch  
RDM Environmental  
1704 Via Riata  
Roseville, CA 95747

Subject : 3 Air Samples  
Project Name : 67106  
Project Number : 67106  
P.O. Number : 67106

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large initial "J".

Joel Kiff



Report Number : 31631

Date : 2/27/2003

Project Name : 67106

Project Number : 67106

Sample : SVE-Inf

Matrix : Air

Lab Number : 31631-01

Sample Date :2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	2/21/2003
Toluene	0.19	0.050	ppmv	EPA 8260B	2/21/2003
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	2/21/2003
Total Xylenes	0.17	0.050	ppmv	EPA 8260B	2/21/2003
Methyl-t-butyl ether	0.61	0.10	ppmv	EPA 8260B	2/21/2003
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	2/21/2003
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	2/21/2003
4-Bromofluorobenzene (Surr)	96.0		% Recovery	EPA 8260B	2/21/2003

Sample : SVE-MID

Matrix : Air

Lab Number : 31631-02

Sample Date :2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	2/21/2003
Toluene	< 0.050	0.050	ppmv	EPA 8260B	2/21/2003
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	2/21/2003
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	2/21/2003
Methyl-t-butyl ether	< 0.10	0.10	ppmv	EPA 8260B	2/21/2003
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	2/21/2003
Toluene - d8 (Surr)	98.9		% Recovery	EPA 8260B	2/21/2003
4-Bromofluorobenzene (Surr)	95.3		% Recovery	EPA 8260B	2/21/2003

Approved By:  Joel Kiff



Report Number : 31631

Date : 2/27/2003

Project Name : 67106

Project Number : 67106

Sample : SVE-Eff

Matrix : Air

Lab Number : 31631-03

Sample Date :2/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	ppmv	EPA 8260B	2/22/2003
Toluene	< 0.050	0.050	ppmv	EPA 8260B	2/22/2003
Ethylbenzene	< 0.050	0.050	ppmv	EPA 8260B	2/22/2003
Total Xylenes	< 0.050	0.050	ppmv	EPA 8260B	2/22/2003
Methyl-t-butyl ether	< 0.10	0.10	ppmv	EPA 8260B	2/22/2003
TPH as Gasoline	< 5.0	5.0	ppmv	EPA 8260B	2/22/2003
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	2/22/2003
4-Bromofluorobenzene (Surr)	96.1		% Recovery	EPA 8260B	2/22/2003

Approved By:  Joel Kiff

2795 2nd St., Suite 300 Davis, CA 95616 530-297-4800



2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4808

Lab No. 31631

Page 1 of 1

Project Contact (Hardcopy or PDF To): Richard P. Munsch  
 Company/Address: RPM Environmental  
 Phone No.: (916) 771-7098 FAX No.: (916) 771-4584  
 Project Number: 67106 P.O. No.: 67106

California EDF Report?  Yes  No  
 Recommended but not mandatory to complete this section:  
 Sampling Company Log Code: \_\_\_\_\_  
 Global ID: \_\_\_\_\_  
 EDF Deliverable To (Email Address): \_\_\_\_\_

**Chain-of-Custody Record and Analysis Request**

Project Name: 67106  
 Project Address: 1088 Marina Blvd San Leandro  
 Sampler Signature: [Signature]

Analysis Request														TAT																
Sample Designation	Date	Time	40 ml VOA	SLEEVE	Container	Preservative				Matrix		BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	12 hr/24 hr/48 hr/72 hr/1 wk	For Lab Use Only				
✓ SVE-INF	2/24/07	3:20			Tedlar																									
✓ SVE-MIN	2/24/07	3:28																												
✓ SVE-EFF	2/24/07	3:16																												

Relinquished by: <u>[Signature]</u>	Date	Time	Received by: _____
Relinquished by: _____	Date	Time	Received by: _____
Relinquished by: _____	Date	Time	Received by Laboratory: <u>B.A. Brown</u> KIFF Analytical

Remarks: STAT  
 Bill to: Tesoro Petroleum / Rob Ponsuwan



Report Number : 32312

Date : 3/28/2003

Richard Munsch  
RDM Environmental  
1704 Via Riata  
Roseville, CA 95747

Subject : 3 Air Samples  
Project Name : Tesoro Station 67106  
Project Number : 67106  
P.O. Number : 67106

Dear Mr. Munsch,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,

  
Joel Kiff





Report Number : 32312

Date : 3/28/2003

Project Name : **Tesoro Station 67106**

Project Number : **67106**

Sample : **SVE-Inf**

Matrix : Air

Lab Number : 32312-01

Sample Date :3/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Toluene</b>	<b>0.12</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Ethylbenzene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Total Xylenes</b>	<b>0.11</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Methyl-t-butyl ether</b>	<b>0.59</b>	0.10	Molar ppm	EPA 8260B	3/22/2003
<b>TPH as Gasoline</b>	<b>&lt; 5.0</b>	5.0	Molar ppm	EPA 8260B	3/22/2003
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	3/22/2003
4-Bromofluorobenzene (Surr)	90.6		% Recovery	EPA 8260B	3/22/2003

Sample : **SVE-MID**

Matrix : Air

Lab Number : 32312-02

Sample Date :3/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Toluene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Ethylbenzene</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Total Xylenes</b>	<b>&lt; 0.050</b>	0.050	Molar ppm	EPA 8260B	3/22/2003
<b>Methyl-t-butyl ether</b>	<b>&lt; 0.10</b>	0.10	Molar ppm	EPA 8260B	3/22/2003
<b>TPH as Gasoline</b>	<b>&lt; 5.0</b>	5.0	Molar ppm	EPA 8260B	3/22/2003
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	3/22/2003
4-Bromofluorobenzene (Surr)	89.4		% Recovery	EPA 8260B	3/22/2003

Approved By:  Joel Kiff



Report Number : 32312

Date : 3/28/2003

Project Name : Tesoro Station 67106

Project Number : 67106

Sample : SVE-Eff

Matrix : Air

Lab Number : 32312-03

Sample Date :3/20/2003

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	3/22/2003
Toluene	< 0.050	0.050	Molar ppm	EPA 8260B	3/22/2003
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	3/22/2003
Total Xylenes	< 0.050	0.050	Molar ppm	EPA 8260B	3/22/2003
Methyl-t-butyl ether	< 0.10	0.10	Molar ppm	EPA 8260B	3/22/2003
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	3/22/2003
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	3/22/2003
4-Bromofluorobenzene (Surr)	91.5		% Recovery	EPA 8260B	3/22/2003

Approved By:  Joel Kiff



2795 2nd Street, Suite 300  
 Davis, CA 95616  
 Lab: 530.297.4800  
 Fax: 530.297.4808

Lab No. 32312 Page 1 of 1

Project Contact (Hardcopy or PDF To): Richard Munsch  
 California EDF Report?  Yes  No

**Chain-of-Custody Record and Analysis Request**

Company/Address: RPM Environmental

Recommended but not mandatory to complete this section:  
 Sampling Company Log Code: . . . . .

Phone No.: (916) 771-7098 FAX No.: (916) 771-4384

Global ID: . . . . .

Project Number: 67106 P.O. No.: 67106

EDF Deliverable To (Email Address): . . . . .

Project Name: Tesora station 57106

Sampler Signature: [Signature]

Project Address: San Leandro CA

Sampling		Container	Preservative	Matrix
Date	Time	40 ml VOA SLEEVE	HCl HNO <sub>3</sub> ICE NONE	WATER SOIL Air

Analysis Request												TAT	
6 TEX (8021B)	6 TEX/TPH Gas/MTBE (8021B/86015)	TPH as Diesel (86015)	TPH as Motor Oil (86015)	TPH Gas/STEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Hydrocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	12 hr/24 hr/48 hr/72 hr/1 wk
				X									01
				X									02
				X									03

Sample Designation	Date	Time
<u>SVE-INT</u>	<u>3/21/03</u>	<u>4:20</u>
<u>SVE-MIN</u>	<u>3/20/03</u>	<u>4:18</u>
<u>SVE-EFF</u>	<u>3/21/03</u>	<u>4:16</u>

Relinquished by:	Date	Time	Received by:
<u>[Signature]</u>			

Remarks: STAT

Bill to: Teron Petulan / Rob Pons van

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## UPLOADING A GEO\_WELL FILE

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**Submittal Title:                    67106-Q103**  
**Submittal Date/Time:        4/28/2003 2:26:41 PM**  
**Confirmation Number:        6295887589**

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[ADMINISTRATOR.](#)