

24 February 2011

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Environmental Health



TESORO

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Mr. Jerry Wickham  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

**Subject: Third Quarter 2010 Status Report  
44 Lewelling Boulevard, San Lorenzo, California  
Tesoro No. 67107 (Former Beacon 3721); ACEH Case No. RO0498**

Dear Mr. Wickham:

Enclosed please find a copy of the quarterly status report for the subject site located at 44 Lewelling Boulevard in San Lorenzo, California. This report is submitted by Arctos Environmental on behalf of Tesoro Environmental Resources Company.

Based on my inquiry of the person or persons directly responsible for gathering the information contained in this report, I believe the information was prepared by qualified personnel who properly gathered and evaluated the information, and that the information submitted is, to the best of my knowledge and belief, true, correct, and complete. Please feel free to call me at 253/896-8700 or Michael Purchase of Arctos Environmental at 510/525-2180 with questions.

Sincerely,

Jeffrey M. Baker, P.E.  
Supervisor, Environmental  
Compliance & Remediation  
Tesoro Companies, Inc.

Attachments

CC: Arctos – Michael Purchase



Arctos Environmental  
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Berkeley, CA 94702 510 525-2392 FAX

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21 January 2011  
Project No. 01ZO

Jerry Wickham  
Hazardous Materials Specialist  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Subject: Third Quarter 2010 Status Report  
44 Lewelling Boulevard, San Lorenzo, California  
Tesoro No. 67107 (Former Beacon 3721); ACEH Case No. RO0498**

Dear Mr. Wickham:

Arctos Environmental (Arctos), on behalf of Tesoro Environmental Resources Company (Tesoro) has prepared this letter report summarizing project activities for the third quarter 2010 at the subject site (Figure 1).

### **Executive Summary**

Arctos conducted third quarter groundwater monitoring on 6 and 7 July 2010. Total petroleum hydrocarbons as gasoline (TPHg) and benzene concentrations continue to show decreasing concentrations for both onsite and offsite wells. Onsite well PT-1 shows a stable trend for methyl tert-butyl ether (MTBE) with a concentration of 8.2 micrograms per liter ( $\mu\text{g/l}$ ). An oxygen injection system is currently operating 10 feet upgradient of well PT-1 to remediate TPHg, benzene, and MTBE at the site. Offsite benzene and MTBE concentrations have remained below the Environmental Screening Levels (ESL) during the last four quarters of monitoring.

### **Site Background**

A site background, which summarizes regional and site geology and hydrogeology and previous investigation and remediation, can be viewed at the project internet web site at [https://portal.haleyaldrich.com/sites/ext/San\\_Lorenzo](https://portal.haleyaldrich.com/sites/ext/San_Lorenzo) with a username and password provided by Tesoro.

## Field Activities

Arctos's subcontractor, Confluence Environmental, Inc. (Confluence), of Sacramento, California, performed quarterly groundwater monitoring at the site on 6 and 7 July 2010. Samples were collected from wells MW-1, MW-2, MW-3R, MW-4, MW-6, MW-10, MW-11, RW-1, RW-2, and PT-1 (Figure 2). Groundwater monitoring was performed in accordance with RWQCB guidelines and the quality assurance/quality control (QA/QC) procedures in Attachment A. Field data sheets are in Attachment B.

## Analytical Program

The groundwater samples were analyzed in accordance with the analytical plan in Attachment A.

## Groundwater Results

Groundwater elevations were recorded at approximately 29.6 to 30.7 feet above mean sea level (14.0 to 18.1 feet below ground surface; Table 1). Water elevations decreased between 0.8 and 1.4 feet since annual high water levels in April 2010. Water level data indicated that the general direction of water flow was toward the southwest with an estimated gradient of 0.004 (1 foot/250 feet; Figure 2). Third quarter 2010 groundwater elevations and gradient were generally consistent with historical data (Attachment C).

The highest TPHg concentration of 3,600 µg/l was at offsite well MW-10. Well MW-3R had the highest onsite TPHg concentration of 570 µg/l. Only onsite well MW-3R had benzene and tert-butyl alcohol (TBA) concentrations (59 and 16 µg/l, respectively) above the ESLs of 1 and 12 µg/l, respectively. The highest MTBE concentration of 13 µg/l was at onsite well MW-3R. Benzene, MTBE and TBA were below the ESLs for offsite wells during the third quarter monitoring event.

Groundwater analytical results are summarized in Table 2. Figures 3, 4, and 5 show isoconcentration contours for TPHg, benzene, and MTBE, respectively. Figures 6A through 6D illustrate the change in groundwater quality with time for TPHg, benzene, and MTBE at wells MW-1, MW-3R, MW-10, and MW-11. Historical analytical results are in Attachment D and the laboratory reports and chain-of-custody forms are in Attachment E.

### Trend Analysis

Trend analysis results show that all seven wells with concentrations above the ESLs have stable or decreasing trends for TPHg, benzene, MTBE, and TBA. Only well PT-1 shows a stable trend for MTBE over the past 10 monitoring events with all of the other wells showing decreasing trends. Well PT-1 is located directly downgradient of the current groundwater remediation system, so MTBE concentrations will be addressed by the

continued operation of the system. Both offsite wells MW-10 and MW-11 show decreasing trends for TPHg, the only petroleum hydrocarbon above the ESL off site. Trend analysis procedures and results are summarized in Attachment F.

### **Oxygen Injection Status**

An oxygen diffusion system was initiated on 5 March 2009 in the western portion of the site at injection wells OS-1 through OS-4. Dissolved oxygen (DO) concentrations were above 15 milligrams per liter (mg/l) in the injection wells and remained at baseline concentrations (at or less than 1 mg/l) at downgradient observation wells PT-1 and RW-2 through March 2010. On 3 March 2010, Arctos started injecting oxygen gas directly into the existing injection wells, as described in a 18 November 2009 work plan. Oxygen gas was injected for a 10-minute period every 120 minutes at approximate flow rates of 5 to 8 cubic feet per hour (cfh). The injection pressures were maintained at less than 5 pounds per square inch (psi) at each injection well. After 7 months of operation, DO concentrations remained above 1 mg/l at downgradient well PT-1. The field readings are summarized in Attachment G.

### **Conclusions and Recommendations**

Results of the groundwater sampling and oxygen injection activities indicate the following conclusions:

- Offsite benzene and MTBE concentrations have remained below ESLs since the third quarter 2006 and second quarter 2009 sampling events, respectively
- Petroleum hydrocarbon compounds show statistically decreasing trends for wells above the ESLs
- Direct oxygen gas injection into the injection wells shows an increased radius of influence over the operation of the diffusion injection system.

Based on the results of the groundwater monitoring, Arctos recommends continued operation of the oxygen injection system.

Jerry Wickham  
Alameda County Environmental Health  
21 January 2011  
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ARCTOS

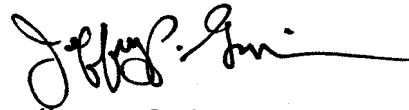
If you have questions or comments, please call Mike Purchase at 510/525-2180 or Jeff Gwinn at 562/988-2755.

Very truly yours,

**ARCTOS ENVIRONMENTAL**



Michael P. Purchase, P.E.  
Senior Project Manager



Jeffrey P. Gwinn, P.E.  
Vice President

Copy: Jeffrey M. Baker – Tesoro Companies, Inc.  
Brian Kelleher – Kelleher & Associates

Attachments: Table 1 – Well and Groundwater Elevations  
Table 2 – Grounwater Monitoring Analytical Results  
Figure 1 – Site Location Map  
Figure 2 – Site Plan  
Figure 3 – TPHg Concentration Contours in Groundwater  
Figure 4 – Benzene Concentration Contours in Groundwater  
Figure 5 – MTBE Concentration Contour in Groundwater  
Figures 6A through 6D – TPHg, Benzene, and MTBE Concentrations with  
Groundwater Elevations for Wells MW-1, MW-3R, MW-10, and MW-11  
Attachment A – Groundwater Sampling QA/QC Procedures  
Attachment B – Field Data Sheets  
Attachment C – Historical Groundwater Elevations  
Attachment D – Historical Groundwater Analytical Results  
Attachment E – Laboratory Analytical Report and Chain-of-Custody Form  
Attachment F – Trend Analysis  
Attachment G – Oxygen Injection Performance Monitoring  
Attachment H – Waste Manifests

**TABLE 1**

**WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107**

<b>Well No.</b>	<b>Date of Measurement</b>	<b>Depth to Water (feet below casing)</b>	<b>PVC Casing Elevation<sup>(a)</sup> (feet MSL)</b>	<b>Water Table Elevation<sup>(b)</sup> (feet MSL)</b>
MW-1	7/1/09	16.88	46.36	29.48
	10/6/09	17.90		28.46
	2/17/10	15.43		30.93
	4/13/10	14.68		31.68
	7/6/10	15.82		30.54
MW-2	7/1/09	16.02	45.61	29.59
	10/6/09	17.10		28.51
	2/17/10	14.50		31.11
	4/13/10	13.55		32.06
	7/6/10	14.96		30.65
MW-3R	7/1/09	15.73	45.16	29.43
	10/6/09	16.69		28.47
	2/17/10	14.30		30.86
	4/13/10	13.50		31.66
	7/6/10	14.70		30.46
MW-4	7/1/09	17.86	47.36	29.50
	10/6/09	18.90		28.46
	2/17/10	16.49		30.87
	4/13/10	15.80		31.56
	7/6/10	16.82		30.54
MW-5	7/1/09	16.89	46.50	29.61
	10/6/09	18.00		28.50
	2/17/10	15.40		31.10
	4/13/10	14.60		31.90
	7/6/10	15.83		30.67
MW-6	7/1/09	15.60	45.17	29.57
	10/6/09	16.70		28.47
	2/17/10	14.03		31.14
	4/13/10	9.57		35.60
	7/6/10	14.50		30.67
MW-7	7/1/09	15.06	44.24	29.18
	10/6/09	16.07		28.17

**TABLE 1**

**WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107**

<b>Well No.</b>	<b>Date of Measurement</b>	<b>Depth to Water (feet below casing)</b>	<b>PVC Casing Elevation<sup>(a)</sup> (feet MSL)</b>	<b>Water Table Elevation<sup>(b)</sup> (feet MSL)</b>
MW-7 (cont.)	2/17/10	13.60		30.64
	4/13/10	17.70		26.54
	7/6/10	14.00		30.24
MW-8	7/1/09	15.92	44.95	29.03
	10/6/09	16.87		28.08
	2/17/10	14.62		30.33
	4/13/10	13.87		31.08
	7/6/10	15.00		29.95
MW-9	7/1/09	18.22	47.65	29.43
	10/6/09	19.30		28.35
	2/17/10	16.89		30.76
	4/13/10	16.20		31.45
	7/6/10	17.20		30.45
MW-10	7/1/09	16.00	45.04	29.04
	10/6/09	16.98		28.06
	2/17/10	14.72		30.32
	4/13/10	14.08		30.96
	7/6/10	15.05		29.99
MW-11	7/1/09	18.90	47.69	28.79
	10/6/09	19.80		27.89
	2/17/10	17.74		29.95
	4/13/10	17.24		30.45
	7/6/10	18.05		29.64
MW-12	7/1/09	18.13	47.27	29.14
	10/6/09	19.03		28.24
	2/17/10	16.90		30.37
	4/13/10	16.28		30.99
	7/6/10	17.19		30.08
RW-1	7/1/09	16.53	45.86	29.33
	10/6/09	17.48		28.38
	2/17/10	15.08		30.78
	4/13/10	14.30		31.56
	7/6/10	15.48		30.38

**TABLE 1**

**WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107**

<b>Well No.</b>	<b>Date of Measurement</b>	<b>Depth to Water (feet below casing)</b>	<b>PVC Casing Elevation<sup>(a)</sup> (feet MSL)</b>	<b>Water Table Elevation<sup>(b)</sup> (feet MSL)</b>
RW-2	7/1/09	17.00	46.40	29.40
	10/6/09	18.00		28.40
	2/17/10	15.64		30.76
	4/13/10	14.90		31.50
	7/6/10	15.95		30.45
OS-1	7/1/09	17.78	47.19	29.41
	10/6/09	18.78		28.41
	2/17/10	16.37		30.82
OS-2	7/1/09	17.38	46.79	29.41
	10/6/09	18.42		28.37
	2/17/10	16.00		30.79
OS-3	7/1/09	16.26	45.68	29.42
	10/6/09	17.30		28.38
	2/17/10	14.80		30.88
OS-4	7/1/09	16.61	46.02	29.41
	10/6/09	17.63		28.39
	2/17/10	15.16		30.86
PT-1	7/1/09	17.10	46.48	29.38
	10/6/09	18.10		28.38
	2/17/10	15.66		30.82
	7/6/10	16.10		30.38

- (a) Elevation of PVC well casing (north edge) surveyed relative to mean sea level (MSL).  
Wells were surveyed by Cross Land Surveying, Inc., per AB 2886 requirements on 26 September 2008.
- (b) Difference between "PVC Casing Elevation" and "Depth to Water."



TABLE 2

**GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1	7/1/09	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	24	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	21	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.1	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-2	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.58	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-3R	7/1/09	690	30	1.2	4.4	2.0	19	ND<0.5	ND<0.5	ND<0.5	20
	10/7/09	480	28	0.73	2.3	1.5	20	ND<0.5	ND<0.5	ND<0.5	16
	2/18/10	400	38	0.76	25	6.5	10	ND<0.5	ND<0.5	ND<0.5	18
	4/14/10	840	81	1.4	62	22	16	ND<0.5	ND<0.5	ND<0.5	16
	7/7/10	570	59	0.94	21	5.6	13	ND<0.5	ND<0.5	ND<0.5	16
MW-4	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.56	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	0.62	0.83	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-5	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE 2

**GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-6	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-7	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-8	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-9	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-10	7/1/09	2,900	ND<0.5	ND<0.5	ND<0.5	1.4	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	2,800	ND<0.5	ND<0.5	ND<0.5	0.61	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	3,300	ND<0.5	ND<0.5	0.58	0.90	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	4,300	ND<0.5	ND<0.5	24	6.9	0.80	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	3,600	ND<0.5	ND<0.5	2.0	9.1	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5

TABLE 2

**GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-11	7/1/09	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	410	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	460	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	400	ND<0.5	ND<0.5	ND<0.5	0.80	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-12	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
RW-1	7/1/09	750	ND<0.5	ND<0.5	ND<0.5	0.67	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	0.68	ND<0.5	ND<0.5	ND<0.5	23	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	82	3.0	ND<0.5	4.0	1.4	10	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	4.2	ND<0.5	4.8	1.1	9.7	ND<0.5	ND<0.5	ND<0.5	7.5
	7/6/10	ND<50	0.82	ND<0.5	ND<0.5	ND<0.5	8.0	ND<0.5	ND<0.5	ND<0.5	ND<5
RW-2	7/1/09	52	1.5	ND<0.5	ND<0.5	ND<0.5	14	ND<0.5	ND<0.5	ND<0.5	6.7
	10/7/09	350	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.85	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	620	ND<0.5	ND<0.5	ND<0.5	0.92	0.84	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	390	ND<0.5	ND<0.5	ND<0.5	1.1	0.97	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	380	ND<0.5	ND<0.5	ND<0.5	0.79	0.82	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-1	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5

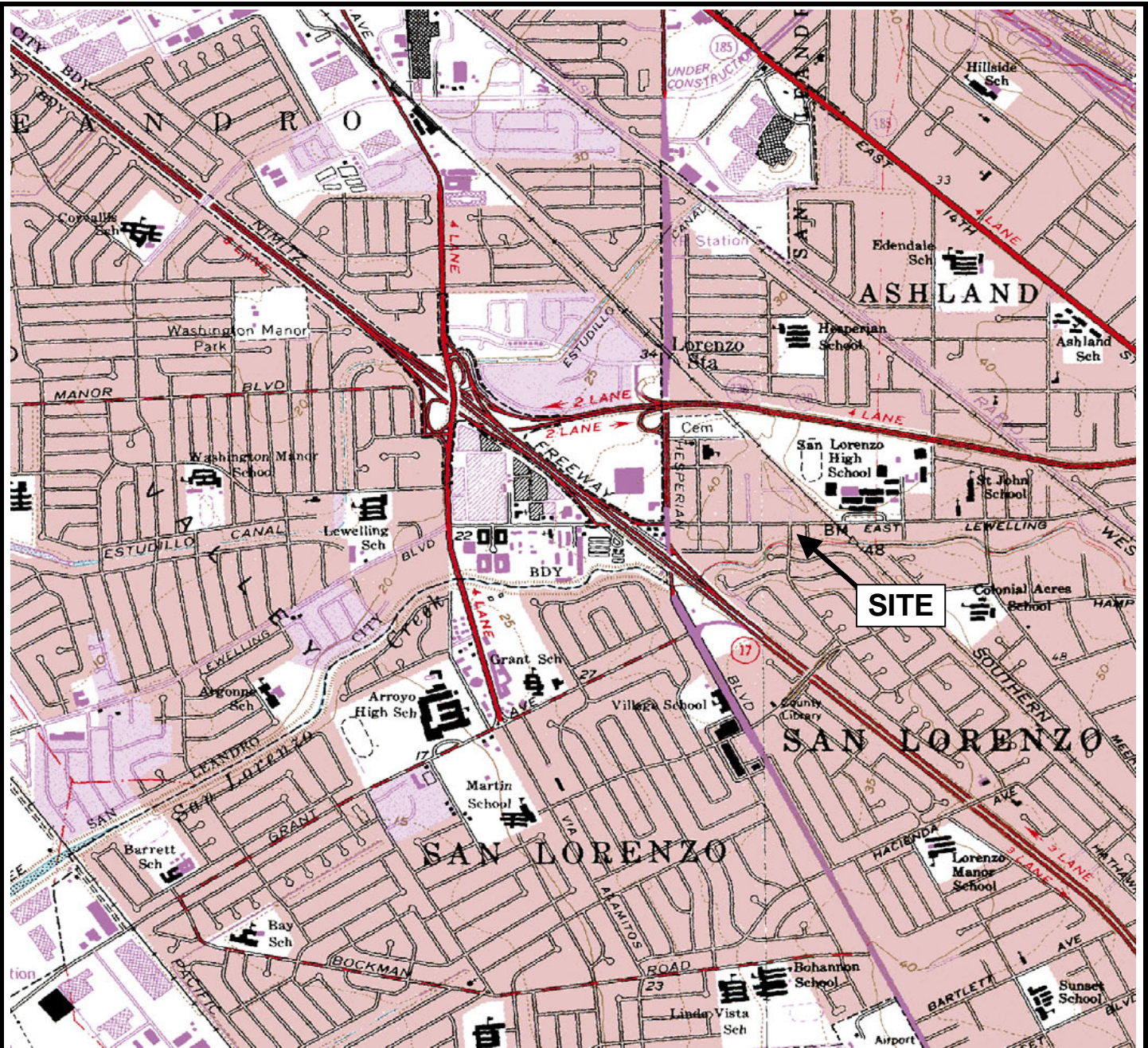
TABLE 2

**GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
OS-2	7/1/09	1,500	ND<0.5	ND<0.5	0.69	ND<0.5	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	1,200	ND<0.5	ND<0.5	0.55	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.82	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-3	7/1/09	2,100	220	6.8	190	250	20	ND<0.5	ND<0.5	ND<0.5	18
	10/7/09	2,100	230	6.5	150	230	20	ND<0.5	ND<0.5	ND<0.5	16
	2/18/10	1,600	180	3.7	120	140	23	ND<0.5	ND<0.5	ND<0.5	8.6
OS-4	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	34	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	680	14	ND<0.5	8.6	12	38	ND<0.5	ND<0.5	ND<0.5	12
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	0.55	26	ND<0.5	ND<0.5	ND<0.5	ND<5
PT-1	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	61	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.2	ND<0.5	ND<0.5	ND<0.5	ND<5

- (a) Samples collected before January 2008 reported by others; data provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report.
- (b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), analyzed by EPA Method 8260; reported in micrograms per liter (µg/l).
- (c) Environmental Screening Levels (ESLs) taken from Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup tables dated November 2007.
- (d) NE - Not established.
- (e) ND - Not detected at the reporting limit listed.

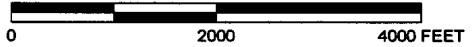




**SITE**



SCALE



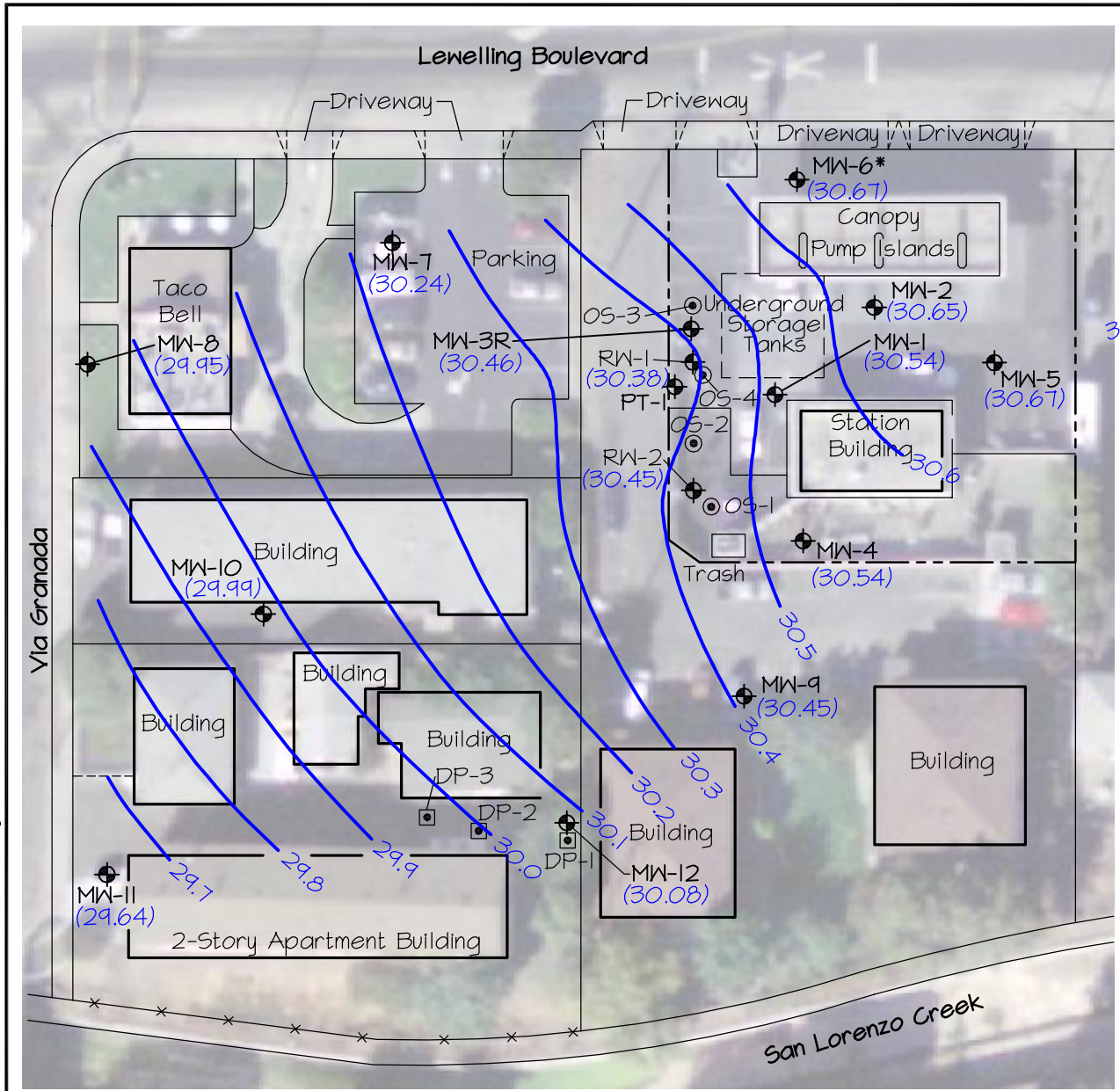
**REFERENCE**

7.5 MINUTE USGS TOPOGRAPHIC MAPS OF  
 SAN LEANDRO AND HAYWARD, CALIFORNIA QUADRANGLES  
 DATE: 1959, PHOTOREVISED 1980  
 SCALE = 1:24,000

ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO, 67107			
<b>SITE LOCATION MAP</b>			
PROJECT NO. 01ZO	DRAWN BY MP	CHECKED BY MP	APPROVED BY JG
FILE NO. Site Map.xls	<b>FIGURE 1</b>		

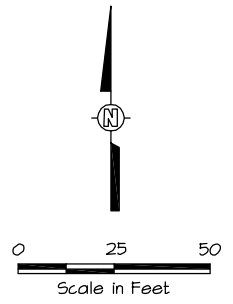


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9/28/2010 9:48AM



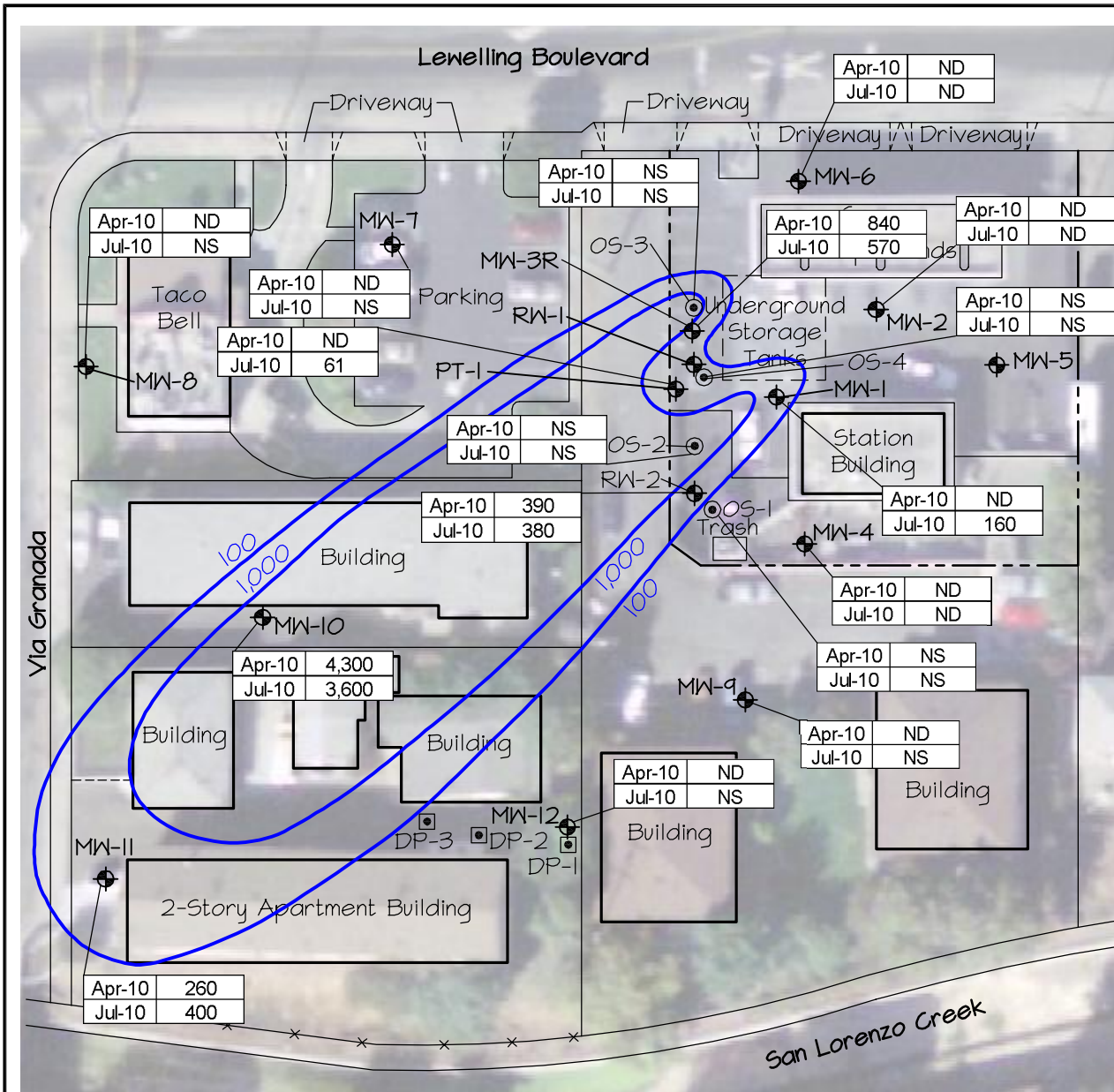
Legend

- MW-1 Monitoring Well with 6 July 2010 Groundwater Elevation (Feet MSL) (30.67)
- DP-1 Soil Boring
- OS-1 Oxygen Injection Well
- \* Elevation Not Used for Contours
- Groundwater Elevation Contour (Feet MSL)



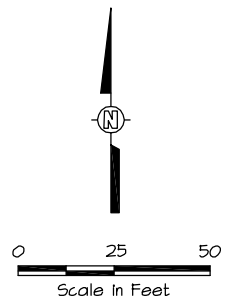
REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
10	7	MY	12/23/09	Fourth Quarter 2009 Status Report
	8	MY	3/1/10	First Quarter 2010 Status Report
	9	MY	6/8/10	Second Quarter 2010 Status Report
	10	MY	9/14/10	Third Quarter 2010 Status Report

ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>SITE PLAN</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. OIZO11B0510.DWG		FIGURE 2	



Legend

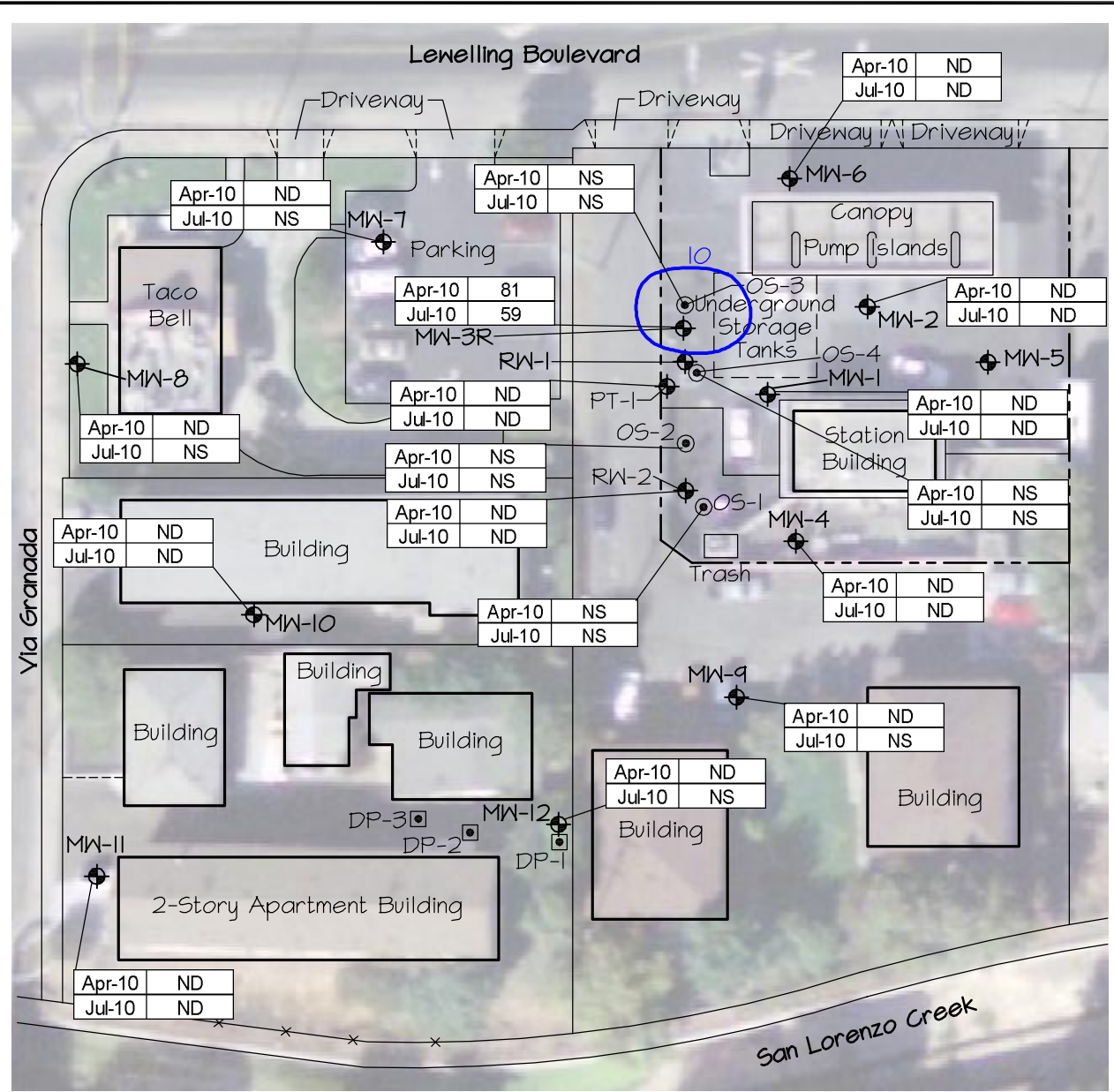
- MW-1 Monitoring Well with 13 or 14 April 2010 and 6 or 7 July 2010 Total Petroleum Hydrocarbons as Gasoline (TPHg) Results in  $\mu\text{g/l}$
- DP-1 Soil Boring
- OS-1 Oxygen Injection Well
- ND Not Detected
- 100 TPHg Concentration Contour ( $\mu\text{g/l}$ ), Queried Where Uncertain



REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
10	7	MY	12/4/09	Fourth Quarter 2009 Status Report
	8	MY	4/2/10	First Quarter 2010 Status Report
	9	MY	5/20/10	Second Quarter 2010 Status Report
	10	MY	9/14/10	Third Quarter 2010 Status Report

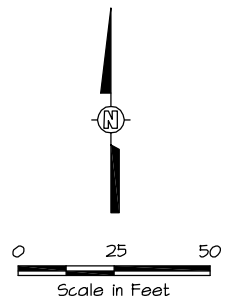
ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>TPHg CONCENTRATION CONTOURS IN GROUNDWATER</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. OIZO11B0210.DWG		FIGURE 3	

01ZO11B0310.dwg  
9/27/2010 5:42PM



Legend

- MW-1 Monitoring Well with 13 or 14 April 2010 and 6 or 7 July 2010 Benzene Results in  $\mu\text{g/l}$
- OS-1 Oxygen Injection Well
- DP-1 Soil Boring
- ND Not Detected
- 10 Benzene Concentration Contour ( $\mu\text{g/l}$ ), Queried Where Uncertain

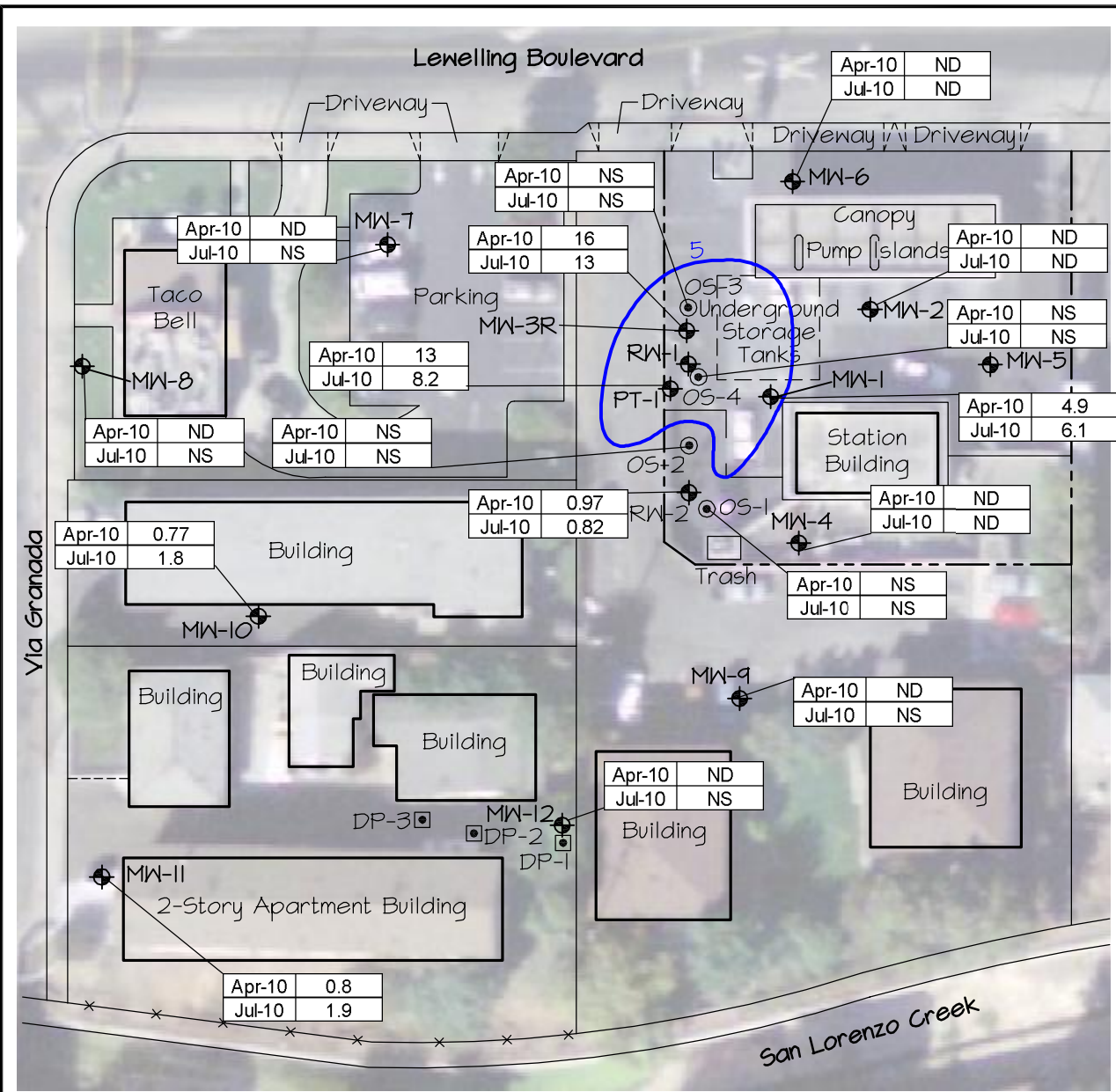


REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
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	8	MY	4/2/10	First Quarter 2010 Status Report
	9	MY	5/20/10	Second Quarter 2010 Status Report
	10	MY	9/14/10	Third Quarter 2010 Status Report

ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>BENZENE CONCENTRATION CONTOURS IN GROUNDWATER</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. OIZO11B0310.DWG		FIGURE 4	

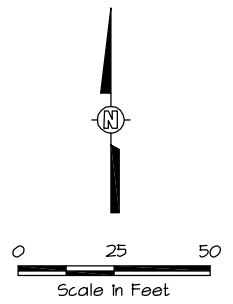


01ZO11B0410.dwg  
9/27/2010 5:46PM



Legend

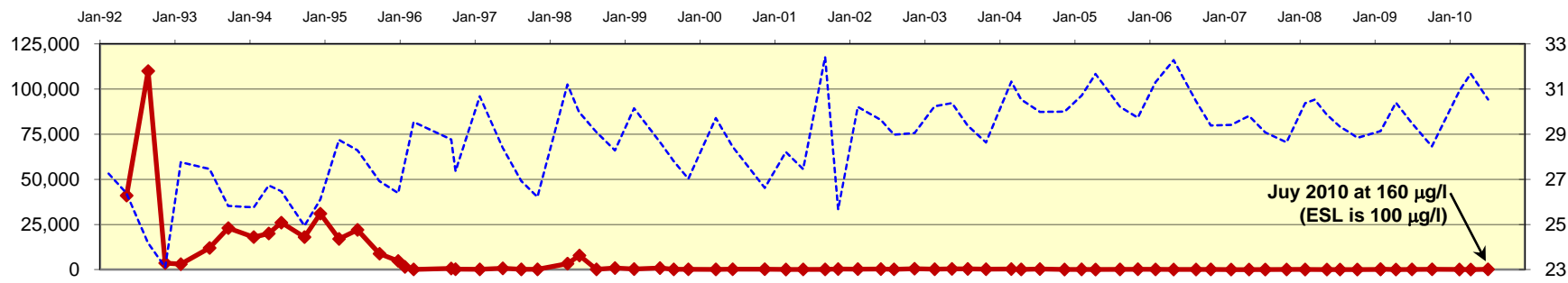
- MW-I Monitoring Well with 13 or 14 April 2010 and 6 or 7 July 2010 Methyl Tert-Butyl Ether (MTBE) Results in µg/l
- OS-I Oxygen Injection Well
- DP-I Soil Boring
- ND Not Detected
- 5 MTBE Concentration Contour (µg/l), Queried Where Uncertain



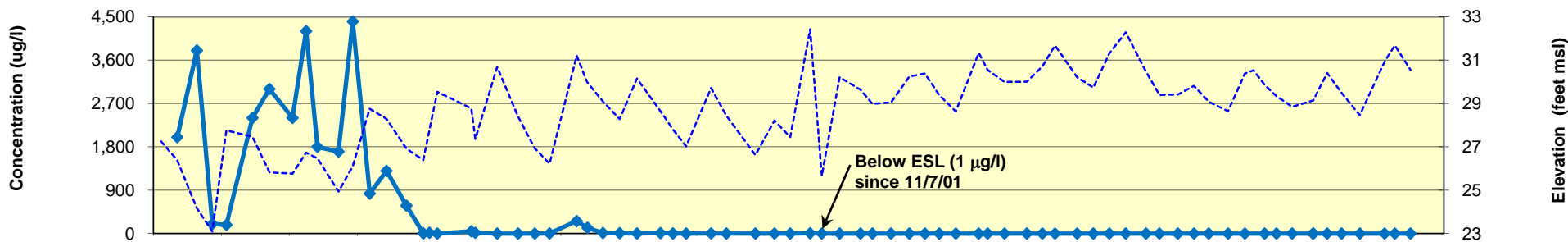
REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
10	7	MY	12/4/09	Fourth Quarter 2009 Status Report
	8	MY	4/2/10	First Quarter 2010 Status Report
	9	MY	5/20/10	Second Quarter 2010 Status Report
	10	MY	9/14/10	Third Quarter 2010 Status Report

ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>MTBE CONCENTRATION CONTOUR IN GROUNDWATER</b>			
PROJECT NO. 01ZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. 01ZO11B0410.DWG		FIGURE 5	

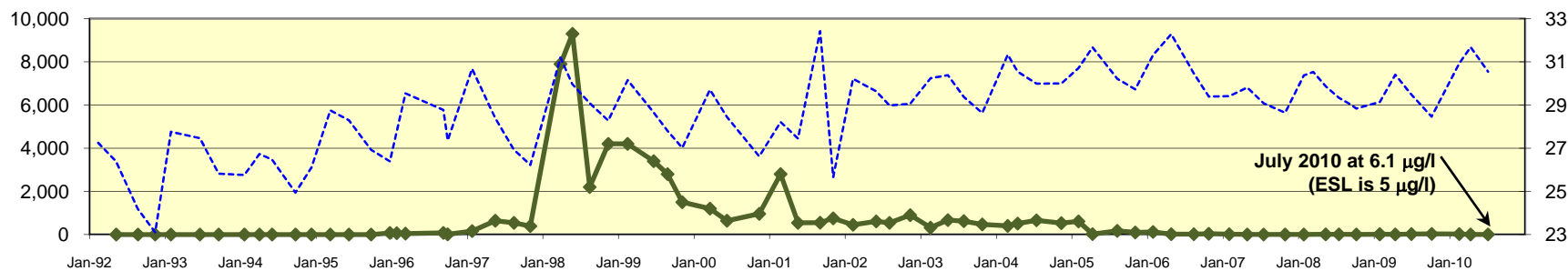
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



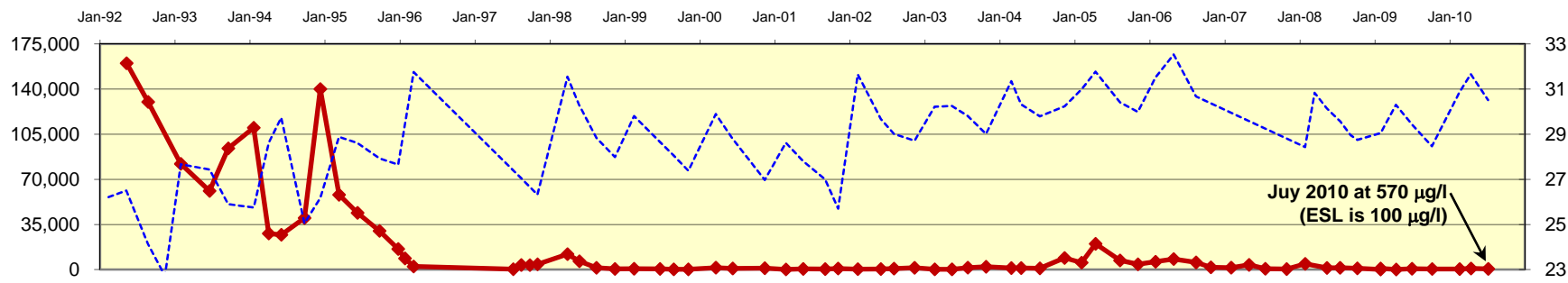
### MTBE and Groundwater Elevation



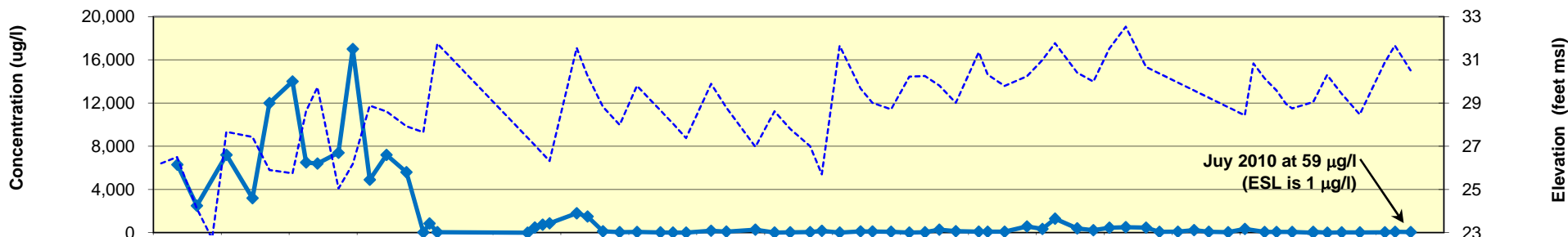
Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - Groundwater Elevation

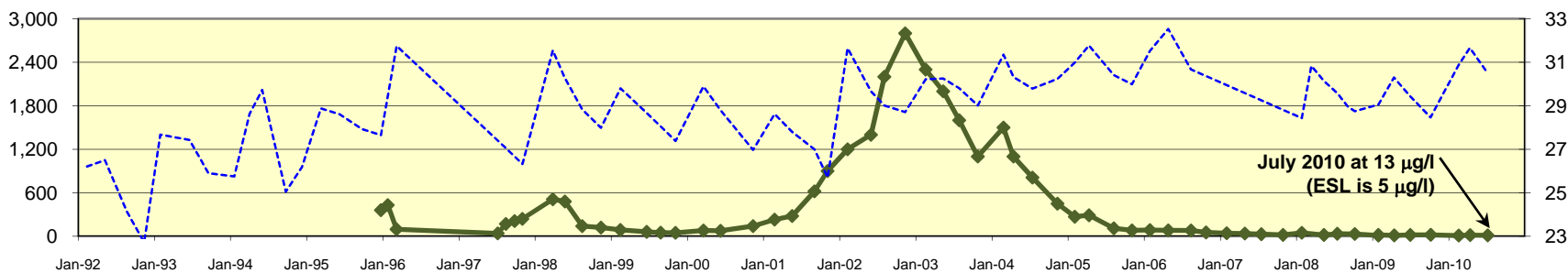
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



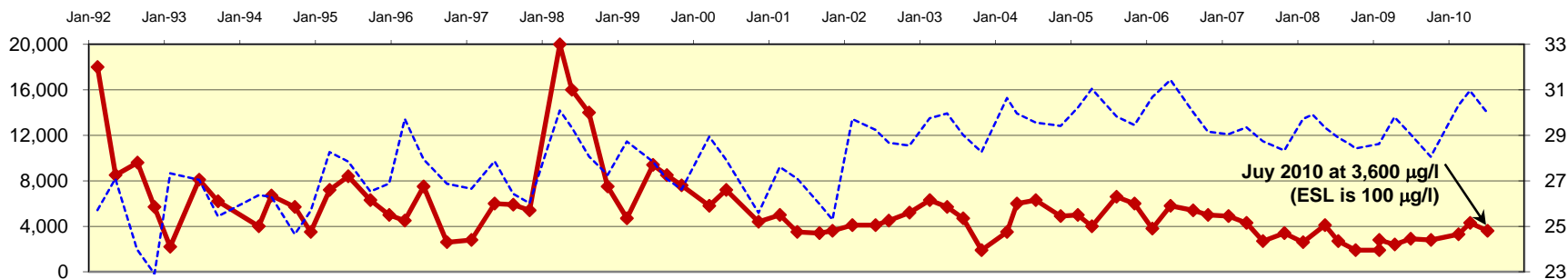
### MTBE and Groundwater Elevation



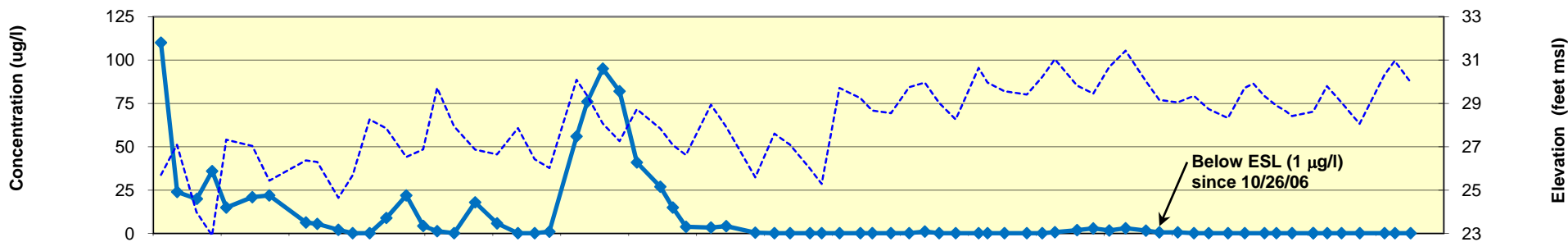
Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - - Groundwater Elevation

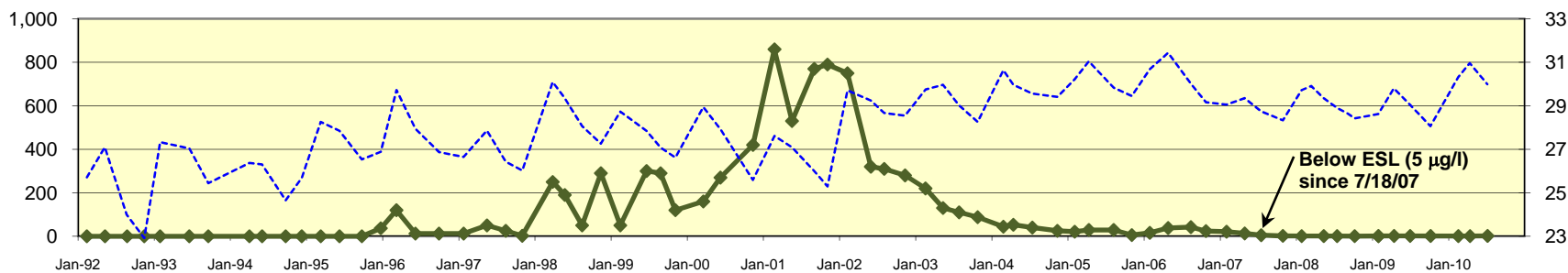
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



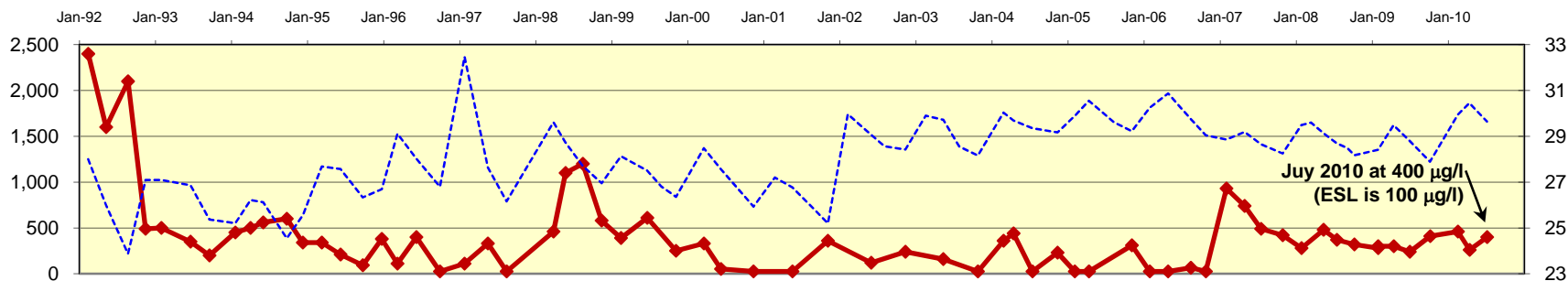
### MTBE and Groundwater Elevation



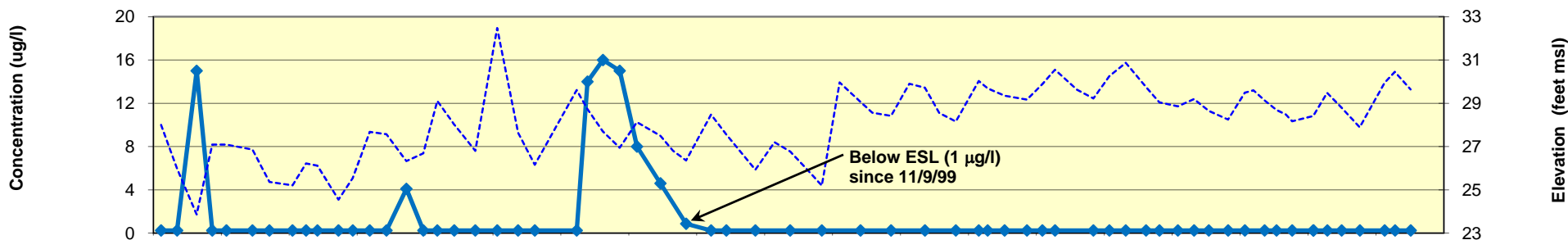
Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - Groundwater Elevation

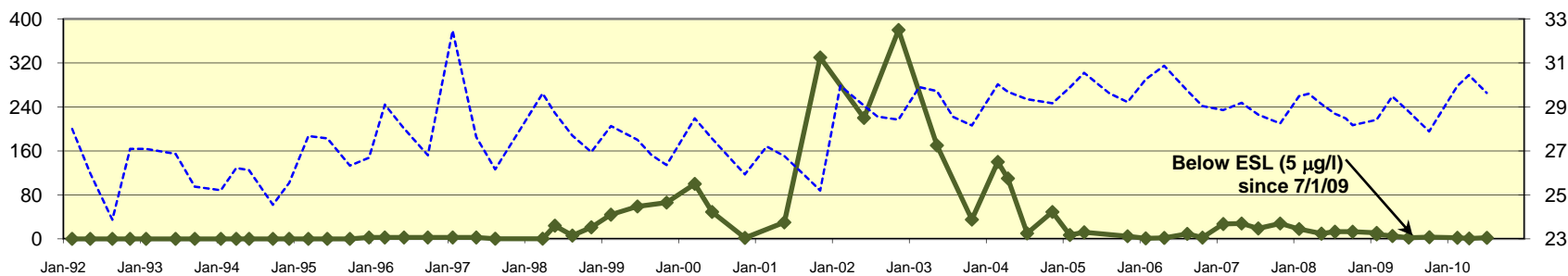
### TPHg and Groundwater Elevation



### Benzene and Groundwater Elevation



### MTBE and Groundwater Elevation



Date

◆ TPHg   
 ◆ Benzene   
 ◆ MTBE   
 - - - - Groundwater Elevation

**ATTACHMENT A**  
**GROUNDWATER SAMPLING QA/QC PROCEDURES**

## ATTACHMENT A

### GROUNDWATER SAMPLING QA/QC PROCEDURES

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#### **Purge-and-Bail Sampling**

The depth to groundwater and total well depth were measured before sampling using an electronic water well sounder. Before sampling, at least 3 casing volumes were purged from each monitoring well using a submersible pump. Throughout purging, pH, conductivity, turbidity, and temperature were measured and recorded for the evacuated groundwater. These measurements were used to confirm that the well was purged sufficiently. Water samples were generally collected after the measurements of pH, conductivity, and temperature had stabilized to within 10 percent of the previous readings. Copies of the well purging and sampling logs are provided in Attachment B.

Sampling was performed with a new 1-1/2-inch-diameter disposable polyethylene bailer suspended from new nylon line. The bailer was equipped with a bottom-release device. Groundwater was collected with the bailer from just below the water surface in each monitoring well. Water samples were collected from the bailers in new 40-milliliter glass bottles provided by the analytical laboratory. The samples were collected so that no headspace was present in each bottle. The preservatives necessary for the analyses performed were provided in the glass bottles by the analytical laboratory.

The collected water samples were placed in sealable plastic bags and packed on ice in a portable ice chest immediately after collection. Samples were delivered within 24 to 48 hours to the analytical laboratory. Additional field procedures, including the use of sample identification labels and chain-of-custody forms, were followed to track sample collection and delivery.

#### **General Field Quality Assurance/Control (QA/QC) Procedures**

##### Chain-of-Custody Records

Chain-of-custody records were completed before samples were packaged for shipment. One copy of these records was placed in the project file. A second copy accompanied samples during transportation to the laboratory. The individual in the analytical laboratory who accepted responsibility for samples signed and dated the chain-of-custody record.

##### Equipment Decontamination Procedures

Field equipment was decontaminated between sampling events using the following procedures:

1. Rinsed with water using a brush to remove soil and mud.

2. Washed with non-phosphate detergent and water using a brush.
3. Rinsed with deionized or distilled water.
4. Rinsed again with deionized or distilled water.
5. Air dried.

Additional decontamination procedures are presented below:

1. Personnel dressed in suitable personal protective equipment (PPE) to reduce personal exposure.
2. Equipment that would be damaged by water (such as the battery portion of water level indicator or the pH and conductivity meters) was carefully wiped clean using a sponge and dried with new paper towels. Care was taken to prevent damage to the equipment.
3. When conducting a groundwater sampling event, evacuation and sampling equipment was decontaminated before sampling operations, between each well, and at the end of the sampling event. If dedicated equipment was used, it was rinsed with deionized water.
4. Detergent waters and rinse waters were replaced periodically depending on level of contamination. Used detergent and rinse waters were contained in 55-gallon drums approved by the Department of Transportation (DOT) or holding tanks for storage.

#### Personal Decontamination Procedures

At a minimum, field personnel followed the following decontamination procedures:

1. Wore appropriate gloves
2. Washed hands thoroughly with soap and water
3. Avoided unnecessary contact with groundwater.

The site health and safety plan was reviewed for site-specific personal decontamination procedures.

#### Wastewater and Solid Waste Storage and Disposal

Small volumes of used wash and rinse solutions were collected during field work and transported to a central decontamination area. This wastewater was containerized in labeled 55-gallon DOT drums or holding tanks and stored in a secured area at the site. At



the completion of field investigation activities or a groundwater sampling event, samples from the 55-gallon drums or holding tanks were collected and analyzed in accordance with the work or sampling plans. Once the analytical results were obtained, the Project Manager determined the appropriate disposal method for this wastewater. Non-hazardous waste manifests are included in Attachment H.

Solid wastes such as used personal protective equipment, paper towels, trash bags, and any other solid debris were collected for disposal. Because the sampled groundwater was not a hazardous waste, the solid wastes were disposed with the onsite trash.

#### Field Investigation Documentation Procedures

Field personnel followed documentation procedures developed for site investigation work. The procedures served to (1) provide a record of the activities performed in the field and (2) permit identification of samples and tracking of their status in the field, during shipment, and at the laboratory. All documentation was recorded with waterproof ink.

Groundwater sampling activities were documented on daily field reports and on the well purge and sample log.

#### Health and Safety

Arctos used a site-specific health and safety plan (HSP) with procedures that were followed by field personnel for equipment safety, medical surveillance, personal protection, air quality monitoring, exposure control, emergency response, and general work practices during field activities. Before beginning work at the site, a site safety meeting was conducted. Field personnel reviewed the HSP and signed the accompanying acknowledgment form before initiating field activities. Field personnel were required to comply with the HSP throughout performance of site assessment activities.

#### Analytical QA/QC Procedures

Laboratory analytical QA/QC procedures included (1) preparing and analyzing laboratory samples to assess the performance of the analytical laboratory and (2) conducting data validation in accordance with the protocols described below. QC samples prepared by the laboratory included method blanks, matrix spike and matrix spike duplicates, and laboratory control samples.

The laboratory results were reviewed in general accordance with EPA guidelines for data validation. The data validation process included reviewing laboratory results for the following parameters:

- Completeness of the data package
- Compliance with EPA-required holding times

- Agreement of dilution factors with reported detection limits
- Presence or absence of analytes in the method blanks
- Agreement of duplicate samples
- Percent recovery and relative percent difference results for matrix spike and matrix spike duplicate analyses
- Percent recovery results for laboratory control samples.

### Analytical Program

Groundwater samples were analyzed by Kiff Analytical LLC (Kiff), a State-certified laboratory in Davis, California for total petroleum hydrocarbons as gasoline (TPHg); benzene, toluene, ethylbenzene, and total xylenes (BTEX); methyl tert-butyl ether (MTBE); and other oxygenates using EPA Method 8260B.

Arctos, as Tesoro's Authorized Responsible Party for the site, electronically submitted the groundwater monitoring results to the State Water Resources Control Board (SWRCB). The data were submitted in the State-mandated EDF format, in accordance with Assembly Bill 2886 requirements for underground storage tank (UST) sites in California. The EDFs including laboratory analytical data and quarterly groundwater elevations were transmitted through the Geotracker web portal

**ATTACHMENT B**  
**FIELD DATA SHEETS**

### Equipment Calibration Log

Equipment make/model	Equipment ID/serial number	Date	Time	Calibration Standards	Equipment Reading	Equipment Calibrated	Temp (°C / °F)	Tech init.	Comments
Ultrameter	6226442	7/7/10	650	pH 4, 7, 10	4.0, 7.0 14.0	Y	15	BM	
L	L	L	L	1413	1413	Y	15	BM	
DO. YSI 55	#1	L	L	100%	100%	Y	-	BM	

Notes/comments:

## Water Level Measurements

Job Number: M2-100706 Date: 7/6/10 Client: Orica

Site: 44 Lewelling Blvd. San Leandro

Well I.D.	Time	Dia	Depth to NAPL	Thickness of NAPL	Depth to water (DTW)	Total Depth (measured)	Total Depth (historical)	Ref Point (TOC/ TOB)		
MW-1		2			15.82		33.40	TOC		
MW2		2			14.96		33.90			
MW-3R		6			14.70		28.10			
MW4		2			16.82		24.55			
MW5		2			15.83		29.30		G/O	
MW6		2			14.50		28.60			
MW7		2			14.00		24.20		G/O	
MW8		2			15.00		23.09		G/O	
MW9		2			17.20		23.70		G/O	
MW10		2			15.05		28.70			
MW11		2			18.05		29.40			
MW12		2			17.19		28.21		G/O	
RW-1		6			15.48		35.51			
RW-2		6			15.95		26.55			
PT-1		4			16.10		29.71			

























**ATTACHMENT C**  
**HISTORICAL GROUNDWATER ELEVATIONS**



TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-1	2/18/92	16.42	43.67	27.25
	5/14/92	17.28		26.39
	5/15/92	NM <sup>(c)</sup>		-- <sup>(d)</sup>
	8/27/92	19.48		24.19
	8/28/92	NM		--
	11/19/92	20.57		23.10
	2/3/93	15.91		27.76
	6/23/93	16.21		27.46
	9/22/93	17.85		25.82
	1/24/94	17.91		25.76
	4/7/94	16.94		26.73
	6/7/94	17.20		26.47
	9/28/94	18.73		24.94
	12/14/94	17.56		26.11
	3/15/95	14.92		28.75
	6/13/95	15.38		28.29
	9/28/95	16.75		26.92
	12/28/95	17.28		26.39
	1/30/96	NM		--
	3/12/96	14.13		29.54
	9/11/96	14.90		28.77
	10/2/96	16.31		27.36
	1/28/97	12.99		30.68
	5/20/97	15.28		28.39
	8/18/97	16.74		26.93
	9/29/97	NM		--
	11/5/97	17.45		26.22
	3/31/98	12.47		31.20
	5/26/98	13.69		29.98
	5/28/98	NM		--
8/19/98	14.58	29.09		
11/17/98	15.39	28.28		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)	
MW-1 (cont.)	2/18/99	13.52	43.67	30.15	
	6/24/99	15.02		28.65	
	8/30/99	15.87		27.80	
	11/9/99	16.65		27.02	
	3/22/00	13.96		29.71	
	6/12/00	15.23		28.44	
	11/15/00	17.05		26.62	
	2/26/01	15.46		28.21	
	5/21/01	16.22		27.45	
	9/5/01	11.25		32.42	
	11/7/01	18.01		25.66	
	2/11/02	15.77		45.98	30.21
	6/3/02	16.35			29.63
	8/6/02	17.00	28.98		
	11/14/02	16.93	29.05		
	2/20/03	15.74	30.24		
	5/15/03	15.60	30.38		
	7/31/03	16.60	29.38		
	10/28/03	17.35	28.63		
	2/28/04	14.65	31.33		
	4/16/04	15.44	30.54		
	7/16/04	15.99	29.99		
	11/13/04	15.98	30.00		
	2/4/05	15.27	30.71		
	4/13/05	14.31	31.67		
	8/10/05	15.77	30.21		
	11/5/05	16.25	29.73		
1/30/06	14.67	31.31			
4/28/06	13.70	32.28			
8/15/06	15.52	30.46			
10/26/06	16.59	29.39			
2/2/07	16.57	29.41			

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-1 (cont.)	4/30/07	16.17	45.98	29.81
	7/18/07	16.90		29.08
	10/30/07	17.34		28.64
	1/28/08	15.61		30.37
	3/14/08	15.45		30.53
	5/13/08	16.12		29.86
	7/16/08	16.65		29.33
	9/5/08	17.31	46.36	29.05
	10/8/08	17.52		28.84
	1/29/09	17.22		29.14
	4/14/09	15.96		30.40
	7/1/09	16.88		29.48
	10/6/09	17.90		28.46
	2/17/10	15.43		30.93
	4/13/10	14.68		31.68
	7/6/10	15.82		30.54
MW-2	2/18/92	16.65	43.09	26.44
	5/14/92	16.64		26.45
	8/27/92	16.61		26.48
	11/19/92	19.91		23.18
	2/3/93	15.23		27.86
	6/23/93	15.55		27.54
	9/22/93	17.22		25.87
	1/24/94	17.20		25.89
	4/7/94	16.26		26.83
	6/7/94	16.46		26.63
	9/28/94	18.06		25.03
	12/14/94	16.86		26.23
	3/15/95	14.08		29.01
	6/13/95	14.67		28.42
	9/28/95	16.07		27.02
12/28/95	16.46	26.63		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-2 (cont.)	3/12/96	13.11	43.09	29.98
	6/13/96	14.14		28.95
	10/2/96	15.71		27.38
	1/28/97	12.05		31.04
	5/20/97	14.65		28.44
	8/18/97	16.00		27.09
	9/29/97	NM		--
	11/5/97	16.75		26.34
	3/31/98	11.54		31.55
	5/26/98	12.78		30.31
	5/28/98	NM		--
	8/19/98	14.40		28.39
	11/17/98	15.18		27.63
	2/18/99	14.07		27.06
	6/24/99	14.70		30.04
	8/30/99	15.46		28.59
	11/9/99	16.03		26.81
	3/22/00	13.05		28.11
	6/12/00	14.50		27.64
	11/15/00	16.28	27.92	
	2/26/01	14.98	26.04	
	5/21/01	15.45	29.80	
	9/5/01	15.17	28.25	
	11/7/01	17.05	28.24	
	2/11/02	13.29	45.23	31.94
	6/3/02	14.84		30.39
	8/6/02	14.85		30.38
	11/14/02	15.35		29.88
	2/20/03	14.08		31.15
	5/15/03	14.55		30.68
7/31/03	15.30	29.93		
10/28/03	14.93	30.30		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-2 (cont.)	2/28/04	13.56	45.23	31.67
	4/16/04	14.40		30.83
	7/16/04	15.03		30.20
	11/13/04	15.00		30.23
	2/4/05	14.26		30.97
	4/13/05	13.19		32.04
	8/10/05	14.84		30.39
	11/5/05	15.39		29.84
	1/30/06	13.54		31.69
	4/28/06	12.55		32.68
	8/15/06	14.57		30.66
	10/26/06	15.54		29.69
	2/2/07	15.60		29.63
	4/30/07	15.19		30.04
	7/18/07	15.96	29.27	
	10/30/07	16.41	28.82	
	1/28/08	14.63	30.60	
	3/14/08	14.57	30.66	
	5/13/08	15.12	30.11	
	7/16/08	15.89	29.34	
	9/5/08	16.44	45.61	29.17
	10/8/08	16.75		28.86
	1/29/09	16.35		29.26
4/14/09	15.05	30.56		
7/1/09	16.02	29.59		
10/6/09	17.10	28.51		
2/17/10	14.50	31.11		
4/13/10	13.55	32.06		
7/6/10	14.96	30.65		
MW-3	2/18/92	16.89	43.10	26.21
	5/14/92	16.60		26.50
	5/15/92	NM		--

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-3 (cont.)	8/27/92	18.96	43.10	24.14
	8/28/92	NM		--
	11/18/92	20.38		22.72
	11/19/92	NM		--
	2/3/93	15.43		27.67
	6/23/93	15.67		27.43
	9/22/93	17.20		25.90
	1/24/94	17.35		25.75
	4/7/94	14.48		28.62
	6/7/94	13.37		29.73
	9/28/94	18.05		25.05
	12/14/94	16.92		26.18
	3/15/95	14.22		28.88
	6/13/95	14.49		28.61
	9/28/95	15.17		27.93
	12/28/95	15.45		27.65
	1/30/96	NM		--
	3/12/96	11.35		31.75
	6/11/96	Dry		--
	10/2/96	Dry		--
	1/28/97	Dry		--
	5/20/97	Dry		--
	7/10/97	NM		--
	8/18/97	16.05		27.05
	9/29/97	NM		--
	11/5/97	16.78		26.32
	3/31/98	11.55		31.55
	5/26/98	12.80		30.30
5/28/98	NM	--		
8/19/98	14.27	28.83		
11/17/98	15.11	27.99		
2/18/99	13.30	29.80		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-3 (cont.)	6/24/99	14.44	43.10	28.66
	8/30/99	15.05		28.05
	11/9/99	15.72		27.38
	3/22/00	13.21		29.89
	6/12/00	14.31		28.79
	11/15/00	16.13		26.97
	2/26/01	14.48		28.62
	5/21/01	15.30		27.80
	9/5/01	16.10		27.00
	11/7/01	17.40		25.70
	2/11/02	13.56	45.21	31.65
	6/3/02	15.54		29.67
	8/6/02	16.20		29.01
	11/14/02	16.50		28.71
	2/20/03	14.99		30.22
	5/15/03	14.96		30.25
	7/31/03	15.40		29.81
	10/28/03	16.20		29.01
	2/28/04	13.86		31.35
	4/16/04	14.89		30.32
7/16/04	15.42	29.79		
MW-3R	11/13/04	14.97	45.21	30.24
	2/4/05	14.22		30.99
	4/13/05	13.44		31.77
	8/10/05	14.80		30.41
	11/5/05	15.22		29.99
	1/30/06	13.69		31.52
	4/28/06	12.68		32.53
	8/15/06	14.54		30.67
	10/26/06	23.85		21.36
	2/2/07	21.96		23.25
4/30/07	19.40	25.81		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-3R (cont.)	7/18/07	23.11	45.21	22.10
	10/30/07	22.71		22.50
	1/28/08	16.78		28.43
	3/14/08	14.38		30.83
	5/13/08	15.07		30.14
	7/16/08	15.63		29.58
	9/5/08	16.20		28.96
	10/8/08	16.41		28.75
	1/29/09	16.11		29.05
	4/14/09	14.86		30.30
	7/1/09	15.73		29.43
	10/6/09	16.69		28.47
	2/17/10	14.30		30.86
	4/13/10	13.50		31.66
	7/6/10	14.70		30.51
MW-4	2/18/92	18.51	44.66	26.15
	5/14/92	18.22		26.44
	8/27/92	20.47		24.19
	8/28/92	NM		--
	11/19/92	21.58		23.08
	2/3/93	16.98		27.68
	6/23/93	17.23		27.43
	9/22/93	18.83		25.83
	1/24/94	18.86		25.80
	4/7/94	17.90		26.76
	6/7/94	18.08		26.58
	9/28/94	19.70		24.96
	12/14/94	18.55		26.11
	3/15/95	16.14		28.52
	6/13/95	16.41		28.25
9/28/95	17.88	26.78		
12/28/95	17.81	26.85		



TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-4 (cont.)	3/12/96	14.77	44.66	29.89
	6/11/96	15.88		28.78
	10/2/96	17.40		27.26
	1/28/97	14.11		30.55
	5/20/97	16.24		28.42
	8/18/97	17.59		27.07
	9/29/97	NM		--
	11/5/97	18.24		26.42
	3/31/98	13.61		31.05
	5/26/98	14.78		29.88
	5/28/98	NM		--
	8/19/98	16.15		28.51
	11/17/98	16.93		27.73
	2/18/99	15.30		29.36
	6/24/99	16.35		28.31
	8/30/99	17.12		27.54
	11/9/99	17.60		27.06
	3/22/00	14.98		29.68
	6/12/00	16.26		28.40
	11/15/00	17.98	26.68	
	2/26/01	16.31	28.35	
	5/21/01	17.15	27.51	
	9/5/01	18.22	26.44	
	11/7/01	19.01	25.65	
	2/11/02	16.68	46.98	30.30
	6/3/02	17.29		29.69
	8/6/02	17.92		29.06
	11/14/02	17.92		29.06
	2/20/03	16.72		30.26
	5/15/03	16.51		30.47
7/31/03	17.41	29.57		
10/28/03	18.30	28.68		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-4 (cont.)	2/28/04	15.82	46.98	31.16
	4/16/04	16.42		30.56
	7/16/04	16.94		30.04
	11/13/04	17.00		29.98
	2/4/05	16.25		30.73
	4/13/05	15.33		31.65
	8/10/05	16.74		30.24
	11/5/05	17.23		29.75
	1/30/06	15.62		31.36
	4/28/06	14.71		32.27
	8/15/06	16.46		30.52
	10/26/06	17.45		29.53
	2/2/07	17.52		29.46
	4/30/07	17.10		29.88
	7/18/07	17.81	29.17	
	10/30/07	18.25	28.73	
	1/28/08	16.65	30.33	
	3/14/08	16.48	30.50	
	5/13/08	17.11	29.87	
	7/16/08	17.63	29.35	
9/5/08	18.29	47.36	29.07	
10/8/08	18.50		28.86	
1/29/09	18.20		29.16	
4/14/09	17.02		30.34	
7/1/09	17.86		29.50	
10/6/09	18.90		28.46	
2/17/10	16.49		30.87	
4/13/10	15.80		31.56	
7/6/10	16.82		30.54	
MW-5	2/18/92		17.37	43.79
	5/14/92	17.29	26.50	
	8/27/92	22.18	21.61	

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-5 (cont.)	11/19/92	20.68	43.79	23.11
	2/3/93	15.91		27.88
	6/23/93	16.24		27.55
	9/22/93	17.93		25.86
	1/24/94	17.82		25.97
	4/7/94	16.91		26.88
	6/7/94	17.10		26.69
	9/28/94	18.73		25.06
	12/14/94	17.53		26.26
	3/15/95	14.96		28.83
	6/13/95	15.30		28.49
	9/28/95	16.74		27.05
	12/28/95	15.10		28.69
	3/12/96	13.67		30.12
	6/11/96	14.88		28.91
	10/2/96	16.42		27.37
	1/28/97	12.83		30.96
	5/20/97	15.33		28.46
	8/18/97	16.69		27.10
	9/29/97	NM		--
	11/5/97	17.37		26.42
	3/31/98	12.40		31.39
	5/26/98	13.62		30.17
	5/28/98	NM		--
	8/19/98	15.19		28.60
	11/17/98	15.89		27.90
	2/18/99	14.23		29.56
6/24/99	15.29	28.50		
8/30/99	16.07	27.72		
11/9/99	16.61	27.18		
3/22/00	13.81	29.98		
6/12/00	15.08	28.71		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-5 (cont.)	11/15/00	16.71	43.79	27.08
	2/26/01	15.05		28.74
	5/21/01	15.91		27.88
	9/5/01	16.99		26.80
	11/7/01	17.51		26.28
	2/11/02	14.31	46.12	31.81
	6/3/02	14.96		31.16
	8/6/02	15.65		30.47
	11/14/02	15.69		30.43
	2/20/03	14.19		31.93
	5/15/03	15.44		30.68
	7/31/03	16.48		29.64
	10/28/03	16.92		29.20
	2/28/04	14.64		31.48
	4/16/04	15.28		30.84
	7/16/04	15.88		30.24
	11/13/04	15.98		30.14
	2/4/05	15.17		30.95
	4/13/05	14.12		32.00
	8/10/05	15.69		30.43
	11/5/05	16.32		29.80
	1/30/06	14.49		31.63
	4/28/06	13.51		32.61
	8/15/06	15.46		30.66
10/26/06	16.42		29.70	
2/2/07	16.49		29.63	
4/30/07	16.10		30.02	
7/18/07	16.80		29.32	
10/30/07	17.25		28.87	
1/28/08	15.47		30.65	
3/14/08	15.46		30.66	
5/13/08	16.15		29.97	

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-5 (cont.)	7/16/08	16.71	46.12	29.41
	9/5/08	17.34	46.50	29.16
	10/8/08	17.60		28.90
	1/29/09	17.23		29.27
	4/14/09	15.95		30.55
	7/1/09	16.89		29.61
	10/6/09	18.00		28.50
	2/17/10	15.40		31.10
	4/13/10	14.60		31.90
	7/6/10	15.83		30.67
MW-6	2/18/92	15.87	42.47	26.60
	5/14/92	16.04		26.43
	8/27/92	18.17		24.30
	11/19/92	19.30		23.17
	2/3/93	14.60		27.87
	6/23/93	15.00		27.47
	9/22/93	16.66		25.81
	1/24/94	16.52		25.95
	4/7/94	15.70		26.77
	6/7/94	15.88		26.59
	9/28/94	17.51		24.96
	12/14/94	16.27		26.20
	3/15/95	13.52		28.95
	6/13/95	13.96		28.51
	9/28/95	15.61		26.86
	12/28/95	15.54		26.93
	1/30/96	NM		--
	3/12/96	11.88		30.59
	6/11/96	13.52		28.95
	10/2/96	15.10		27.37
1/28/97	11.18		31.29	
5/20/97	14.00		28.47	

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-6 (cont.)	8/18/97	15.54	42.47	26.93
	9/29/97	NM		--
	11/5/97	16.25		26.22
	3/31/98	10.60		31.87
	5/26/98	12.01		30.46
	5/28/98	NM		--
	8/19/98	13.60		28.87
	11/17/98	14.53		27.94
	2/18/99	12.39		30.08
	6/24/99	13.89		28.58
	8/30/99	14.75		27.72
	11/9/99	15.18		27.29
	3/22/00	12.30		30.17
	6/12/00	13.69		28.78
	11/15/00	15.73		26.74
	2/26/01	14.42		28.05
	5/21/01	15.23		27.24
	9/5/01	16.31		26.16
	11/7/01	17.01		25.46
	2/11/02	15.72	44.79	29.07
	6/3/02	16.39		28.40
	8/6/02	18.90		25.89
	11/14/02	18.93		25.86
	2/20/03	15.64		29.15
	5/15/03	14.07		30.72
	7/31/03	15.21		29.58
	10/28/03	15.73		29.06
	2/28/04	13.12		31.67
	4/16/04	13.92		30.87
	7/16/04	14.53		30.26
11/13/04	14.62	30.17		
2/4/05	13.74	31.05		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-6 (cont.)	4/13/05	15.59	44.79	29.20
	8/10/05	14.33		30.46
	11/5/05	14.98		29.81
	1/30/06	12.99		31.80
	4/28/06	11.90		32.89
	8/15/06	14.13		30.66
	10/26/06	15.08		29.71
	2/2/07	15.16		29.63
	4/30/07	14.76		30.03
	7/18/07	15.53		29.26
	10/30/07	16.00		28.79
	1/28/08	14.09		30.70
	3/14/08	14.12		30.67
	5/13/08	14.89		29.90
	7/16/08	15.51		29.28
	9/5/08	16.08		29.09
	10/8/08	16.34		28.83
	1/29/09	15.98		29.19
	4/14/09	14.62		30.55
	7/1/09	15.60		29.57
10/6/09	16.70	28.47		
2/17/10	14.03	31.14		
4/13/10	9.57	35.60		
7/6/10	14.50	30.29		
MW-7	2/18/92	15.51	41.54	26.03
	5/14/92	15.41		26.13
	8/27/92	17.45		24.09
	11/19/92	18.54		23.00
	2/3/93	14.10		27.44
	6/23/93	14.33		27.21
	9/22/93	15.92		25.62
	1/24/94	16.07		25.47

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-7	4/7/94	15.10	41.54	26.44
(cont.)	6/7/94	15.16		26.38
	9/28/94	16.82		24.72
	12/14/94	15.75		25.79
	3/15/95	14.00		27.54
	6/13/95	13.44		28.10
	9/28/95	14.84		26.70
	12/28/95	14.55		26.99
	3/12/96	11.88		29.66
	6/11/96	13.52		28.02
	10/2/96	14.50		27.04
	1/28/97	11.08		30.46
	5/20/97	13.46		28.08
	8/18/97	14.95		26.59
	9/29/97	NM		--
	11/5/97	15.43		26.11
	3/31/98	10.25		31.29
	5/26/98	11.45		30.09
	5/28/98	NM		--
	8/19/98	13.08		28.46
	11/17/98	13.93		27.61
	2/18/99	12.16		29.38
	6/24/99	13.35		28.19
	8/30/99	14.23		27.31
	11/9/99	14.60		26.94
	3/22/00	11.91		29.63
	6/12/00	13.28		28.26
	11/15/00	15.12		26.42
	2/26/01	13.46	28.08	
	5/21/01	14.31	27.23	
	9/5/01	15.42	26.12	
	11/7/01	16.18	25.36	



TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-7 (cont.)	2/11/02	13.76	43.85	30.09
	6/3/02	14.33		29.52
	8/6/02	15.04		28.81
	11/14/02	15.05		28.80
	2/20/03	14.01		29.84
	5/15/03	13.81		30.04
	7/31/03	14.99		28.86
	10/28/03	15.48		28.37
	2/28/04	12.87		30.98
	4/16/04	13.54		30.31
	7/16/04	13.96		29.89
	11/13/04	14.13		29.72
	2/4/05	13.22		30.63
	4/13/05	12.15		31.70
	8/10/05	13.69		30.16
	11/5/05	14.25		29.60
	1/30/06	12.59		31.26
	4/28/06	11.50		32.35
	8/15/06	13.51		30.34
	10/26/06	14.48		29.37
	2/2/07	14.62		29.23
	4/30/07	14.26		29.59
	7/18/07	14.92		28.93
	10/30/07	15.40	28.45	
	1/28/08	13.47	30.38	
	3/14/08	13.65	30.20	
	5/13/08	14.31	29.54	
7/16/08	14.91	28.94		
9/5/08	15.47	44.24	28.77	
10/8/08	15.83		28.41	
1/29/09	15.46		28.78	
4/14/09	14.16		30.08	

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-7 (cont.)	7/1/09	15.06	44.24	29.18
	10/6/09	16.07		28.17
	2/17/10	13.60		30.64
	4/13/10	17.70		26.54
	7/6/10	14.00		30.24
MW-8	2/18/92	16.57	42.26	25.69
	5/14/92	16.24		26.02
	8/27/92	18.28		23.98
	11/19/92	19.32		22.94
	2/3/93	14.87		27.39
	6/23/93	15.18		27.08
	9/22/93	18.79		23.47
	1/24/94	17.06		25.20
	4/7/94	15.95		26.31
	6/7/94	15.10		27.16
	9/28/94	17.63		24.63
	12/14/94	16.66		25.60
	3/15/95	14.30		27.96
	6/13/95	14.37		27.89
	9/28/95	15.62		26.64
	12/28/95	15.62		26.64
	3/12/96	12.75		29.51
	6/11/96	13.94		28.32
	10/2/96	15.41		26.85
	1/28/97	12.30		29.96
5/20/97	14.42	27.84		
8/18/97	16.16	26.10		
9/29/97	NM	--		
11/5/97	16.25	26.01		
3/31/98	11.49	30.77		
5/26/98	12.60	29.66		
5/28/98	NM	--		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)	
MW-8 (cont.)	8/19/98	14.15	42.26	28.11	
	11/17/98	14.98		27.28	
	2/18/99	13.41		28.85	
	6/24/99	14.35		27.91	
	8/30/99	15.16		27.10	
	11/9/99	15.61		26.65	
	3/22/00	13.17		29.09	
	6/12/00	14.19		28.07	
	11/15/00	16.04		26.22	
	2/26/01	12.99		29.27	
	5/21/01	13.86		28.40	
	9/5/01	14.91		27.35	
	11/7/01	15.62		26.64	
	2/11/02	13.55		44.58	31.03
	6/3/02	13.96			30.62
	8/6/02	15.82			28.76
	11/14/02	15.86			28.72
	2/20/03	14.70	29.88		
	5/15/03	14.50	30.08		
	7/31/03	15.73	28.85		
	10/28/03	16.14	28.44		
	2/28/04	14.02	30.56		
	4/16/04	14.52	30.06		
	7/16/04	14.88	29.70		
	11/13/04	15.12	29.46		
	2/4/05	14.17	30.41		
	4/13/05	13.16	31.42		
	8/10/05	14.41	30.17		
11/5/05	14.87	29.71			
1/30/06	13.65	30.93			
4/28/06	12.63	31.95			
8/15/06	14.42	30.16			

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-8 (cont.)	10/26/06	15.32	44.58	29.26
	2/2/07	15.52		29.06
	4/30/07	15.15		29.43
	7/18/07	15.80		28.78
	10/30/07	16.23		28.35
	1/28/08	14.81		29.77
	3/14/08	14.67		29.91
	5/13/08	15.30	44.95	29.28
	7/16/08	15.82		28.76
	9/5/08	16.35		28.60
	10/8/08	16.70		28.25
	1/29/09	16.40		28.55
	4/14/09	15.15		29.80
	7/1/09	15.92		29.03
	10/6/09	16.87		28.08
	2/17/10	14.62		30.33
	4/13/10	13.87		31.08
7/6/10	15.00	29.95		
MW-9	2/18/92	18.87	44.94	26.07
	5/14/92	18.55		26.39
	8/27/92	20.80		24.14
	11/19/92	21.90		23.04
	2/3/93	17.25		27.69
	6/23/93	17.61		27.33
	9/22/93	19.18		25.76
	1/24/94	19.17		25.77
	4/7/94	18.23		26.71
	6/7/94	18.40		26.54
	9/28/94	20.01		24.93
	12/14/94	18.88		26.06
	3/15/95	16.24		28.70
6/13/95	16.75	28.19		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-9 (cont.)	9/28/95	18.04	44.94	26.90
	12/28/95	17.87		27.07
	3/12/96	NM		--
	6/11/96	16.26		28.68
	10/2/96	17.74		27.20
	1/28/97	14.51		30.43
	5/20/97	16.73		28.21
	8/18/97	NM		--
	9/29/97	NM		--
	11/5/97	18.61		26.33
	3/31/98	NM		--
	5/26/98	15.28		29.66
	5/28/98	NM		--
	8/19/98	16.55		28.39
	11/17/98	17.32		27.62
	2/18/99	15.74		29.20
	6/24/99	16.73		28.21
	8/30/99	17.48		27.46
	11/9/99	17.98		26.96
	3/22/00	15.46	29.48	
	6/12/00	16.70	28.24	
	11/15/00	18.65	26.29	
	2/26/01	14.80	30.14	
	5/21/01	15.68	29.26	
	9/5/01	16.70	28.24	
	11/7/01	17.23	27.71	
	2/11/02	17.16	47.26	30.10
6/3/02	17.66	29.60		
8/6/02	18.26	29.00		
11/14/02	18.33	28.93		
2/20/03	16.85	30.41		
5/15/03	16.63	30.63		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-9 (cont.)	7/31/03	17.58	47.26	29.68
	10/28/03	17.93		29.33
	2/28/04	16.22		31.04
	4/16/04	16.82		30.44
	7/16/04	17.33		29.93
	11/13/04	17.42		29.84
	2/4/05	16.68		30.58
	4/13/05	15.78		31.48
	8/10/05	17.11		30.15
	11/5/05	17.59		29.67
	1/30/06	16.06		31.20
	4/28/06	12.50		34.76
	8/15/06	16.87		30.39
	10/26/06	17.87		29.39
	2/2/07	17.88		29.38
	4/30/07	17.48		29.78
	7/18/07	18.15		29.11
	10/30/07	18.55	28.71	
	1/28/08	16.98	30.28	
	3/14/08	16.89	30.37	
	5/13/08	17.48	29.78	
	7/16/08	17.95	29.31	
	9/5/08	18.61	47.65	29.04
	10/8/08	18.89		28.76
	1/29/09	18.58		29.07
	4/14/09	17.34		30.31
	7/1/09	18.22		29.43
10/6/09	19.30	28.35		
2/17/10	16.89	30.76		
4/13/10	16.20	31.45		
7/6/10	17.20	30.45		
2/18/92	16.63	42.34	25.71	

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-10	5/14/92	15.25	42.34	27.09
(cont.)	5/15/92	NM		--
	8/27/92	18.35		23.99
	8/29/92	NM		--
	11/19/92	19.43		22.91
	2/3/93	15.01		27.33
	6/23/93	15.30		27.04
	9/22/93	16.90		25.44
	1/24/94	NM		--
	4/7/94	15.97		26.37
	6/7/94	16.04		26.30
	9/28/94	17.69		24.65
	12/14/94	16.65		25.69
	3/15/95	14.08		28.26
	6/13/95	14.49		27.85
	9/28/95	15.81		26.53
	12/28/95	15.46		26.88
	3/12/96	12.62		29.72
	6/11/96	14.40		27.94
	10/2/96	15.47		26.87
	1/28/97	15.69		26.65
	5/20/97	14.48		27.86
	8/18/97	15.91		26.43
	9/29/97	NM		--
	11/5/97	16.32		26.02
	3/31/98	12.25		30.09
	5/26/98	12.97		29.37
	5/28/98	NM	--	
	8/19/98	14.27	28.07	
	11/17/98	15.08	27.26	
	2/18/99	13.61	28.73	
	6/24/99	14.50	27.84	



TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)	
MW-10 (cont.)	8/30/99	15.26	42.34	27.08	
	11/9/99	15.72		26.62	
	3/22/00	13.40		28.94	
	6/12/00	14.42		27.92	
	11/15/00	16.75		25.59	
	2/26/01	14.73		27.61	
	5/21/01	15.25		27.09	
	9/5/01	16.35		25.99	
	11/7/01	17.05		25.29	
	2/11/02	14.94		44.65	29.71
	6/3/02	15.41			29.24
	8/6/02	15.98	28.67		
	11/14/02	16.10	28.55		
	2/20/03	14.90	29.75		
	5/15/03	14.69	29.96		
	7/31/03	15.63	29.02		
	10/28/03	16.39	28.26		
	2/28/04	14.01	30.64		
	4/16/04	14.69	29.96		
	7/16/04	15.09	29.56		
	11/13/04	15.24	29.41		
	2/4/05	14.43	30.22		
	4/13/05	13.61	31.04		
	8/10/05	14.82	29.83		
	11/5/05	15.20	29.45		
	1/30/06	13.97	30.68		
	4/28/06	13.22	31.43		
8/15/06	14.63	30.02			
10/26/06	15.49	29.16			
2/2/07	15.60	29.05			
4/30/07	15.30	29.35			
7/18/07	15.91	28.74			

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-10 (cont.)	10/30/07	16.32	44.65	28.33
	1/28/08	14.93		29.72
	3/14/08	14.74		29.91
	5/13/08	15.31		29.34
	7/16/08	15.75		28.90
	9/5/08	16.40	45.04	28.64
	10/8/08	16.62		28.42
	1/29/09	16.42		28.62
	4/14/09	15.24		29.80
	7/1/09	16.00		29.04
	10/6/09	16.98		28.06
	2/17/10	14.72		30.32
	4/13/10	14.08		30.96
	7/6/10	15.05		29.99
MW-11	2/18/92	17.00	45.00	28.00
	5/14/92	19.02		25.98
	8/27/92	21.13		23.87
	11/19/92	17.91		27.09
	2/3/93	17.91		27.09
	6/23/93	18.14		26.86
	9/22/93	19.63		25.37
	1/24/94	19.79		25.21
	4/7/94	18.78		26.22
	6/7/94	18.88		26.12
	9/28/94	20.45		24.55
	12/14/94	19.45		25.55
	3/15/95	17.32		27.68
	6/13/95	17.43		27.57
	9/28/95	18.67		26.33
	12/28/95	18.31		26.69
3/12/96	15.89		29.11	
6/11/96	16.98		28.02	

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-11 (cont.)	10/2/96	18.20	45.00	26.80
	1/28/97	12.53		32.47
	5/20/97	17.36		27.64
	8/18/97	18.84		26.16
	9/29/97	NM		--
	11/5/97	NM		--
	3/31/98	15.39		29.61
	5/26/98	16.25		28.75
	5/28/98	NM		--
	8/19/98	17.30		27.70
	11/17/98	18.05		26.95
	2/18/99	16.87		28.13
	6/24/99	17.50		27.50
	8/30/99	18.19		26.81
	11/9/99	18.64		26.36
	3/22/00	16.52		28.48
	6/12/00	17.44		27.56
	11/15/00	19.07		25.93
	2/26/01	17.80	27.20	
	5/21/01	18.23	26.77	
	9/5/01	19.21	25.79	
	11/7/01	19.80	25.20	
	2/11/02	17.40	47.36	29.96
	6/3/02	18.30		29.06
	8/6/02	18.80		28.56
	11/14/02	18.94		28.42
	2/20/03	17.46		29.90
	5/15/03	17.64		29.72
	7/31/03	18.81		28.55
	10/28/03	19.20		28.16
2/28/04	17.33	30.03		
4/16/04	17.67	29.69		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-11 (cont.)	7/16/04	18.01	47.36	29.35
	11/13/04	18.19		29.17
	2/4/05	17.47		29.89
	4/13/05	16.81		30.55
	8/10/05	17.74		29.62
	11/5/05	18.14		29.22
	1/30/06	17.11		30.25
	4/28/06	16.49		30.87
	8/15/06	17.61		29.75
	10/26/06	18.32		29.04
	2/2/07	18.50		28.86
	4/30/07	18.17		29.19
	7/18/07	18.71		28.65
	10/30/07	19.11	28.25	
	1/28/08	17.87	29.49	
	3/14/08	17.76	29.60	
	5/13/08	18.23	29.13	
	7/16/08	18.67	28.69	
	9/5/08	19.21	47.69	28.48
	10/8/08	19.52		28.17
1/29/09	19.28	28.41		
4/14/09	18.21	29.48		
7/1/09	18.90	28.79		
10/6/09	19.80	27.89		
2/17/10	17.74	29.95		
4/13/10	17.24	30.45		
7/6/10	18.05	29.64		
MW-12	7/18/07	18.00	46.88	28.88
	10/30/07	18.42		28.46
	1/28/08	16.96		29.92
	3/14/08	16.83		30.05
	5/13/08	17.35		29.53

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
MW-12 (cont.)	7/16/08	17.70	46.88	29.18
	9/5/08	18.51	47.27	28.76
	10/8/08	18.75		28.52
	1/29/09	18.49		28.78
	4/14/09	17.34		29.93
	7/1/09	18.13		29.14
	10/6/09	19.03		28.24
	2/17/10	16.90		30.37
	4/13/10	16.28		30.99
	7/6/10	17.19		30.08
RW-1	5/14/92	16.88	43.17	26.29
	5/15/92	NM		--
	8/27/92	19.05		24.12
	11/19/92	21.11		22.06
	2/3/93	15.48		27.69
	6/23/93	28.25		14.92
	9/22/93	17.83		25.34
	1/24/94	24.00		19.17
	4/7/94	16.05		27.12
	6/7/94	16.00		27.17
	9/28/94	18.35		24.82
	12/14/94	19.50		23.67
	3/15/95	17.00		26.17
	4/10/95	NM		--
	6/13/95	14.95		28.22
	9/28/95	27.63		15.54
	12/28/95	14.54		28.63
	3/12/96	11.02		32.15
	6/11/96	14.52		28.65
10/2/96	15.53		27.64	
1/28/97	12.59		30.58	
5/20/97	14.85		28.32	

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
RW-1 (cont.)	8/18/97	16.19	43.17	26.98
	9/29/97	NM		--
	11/5/97	16.95		26.22
	3/31/98	11.85		31.32
	5/26/98	13.13		30.04
	5/28/98	NM		--
	8/19/98	14.70		28.47
	11/17/98	15.54		27.63
	2/18/99	13.75		29.42
	6/24/99	14.96		28.21
	8/30/99	15.75		27.42
	11/9/99	17.45		25.72
	3/22/00	13.51		29.66
	6/12/00	13.65		29.52
	11/15/00	29.45		13.72
	2/26/01	28.40		14.77
	5/21/01	15.36		27.81
	9/5/01	26.90		16.27
	11/7/01	28.41		14.76
	2/11/02	27.61	45.47	17.86
	6/3/02	26.90		18.57
	8/6/02	25.56		19.91
	11/14/02	24.83		20.64
	2/20/03	23.56		21.91
	5/15/03	22.80		22.67
	7/31/03	21.71		23.76
	10/28/03	22.07		23.40
	2/28/04	19.32		26.15
	4/16/04	23.95		21.52
	7/16/04	30.04		15.43
11/13/04	15.63	29.84		
2/4/05	18.57	26.90		

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
RW-1 (cont.)	4/13/05	24.21	45.47	21.26
	8/10/05	33.59		11.88
	11/5/05	25.63		19.84
	1/30/06	24.39		21.08
	4/28/06	16.32		29.15
	8/15/06	34.04		11.43
	10/26/06	25.48		19.99
	2/2/07	16.62		28.85
	4/30/07	NM		--
	7/18/07	30.72		14.75
	10/30/07	31.15		14.32
	1/28/08	26.79		18.68
	3/14/08	15.14		30.33
	5/13/08	15.79	29.68	
	7/16/08	16.32	29.15	
	9/5/08	16.93	45.86	28.93
	10/8/08	17.21		28.65
	1/29/09	16.87		28.99
	4/14/09	15.63		30.23
	7/1/09	16.53		29.33
10/6/09	17.48	28.38		
2/17/10	15.08	30.78		
4/13/10	14.30	31.56		
7/6/10	15.48	30.38		
RW-2	11/13/04	16.17	45.00	28.83
	2/4/05	15.44		29.56
	4/13/05	14.54		30.46
	8/10/05	15.93		29.07
	11/5/05	16.36		28.64
	1/30/06	14.83		30.17
	4/28/06	13.93		31.07
	8/15/06	15.67		29.33



TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
RW-2 (cont.)	10/26/06	23.50	45.00	21.50
	2/2/07	14.27		30.73
	4/30/07	18.35		26.65
	7/18/07	17.95		27.05
	10/30/07	17.63		27.37
	1/28/08	15.91		29.09
	3/14/08	15.69		29.31
	5/13/08	16.32	46.40	28.68
	7/16/08	16.81		28.19
	9/5/08	17.39		29.01
	10/8/08	17.63		28.77
	1/29/09	17.35		29.05
	4/14/09	16.20		30.20
	7/1/09	17.00		29.40
	10/6/09	18.00		28.40
	2/17/10	15.64		30.76
	4/13/10	14.90		31.50
7/6/10	15.95	30.45		
OS-1	9/5/08	18.14	47.19	29.05
	10/8/08	18.41		28.78
	1/29/09	18.10		29.09
	4/14/09	16.86		30.33
	7/1/09	17.78		29.41
	10/6/09	18.78		28.41
	10/6/09	18.78		28.41
	2/17/10	16.37		30.82
OS-2	9/5/08	17.75	46.79	29.04
	10/8/08	NM		--
	1/29/09	17.74		29.05
	4/14/09	16.50		30.29
	7/1/09	17.38		29.41
	10/6/09	18.42		28.37

TABLE C-1

HISTORICAL WELL AND GROUNDWATER ELEVATIONS  
TESORO - SAN LORENZO, 67107

Well No.	Date of Measurement	Depth to Water (feet below casing)	PVC Casing Elevation <sup>(a)</sup> (feet MSL)	Water Table Elevation <sup>(b)</sup> (feet MSL)
OS-2 (cont.)	10/6/09	18.42	46.79	28.37
	2/17/10	16.00		30.79
OS-3	9/5/08	16.68	45.68	29.00
	10/8/08	16.95		28.73
	1/29/09	16.60		29.08
	4/14/09	15.33		30.35
	7/1/09	16.26		29.42
	10/6/09	17.30		28.38
	10/6/09	17.30		28.38
	2/17/10	14.80		30.88
OS-4	9/5/08	17.00	46.02	29.02
	10/8/08	17.26		28.76
	1/29/09	16.97		29.05
	4/14/09	15.70		30.32
	7/1/09	16.61		29.41
	10/6/09	17.63		28.39
	10/6/09	17.63		28.39
	2/17/10	15.16		30.86
PT-1	9/5/08	17.50	46.48	28.98
	10/8/08	17.77		28.71
	1/29/09	17.47		29.01
	4/14/09	16.21		30.27
	7/1/09	17.10		29.38
	10/6/09	18.10		28.38
	10/6/09	18.10		28.38
	2/17/10	15.66		30.82
	7/6/10	16.10		30.38

(a) Elevation of PVC well casing relative to mean sea level (MSL), provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report.

Wells were surveyed by Cross Land Surveying, Inc., per AB 2886 requirements on 26 September 2008.

(b) Difference between "PVC Casing Elevation" and "Depth to Water."

(c) NM = Well not measured.

(d) "--" Not calculated.

(e) Field logs noted well was plugged at 14 feet below top of casing on 20 May 1997.

**ATTACHMENT D**  
**HISTORICAL GROUNDWATER ANALYTICAL RESULTS**

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1	5/15/92	41,000	2,000	47	1,200	400	-- <sup>(e)</sup>	--	--	--	--
	8/28/92	110,000	3,800	54	850	970	--	--	--	--	--
	11/19/92	3,600	200	ND<0.5 <sup>(f)</sup>	90	140	--	--	--	--	--
	2/3/93	3,000	180	22	79	130	--	--	--	--	--
	6/23/93	12,000	2,400	74	650	510	--	--	--	--	--
	9/22/93	23,000	3,000	290	1,100	1,200	--	--	--	--	--
	1/24/94	18,000	2,400	280	1,100	1,700	--	--	--	--	--
	4/7/94	20,000	4,200	820	1,600	2,100	--	--	--	--	--
	6/7/94	26,000	1,800	510	1,100	1,600	--	--	--	--	--
	9/28/94	18,000	1,700	210	970	870	--	--	--	--	--
	12/14/94	31,000	4,400	2,400	2,300	4,300	--	--	--	--	--
	3/15/95	17,000	830	310	840	1,200	--	--	--	--	--
	6/13/95	22,000	1,300	99	1,500	1,100	--	--	--	--	--
	9/28/95	8,800	580	ND<25	780	410	--	--	--	--	--
	12/28/95	4,800	4.9	ND<1.3	ND<1.3	290	74	--	--	--	--
	1/30/96	1,500	17	7.1	20	45	63	--	--	--	--
	3/12/96	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	44	--	--	--	--
	9/11/96	600	48	0.9	37	26	75	--	--	--	--
	10/2/96	210	16	ND<0.5	6.0	0.92	11	--	--	--	--
	1/28/97	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	160	--	--	--	--
	5/20/97	680	ND<2.5	ND<2.5	ND<2.5	ND<2.5	640	--	--	--	--
	8/18/97	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	540	--	--	--	--
	11/5/97	ND<250	2.8	ND<2.5	ND<2.5	ND<2.5	390	--	--	--	--
	3/31/98	3,300	260	13	110	150	7,900	--	--	--	--
	5/28/98	7,800	120	ND<10	39	55	9,300	--	--	--	--
	8/19/98	ND<250	12	ND<2.5	6.0	3.8	2,200	--	--	--	--
	11/17/98	860	8.3	ND<2.5	9.2	7.6	4,200	--	--	--	--
2/18/99	310	2.7	ND<2.5	ND<2.5	3.9	4,200	--	--	--	--	
6/24/99	860	10	ND<2.5	12	6.5	3,400	--	--	--	--	
8/30/99	140	2.0	ND<0.5	3.9	2.0	2,800	--	--	--	--	
11/9/99	170	ND<0.5	ND<0.5	3.1	2.0	1,500	--	--	--	--	
3/22/00	ND<200	2.8	ND<2	3.6	ND<2	1,200	--	--	--	--	
6/12/00	190	1.3	ND<1	ND<1	ND<1	640	--	--	--	--	
11/15/00	240	ND<1	ND<1	ND<1	ND<1	960	--	--	--	--	
2/26/01	ND<100	1.2	ND<1	ND<1	ND<1	2,800	--	--	--	--	
5/21/01	ND<200	ND<2	ND<2	ND<2	ND<2	540	--	--	--	--	
9/5/01	ND<200	7.0	ND<2	ND<2	ND<2	550	--	--	--	--	

TABLE D-1

HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LORENZO, 67107

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-1 (cont.)	11/7/01	290	ND<2	ND<2	ND<2	ND<2	750	--	--	--	--
	2/11/02	270	ND<1	ND<1	ND<1	ND<1	450	--	--	--	--
	6/3/02	310	ND<2	ND<2	ND<2	ND<2	610	--	--	--	--
	8/6/02	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	540	--	--	--	--
	11/14/02	490	ND<2	ND<2	ND<2	ND<2	900	--	--	--	--
	2/20/03	210	ND<1	ND<1	ND<1	ND<1	320	--	--	--	--
	5/15/03	400	ND<1.5	ND<1.5	ND<1.5	ND<1.5	670	ND<1.5	ND<1.5	ND<1.5	ND<15
	7/31/03	380	ND<1.5	ND<1.5	ND<1.5	ND<1.5	620	ND<1.5	ND<1.5	ND<1.5	ND<15
	10/28/03	230	ND<1	ND<1	ND<1	ND<1	470	ND<1	ND<1	ND<1	ND<10
	2/28/04	300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	400	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/16/04	ND<200	ND<1.5	ND<1.5	ND<1.5	ND<1.5	510	ND<1.5	ND<1.5	ND<1.5	ND<15
	7/16/04	280	ND<1.5	ND<1.5	ND<1.5	ND<1.5	660	ND<1.5	ND<1.5	ND<1.5	ND<15
	11/13/04	ND<100	ND<1	ND<1	ND<1	ND<1	530	ND<1	ND<1	ND<1	19
	2/4/05	140	ND<1	ND<1	ND<1	ND<1	610	ND<1	ND<1	ND<1	18
	4/13/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	ND<0.5	ND<0.5	ND<0.5	12
	8/10/05	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	170	ND<0.5	ND<0.5	ND<0.5	17
	11/5/05	220	ND<0.5	ND<0.5	ND<0.5	ND<0.5	95	ND<0.5	ND<0.5	ND<0.5	24
	1/30/06	92	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120	ND<0.5	ND<0.5	ND<0.5	20
	4/28/06	57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5	ND<0.5	13
	8/15/06	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	15	ND<0.5	ND<0.5	ND<0.5	10
	10/26/06	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	34	ND<0.5	ND<0.5	ND<0.5	6.2
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5	ND<0.5	6.7
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.94	ND<0.5	ND<0.5	68	5.5
	10/30/07	77 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	56 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	98	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5
1/29/09 (dup)	250	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.2	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/1/09	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	24	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/7/09	170	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28	ND<0.5	ND<0.5	ND<0.5	ND<5	
2/17/10	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	21	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.9	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/6/10	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.1	ND<0.5	ND<0.5	ND<0.5	ND<5	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-2	2/18/92	1,600	ND<0.5	ND<0.5	1.9	ND<0.5	--	--	--	--	--
	5/14/92	740	1.2	1.0	1.3	ND<0.5	--	--	--	--	--
	8/27/92	1,400	6.5	1.1	0.6	ND<0.5	--	--	--	--	--
	11/19/92	360	ND<0.5	ND<0.5	2.7	ND<0.5	--	--	--	--	--
	2/3/93	590	1.2	1.6	4.5	6.4	--	--	--	--	--
	6/23/93	160	ND<0.5	ND<0.5	0.52	0.5	--	--	--	--	--
	9/22/93	290	ND<0.5	0.59	1.2	0.59	--	--	--	--	--
	1/24/94	330	ND<0.5	ND<0.5	0.68	ND<0.5	--	--	--	--	--
	4/7/94	490	ND<0.5	ND<0.5	ND<0.5	4.4	--	--	--	--	--
	6/7/94	550	ND<0.5	ND<0.5	1.5	ND<0.5	--	--	--	--	--
	9/28/94	190	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	1,400	7.2	0.84	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	730	39	ND<0.5	0.53	ND<0.5	--	--	--	--	--
	6/13/95	750 <sup>(g)</sup>	8.3	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	670 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	3,100	9.5	ND<5	ND<5	5.2	4,600	--	--	--	--
	3/12/96	710	ND<1.3	ND<1.3	ND<1.3	ND<1.3	3,200	--	--	--	--
	6/13/96	1,900 <sup>(g)</sup>	1.6	1.6	ND<1.3	ND<1.3	5,100	--	--	--	--
	10/2/96	2,800	ND<2.5	ND<2.5	ND<2.5	ND<2.5	7,900	--	--	--	--
	1/28/97	130	ND<0.5	ND<0.5	ND<0.5	ND<0.5	210	--	--	--	--
	5/20/97	1,400	120	16	ND<2.5	4.0	390	--	--	--	--
	8/18/97	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	2,000	--	--	--	--
	11/5/97	ND<250	ND<2.5	ND<2.5	ND<2.5	ND<2.5	2,900	--	--	--	--
	3/31/98	ND<10,000	ND<0.5	ND<0.5	ND<0.5	ND<0.5	85,000	--	--	--	--
	5/28/98	ND<50,000	ND<500	ND<500	ND<500	ND<500	97,000	--	--	--	--
	8/19/98	210	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22,000	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17,000	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13,000	--	--	--	--
	6/24/99	180	ND<15	ND<15	ND<15	ND<15	39,000	--	--	--	--
	8/30/99	ND<2,500	ND<25	ND<25	ND<25	ND<25	18,000	--	--	--	--
11/9/99	ND<500	ND<5	ND<5	ND<5	ND<5	14,000	--	--	--	--	
3/22/00	ND<500	ND<5	ND<5	ND<5	ND<5	54,000	--	--	--	--	
6/12/00	ND<2,000	ND<20	ND<20	ND<20	ND<20	53,000	--	--	--	--	
11/15/00	ND<5,000	ND<50	ND<50	ND<50	ND<50	35,000	--	--	--	--	
2/26/01	ND<2,000	ND<20	ND<20	ND<20	ND<20	2,800	--	--	--	--	
5/21/01	ND<5,000	ND<25	ND<25	ND<25	ND<25	20,000	--	--	--	--	
9/5/01	ND<2,000	ND<20	ND<20	ND<20	ND<20	12,000	--	--	--	--	
11/7/01	ND<2,000	ND<20	ND<20	ND<20	ND<20	7,600	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-2 (cont.)	2/11/02	ND<500	ND<5	ND<5	ND<5	ND<5	1,500	--	--	--	--
	6/3/02	ND<500	ND<5	ND<5	ND<5	ND<5	2,200	--	--	--	--
	8/6/02	ND<500	ND<5	ND<5	ND<5	ND<5	3,300	--	--	--	--
	11/14/02	ND<1,000	ND<10	ND<10	ND<10	ND<10	3,200	--	--	--	--
	2/20/03	ND<50	ND<2	ND<2	ND<2	ND<2	160	--	--	--	--
	5/15/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	270	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/31/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	300	ND<2	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1,600	ND<1	ND<0.5	1.8	20
	2/28/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	340	ND<1.5	ND<0.5	ND<0.5	ND<5
	4/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	130	ND<1.5	ND<0.5	ND<0.5	35
	7/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	68	ND<1	ND<0.5	ND<0.5	ND<5
	11/13/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.85	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.89	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.86	ND<0.5	ND<0.5	ND<0.5	ND<5
7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.6	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5	
2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.58	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/6/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-3	5/15/92	160,000	6,300	5,900	1,700	6,100	--	--	--	--	--
	8/28/92	1.30E+06	2,500	40,000	6,700	44,000	--	--	--	--	--
	2/3/93	82,000	7,200	11,000	2,900	13,000	--	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-3 (cont.)	6/23/93	61,000	3,200	5,300	2,500	9,100	--	--	--	--	--
	9/22/93	94,000	12,000	14,000	3,900	18,000	--	--	--	--	--
	1/24/94	110,000	14,000	17,000	4,200	14,000	--	--	--	--	--
	4/7/94	28,000	6,500	1,800	1,700	4,100	--	--	--	--	--
	6/7/94	27,000	6,400	2,300	1,500	3,500	--	--	--	--	--
	9/28/94	40,000	7,400	4,300	1,500	4,600	--	--	--	--	--
	12/14/94	140,000	17,000	21,000	3,900	22,000	--	--	--	--	--
	3/15/95	58,000	4,900	1,900	1,800	7,100	--	--	--	--	--
	6/13/95	44,000	7,200	2,900	1,200	4,600	--	--	--	--	--
	9/28/95	30,000	5,600	2,100	1,900	6,900	--	--	--	--	--
	12/28/95	16,000	32	5.8	18	4,700	360	--	--	--	--
	1/30/96	8,700	850	800	190	1,700	430	--	--	--	--
	3/12/96	2,400	48	64	5.3	630	97	--	--	--	--
	7/10/97	300	ND<0.5	ND<0.5	ND<0.5	4.8	40	--	--	--	--
	8/18/97	3,600	480	8.4	100	230	170	--	--	--	--
	9/29/97	3,500	740	8.6	160	240	210	--	--	--	--
	11/5/97	4,100	870	15	180	210	240	--	--	--	--
	3/31/98	12,000	1,800	600	410	1,400	510	--	--	--	--
	5/28/98	6,500	1,500	400	280	870	480	--	--	--	--
	8/19/98	1,400	130	11	24	60	140	--	--	--	--
	11/17/98	510	48	3.5	9.9	14	120	--	--	--	--
	2/18/99	690	67	28	24	81	88	--	--	--	--
	6/24/99	540	27	21	8.6	32	61	--	--	--	--
	8/30/99	250	12	12	3.2	13	50	--	--	--	--
	11/9/99	230	9.8	5.3	3.4	10	48	--	--	--	--
	3/22/00	1,500	180	47	46	100	80	--	--	--	--
	6/12/00	920	100	6.2	20	25	76	--	--	--	--
	11/15/00	1,100	280	5.0	21	20	140	--	--	--	--
	2/26/01	140	14	4.3	3.1	11	230	--	--	--	190
	5/21/01	510	36	0.72	1.0	2.2	280	--	--	--	110
9/5/01	390	59	0.53	0.75	0.57	620	--	--	--	120	
11/7/01	830	170	2.3	4.9	4.8	900	--	--	--	--	
2/11/02	370	17	ND<2.5	4.7	7.9	1,200	--	--	--	--	
6/3/02	460	120	ND<2.5	5.6	8.4	1,400	--	--	--	140	
8/6/02	800	110	ND<5	ND<5	ND<5	2,200	--	--	--	170	
11/14/02	1,400	89	ND<10	ND<10	ND<10	2,800	--	--	--	210	
2/20/03	ND<500	14	ND<5	ND<5	ND<5	2,300	--	--	--	97	
5/15/03	ND<500	43	ND<5	ND<5	ND<5	2,000	ND<5	ND<5	ND<5	87	



TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-3 (cont.)	7/31/03	1,500	280	ND<5	6.6	7.4	1,600	ND<5	ND<5	ND<5	130
	10/28/03	2,200	140	1.6	6.5	4.0	1,100	ND<0.5	ND<0.5	0.75	74
	2/28/04	1,200	99	31	12	52	1,500	ND<0.5	ND<0.5	ND<0.5	82
	4/16/04	1,200	95	19	12	48	1,100	ND<0.5	ND<0.5	ND<0.5	340
	7/16/04	980	94	27	9.4	38	810	ND<0.5	ND<0.5	ND<0.5	580
MW-3R	11/13/04	9,000	580	52	440	1,600	450	ND<0.5	ND<0.5	ND<0.5	440
	2/4/05	5,400	350	29	260	1,100	270	ND<0.5	ND<0.5	ND<0.5	390
	4/13/05	20,000	1,300	84	1,200	3,200	290	ND<0.5	ND<0.5	ND<0.5	150
	8/10/05	7,100	400	23	340	1,200	110	ND<0.5	ND<0.5	ND<0.5	160
	11/5/05	4,100	230	10	250	600	81	ND<0.5	ND<0.5	ND<0.5	200
	1/30/06	6,100	460	20	470	1,000	85	ND<0.5	ND<0.5	ND<0.5	190
	4/28/06	8,200	510	15	490	940	81	ND<0.5	ND<0.5	ND<0.5	90
	8/15/06	5,600	470	11	500	680	80	ND<0.5	ND<0.5	ND<0.5	92
	10/26/06	1,800	82	4.2	38	220	53	ND<0.5	ND<0.5	ND<0.5	45
	2/2/07	1,500	94	4.3	7.0	110	42	ND<0.5	ND<0.5	ND<0.5	26
	4/30/07	3,700	240	17	280	300	38	ND<0.5	ND<0.5	ND<0.5	22
	7/18/07	690	85	1.5	3.6	20	29	ND<0.5	ND<0.5	ND<0.5	17
	10/30/07	410	46	0.9	4.7	12	19	ND<0.5	ND<0.5	ND<0.5	14
	1/28/08	4,500	350	10	250	220	48	ND<0.5	ND<0.5	ND<0.5	22
	5/13/08	1,300	68	4.4	74	38	18	ND<0.5	ND<0.5	ND<0.5	15
	7/16/08	1,400	71	9.8	38	20	35	ND<0.5	ND<0.5	ND<0.5	33
	10/8/08	980	66	2.5	6.7	ND<0.5	32	ND<0.5	ND<0.5	ND<0.5	22
	1/29/09	58	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	8.0
	1/30/09 (dup)	860	82	1.4	16	4.3	19	ND<0.5	ND<0.5	ND<0.5	21
	4/15/09	120	1.6	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	16
7/1/09	690	30	1.2	4.4	2	19	ND<0.5	ND<0.5	ND<0.5	20	
10/7/09	480	28	0.73	2.3	1.5	20	ND<0.5	ND<0.5	ND<0.5	16	
2/18/10	400	38	0.76	25	6.5	10	ND<0.5	ND<0.5	ND<0.5	18	
4/14/10	840	81	1.4	62	22	16	ND<0.5	ND<0.5	ND<0.5	16	
7/7/10	570	59	0.94	21	5.6	13	ND<0.5	ND<0.5	ND<0.5	16	
MW-4	2/18/92	5,100	ND<0.5	ND<0.5	12	21	--	--	--	--	--
	5/14/92	4,600	ND<0.5	5.6	1.8	2.2	--	--	--	--	--
	8/28/92	1,700	6.6	1.3	1.6	3.1	--	--	--	--	--
	11/19/92	400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	2/3/93	1,100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/23/93	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	1/24/94	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-4 (cont.)	4/7/94	430	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	75	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	210 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	140 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	510 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	50 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	270 (g)	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	3/31/98	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/28/98	94	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/19/98	120 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	46	--	--	--	--
	11/17/98	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	780	--	--	--	--
	2/18/99	130	8.2	ND<0.5	ND<0.5	ND<0.5	240	--	--	--	--
	6/24/99	ND<50	ND<1	ND<0.5	ND<0.5	ND<0.5	2,100	--	--	--	--
	11/9/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2,500	--	--	--	--
	3/22/00	69	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12,000	--	--	--	--
	6/12/00	ND<2,000	ND<20	ND<20	ND<20	ND<20	17,000	--	--	--	--
	11/15/00	ND<100	ND<1	ND<1	ND<1	ND<1	17,000	--	--	--	--
	5/21/01	ND<5,000	ND<25	ND<25	ND<25	ND<25	13,000	--	--	--	--
	11/7/01	ND<1,000	ND<10	ND<10	ND<10	ND<10	3,800	--	--	--	--
6/3/02	ND<200	ND<2	ND<2	ND<2	ND<2	1,100	--	--	--	--	
11/14/02	ND<200	ND<2	ND<2	ND<2	ND<2	700	--	--	--	--	
5/15/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	73	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	65	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.0	ND<0.5	ND<0.5	ND<0.5	ND<5	
11/13/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	50	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/28/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.89	ND<0.5	ND<0.5	ND<0.5	ND<5	
8/15/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.8	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.7	ND<0.5	ND<0.5	ND<0.5	ND<5	
2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5	

TABLE D-1

HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS  
TESORO - SAN LORENZO, 67107

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-4 (cont.)	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.56	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/6/10	ND<50	ND<0.5	ND<0.5	0.62	0.83	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-5	2/18/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	2/3/93	55	3.0	2.7	8.0	9.9	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	ND<50	0.66	1.1	ND<0.5	0.6	--	--	--	--	--
	1/24/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	ND<50	ND<0.5	0.52	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.0	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	
3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-5 (cont.)	5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.1	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.3	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-6	2/18/92	370	4.8	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	ND<50	1.2	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	66	1.3	ND<0.5	1.0	1.1	--	--	--	--	--
	2/3/93	100	1.9	2.6	23	12	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	81	2.2	3.8	0.53	2.7	--	--	--	--	--
	1/24/94	98	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	150	0.71	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	180	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	150 <sup>(g)</sup>	ND<0.5	0.87	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	ND<50	0.78	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	410	ND<0.5	ND<0.5	ND<0.5	ND<0.5	70	--	--	--	--
	1/30/96	81	1.0	ND<0.5	ND<0.5	ND<0.5	46	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.0	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.8	--	--	--	--
3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-6 (cont.)	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.71	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
7/7/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-7	2/18/92	670	16	ND<0.5	10	16	--	--	--	--	--
	5/14/92	1,500	44	ND<0.5	38	88	--	--	--	--	--
	8/27/92	23,000	400	5.8	290	1,400	--	--	--	--	--
	11/19/92	330	29	ND<0.5	10	53	--	--	--	--	--
	2/3/93	2,000	200	ND<0.5	110	480	--	--	--	--	--
	6/23/93	280	20	ND<0.5	16	16	--	--	--	--	--
	9/22/93	860	71	2.2	33	210	--	--	--	--	--
	1/24/94	900	61	ND<1.3	10	160	--	--	--	--	--
	4/7/94	630	53	ND<0.5	7.1	49	--	--	--	--	--
	6/7/94	730	55	ND<0.5	14	24	--	--	--	--	--
	9/28/94	300	21	ND<0.5	2.3	3.1	--	--	--	--	--
	12/14/94	430	19	ND<0.5	3.3	32	--	--	--	--	--
	3/15/95	70	0.88	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	190	7.3	0.79	7.6	8.9	--	--	--	--	--
	9/28/95	60	1.5	ND<0.5	1.2	0.84	--	--	--	--	--
	12/28/95	60	ND<0.5	ND<0.5	0.91	0.69	10	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	--	--	--	--
	6/11/96	79	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	26	--	--	--	--
	1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	--	--	--	--
	5/20/97	78	ND<0.5	0.85	ND<0.5	ND<0.5	40	--	--	--	--
	8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	--	--	--	--
	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.0	--	--	--	--
3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	6.0	--	--	--	--	
5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10	--	--	--	--	
8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27	--	--	--	--	
11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30	--	--	--	--	
2/18/99	51	ND<0.5	ND<0.5	ND<0.5	ND<0.5	22	--	--	--	--	
11/9/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-7 (cont.)	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	--	--	--	--
	11/15/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	--	--	--	--
	11/7/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.4	--	--	--	--
	11/14/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.64	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/13/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-8	2/18/92	1,200	ND<0.5	ND<0.5	9.5	ND<0.5	--	--	--	--	--
	5/14/92	130	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	320	ND<0.5	ND<0.5	2.0	ND<0.5	--	--	--	--	--
	2/3/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	ND<50	ND<0.5	ND<0.5	0.67	ND<0.5	--	--	--	--	--
	1/24/94	290	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-8 (cont.)	11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	5/28/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-9	2/18/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	8/27/92	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	11/19/92	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	--	--	--	--	--
	2/3/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/23/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	1/24/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
1/28/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
11/5/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	
8/19/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-9 (cont.)	11/17/98	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	2/18/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/22/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/3/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--
	8/6/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-10	2/18/92	18,000	110	57	440	53	--	--	--	--	--
	5/15/92	8,500	24	9.8	97	ND<0.5	--	--	--	--	--
	8/29/92	9,600	20	2.8	40	3.5	--	--	--	--	--
	11/19/92	5,700	36	21	330	31	--	--	--	--	--
	2/3/93	2,200	15	4.6	36	9.6	--	--	--	--	--
	6/23/93	8,100	21	24	540	45	--	--	--	--	--
	9/22/93	6,200	22	17	350	16	--	--	--	--	--
	4/7/94	4,000	6.4	2.9	150	4.7	--	--	--	--	--
	6/7/94	6,700	5.6	ND<2.5	150	5.7	--	--	--	--	--
	9/28/94	5,700	2.2	2.6	110	44	--	--	--	--	--
	12/14/94	3,500	ND<1.3	ND<1.3	77	27	--	--	--	--	--
	3/15/95	7,200	ND<5	6.7	150	23	--	--	--	--	--
	6/13/95	8,400	9	48	610	130	--	--	--	--	--
	9/28/95	6,300	22	17	360	24	--	--	--	--	--
	12/28/95	5,000	4.4	5.6	340	11	37	--	--	--	--
	3/12/96	4,500	1.4	5.9	41	73	120	--	--	--	--
	6/11/96	7,500	ND<5	25	350	81	ND<25	--	--	--	--
	10/2/96	2,600	18	ND<2.5	ND<2.5	ND<2.5	ND<25	--	--	--	--
1/28/97	2,800	5.9	ND<2.5	29	19	ND<25	--	--	--	--	
5/20/97	6,000	ND<20	34	290	74	ND<100	--	--	--	--	
8/18/97	5,900	ND<20	7.7	94	15	ND<50	--	--	--	--	
11/5/97	5,400	1.1	0.86	47	1.6	2.3	--	--	--	--	



TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-10 (cont.)	3/31/98	20,000	56	180	1,400	3,700	250	--	--	--	--
	5/28/98	16,000	76	200	1,600	3,900	190	--	--	--	--
	8/19/98	14,000	95	160	1300	1700	ND<100	--	--	--	--
	11/17/98	7,500	82	64	590	150	290	--	--	--	--
	2/18/99	4,700	41	16	270	79	ND<100	--	--	--	--
	6/24/99	9,400	27	74	280	160	300	--	--	--	--
	8/30/99	8,500	15	33	160	33	290	--	--	--	--
	11/9/99	7,600	3.9	11	60	14	120	--	--	--	--
	3/22/00	5,800	3.5	33	360	320	160	--	--	--	--
	6/12/00	7,200	4.3	47	370	210	270	--	--	--	--
	11/15/00	4,400	0.54	2.2	3.8	7.3	420	--	--	--	--
	2/26/01	5,000	ND<1	2.5	24	13	860	--	--	--	--
	5/21/01	3,500	ND<0.5	3.2	4.1	12	530	--	--	--	--
	9/5/01	3,400	ND<2	ND<2	ND<2	4.1	770	--	--	--	--
	11/7/01	3,600	ND<0.5	0.64	0.75	2.7	790	--	--	--	--
	2/11/02	4,100	ND<2	2.2	61	26	750	--	--	--	--
	6/3/02	4,100	ND<1	7.0	67	37	320	--	--	--	--
	8/6/02	4,500	ND<1	5.4	18	18	310	--	--	--	--
	11/14/02	5,200	ND<1	ND<1	2.2	6.4	280	ND<0.5	ND<0.5	ND<0.5	13
	2/20/03	6,300	ND<1.5	9.5	280	69	220	ND<2	ND<2	ND<2	--
	5/15/03	5,700	1.2	14	280	78	130	ND<1	ND<1	ND<1	11
	7/31/03	4,700	ND<0.5	4.5	20	17	110	ND<1.5	ND<1.5	ND<1.5	7.5
	10/28/03	1,900	ND<0.5	0.54	0.8	2.9	88	ND<1.5	ND<1.5	ND<1.5	5.9
	2/28/04	3,500	ND<1	ND<1	17	7.9	44	ND<1	ND<1	ND<1	ND<10
	4/16/04	6,000	ND<1.5	3.0	150	34	53	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/04	6,300	ND<1	3.5	110	29	40	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/13/04	4,900	ND<0.5	4.8	42	23	25	ND<0.5	ND<0.5	ND<0.5	ND<5
2/4/05	5,000	ND<0.5	3.3	46	30	21	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/13/05	4,000	0.81	6.5	200	120	29	ND<0.5	ND<0.5	ND<0.5	ND<5	
8/10/05	6,600	2.0	6.5	74	72	29	ND<0.5	ND<0.5	ND<0.5	ND<5	
11/5/05	6,000	3.0	9.7	17	56	5.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/30/06	3,800	1.8	3.9	61	29	16	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/28/06	5,800	3.1	7	210	120	38	ND<0.5	ND<0.5	ND<0.5	8.4	
8/15/06	5,400	1.7	4.2	22	40	42	ND<0.5	ND<0.5	ND<0.5	7.3	
10/26/06	5,000	0.71	2.2	4.8	25	24	ND<0.5	ND<0.5	ND<0.5	5.0	
2/2/07	4,900	0.72	2.3	7.4	15	21	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/30/07	4,300	ND<0.5	2.2	7.6	16	13	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/18/07	2,700	ND<0.5	0.97	ND<0.5	3.4	4.8	ND<0.5	ND<0.5	ND<0.5	ND<5	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-10 (cont.)	10/30/07	3,400	ND<0.5	0.73	ND<0.5	2.1	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	2,600	ND<0.5	0.88	ND<0.5	1.5	0.76	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	4,100	ND<0.5	0.66	ND<0.5	3	1.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	2,700	ND<0.5	ND<0.5	ND<0.5	1.4	0.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	1,900	ND<0.5	ND<0.5	ND<0.5	0.63	0.63	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09	1,900	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.88	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09 (dup)	2,800	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.72	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	2,400	ND<0.5	ND<0.5	0.67	1.4	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	2,900	ND<0.5	ND<0.5	ND<0.5	1.4	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	2,800	ND<0.5	ND<0.5	ND<0.5	0.61	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	3,300	ND<0.5	ND<0.5	0.58	0.9	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	4,300	ND<0.5	ND<0.5	24	6.9	0.8	ND<0.5	ND<0.5	ND<0.5	ND<5
7/7/10	3,600	ND<0.5	ND<0.5	2.0	9.1	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5	
MW-11	2/18/92	2,400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	5/14/92	1,600	ND<0.5	1.9	1.3	0.7	--	--	--	--	--
	8/27/92	2,100	15	2.0	0.6	1.2	--	--	--	--	--
	11/19/92	490	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	2/3/93	500	ND<0.5	ND<0.5	0.55	ND<0.5	--	--	--	--	--
	6/23/93	350	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/22/93	200	ND<0.5	0.65	ND<0.5	0.71	--	--	--	--	--
	1/24/94	450	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	4/7/94	500	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/7/94	560	ND<0.5	ND<0.5	ND<0.5	0.64	--	--	--	--	--
	9/28/94	600	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/14/94	340	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	3/15/95	340	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	6/13/95	210 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	9/28/95	93	4.1	0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	380 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	110	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	6/11/96	400 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	10/2/96	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	1/28/97	110 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
5/20/97	330	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--	
8/18/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	
3/31/98	460	ND<0.5	2.8	12	16	ND<0.5	--	--	--	--	
5/28/98	1,100	14	24	88	75	24	--	--	--	--	
8/19/98	1,200	16	9.6	69	17	6.0	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)	
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12	
MW-11 (cont.)	11/17/98	580	15	4.4	14	ND<0.5	21	--	--	--	--	
	2/18/99	390	8.0	ND<0.5	1.4	ND<0.5	44	--	--	--	--	
	6/24/99	610	4.6	ND<0.5	0.66	ND<0.5	59	--	--	--	--	
	11/9/99	250	0.87	ND<0.5	ND<0.5	ND<0.5	66	--	--	--	--	
	3/22/00	330	ND<0.5	ND<0.5	ND<0.5	ND<0.5	100	--	--	--	--	
	6/12/00	52	ND<0.5	ND<0.5	ND<0.5	ND<0.5	49	--	--	--	--	
	11/15/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	--	--	--	--	
	5/21/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	30	--	--	--	--	
	11/7/01	360	ND<0.5	ND<0.5	ND<0.5	ND<0.5	330	--	--	--	--	
	6/3/02	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	220	ND<0.5	ND<0.5	ND<0.5	13	
	11/14/02	240	ND<1	ND<1	ND<1	ND<1	380	ND<0.5	ND<0.5	ND<0.5	ND<5	
	5/15/03	160	ND<0.5	ND<0.5	ND<0.5	ND<0.5	170	ND<0.5	ND<0.5	ND<0.5	ND<5	
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	35	ND<0.5	ND<0.5	ND<0.5	ND<5	
	2/28/04	360	ND<0.5	ND<0.5	ND<0.5	ND<0.5	140	ND<0.5	ND<0.5	ND<0.5	ND<5	
	4/16/04	440	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110	ND<0.5	ND<0.5	ND<0.5	ND<5	
	7/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	10	ND<0.5	ND<0.5	ND<0.5	ND<5	
	11/13/04	230	ND<0.5	ND<0.5	ND<0.5	ND<0.5	49	ND<0.5	ND<0.5	ND<0.5	ND<5	
	2/4/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7	ND<0.5	ND<0.5	ND<0.5	ND<5	
	4/13/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	ND<5	
	11/5/05	310	ND<0.5	0.71	ND<0.5	ND<0.5	1.6	4.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.0	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	65	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.1	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	930	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.72	27	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	740	ND<0.5	0.58	ND<0.5	ND<0.5	0.64	28	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/18/07	490	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	19	ND<0.5	ND<0.5	ND<0.5	ND<5
10/30/07	420	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	28	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/28/08	280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5	ND<0.5	ND<5	
5/13/08	480	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	9.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/16/08	370	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/8/08	320	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/30/09	280	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	11	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/30/09 (dup)	300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.1	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/15/09	300	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.2	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/1/09	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/7/09	410	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	3.0	ND<0.5	ND<0.5	ND<0.5	ND<5	
2/17/10	460	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	2.0	ND<0.5	ND<0.5	ND<0.5	ND<5	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
MW-11 (cont.)	4/14/10	260	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.77	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	400	ND<0.5	ND<0.5	ND<0.5	0.80	1.9	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-12	7/18/07	68 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	70 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/28/08	60 <sup>(g)</sup>	ND<0.5	ND<0.5	ND<0.5	0.57	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
RW-1	5/15/92	790	270	62	29	140	--	--	--	--	--
	8/27/92	24,000	1,300	200	68	810	--	--	--	--	--
	2/3/93	620	71	35	22	110	--	--	--	--	--
	6/23/93	220	30	33	9.8	35	--	--	--	--	--
	9/22/93	4,100	800	400	170	910	--	--	--	--	--
	1/24/94	190	33	6.0	6.9	23	--	--	--	--	--
	4/7/94	1,500	110	57	32	260	--	--	--	--	--
	6/7/94	1,700	130	51	45	180	--	--	--	--	--
	9/28/94	350	54	9.2	12	29	--	--	--	--	--
	12/14/94	79	6.8	2.1	1.2	3.4	--	--	--	--	--
	4/10/95	410	54	11	11	69	--	--	--	--	--
	6/13/95	8,200	1,600	780	340	1,400	--	--	--	--	--
	9/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	--	--	--	--	--
	12/28/95	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5	--	--	--	--
	3/12/96	86	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110	--	--	--	--
	6/11/96	230	38	11	4.7	50	68	--	--	--	--
	10/2/96	360	68	29	14	75	47	--	--	--	--
	1/28/97	ND<50	0.77	ND<0.5	ND<0.5	ND<0.5	9.0	--	--	--	--
	5/20/97	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	32	--	--	--	--
8/18/97	220	25	ND<0.5	ND<0.5	3.6	170	--	--	--	--	
9/29/97	900	240	2.8	51	55	230	--	--	--	--	
11/5/97	1,300	340	3.2	59	78	220	--	--	--	--	
3/31/98	4,100	450	130	200	940	4,100	--	--	--	--	
5/28/98	14,000	830	210	170	720	14,000	--	--	--	--	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
RW-1 (cont.)	8/19/98	2,100	20	ND<2.5	7.1	15	2,100	--	--	--	--
	11/17/98	630	7.8	ND<2.5	5.6	ND<2.5	730	--	--	--	--
	2/18/99	180	6.7	1.6	3.2	15	100	--	--	--	--
	6/24/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	42	--	--	--	--
	8/30/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	79	--	--	--	--
	11/9/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	78	--	--	--	--
	3/22/00	ND<50	1.2	ND<0.5	ND<0.5	ND<0.5	17	--	--	--	--
	6/12/00	ND<50	ND<0.5	ND<0.5	ND<0.5	1.0	40	--	--	--	--
	11/15/00	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	290	--	--	--	--
	2/26/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	360	--	--	--	--
	5/21/01	100	4.1	1.6	1.8	23	170	--	--	--	--
	9/5/01	73	33	ND<0.5	ND<0.5	ND<0.5	310	--	--	--	--
	11/7/01	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	240	--	--	--	--
	2/11/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	21	--	--	--	--
	6/3/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	160	ND<0.5	ND<0.5	ND<0.5	7.7
	8/6/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	190	ND<0.5	ND<0.5	ND<0.5	6.0
	11/14/02	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	170	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/20/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	120	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/15/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/31/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	99	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/28/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	88	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/28/04	ND<50	1.3	ND<0.5	ND<0.5	ND<0.5	52	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/16/04	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	57	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/04	ND<50	0.72	ND<0.5	ND<0.5	ND<0.5	100	ND<0.5	ND<0.5	ND<0.5	4.2
	11/13/04	ND<50	1.0	ND<0.5	ND<0.5	ND<0.5	71	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	45	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	ND<50	1.1	ND<0.5	ND<0.5	ND<0.5	52	ND<0.5	ND<0.5	ND<0.5	12
8/10/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	29	ND<0.5	ND<0.5	ND<0.5	ND<5	
11/5/05	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	27	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/30/06	ND<50	0.61	ND<0.5	ND<0.5	ND<0.5	1.3	23	ND<0.5	ND<0.5	ND<0.5	ND<5
4/28/06	ND<50	0.69	ND<0.5	ND<0.5	ND<0.5	1.6	16	ND<0.5	ND<0.5	ND<0.5	ND<5
8/15/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	18	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/26/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	ND<0.5	ND<0.5	ND<0.5	ND<5	
2/2/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	12	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.5	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/18/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	ND<0.5	ND<5	
10/30/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.9	ND<0.5	ND<0.5	ND<0.5	ND<5	
1/28/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.3	ND<0.5	ND<0.5	ND<0.5	ND<5	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
RW-1 (cont.)	5/13/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.5	ND<0.5	ND<0.5	ND<0.5	6.8
	7/16/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09 (dup)	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.3	ND<0.5	ND<0.5	ND<0.5	6.6
	7/1/09	750	ND<0.5	ND<0.5	ND<0.5	0.67	1.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	0.68	ND<0.5	ND<0.5	ND<0.5	23	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/17/10	82	3.0	ND<0.5	4.0	1.4	10	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/10	ND<50	4.2	ND<0.5	4.8	1.1	9.7	ND<0.5	ND<0.5	ND<0.5	7.5
7/6/10	ND<50	0.82	ND<0.5	ND<0.5	ND<0.5	8.0	ND<0.5	ND<0.5	ND<0.5	ND<5	
RW-2	11/13/04	4,200	ND<0.5	ND<0.5	45	70	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/4/05	2,900	ND<0.5	ND<0.5	24	24	41	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/13/05	1,400	ND<0.5	ND<0.5	8.6	9.9	39	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/10/05	2,900	ND<0.5	ND<0.5	26	33	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	2,400	ND<0.5	ND<0.5	16	19	12	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/06	1,200	ND<0.5	ND<0.5	4.6	5.3	17	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/28/06	1,200	ND<0.5	ND<0.5	12	15	19	ND<0.5	ND<0.5	ND<0.5	ND<5
	8/15/06	1,200	ND<0.5	ND<0.5	6.7	7.0	18	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/26/06	760	ND<0.5	ND<0.5	0.81	7.5	7.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/2/07	1,100	ND<0.5	ND<0.5	0.75	1.3	2.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/30/07	3,300	190	13	230	230	32	ND<0.5	ND<0.5	ND<0.5	18
	7/18/07	810	ND<0.5	ND<0.5	1.1	3.2	2.2	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/30/07	290	29	0.6	2.7	6.5	15	ND<0.5	ND<0.5	ND<0.5	8.6
	1/28/08	3,300	250	7.9	190	170	33	ND<0.5	ND<0.5	ND<0.5	17
	5/13/08	190	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/16/08	360	ND<0.5	ND<0.5	ND<0.5	ND<0.5	6.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	400	ND<0.5	ND<0.5	ND<0.5	ND<0.5	4.7	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	100	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09 (dup)	430	ND<0.5	ND<0.5	ND<0.5	0.74	0.74	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.51	ND<0.5	ND<0.5	ND<0.5	ND<5
7/1/09	52	1.5	ND<0.5	ND<0.5	ND<0.5	14	ND<0.5	ND<0.5	ND<0.5	6.7	
10/7/09	350	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.85	ND<0.5	ND<0.5	ND<0.5	ND<5	
2/18/10	620	ND<0.5	ND<0.5	ND<0.5	0.92	0.84	ND<0.5	ND<0.5	ND<0.5	ND<5	
4/14/10	390	ND<0.5	ND<0.5	ND<0.5	1.1	0.97	ND<0.5	ND<0.5	ND<0.5	ND<5	
7/7/10	380	ND<0.5	ND<0.5	ND<0.5	0.79	0.82	ND<0.5	ND<0.5	ND<0.5	ND<5	

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
DW-15800 <sup>(h)</sup>	1/14/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.81	ND<0.5	ND<0.5	ND<0.5	ND<5
	3/20/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	9/19/06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/5/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/29/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
DW-15808 <sup>(h)</sup>	1/14/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	3/20/03	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	9/19/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/5/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/29/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
DW-246 <sup>(h)</sup>	9/19/06	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/5/07 <sup>(i)</sup>	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.0
	2/21/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	5/29/07	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-1	9/5/08	800	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	610	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	65	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09 (dup)	150	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	60	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-2	9/5/08	1,300	ND<0.5	0.56	ND<0.5	ND<0.5	0.99	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	200	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09 (dup)	1,900	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.55	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	1,200	ND<0.5	ND<0.5	0.72	ND<0.5	1.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	1,500	ND<0.5	ND<0.5	0.69	ND<0.5	1.8	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	1,200	ND<0.5	ND<0.5	0.55	ND<0.5	1.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	140	ND<0.5	ND<0.5	ND<0.5	ND<0.5	0.82	ND<0.5	ND<0.5	ND<0.5	ND<5
OS-3	9/5/08	3,200	160	15	72	470	19	ND<0.5	ND<0.5	ND<0.5	23
	10/8/08	4,100	240	38	240	630	22	ND<0.5	ND<0.5	ND<0.5	20
	1/29/09	670	78	3.5	75	28	11	ND<0.5	ND<0.5	ND<0.5	7.8
	1/30/09 (dup)	1,400	140	5.3	120	120	11	ND<0.5	ND<0.5	ND<0.5	16
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	32	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	2,100	220	6.8	190	250	20	ND<0.5	ND<0.5	ND<0.5	18
	10/7/09	2,100	230	6.5	150	230	20	ND<0.5	ND<0.5	ND<0.5	16
	2/18/10	1,600	180	3.7	120	140	23	ND<0.5	ND<0.5	ND<0.5	8.6

TABLE D-1

**HISTORICAL GROUNDWATER MONITORING ANALYTICAL RESULTS**  
**TESORO - SAN LORENZO, 67107**

Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (ug/l)	TBA <sup>(b)</sup> (ug/l)
ESLs <sup>(c)</sup>		100	1.0	40	30	20	5.0	NE <sup>(d)</sup>	NE	NE	12
OS-4	9/5/08	210	ND<0.5	ND<0.5	ND<0.5	3.6	16	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	170	4.2	ND<0.5	ND<0.5	2.4	12	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	1.4	ND<0.5	ND<0.5	ND<0.5	21	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09 (dup)	ND<50	ND<0.5	ND<0.5	0.79	ND<0.5	22	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	88	12	ND<0.5	2.2	0.58	19	ND<0.5	ND<0.5	ND<0.5	28
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	34	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	680	14	ND<0.5	8.6	12	38	ND<0.5	ND<0.5	ND<0.5	12
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	0.55	26	ND<0.5	ND<0.5	ND<0.5	ND<5
PT-1	9/5/08	240	ND<0.5	ND<0.5	ND<0.5	ND<0.5	5.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/8/08	140	ND<0.5	ND<0.5	ND<0.5	1.0	5.4	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/29/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.3	ND<0.5	ND<0.5	ND<0.5	ND<5
	1/30/09 (dup)	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.6	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/15/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	7.9	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/1/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	10/7/09	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	2/18/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17	ND<0.5	ND<0.5	ND<0.5	ND<5
	4/14/10	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	13	ND<0.5	ND<0.5	ND<0.5	ND<5
	7/7/10	61	ND<0.5	ND<0.5	ND<0.5	ND<0.5	8.2	ND<0.5	ND<0.5	ND<0.5	ND<5

- (a) Samples collected before January 2008 reported by others; data provided by RDM Environmental, Inc. (RDM), Fourth Quarter 2007 Groundwater Monitoring Report
- (b) Total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes, methyl tert-butyl ether (MTBE), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), analyzed by EPA Method 8260; reported in micrograms per liter (ug/l).
- (c) Environmental Screening Levels (ESLs) taken from Regional Water Quality Control Board, San Francisco Bay Region, Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Volume 1: Summary Tier 1 Lookup tables dated November 2007.
- (d) NE - Not established.
- (e) "-" - Not analyzed.
- (f) ND - Not detected at the reporting limit listed; reporting limit not listed if not previously reported.
- (g) Not typical gasoline.
- (h) Domestic water wells (used as irrigation wells); DW-15800 collected from well at 15800 Via Cordoba, DW-15808 collected from well at 15808 Via Cordoba, DW-246 collected from well at 246 Peach Drive in San Lorenzo, CA.
- (i) Property owner had the RDM technician sample a faucet plumbed to city water. RDM resampled the 246 Peach well on 21 February 2007.



**ATTACHMENT E**

**LABORATORY ANALYTICAL REPORT AND  
CHAIN-OF-CUSTODY FORM**



## Laboratory Results

Mike Purchase  
Arctos Environmental  
1332 Peralta Avenue  
Berkeley, CA 94702

Subject : 10 Water Samples  
Project Name : Tesoro - San Lorenzo #67107  
Project Number : 01ZO

Dear Mr. Purchase,

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. Testing procedures comply with the 2003 NELAC standard. All soil samples are reported on a total weight (wet weight) basis unless noted otherwise in the case narrative. Laboratory results relate only to the samples tested. This report may be freely reproduced in full, but may only be reproduced in part with the express permission of Kiff Analytical, LLC. Kiff Analytical, LLC is certified by the State of California under the National Environmental Laboratory Accreditation Program (NELAP), lab # 08263CA. If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Joel Kiff

Subject : 10 Water Samples  
Project Name : Tesoro - San Lorenzo #67107  
Project Number : 01ZO

## Case Narrative

The Method Reporting Limit for Ethanol has been increased due to the presence of an interfering compound for sample MW-10.

California Laboratory Services provided analytical testing associated with these samples, but is not accredited by the National Environmental Laboratory Accreditation Program (NELAP).

Matrix Spike/Matrix Spike Duplicate results associated with samples MW-11, MW-3R, MW-6 and PT-1 for the analyte Sulfate were outside of control limits. This may indicate a bias for the sample that was spiked. Since the LCS recoveries were within control limits, no data are flagged.

Matrix Spike/Matrix Spike Duplicate results associated with samples PT-1, MW-6, MW-11, RW-2, MW-3R, and MW-10 for the analyte Iron were affected by the analyte concentrations already present in the un-spiked sample.

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **MW-4**

Matrix : Water

Lab Number : 73658-01

Sample Date :07/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/07/10 23:50
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/07/10 23:50
<b>Ethylbenzene</b>	<b>0.62</b>	0.50	ug/L	EPA 8260B	07/07/10 23:50
<b>Total Xylenes</b>	<b>0.83</b>	0.50	ug/L	EPA 8260B	07/07/10 23:50
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/07/10 23:50
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/07/10 23:50
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/07/10 23:50
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/07/10 23:50
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/07/10 23:50
Methanol	< 50	50	ug/L	EPA 8260B	07/07/10 23:50
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/07/10 23:50
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/07/10 23:50
1,2-Dichloroethane-d4 (Surr)	101		% Recovery	EPA 8260B	07/07/10 23:50
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/07/10 23:50

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **MW-2**

Matrix : Water

Lab Number : 73658-02

Sample Date :07/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 00:25
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 00:25
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 00:25
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 00:25
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/08/10 00:25
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/08/10 00:25
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/08/10 00:25

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **MW-1**

Matrix : Water

Lab Number : 73658-03

Sample Date :07/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:00
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:00
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:00
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:00
<b>Methyl-t-butyl ether (MTBE)</b>	<b>6.1</b>	0.50	ug/L	EPA 8260B	07/08/10 01:00
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:00
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:00
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:00
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 01:00
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 01:00
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 01:00
<b>TPH as Gasoline</b>	<b>160</b>	50	ug/L	EPA 8260B	07/08/10 01:00
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	07/08/10 01:00
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	07/08/10 01:00

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **RW-1**

Matrix : Water

Lab Number : 73658-04

Sample Date :07/06/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Benzene</b>	<b>0.82</b>	0.50	ug/L	EPA 8260B	07/08/10 01:36
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:36
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:36
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:36
<b>Methyl-t-butyl ether (MTBE)</b>	<b>8.0</b>	0.50	ug/L	EPA 8260B	07/08/10 01:36
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:36
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:36
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 01:36
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 01:36
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 01:36
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 01:36
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/08/10 01:36
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/08/10 01:36
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/08/10 01:36

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **PT-1**

Matrix : Water

Lab Number : 73658-05

Sample Date :07/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Nitrate as N</b>	<b>0.89</b>	0.10	mg/L	EPA 300.0	07/07/10 20:17
<b>Sulfate</b>	<b>41</b>	0.50	mg/L	EPA 300.0	07/07/10 20:17
<b>Iron</b>	<b>160</b>	0.10	mg/L	EPA 6010B	07/13/10 11:58
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:11
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:11
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:11
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:11
<b>Methyl-t-butyl ether (MTBE)</b>	<b>8.2</b>	0.50	ug/L	EPA 8260B	07/08/10 02:11
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:11
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:11
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:11
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 02:11
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 02:11
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 02:11
<b>TPH as Gasoline</b>	<b>61</b>	50	ug/L	EPA 8260B	07/08/10 02:11
(Note: Primarily compounds not found in typical Gasoline)					
1,2-Dichloroethane-d4 (Surr)	99.4		% Recovery	EPA 8260B	07/08/10 02:11
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/08/10 02:11



Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **MW-6**

Matrix : Water

Lab Number : 73658-06

Sample Date :07/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Nitrate as N</b>	<b>19</b>	1.0	mg/L	EPA 300.0	07/07/10 19:53
<b>Sulfate</b>	<b>50</b>	5.0	mg/L	EPA 300.0	07/07/10 19:53
<b>Iron</b>	<b>40</b>	0.10	mg/L	EPA 6010B	07/13/10 12:02
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 02:46
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 02:46
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 02:46
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 02:46
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/08/10 02:46
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/08/10 02:46
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	07/08/10 02:46

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **MW-11**

Matrix : Water

Lab Number : 73658-07

Sample Date :07/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Nitrate as N</b>	<b>0.34</b>	0.10	mg/L	EPA 300.0	07/07/10 20:40
<b>Sulfate</b>	<b>5.7</b>	0.50	mg/L	EPA 300.0	07/07/10 20:40
<b>Iron</b>	<b>0.43</b>	0.10	mg/L	EPA 6010B	07/13/10 12:06
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:21
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:21
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:21
<b>Total Xylenes</b>	<b>0.80</b>	0.50	ug/L	EPA 8260B	07/08/10 03:21
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.9</b>	0.50	ug/L	EPA 8260B	07/08/10 03:21
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:21
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:21
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:21
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 03:21
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 03:21
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 03:21
<b>TPH as Gasoline</b>	<b>400</b>	50	ug/L	EPA 8260B	07/08/10 03:21
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	07/08/10 03:21
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	07/08/10 03:21

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **RW-2**

Matrix : Water

Lab Number : 73658-08

Sample Date :07/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
<b>Nitrate as N</b>	<b>2.1</b>	0.10	mg/L	EPA 300.0	07/07/10 21:03
<b>Sulfate</b>	<b>64</b>	1.0	mg/L	EPA 300.0	07/13/10 14:25
<b>Iron</b>	<b>12</b>	0.10	mg/L	EPA 6010B	07/13/10 12:10
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:56
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:56
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:56
<b>Total Xylenes</b>	<b>0.79</b>	0.50	ug/L	EPA 8260B	07/08/10 03:56
<b>Methyl-t-butyl ether (MTBE)</b>	<b>0.82</b>	0.50	ug/L	EPA 8260B	07/08/10 03:56
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:56
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:56
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 03:56
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 03:56
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 03:56
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 03:56
<b>TPH as Gasoline</b>	<b>380</b>	50	ug/L	EPA 8260B	07/08/10 03:56
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/08/10 03:56
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	07/08/10 03:56

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **MW-3R**

Matrix : Water

Lab Number : 73658-09

Sample Date :07/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Nitrate as N	< 0.10	0.10	mg/L	EPA 300.0	07/07/10 21:27
<b>Sulfate</b>	<b>18</b>	0.50	mg/L	EPA 300.0	07/07/10 21:27
<b>Iron</b>	<b>2.2</b>	0.10	mg/L	EPA 6010B	07/13/10 12:22
<b>Benzene</b>	<b>59</b>	0.50	ug/L	EPA 8260B	07/08/10 04:31
<b>Toluene</b>	<b>0.94</b>	0.50	ug/L	EPA 8260B	07/08/10 04:31
<b>Ethylbenzene</b>	<b>21</b>	0.50	ug/L	EPA 8260B	07/08/10 04:31
<b>Total Xylenes</b>	<b>5.6</b>	0.50	ug/L	EPA 8260B	07/08/10 04:31
<b>Methyl-t-butyl ether (MTBE)</b>	<b>13</b>	0.50	ug/L	EPA 8260B	07/08/10 04:31
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 04:31
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 04:31
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 04:31
<b>Tert-Butanol</b>	<b>16</b>	5.0	ug/L	EPA 8260B	07/08/10 04:31
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 04:31
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 04:31
<b>TPH as Gasoline</b>	<b>570</b>	50	ug/L	EPA 8260B	07/08/10 04:31
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	07/08/10 04:31
Toluene - d8 (Surr)	99.9		% Recovery	EPA 8260B	07/08/10 04:31

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Sample : **MW-10**

Matrix : Water

Lab Number : 73658-10

Sample Date :07/07/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date/Time Analyzed
Nitrate as N	< 0.10	0.10	mg/L	EPA 300.0	07/07/10 18:43
<b>Sulfate</b>	<b>0.55</b>	0.50	mg/L	EPA 300.0	07/13/10 11:41
<b>Iron</b>	<b>6.8</b>	0.10	mg/L	EPA 6010B	07/13/10 12:26
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 05:06
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 05:06
<b>Ethylbenzene</b>	<b>2.0</b>	0.50	ug/L	EPA 8260B	07/08/10 05:06
<b>Total Xylenes</b>	<b>9.1</b>	0.50	ug/L	EPA 8260B	07/08/10 05:06
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.8</b>	0.50	ug/L	EPA 8260B	07/08/10 05:06
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 05:06
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 05:06
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/08/10 05:06
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/08/10 05:06
Methanol	< 50	50	ug/L	EPA 8260B	07/08/10 05:06
Ethanol	< 20	20	ug/L	EPA 8260B	07/08/10 05:06
<b>TPH as Gasoline</b>	<b>3600</b>	50	ug/L	EPA 8260B	07/08/10 05:06
1,2-Dichloroethane-d4 (Surr)	92.6		% Recovery	EPA 8260B	07/08/10 05:06
Toluene - d8 (Surr)	93.1		% Recovery	EPA 8260B	07/08/10 05:06

**QC Report : Method Blank Data**

Project Name : **Tesoro - San Lorenzo #67107**

Project Number : **01ZO**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Iron	< 0.10	0.10	mg/L	EPA 6010B	07/13/2010
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/07/2010
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
Methanol	< 50	50	ug/L	EPA 8260B	07/07/2010
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/07/2010
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/07/2010
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/07/2010
1,2-Dichloroethane-d4 (Surr)	100		%	EPA 8260B	07/07/2010
Toluene - d8 (Surr)	100		%	EPA 8260B	07/07/2010
Nitrate as N	< 0.10	0.10	mg/L	EPA 300.0	07/07/2010
Sulfate	< 0.50	0.50	mg/L	EPA 300.0	07/07/2010
Sulfate	< 0.50	0.50	mg/L	EPA 300.0	07/13/2010

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
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## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**

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
Nitrate as N	73658-10	< 0.10	0.500	0.500	0.458	0.460	mg/L	EPA 300.0	7/7/10	90.0	90.3	0.333	85.0-115	10
<b>Sulfate</b>	73658-10	0.61	2.50	2.50	2.76	2.72	mg/L	EPA 300.0	7/7/10	85.9	<b>84.7</b>	1.11	85.0-115	10
Sulfate	73658-10	0.55	2.50	2.50	2.73	2.74	mg/L	EPA 300.0	7/13/10	87.0	87.3	0.298	85.0-115	10
Benzene	73655-05	<0.50	40.0	40.0	38.8	37.7	ug/L	EPA 8260B	7/7/10	97.0	94.2	2.85	80-120	25
Diisopropyl ether	73655-05	<0.50	40.1	40.1	41.8	41.0	ug/L	EPA 8260B	7/7/10	104	102	1.84	80-120	25
Ethanol	73655-05	<5.0	100	100	104	110	ug/L	EPA 8260B	7/7/10	103	109	5.28	55.1-159	25
Ethyl-tert-butyl ether	73655-05	<0.50	40.1	40.1	40.6	40.5	ug/L	EPA 8260B	7/7/10	101	101	0.306	76.5-120	25
Ethylbenzene	73655-05	<0.50	40.0	40.0	38.8	38.1	ug/L	EPA 8260B	7/7/10	96.9	95.3	1.68	80-120	25
Methanol	73655-05	100	1000	1000	1280	1310	ug/L	EPA 8260B	7/7/10	117	120	2.35	53.2-147	25

## QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**

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
Methyl-t-butyl ether	73655-05	<0.50	40.0	40.0	38.9	38.5	ug/L	EPA 8260B	7/7/10	97.4	96.2	1.22	69.7-121	25
P + M Xylene	73655-05	<0.50	40.0	40.0	39.6	39.0	ug/L	EPA 8260B	7/7/10	99.1	97.6	1.51	76.8-120	25
Tert-Butanol	73655-05	<5.0	200	200	193	193	ug/L	EPA 8260B	7/7/10	96.6	96.6	0.0158	80-120	25
Tert-amyl-methyl ether	73655-05	<0.50	40.2	40.2	39.6	39.1	ug/L	EPA 8260B	7/7/10	98.5	97.2	1.29	78.9-120	25
Toluene	73655-05	<0.50	40.0	40.0	39.2	38.3	ug/L	EPA 8260B	7/7/10	98.0	95.7	2.36	80-120	25
<b>Iron</b>	73668-02	100000	0.400	0.400	100000	100000	mg/L	EPA 6010B	7/12/10	<b>0.00</b>	<b>0.00</b>	0.00	75-125	20



## QC Report : Laboratory Control Sample (LCS)

Project Name : **Tesoro - San Lorenzo #67107**Project Number : **01ZO**

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Iron	0.400	mg/L	EPA 6010B	7/13/10	104	85-115
Benzene	40.0	ug/L	EPA 8260B	7/7/10	102	80-120
Diisopropyl ether	40.1	ug/L	EPA 8260B	7/7/10	110	80-120
Ethanol	100	ug/L	EPA 8260B	7/7/10	115	55.1-159
Ethyl-tert-butyl ether	40.1	ug/L	EPA 8260B	7/7/10	108	76.5-120
Ethylbenzene	40.0	ug/L	EPA 8260B	7/7/10	104	80-120
Methanol	1000	ug/L	EPA 8260B	7/7/10	122	53.2-147
Methyl-t-butyl ether	40.0	ug/L	EPA 8260B	7/7/10	102	69.7-121
P + M Xylene	40.0	ug/L	EPA 8260B	7/7/10	106	76.8-120
TPH as Gasoline	512	ug/L	EPA 8260B	7/7/10	99.4	70.0-130
Tert-Butanol	200	ug/L	EPA 8260B	7/7/10	103	80-120
Tert-amyl-methyl ether	40.2	ug/L	EPA 8260B	7/7/10	104	78.9-120
Toluene	40.0	ug/L	EPA 8260B	7/7/10	104	80-120
Nitrate as N	0.500	mg/L	EPA 300.0	7/7/10	92.2	85.0-115
Sulfate	2.50	mg/L	EPA 300.0	7/7/10	87.9	85.0-115
Sulfate	2.50	mg/L	EPA 300.0	7/13/10	88.7	85.0-115







# Subcontract Laboratory Report Attachments

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

July 14, 2010

**CLS Work Order #: CTG0244**  
**COC #: 73658**

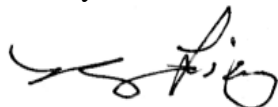
Scott Forbes  
KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

**Project Name: Tesoro - San Lorenzo #67107**

Enclosed are the results of analyses for samples received by the laboratory on 07/07/10 15:25. Samples were analyzed pursuant to client request utilizing EPA or other ELAP approved methodologies. I certify that the results are in compliance both technically and for completeness.

Analytical results are attached to this letter. Please call if we can provide additional assistance.

Sincerely,



James Liang, Ph.D.  
Laboratory Director

CA DOHS ELAP Accreditation/Registration number 1233



# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Tesoro - San Lorenzo #67107 Project Number: M2-100706 Project Manager: Scott Forbes	CLS Work Order #: CTG0244 COC #: 73658
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## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>PT-1 (CTG0244-01) Water Sampled: 07/07/10 07:15 Received: 07/07/10 15:25</b>									
Carbon Dioxide as CO2	33	5.0	mg/L	1	CT04929	07/08/10	07/08/10	SM 4500C	
Ferrous Iron	ND	0.10	"	"	CT04909	07/08/10	07/08/10	SM3500-Fe D	
<b>MW-6 (CTG0244-02) Water Sampled: 07/07/10 07:30 Received: 07/07/10 15:25</b>									
Carbon Dioxide as CO2	44	5.0	mg/L	1	CT04929	07/08/10	07/08/10	SM 4500C	
Ferrous Iron	ND	0.10	"	"	CT04909	07/08/10	07/08/10	SM3500-Fe D	
<b>MW-11 (CTG0244-03) Water Sampled: 07/07/10 07:55 Received: 07/07/10 15:25</b>									
Carbon Dioxide as CO2	41	5.0	mg/L	1	CT04929	07/08/10	07/08/10	SM 4500C	
Ferrous Iron	0.25	0.10	"	"	CT04909	07/08/10	07/08/10	SM3500-Fe D	
<b>RW-2 (CTG0244-04) Water Sampled: 07/07/10 08:25 Received: 07/07/10 15:25</b>									
Carbon Dioxide as CO2	38	5.0	mg/L	1	CT04929	07/08/10	07/08/10	SM 4500C	
Ferrous Iron	ND	0.10	"	"	CT04909	07/08/10	07/08/10	SM3500-Fe D	
<b>MW-3R (CTG0244-05) Water Sampled: 07/07/10 09:00 Received: 07/07/10 15:25</b>									
Carbon Dioxide as CO2	58	5.0	mg/L	1	CT04929	07/08/10	07/08/10	SM 4500C	
Ferrous Iron	ND	0.10	"	"	CT04909	07/08/10	07/08/10	SM3500-Fe D	
<b>MW-10 (CTG0244-06) Water Sampled: 07/07/10 09:20 Received: 07/07/10 15:25</b>									
Carbon Dioxide as CO2	44	5.0	mg/L	1	CT04929	07/08/10	07/08/10	SM 4500C	
Ferrous Iron	0.37	0.10	"	"	CT04909	07/08/10	07/08/10	SM3500-Fe D	

# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Tesoro - San Lorenzo #67107 Project Number: M2-100706 Project Manager: Scott Forbes	CLS Work Order #: CTG0244 COC #: 73658
---	--	---

## Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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### Batch CT04909 - General Preparation

**Blank (CT04909-BLK1)** Prepared & Analyzed: 07/08/10

Ferrous Iron	ND	0.10	mg/L							
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**LCS (CT04909-BS1)** Prepared & Analyzed: 07/08/10

Ferrous Iron	0.240	0.10	mg/L	0.250		96	80-120			
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**LCS Dup (CT04909-BSD1)** Prepared & Analyzed: 07/08/10

Ferrous Iron	0.240	0.10	mg/L	0.250		96	80-120	0	25	
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**Matrix Spike (CT04909-MS1)** Source: CTG0244-03 Prepared & Analyzed: 07/08/10

Ferrous Iron	0.504	0.10	mg/L	0.250	0.245	104	75-125			
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**Matrix Spike Dup (CT04909-MSD1)** Source: CTG0244-03 Prepared & Analyzed: 07/08/10

Ferrous Iron	0.477	0.10	mg/L	0.250	0.245	93	75-125	6	30	
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### Batch CT04929 - General Preparation

**Blank (CT04929-BLK1)** Prepared & Analyzed: 07/08/10

Carbon Dioxide as CO2	ND	5.0	mg/L							
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# CALIFORNIA LABORATORY SERVICES

Page 4 of 4

07/14/10 13:03

KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Tesoro - San Lorenzo #67107  
Project Number: M2-100706  
Project Manager: Scott Forbes

**CLS Work Order #: CTG0244**  
COC #: 73658

## Notes and Definitions

DET Analyte DETECTED  
ND Analyte NOT DETECTED at or above the reporting limit  
NR Not Reported  
dry Sample results reported on a dry weight basis  
RPD Relative Percent Difference

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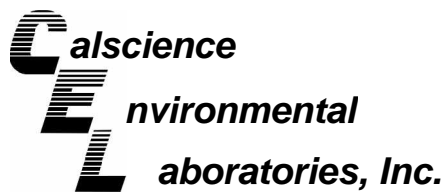
CA DOHS ELAP Accreditation/Registration Number 1233

3249 Fitzgerald Road Rancho Cordova, CA 95742

www.californialab.com

916-638-7301

Fax: 916-638-4510



July 15, 2010

Joel Kiff  
Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Subject: **Calscience Work Order No.: 10-07-0458**  
**Client Reference: Tesoro - San Lorenzo #67107**

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 7/8/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

A handwritten signature in cursive script that reads "Amanda Porter".

Calscience Environmental  
Laboratories, Inc.  
Amanda Porter  
Project Manager

## Analytical Report



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 07/08/10  
Work Order No: 10-07-0458

Project: Tesoro - San Lorenzo #67107

Page 1 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
PT-1	10-07-0458-1	07/07/10	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	17	5.0	1		mg/L	07/10/10	07/10/10	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	402	5.0	1		mg/L	N/A	07/13/10	SM 2320B
Carbon, Total Organic	15	0.50	1		mg/L	N/A	07/14/10	SM 5310 B

<b>MW-6</b>	<b>10-07-0458-2</b>	<b>07/07/10</b>	<b>Aqueous</b>
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	11	5.0	1		mg/L	07/10/10	07/10/10	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	368	5.0	1		mg/L	N/A	07/13/10	SM 2320B
Carbon, Total Organic	16	0.50	1		mg/L	N/A	07/14/10	SM 5310 B

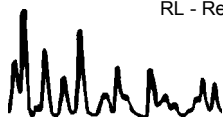
<b>MW-11</b>	<b>10-07-0458-3</b>	<b>07/07/10</b>	<b>Aqueous</b>
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	07/10/10	07/10/10	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	312	5.0	1		mg/L	N/A	07/13/10	SM 2320B
Carbon, Total Organic	14	0.50	1		mg/L	N/A	07/14/10	SM 5310 B

<b>RW-2</b>	<b>10-07-0458-4</b>	<b>07/07/10</b>	<b>Aqueous</b>
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	6.0	5.0	1		mg/L	07/10/10	07/10/10	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	392	5.0	1		mg/L	N/A	07/13/10	SM 2320B
Carbon, Total Organic	19	0.50	1		mg/L	N/A	07/14/10	SM 5310 B

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers



## Analytical Report



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received: 07/08/10  
Work Order No: 10-07-0458

Project: Tesoro - San Lorenzo #67107

Page 2 of 2

Client Sample Number	Lab Sample Number	Date Collected	Matrix
MW-3R	10-07-0458-5	07/07/10	Aqueous

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	45	5.0	1		mg/L	07/10/10	07/10/10	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	523	5.0	1		mg/L	N/A	07/13/10	SM 2320B
Carbon, Total Organic	23	0.50	1		mg/L	N/A	07/14/10	SM 5310 B

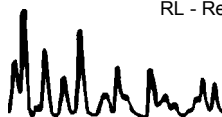
MW-10	10-07-0458-6	07/07/10	Aqueous
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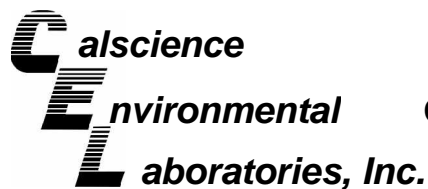
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	18	5.0	1		mg/L	07/10/10	07/10/10	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	360	5.0	1		mg/L	N/A	07/13/10	SM 2320B
Carbon, Total Organic	20	0.50	1		mg/L	N/A	07/14/10	SM 5310 B

Method Blank	N/A	Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Chemical Oxygen Demand	ND	5.0	1		mg/L	07/10/10	07/10/10	EPA 410.4
Alkalinity, Total (as CaCO <sub>3</sub> )	ND	1.0	1		mg/L	N/A	07/13/10	SM 2320B
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	07/14/10	SM 5310 B

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers





## Quality Control - Spike/Spike Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

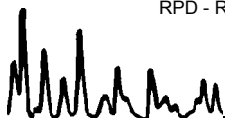
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Work Order No: 10-07-0458

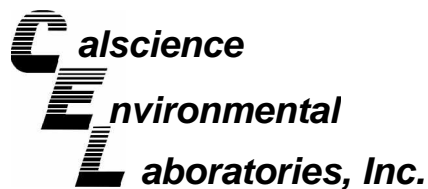
Project: Tesoro - San Lorenzo #67107

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control Sample ID</u>	<u>Date Analyzed</u>	<u>Date Extracted</u>	<u>MS% REC</u>	<u>MSD % REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	SM 5310 B	10-07-0580-2	07/14/10	N/A	78	63	70-130	6	0-25	

RPD - Relative Percent Difference , CL - Control Limit





## Quality Control - Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

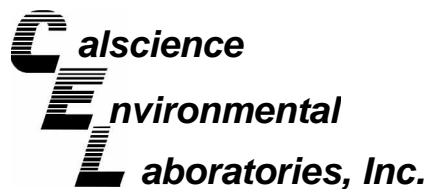
Date Received: N/A  
Work Order No: 10-07-0458

Project: Tesoro - San Lorenzo #67107

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>QC Sample ID</u>	<u>Date Analyzed</u>	<u>Sample Conc</u>	<u>DUP Conc</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Alkalinity, Total (as CaCO <sub>3</sub> )	SM 2320B	MW-6	07/13/10	368	370	1	0-25	
Bicarbonate (as CaCO <sub>3</sub> )	SM 2320B	MW-6	07/13/10	370	370	0	0-25	
Carbonate (as CaCO <sub>3</sub> )	SM 2320B	MW-6	07/13/10	ND	ND	NA	0-25	
Hydroxide (as CaCO <sub>3</sub> )	SM 2320B	MW-6	07/13/10	ND	ND	NA	0-25	
Chemical Oxygen Demand	EPA 410.4	10-07-0282-1	07/10/10	7.0	7.0	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - LCS/LCS Duplicate



Kiff Analytical  
2795 2nd Street, Suite 300  
Davis, CA 95616-6593

Date Received:  
Work Order No:

N/A  
10-07-0458

Project: Tesoro - San Lorenzo #67107

Matrix: Aqueous or Solid

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> Sample ID	<u>Date</u> <u>Extracted</u>	<u>Date</u> <u>Analyzed</u>	<u>LCS %</u> <u>REC</u>	<u>LCSD %</u> <u>REC</u>	<u>%REC</u> <u>CL</u>	<u>RPD</u>	<u>RPD</u> <u>CL</u>	<u>Qual</u>
Carbon, Total Organic	SM 5310 B	099-05-097-3,934	N/A	07/14/10	105	110	80-120	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 10-07-0458

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
<	Less than the indicated value.
>	Greater than the indicated value.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
E	Concentration exceeds the calibration range.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS Recovery Percentage is within LCS ME Control Limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis. Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.







2795 Second Street, Suite 300  
 Davis, CA 95618  
 Lab: 530.297.4800  
 Fax: 530.297.4808

Calscience  
 7440 Lincoln Way  
 Garden Grove, CA 92841-1427  
 714-895-5494

COC No. **73658**

*(0458)*

Project Contact (Hardcopy or PDF to): <b>Scott Forbes</b>			EDF Report? <b>YES</b>			<b>Chain-of-Custody Record and Analysis Request</b>																																		
Company/Address: <b>Kiff Analytical</b>			Recommended but not mandatory to complete this section: Sampling Company Log Code: <b>CESC</b>			<b>Analysis Request</b>												TAT																						
Phone No.: <b>530-297-4800</b>		FAX No.: <b>530-297-4808</b>	Global ID: <b>T0600101414</b>																																					
Project Number: <b>M2-100706</b>		P.O. No.: <b>73658</b>	Deliverables to (Email Address): <b>inbox@kiffanalytical.com</b>																																					
Project Name: <b>Tesoro - San Lorenzo #67107</b>			Container / Preservative			Matrix																																		
Project Address:			250ml Glass H2SO4			250ml Poly None			250ml Poly H2SO4			Water																												
Sample Designation			Date			Time			Alkalinity SM 2320 (1)			Chemical Oxygen Demand			Total Organic Carbon															4-Days										
PT-1			07/07/10			07:15			2			1			1			X			X			X															X	
MW-6			07/07/10			07:30			2			1			1			X			X			X															X	
MW-11			07/07/10			07:55			2			1			1			X			X			X															X	
RW-2			07/07/10			08:25			2			1			1			X			X			X															X	
MW-3R			07/07/10			09:00			2			1			1			X			X			X															X	
MW-10			07/07/10			09:20			2			1			1			X			X			X															X	
Relinquished by: <i>Leah White</i>			Date <b>07/07/10</b>			Time <b>1900</b>			Received by:																															
Relinquished by:			Date			Time			Received by:																															
Relinquished by: <i>ONTAC</i>			Date <b>7/8/10</b>			Time <b>0930</b>			Received by Laboratory: <i>Webster CA</i>																															
Remarks: Please refer to attached Test Detail.															Bill to: <b>Accounts Payable</b>																									

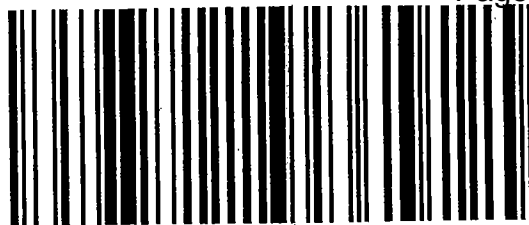
0458

# Test Detail for Kiff Work Order: 73658

**Alkalinity SM 2320 (1)**  
Alkalinity, Total (as CaCO<sub>3</sub>)



800.334.5000  
ontrac.com



D10010298616497

0458

Date Printed 7/7/2010

Tracking#D10010298616497

Shipped From:  
KIFF ANALYTICAL  
2795 2ND STREET 300  
DAVIS, CA 95616

Sent By: SAMPLE RECEIVING  
Phone#: (530)297-4800  
wgt(lbs): 54  
Reference: SUBS  
Reference 2:

Ship To Company:  
**CAL SCIENCE ENVIRONMENTAL**  
**7440 LINCOLN WAY**  
**GARDEN GROVE, CA 92841**  
**RECEIVING (714)895-5494**  
  
**B10207210772**

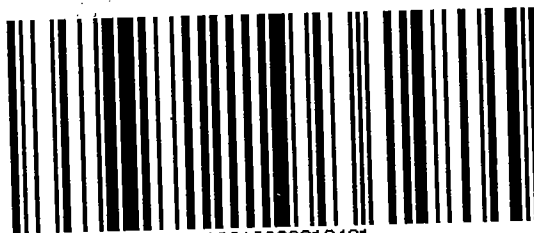
Service: **S**  
Sort Code: **ORG**  
Special Services:  
**Signature Required**

WebOnTrac View Shipment

Page 1 of 1



800.334.5000  
ontrac.com



D10010298616421

Date Printed 7/7/2010

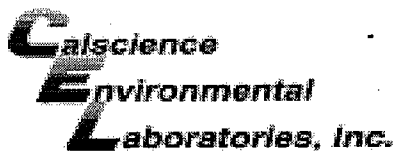
Tracking#D10010298616421

Shipped From:  
KIFF ANALYTICAL  
2795 2ND STREET 300  
DAVIS, CA 95616

Sent By: SAMPLE RECEIVING  
Phone#: (530)297-4800  
wgt(lbs): 15  
Reference: SUBS  
Reference 2:

Ship To Company:  
**CAL SCIENCE ENVIRONMENTAL**  
**7440 LINCOLN WAY**  
**GARDEN GROVE, CA 92841**  
**RECEIVING (714)895-5494**  
  
**B10207210772**

Service: **S**  
Sort Code: **ORG**  
Special Services:  
**Signature Required**



WORK ORDER #: 10-07-0458

SAMPLE RECEIPT FORM

Cooler 1 of 2

CLIENT: KIFF

DATE: 07/08/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen)

Temperature 1.2°C + 0.5°C (CF) = 1.7°C [X] Blank [ ] Sample

[ ] Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).

[ ] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

[ ] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [ ] Air [ ] Filter [ ] Metals Only [ ] PCBs Only

Initial: PS

CUSTODY SEALS INTACT:

[X] Cooler [ ] \_\_\_\_\_ [ ] No (Not Intact) [ ] Not Present [ ] N/A

Initial: PS

[ ] Sample [ ] \_\_\_\_\_ [ ] No (Not Intact) [X] Not Present

Initial: SD

SAMPLE CONDITION:

Chain-Of-Custody (COC) document(s) received with samples..... [X] Yes [ ] No [ ] N/A

COC document(s) received complete..... [X] Yes [ ] No [ ] N/A

[ ] Collection date/time, matrix, and/or # of containers logged in based on sample labels.

[ ] No analysis requested. [ ] Not relinquished. [ ] No date/time relinquished.

Sampler's name indicated on COC..... [ ] Yes [ ] No [X] N/A

Sample container label(s) consistent with COC..... [X] Yes [ ] No [ ] N/A

Sample container(s) intact and good condition..... [X] Yes [ ] No [ ] N/A

Proper containers and sufficient volume for analyses requested..... [X] Yes [ ] No [ ] N/A

Analyses received within holding time..... [X] Yes [ ] No [ ] N/A

pH / Residual Chlorine / Dissolved Sulfide received within 24 hours..... [ ] Yes [ ] No [X] N/A

Proper preservation noted on COC or sample container..... [X] Yes [ ] No [ ] N/A

[ ] Unpreserved vials received for Volatiles analysis

Volatile analysis container(s) free of headspace..... [ ] Yes [ ] No [X] N/A

Tedlar bag(s) free of condensation..... [ ] Yes [ ] No [X] N/A

CONTAINER TYPE:

Solid: [ ] 4ozCGJ [ ] 8ozCGJ [ ] 16ozCGJ [ ] Sleeve (\_\_\_\_) [ ] EnCores® [ ] TerraCores® [ ] \_\_\_\_\_

Water: [ ] VOA [ ] VOA h [ ] VOAna2 [ ] 125AGB [ ] 125AGBh [ ] 125AGBp [ ] 1AGB [ ] 1AGBna2 [ ] 1AGBs

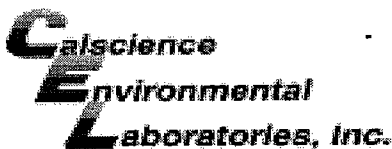
[ ] 500AGB [ ] 500AGJ [ ] 500AGJs [ ] 250AGB [ ] 250CGB [X] 250CGBs [ ] 1PB [ ] 500PB [ ] 500PBna

[X] 250PB [ ] 250PBn [ ] 125PB [ ] 125PBzanna [ ] 100PJ [ ] 100PJna2 [X] 250PBs [ ] \_\_\_\_\_ [ ] \_\_\_\_\_

Air: [ ] Tedlar® [ ] Summa® Other: [ ] \_\_\_\_\_ Trip Blank Lot#: \_\_\_\_\_ Labeled/Checked by: SD/SD

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: DL

Preservative: h: HCL n: HNO3 na2: Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: DL



WORK ORDER #: 10-07-04✓8

SAMPLE RECEIPT FORM

Cooler 2 of 2

CLIENT: KIFF

DATE: 07/08/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0°C - 6.0°C, not frozen)

Temperature 1.0°C + 0.5°C (CF) = 1.5°C [x] Blank [ ] Sample

- [ ] Sample(s) outside temperature criteria (PM/APM contacted by: \_\_\_\_\_).
[ ] Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.
[ ] Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: [ ] Air [ ] Filter [ ] Metals Only [ ] PCBs Only

Initial: PS

CUSTODY SEALS INTACT:

- [x] Cooler [ ] No (Not Intact) [ ] Not Present [ ] N/A
[ ] Sample [ ] No (Not Intact) [x] Not Present

Initial: PS
Initial: SP

SAMPLE CONDITION:

Table with 4 columns: Sample Condition, Yes, No, N/A. Rows include Chain-Of-Custody (COC) document(s) received with samples, COC document(s) received complete, Sampler's name indicated on COC, Sample container label(s) consistent with COC, etc.

CONTAINER TYPE:

- Solid: [ ] 4ozCGJ [ ] 8ozCGJ [ ] 16ozCGJ [ ] Sleeve (\_\_\_\_) [ ] EnCores® [ ] TerraCores® [ ] \_\_\_\_\_
Water: [ ] VOA [ ] VOAh [ ] VOAna2 [ ] 125AGB [ ] 125AGBh [ ] 125AGBp [ ] 1AGB [ ] 1AGBna2 [ ] 1AGBs
[ ] 500AGB [ ] 500AGJ [ ] 500AGJs [ ] 250AGB [ ] 250CGB [ ] 250CGBs [ ] 1PB [ ] 500PB [ ] 500PBna
[ ] 250PB [ ] 250PBn [ ] 125PB [ ] 125PBzanna [ ] 100PJ [ ] 100PJna2 [ ] 250PBs [ ] \_\_\_\_\_

Air: [ ] Tedlar® [ ] Summa® Other: [ ] Trip Blank Lot#: \_\_\_\_\_ Labeled/Checked by: SP

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope Reviewed by: DL

Preservative: h: HCL n: HNO3 na2: Na2S2O3 na: NaOH p: H3PO4 s: H2SO4 zanna: ZnAc2+NaOH f: Field-filtered Scanned by: DL

**ATTACHMENT F**  
**TREND ANALYSIS**

## ATTACHMENT F TREND ANALYSIS

Arctos conducted a statistical trend analysis of historical groundwater monitoring data for groundwater wells with petroleum hydrocarbon impacts above the Regional Water Quality Control Board, San Francisco Bay Region's (RWQCB), Environmental Screening Levels (ESLs). The objective of the analysis was to determine if there were any statistically significant trends in the TPHg, benzene, MTBE or TBA results that would require additional remedial activities. In accordance with EPA guidance for data quality evaluation, a Mann-Kendall nonparametric trend test was used to identify decreasing, stable, or increasing concentration trends at individual wells and, by extension, identify a decreasing, stable, or increasing plume within a 95 percent confidence interval (EPA, 2000). The results of the trend analysis are summarized in the following table.

Well	Number of Sampling Events	Trend			
		TPHg	Benzene	MTBE	TBA
<b>Onsite Wells</b>					
MW-1	74	Decreasing	Below ESL	Decreasing	Below ESL
MW-3R	25	Decreasing	Decreasing	Decreasing	Decreasing
RW-1	60	Below ESL	Below ESL	Decreasing	Below ESL
RW-2	25	Decreasing	Below ESL	Below ESL	Below ESL
PT-1	10	Below ESL	Below ESL	<b>Stable</b>	Below ESL
<b>Offsite Wells</b>					
MW-10	73	Decreasing	Below ESL	Below ESL	Below ESL
MW-11	65	Decreasing	Below ESL	Below ESL	Below ESL

All of the onsite groundwater monitoring wells with greater than 10 sampling events show decreasing trends for TPHg, benzene, MTBE, and TBA. Only well PT-1 shows a stable trend for MTBE over the past 10 monitoring events. Well PT-1 is located directly downgradient of the current groundwater remediation system, so any concentrations will be addressed by the continued operation of the system. Both offsite wells MW-10 and MW-11 show decreasing trends for TPHg.

### Reference

U.S. Environmental Protection Agency (EPA), 2000. *Practical Methods for Data Analysis, EPA QA/G-9, QA00 Update*, July.

**ATTACHMENT G**  
**OXYGEN INJECTION PERFORMANCE MONITORING**



TABLE G-1

OXYGEN INJECTION PERFORMANCE MONITORING  
TESORO - SAN LORENZO, 67107

Well	Sample Date	DO <sup>(a)</sup> (mg/l)	ORP <sup>(a)</sup> (mV)	Temperature <sup>(a)</sup> (°F)	pH <sup>(a)</sup>	Conductivity <sup>(a)</sup> (µS/cm)
OS-1 <sup>(b)</sup>	10/8/08	0.20	-26	68.54	6.8	799
	1/29/09	0.48	170	65.66	7.2	773
	3/5/09	12.54	180	67.78	7.21	607
	3/25/09	-- <sup>(c)</sup>	161	66.87	7.45	577
	4/14/09	16.3	106	66.56	8.3	736
	4/24/09	35.89	180	66.62	7.38	588
	5/21/09	38.57	192	66.87	7.51	496
	6/19/09	36.58	150	66.92	7.39	655
	7/1/09	>20.0	-4	68.72	7.9	735
	7/16/09	19.60	225	67.47	7.42	454
	8/11/09	35.98	201	67.08	7.48	358
	11/16/09	38.93	--	68.19	7.49	500
	1/28/10	40.59	--	67.35	7.48	338
	2/26/10	15.20	--	67.6	--	--
OS-2 <sup>(b)</sup>	1/29/09	0.31	82	67.28	7.6	789
	3/5/09	5.10	99	68.46	7.63	624
	3/25/09	--	132	67.93	7.85	587
	4/14/09	16.40	118	66.56	8.5	750
	4/24/09	34.51	168	67.42	7.33	699
	5/21/09	35.69	267	67.39	7.37	585
	6/19/09	33.77	156	67.29	7.38	734
	7/1/09	>20.0	1	70.7	8.3	743
	7/16/09	10.77	235	67.44	7.4	501
	8/11/09	36.44	128	67.62	7.8	370
	11/16/09	41.43	--	69.12	7.71	536
	1/28/10	37.96	--	68.29	7.68	353
	2/26/10	22.09	--	65.5	--	--
OS-3 <sup>(b)</sup>	10/8/09	0.40	-299	71.78	7	1,086
	1/29/09	0.24	-167	70.34	7.2	973
	3/5/09	11.19	86	69.93	7.16	876
	3/25/09	--	74	69.14	7.65	809
	4/14/09	17.90	129	66.74	8.2	751
	4/24/09	37.67	64	68.67	7.54	838

TABLE G-1

**OXYGEN INJECTION PERFORMANCE MONITORING  
TESORO - SAN LORENZO, 67107**

Well	Sample Date	DO <sup>(a)</sup> (mg/l)	ORP <sup>(a)</sup> (mV)	Temperature <sup>(a)</sup> (°F)	pH <sup>(a)</sup>	Conductivity <sup>(a)</sup> (µS/cm)
OS-3 <sup>(b)</sup> (cont.)	5/21/09	37.51	98	68.62	7.53	702
	6/19/09	36.34	68	68.65	7.51	899
	7/1/09	>20.0	-93	69.8	8.0	992
	7/16/09	30.00	228	69.02	7.51	612
	8/11/09	--	--	--	--	--
	11/16/09	37.75	--	71.16	7.28	662
	1/28/10	40.19	--	70.34	7.43	508
	2/26/10	35.77	--	69.9	--	--
OS-4 <sup>(b)</sup>	10/8/08	0.50	-62	69.08	6.8	971
	1/29/09	0.28	65	69.8	7.5	815
	3/5/09	12.47	121	69.07	7.35	668
	3/25/09	--	147	68.51	7.84	606
	4/14/09	20.10	128	68	8	1,010
	4/24/09	38.41	134	67.92	7.77	598
	5/21/09	38.63	294	67.87	7.89	496.8
	6/19/09	36.70	174	67.78	7.79	668
	7/1/09	>20.0	28	69.98	8.3	759
	7/16/09	31.06	241	68.06	7.8	468
	8/11/09	--	--	--	--	--
	11/16/09	43.85	--	70.29	7.39	550
	1/28/10	42.48	--	69.33	7.72	377
	2/26/10	28.84	--	68.9	--	--
PT-1	10/8/08	0.20	-42	70.52	7	1,271
	1/29/09	0.26	5	69.44	7.5	925
	3/5/09	0.37	75	69.36	7.27	667
	3/25/09	--	133	68.97	7.34	611
	4/14/09	0.40	90	66.74	8.1	776
	4/24/09	0.50	162	68.46	7.22	625
	5/21/09	0.40	218	68.75	7.44	520
	6/19/09	0.21	161	66.11	7.3	1,246
	7/1/09	1.10	43	70.52	7.9	832
	7/16/09	0.76	138	68.23	7.49	471

TABLE G-1

**OXYGEN INJECTION PERFORMANCE MONITORING  
TESORO - SAN LORENZO, 67107**

Well	Sample Date	DO <sup>(a)</sup> (mg/l)	ORP <sup>(a)</sup> (mV)	Temperature <sup>(a)</sup> (°F)	pH <sup>(a)</sup>	Conductivity <sup>(a)</sup> (µS/cm)
PT-1 (cont.)	8/11/09	--	--	--	--	--
	11/16/09	0.41	--	68.73	7.12	534
	1/28/10	0.79	--	69.62	7.45	386
	2/26/10	--	--	--	--	--
	3/3/10	0.05	--	68.92	7.38	725
	3/5/10	0.27	--	68.9	7.37	--
	3/10/10	1.44	--	68.84	7.22	--
	3/17/10	1.65	--	68.79	7.17	--
	3/31/10	3.26	-25	68.64	7.17	758
	4/16/10	0.04	-105	68.46	7.34	716
	4/26/10	5.37	-112	68.35	7.18	760
	5/10/10	5.48	-62	68.21	7.08	810
	7/30/10	6.65	-10	68.13	7.2	754
	8/27/10	1.18	-50	68.18	7.16	771
9/10/10	1.90	80	68.18	7.13	764	
RW-1	1/28/10	0.50	--	69.75	7.34	412
	2/26/10	0.27	--	69.3	--	--
	3/3/10	0.04	--	68.34	6.92	772
	3/5/10	0.03	--	68.45	6.90	--
	3/10/10	1.77	--	68.48	6.83	--
	3/17/10	1.47	--	68.42	6.77	--
	3/31/10	3.18	-15	68.4	6.68	799
	4/16/10	1.17	-149	68.27	6.79	760
	4/26/10	7.10	-85	68.22	6.61	795
	5/10/10	8.39	-45	68.1	6.64	799
	7/30/10	0.01	-330	68.1	6.61	895
	8/27/10	0.01	-60	68.07	6.61	861
9/10/10	0.01	70	68.01	6.67	838	
RW-2	10/8/08	0.30	-86	69.26	6.5	901
	1/29/09	0.53	-49	68.36	7	799
	3/5/09	0.19	87	67.9	7.21	620

TABLE G-1

**OXYGEN INJECTION PERFORMANCE MONITORING  
TESORO - SAN LORENZO, 67107**

<b>Well</b>	<b>Sample Date</b>	<b>DO<sup>(a)</sup> (mg/l)</b>	<b>ORP<sup>(a)</sup> (mV)</b>	<b>Temperature<sup>(a)</sup> (°F)</b>	<b>pH<sup>(a)</sup></b>	<b>Conductivity<sup>(a)</sup> (µS/cm)</b>
RW-2 (cont.)	3/25/09	--	131	67.43	7.19	555
	4/14/09	0.50	13	67.1	8.1	734
	4/24/09	0.66	174	66.94	7.04	614
	5/21/09	0.34	229	67.06	7.14	558
	6/19/09	0.51	125	66.93	6.99	827
	7/1/09	0.80	-15	69.8	7.7	836
	7/16/09	0.34	206	66.98	7.12	546
	8/11/09	0.31	-29	66.99	7.17	458
	11/16/09	--	--	--	--	--
	1/28/10	1.37	--	67.86	7.39	346
	2/26/10	0.33	--	67.7	--	--
	3/3/10	0.04	--	68.34	6.92	772
	3/5/10	5.37	--	67.59	7.25	--
	3/10/10	6.72	--	67.55	7.17	--
	3/17/10	1.62	--	67.46	6.81	--
	3/31/10	1.03	-72	67.05	6.81	610
	4/16/10	0.04	-348	67.07	7.18	654
	4/26/10	0.11	-203	66.92	6.97	865
	5/10/10	0.80	-149	66.76	6.94	973
	7/30/10	0.00	-370	67	6.92	926
8/27/10	0.16	-100	67.18	6.93	895	
9/10/10	0.01	60	67.25	6.93	873	
MW-3R	11/16/09	1.38	-190	69.38	6.94	644
	1/28/10	0.29	--	69.92	7.33	424
	2/26/10	0.44	--	69.5	--	--
	3/3/10	0.04	--	69.19	7.04	817
	3/5/10	0.03	--	69.18	7.01	--
	3/10/10	0.04	--	69.07	7.04	--
	3/17/10	0.01	--	68.95	7.00	--
	3/31/10	0.06	-193	68.71	7.03	807
	4/16/10	0.11	-431	68.46	7.07	812
	4/26/10	0.01	-463	68.33	6.99	831

TABLE G-1

OXYGEN INJECTION PERFORMANCE MONITORING  
TESORO - SAN LORENZO, 67107

Well	Sample Date	DO <sup>(a)</sup> (mg/l)	ORP <sup>(a)</sup> (mV)	Temperature <sup>(a)</sup> (°F)	pH <sup>(a)</sup>	Conductivity <sup>(a)</sup> (µS/cm)
MW-3R	5/10/10	0.00	-450	68.24	6.95	821
(cont.)	7/30/10	0.00	-420	68.31	6.89	981
	8/27/10	0.01	-130	68.42	6.8	1,034
	9/10/10	0.01	20	68.44	6.85	1,011

(a) Parameters measured in the field using a dowhole instrument; dissolved oxygen (DO) reported milligrams per liter (mg/l); oxidation reduction potential (ORP) reported in millivolts (mV); temperature reported in degrees fahrenheit (°F); and conductivity measured in microsiemens per centimeter (µS/cm).

(b) No measurement collected.

**ATTACHMENT H**  
**WASTE MANIFESTS**

# NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.		Manifest Document No.		2. Page 1 of 1					
3. Generator's Name and Mailing Address <i>Tesco #67107 44 Lewelling Blvd. San Leandro CA</i>											
4. Generator's Phone ( )											
5. Transporter 1 Company Name <i>Confluence Env</i>		6. US EPA ID Number		A. State Transporter's ID		B. Transporter 1 Phone <i>916-760-7681</i>					
7. Transporter 2 Company Name		8. US EPA ID Number		C. State Transporter's ID		D. Transporter 2 Phone					
9. Designated Facility Name and Site Address <i>ISI 1105 Airport Rd. Rio Vista CA</i>		10. US EPA ID Number		E. State Facility's ID		F. Facility's Phone <i>707-374-3834</i>					
11. WASTE DESCRIPTION				12. Containers		13. Total Quantity		14. Unit Wt./Vol.			
				No.		Type					
				a.							
				b.							
				c.							
d.											
G. Additional Descriptions for Materials Listed Above <i>Colors - Clear odors - <del>⊗</del> solids - <del>⊗</del></i>				H. Handling Codes for Wastes Listed Above							
15. Special Handling Instructions and Additional Information											
16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.											
Printed/Typed Name				Signature		Date					
						Month Day Year					
17. Transporter 1 Acknowledgement of Receipt of Materials						Date					
Printed/Typed Name <i>BRANDON MYERS</i>		Signature <i>[Signature]</i>				Month Day Year <i>7 7 10</i>					
18. Transporter 2 Acknowledgement of Receipt of Materials						Date					
Printed/Typed Name		Signature				Month Day Year					
19. Discrepancy Indication Space											
20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.											
Printed/Typed Name <i>Matt Belcher</i>				Signature <i>[Signature]</i>		Date					
						Month Day Year <i>7 7 10</i>					

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY