

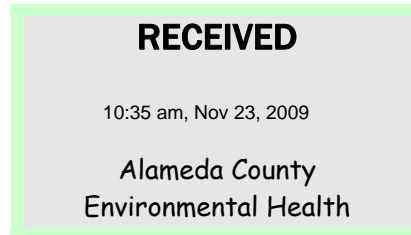


Arctos Environmental  
1332 Peralta Avenue 510 525-2180 PHONE  
Berkeley, CA 94702 510 525-2392 FAX

*Main Office*  
3450 E. Spring St., Suite 212 562 988-2755 PHONE  
Long Beach, CA 90806 562 988-2759 FAX

18 November 2009  
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 2009 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 Companies, Inc. (Tesoro), has prepared this letter report summarizing project activities for the third quarter 2009 at the subject site (Figure 1).

### Executive Summary

Arctos conducted third quarter groundwater monitoring on 1 July 2009. Total petroleum hydrocarbons as gasoline (TPHg) and benzene concentrations continue to show decreasing or stable concentrations for both onsite and offsite wells. Only onsite well PT-1 shows an increasing trend for methyl tert-butyl ether (MTBE) with a concentration of 13 micrograms per liter ( $\mu\text{g/l}$ ) in the third quarter. An oxygen diffusion 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 were below the Environmental Screening Levels (ESL) during the third quarter monitoring event.

Arctos conducted a short-term pilot test from 14 to 21 September 2009 to inject oxygen gas directly into existing injection wells OS-1 through OS-4. The objective of the test was to evaluate if oxygen injection would develop aerobic groundwater conditions over a larger area than the current diffusion system. Results indicated an effect on dissolved oxygen (DO) concentrations in wells 10 feet downgradient with minimal water level variations. Arctos is proposing to change the existing diffusion system to direct oxygen gas injection. Air injection flow rates are proposed to be 5 cubic feet per hour (cfh) at each

well, which will be low enough to minimize potential volatilization of petroleum hydrocarbons.

### **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 1 July 2009. Samples were collected from wells MW-1, MW-2, MW-3R, MW-4, MW-6, MW-9 through MW-12, RW-1, and RW-2. Samples were also collected from pilot test points OS-1 through OS-4 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 28.79 to 29.61 feet above mean sea level (15.06 to 18.90 feet below ground surface; Table 1). Water elevations decreased from 0.7 to 1 foot since April 2009. Water level data indicated that the general direction of water flow was toward the southwest with an estimated gradient of 0.0028 (1 foot/360 feet; Figure 2). Third quarter 2009 groundwater elevations and gradient were generally consistent with historical data (Attachment C).

The highest TPHg concentration of 2,900 µg/l was at offsite well MW-10. Well OS-3 had the highest onsite TPHg concentration of 2,100 µg/l. The highest benzene and tert-butyl alcohol (TBA) concentrations of 220 and 18 µg/l, respectively, were at onsite well OS-3. The highest MTBE concentration of 34 µg/l was at onsite well OS-4. Table 2 is a summary of analytical results for the groundwater samples. Figures 3, 4, and 5 show the isoconcentration contours for TPHg, benzene, and MTBE, respectively. Historical analytical results are in Attachment D; the laboratory report and the chain-of-custody form are in Attachment E.

### Trend Analysis

Arctos conducted a statistical trend analysis of historical groundwater monitoring data for groundwater wells with petroleum hydrocarbon impacts. The objective of the analysis was to determine if there were any statistically significant trends in the TPHg, benzene, or MTBE 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
<b>Onsite Wells</b>				
MW-1	70 (56) <sup>(a)</sup>	Decreasing	Decreasing	Decreasing
MW-3R	21	Decreasing	Decreasing	Decreasing
RW-1	69 (56)	Decreasing	ND <sup>(b)</sup>	Decreasing
RW-2	21	Decreasing	ND	Decreasing
OS-1	6	Stable	ND	ND
OS-2	5	Stable	ND	Stable
OS-3	6	Stable	Stable	Stable
OS-4	6	Stable	Stable	Stable
PT-1	6	Stable	ND	<b>Increasing</b>
<b>Offsite Wells</b>				
MW-10	69 (55)	Decreasing	ND	Decreasing
MW-11	61 (46)	Decreasing	ND	Stable

- (a) Number of sampling events in parentheses indicates the number with MTBE results.
- (b) Results were nondetect for sample results for at least the past 2 years except for well RW-2, which has only four detected concentrations of benzene over 21 events.

All of the onsite groundwater monitoring wells with greater than 10 sampling events show decreasing trends for TPHg, benzene, and MTBE. Only well PT-1 shows an increasing trend for MTBE over the past 6 monitoring events. Well PT-1 is located directly downgradient of the current groundwater remediation system, so any increasing concentrations will be addressed by the continued operation of the system. Both offsite wells MW-10 and MW-11 show decreasing or stable trends for TPHg and MTBE.

## **Oxygen Injection Status**

An oxygen diffusion system was initiated on 5 March 2009 in the western portion of the site at injection points OS-1 through OS-4. The system did not operate from 14 September to 2 October during the short-term pilot test described below. Outside of this 3-week period, the system uptime was 100 percent during the third quarter.

DO and oxidation reduction potential (ORP) were measured several times during the quarter using a downhole probe at the injection points and selected onsite wells to monitor oxygen diffusion performance. DO concentrations were above 30 milligrams per liter (mg/l) in the injection points and have remained at baseline concentrations (less than 1 mg/l) at downgradient observation wells PT-1 and RW-2 through August 2009. The results indicate that active microbe populations are consuming the available dissolved oxygen. The field readings are summarized in Attachment F.

Active microbe populations will be confirmed through microbial sampling in the fourth quarter 2009. Historical microbial sampling results and a discussion of microbial strains present in the saturated zone will be included in the next status report.

### Oxygen Gas Injection Pilot Test

The current oxygen system delivers compressed oxygen to downhole Waterloo Emitters at the injection wells to release dissolved oxygen into the groundwater by diffusion. Arctos conducted a short-term pilot test from 14 to 21 September 2009 to inject oxygen gas directly into the existing injection wells. The objective of the test was to evaluate if gas injection would develop aerobic groundwater conditions over a larger area than diffusion for each injection well. To accomplish this objective, Arctos conducted the following scope of work:

- Removed downhole emitters and installed packers at the top of the screen interval (currently below the water table) at each injection well
- Installed tubing to convey oxygen gas into ½-inch-diameter piping extending below the packer to approximately 1-1/2 feet above the bottom of the screen interval
- Connected compressed oxygen tanks to a solenoid valve with a timer, pressure manifold, and air flow meter manifold with flow control valves
- Injected oxygen gas for 10 minutes every 2 hours at an approximate flow rate of 24 to 29 cfh with wellhead pressure readings of 5 pounds per square inch (psi)

- Measured water levels and field parameters including pH, temperature, conductivity, DO, and ORP from downgradient and cross gradient monitoring wells to assess the radius of influence.

Oxygen gas was only injected for a 10 minute period every 120 minutes at very low flow rates to reduce the potential for vapor-phase migration of petroleum hydrocarbons into the vadose zone.

DO concentrations never increased above 1 mg/l during the test, but downgradient monitoring wells had increasing DO concentrations during each operating cycle. ORP readings also became positive at the downgradient monitoring wells following 4 days of operation indicating an increased area of influence. DO and ORP readings did not change at the cross gradient monitoring well MW-3R. Groundwater elevations also varied during each injection cycle at all three of the groundwater monitoring wells. The elevation change was minimal due to the low injection flow rates and operating times with a maximum change of 0.55 foot at downgradient well PT-1. DO and ORP readings and water level measurements for downgradient wells PT-1 and RW-1 and cross gradient well MW-3R are shown on Figures 6 and 7, respectively.

Proposed Long-Term Gas Injection Pilot Test

Based on the increased area of influence of the short-term pilot test, Arctos is proposing to change the existing diffusion system to a direct oxygen gas injection system. To conduct long-term oxygen gas injection, Arctos evaluated the oxygen demand for the aerobic biodegradation of petroleum hydrocarbons in groundwater in the western portion of the property. The following table summarizes parameters used to estimate the oxygen demand.

Parameter	Value
Treatment area concentrations (maximum in past 2 years)	
TPHg	4,100 µg/l
Benzene, toluene, ethylbenzene, and xylenes	1,148 µg/l
MTBE	48 µg/l
Hydraulic conductivity	1.2 centimeters per second (cm/sec)
Gradient	0.0028 foot/feet (ft/ft)
Saturated thickness	17 feet
Width of impacted plume	85 feet
Mass flux at western portion of site	0.2 grams per day (g/day)
Stoichiometric oxygen demand	3 to 1 for oxygen to petroleum hydrocarbons

Parameter	Value
Additional oxygen demand factor for background <sup>(a)</sup>	10

(a) Additional oxygen demand factor is a safety factor multiplied by the stoichiometric oxygen demand to account for oxygen that would be used by competing, nontargeted, organic material, such as organic carbon other than petroleum hydrocarbons and by fuel hydrocarbons adsorbed onto soil in the saturated zone and capillary fringe.

Using these parameters, the calculated oxygen demand of the dissolved-phase hydrocarbons migrating through the site is 6 g/day. To meet this demand, Arctos is proposing to inject oxygen gas directly into each injection well using the packers to seal the submerged screen intervals. The oxygen gas would be delivered at an approximate flow rate of 5 cfh per well over 10 minute injection cycles every 120 minutes. The injection pressures would be maintained at less than 5 psi at each injection well. Total oxygen delivered by this operation is estimated to be 1,600 g/day. This proposed operation flow rate is 20 percent of the pilot test flow rate, which will further reduce the potential for vapor-phase transport of contaminants into the vadose zone.

### Conclusions and Recommendations

Results of the groundwater sampling and pilot testing activities indicate the following conclusions:

- Offsite benzene concentrations have remained below the ESL of 1 µg/l since the third quarter 2006 sampling event
- TPHg concentrations show statistically decreasing trends for both offsite and onsite wells with historical groundwater monitoring results
- 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 pilot testing, Arctos recommends converting the oxygen diffusion system to direct oxygen gas injection, at low air flow rates, starting **1 December 2009**. DO and ORP readings will continue to be collected monthly to track the performance of the system.

Jerry Wickham  
Alameda County Environmental Health  
18 November 2009  
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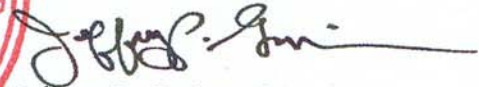
If you have questions or comments, please call Mike Purchase at 510/525-2180 or Jeff Gwinn at 562/988-2755.

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  
Figure 6 – Pilot Test DO and ORP Readings  
Figure 7 – Pilot Test Water Elevations  
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 – Oxygen Injection Performance Monitoring

**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	7/16/08	16.65	45.98	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
MW-2	7/16/08	15.89		45.23
	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
MW-3R	7/16/08	15.63		45.21
	9/5/08	16.20	45.16	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
MW-4	7/16/08	17.63		46.98
	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	17.04		30.32
	7/1/09	17.86		29.50
MW-5	7/16/08	16.71		46.12
	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
MW-6	7/16/08	15.51		44.79
	9/5/08	16.08	45.17	29.09
	10/8/08	16.34		28.83



TABLE 1

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.)	1/29/09	15.98	45.17	29.19
	4/14/09	14.62		30.55
	7/1/09	15.60		29.57
MW-7	7/16/08	14.91	43.85	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
	7/1/09	15.06		29.18
MW-8	7/16/08	15.82		44.58
	9/5/08	16.35	44.95	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
MW-9	7/16/08	17.95		47.26
	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
MW-10	7/16/08	15.75		44.65
	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
MW-11	7/16/08	18.67		47.36
	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

TABLE 1

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	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
RW-1	7/16/08	16.32	45.47	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
RW-2	7/16/08	16.81	45.00	28.19
	9/5/08	17.39	46.40	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
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
OS-2	9/5/08	17.75	46.79	29.04
	10/8/08	NM <sup>(c)</sup>		-- <sup>(c)</sup>
	1/29/09	17.74		29.05
	4/14/09	16.50		30.29
	7/1/09	17.38		29.41
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

**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>
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
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

- (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	7/16/08	ND<50 <sup>(e)</sup>	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
MW-2	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
MW-3R	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
	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	2.0	19	ND<0.5	ND<0.5	ND<0.5	20
MW-4	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
MW-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

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	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
MW-7	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
MW-8	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
MW-9	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
MW-10	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

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	7/16/08	370	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	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	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	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	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	2.1	ND<0.5	ND<0.5	ND<0.5	ND<5
MW-12	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
RW-1	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
RW-2	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

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-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
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
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
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

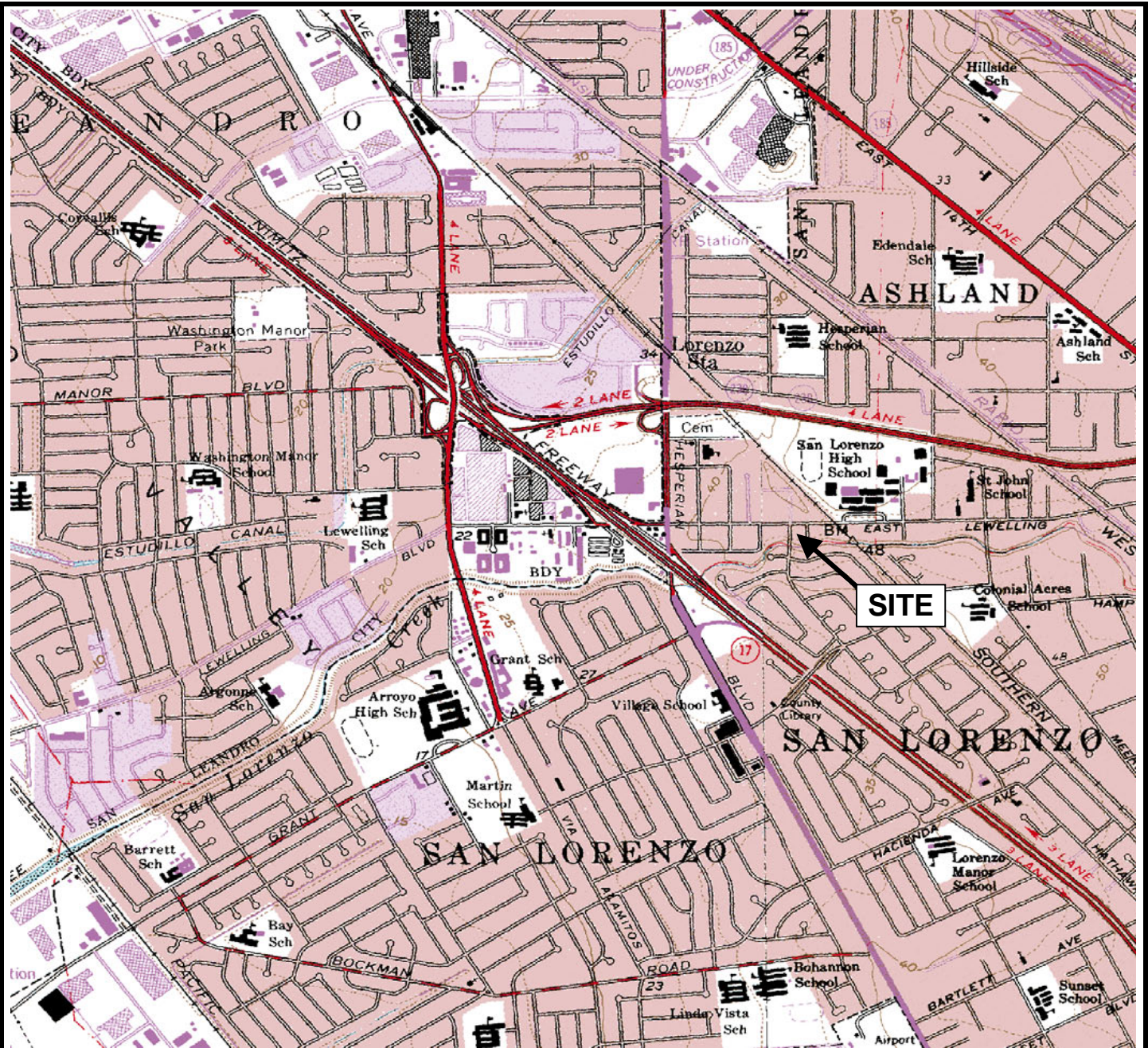
**TABLE 2**

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

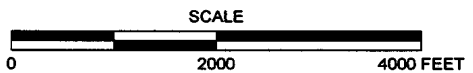
Monitoring Well	Sample Date <sup>(a)</sup>	TPHg <sup>(b)</sup> (ug/l)	Benzene <sup>(b)</sup> (ug/l)	Toluene <sup>(b)</sup> (ug/l)	Ethylbenzene <sup>(b)</sup> (ug/l)	Total Xylenes <sup>(b)</sup> (ug/l)	MTBE <sup>(b)</sup> (ug/l)	DIPE <sup>(b)</sup> (ug/l)	ETBE <sup>(b)</sup> (ug/l)	TAME <sup>(b)</sup> (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
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

- (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) ND - Not detected at the reporting limit listed.





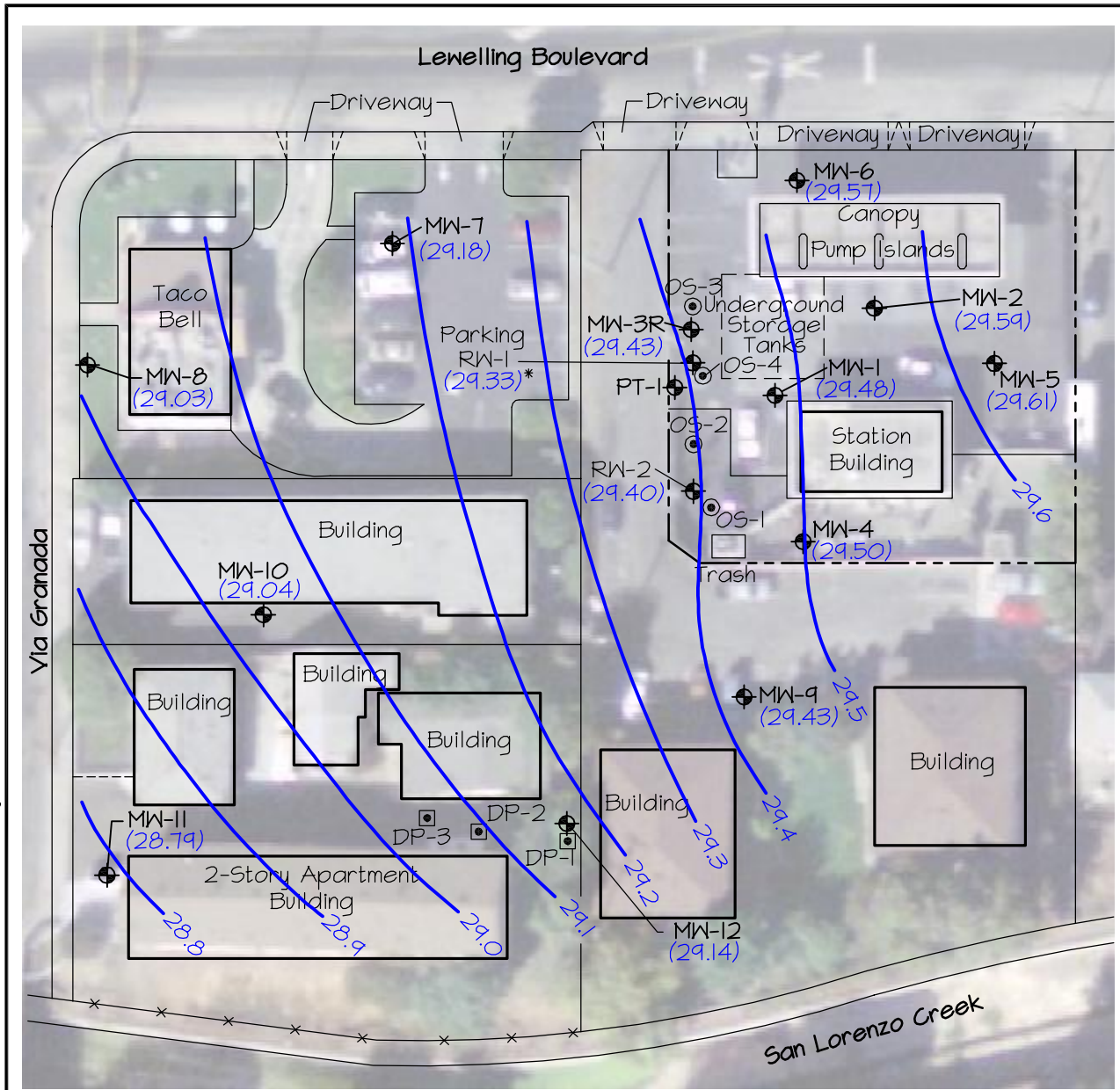
**SITE**



**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>		

10/20/2009 12:48PM 01Z011B0506.dwg



Legend

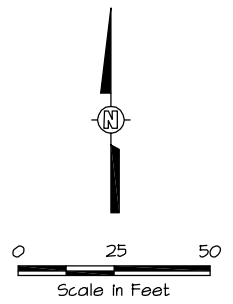
MW-1 Monitoring Well with 1 July 2009 Groundwater Elevation (Feet MSL)

DP-1 Soil Boring

OS-1 Oxygen Injection Well

\* Elevation Not Used for Contours

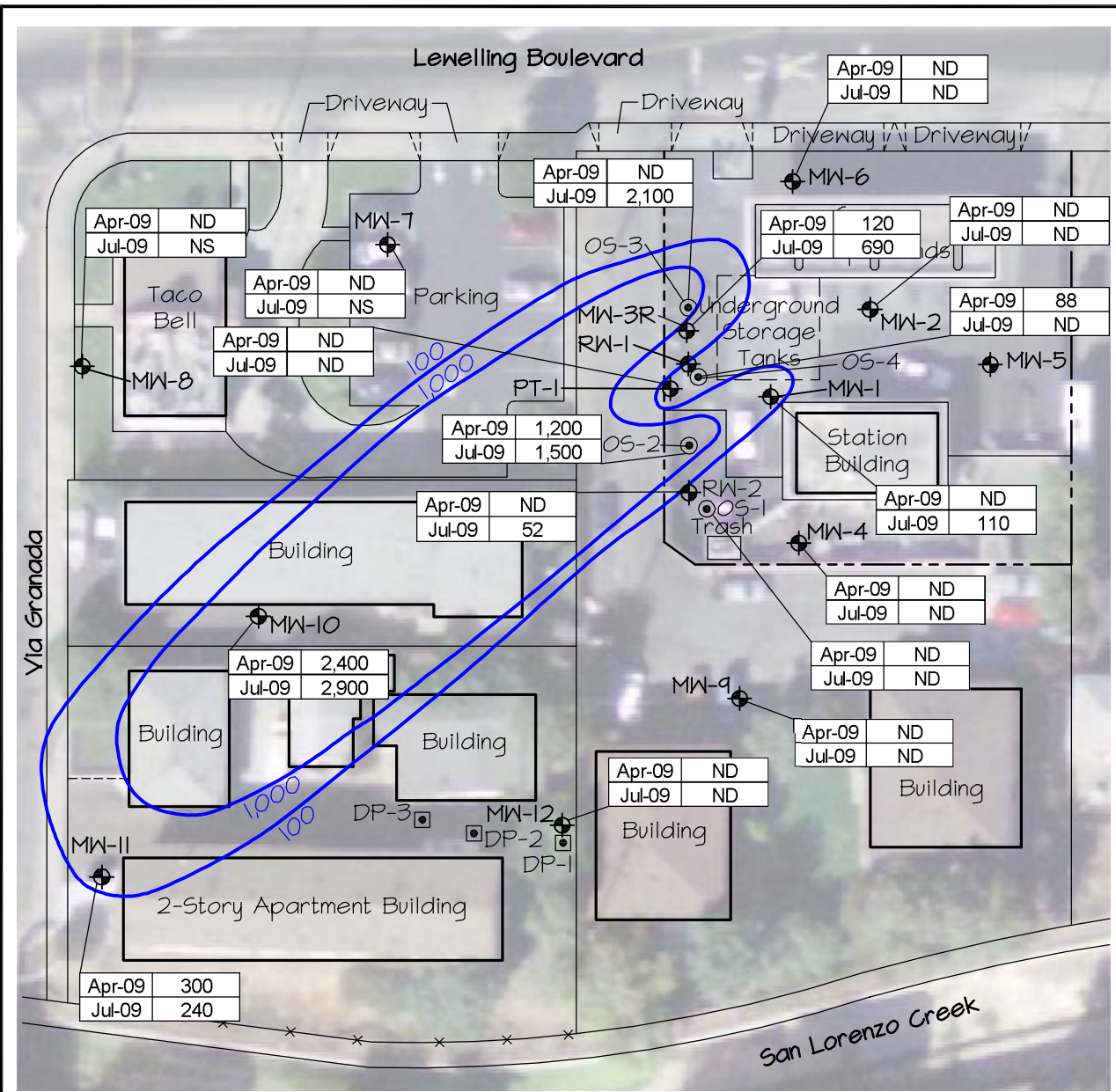
29.5 Groundwater Elevation Contour (Feet MSL)



ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>SITE PLAN</b>			
PROJECT NO. OIZO	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. 01Z011B0506.DWG		<b>FIGURE 2</b>	

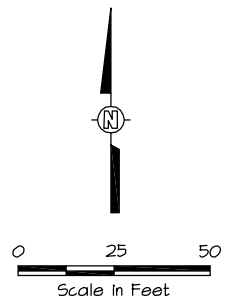
REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
6	3	MY	1/30/09	Fourth Quarter 2008 Status Report
	4	MY	5/29/09	First Quarter 2009 Status Report
	5	MY	8/24/09	Second Quarter 2009 Status Report
	6	MY	9/30/09	Third Quarter 2009 Status Report

11/3/2009 3:36PM 01Z011B0206.dwg



Legend

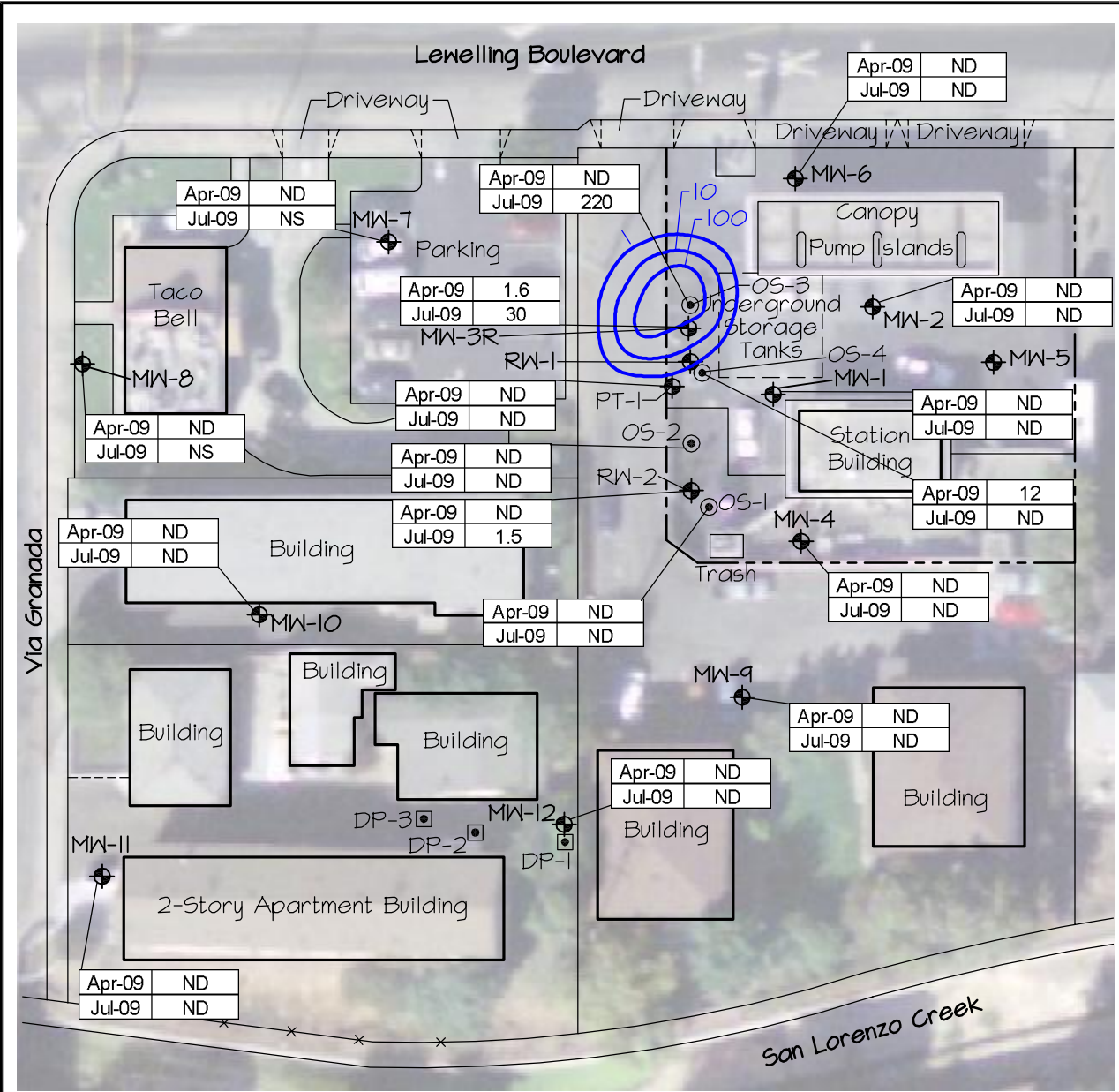
- MW-1 Monitoring Well with 14-15 April and 1 July 2009 Total Petroleum Hydrocarbons as Gasoline (TPHg) Results in µg/l
- DP-1 Soil Boring
- OS-1 Oxygen Injection Well
- ND Not Detected
- 100 TPHg Concentration Contour (µg/l), Queried Where Uncertain



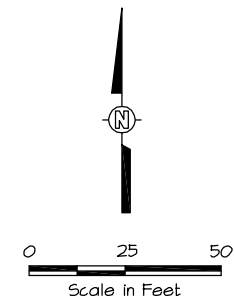
REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
6	3	MY	1/30/09	Fourth Quarter 2008 Status Report
	4	MY	5/29/09	First Quarter 2009 Status Report
	5	MY	8/21/09	Second Quarter 2009 Status Report
	6	MY	10/7/09	Third Quarter 2009 Status Report

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. OIZO11B0206.DWG		FIGURE 3	

11/3/2009 3:48PM 01Z011B0306.dwg



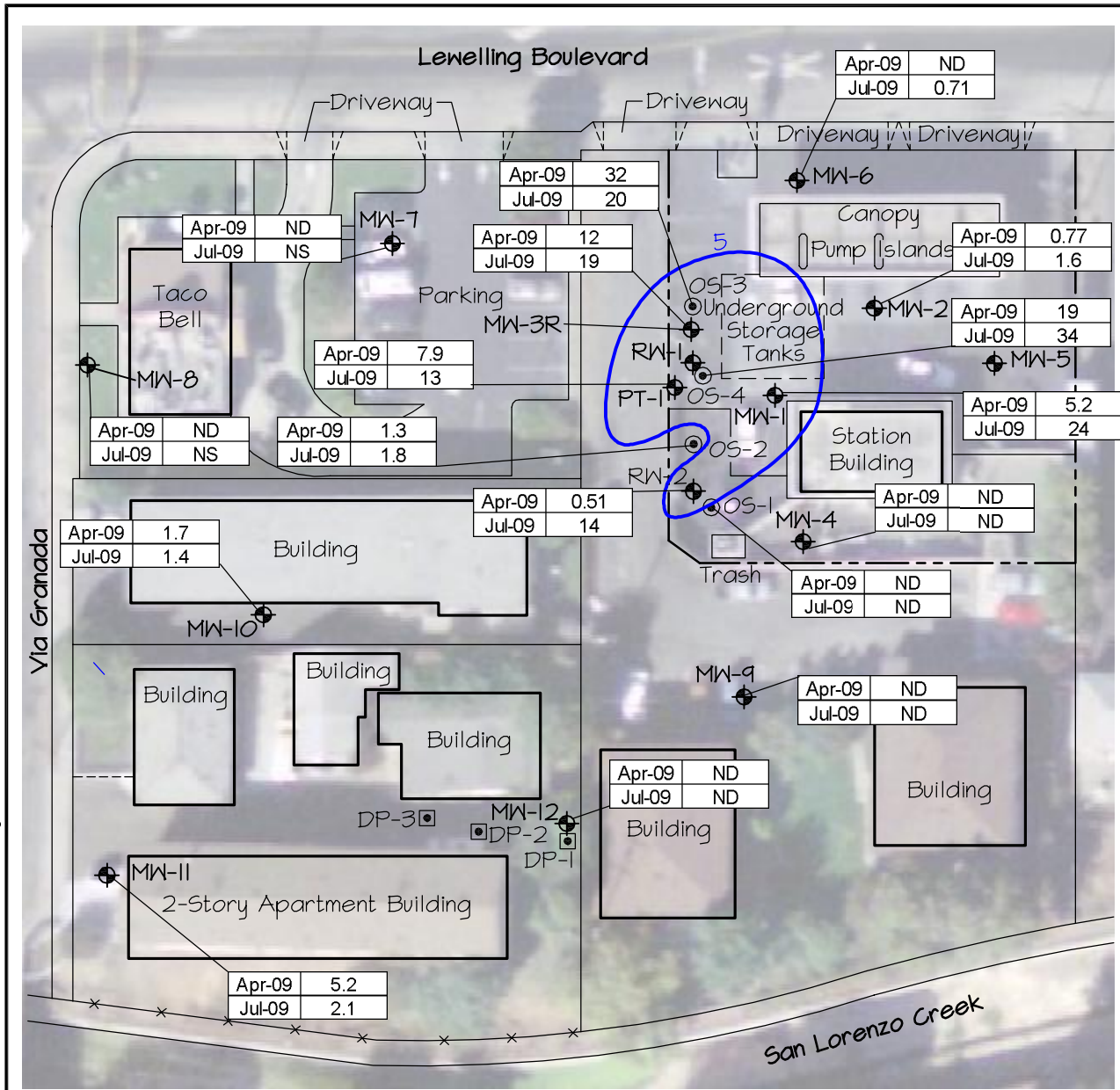
- Legend**
- MW-1 Monitoring Well with 14-15 April and 1 July 2009 Benzene Results in µg/l
  - OS-1 Oxygen Injection Well
  - DP-1 Soil Boring
  - ND Not Detected
  - 10 Benzene Concentration Contour (µg/l), Queried Where Uncertain



REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
6	3	MY	1/30/09	Fourth Quarter 2008 Status Report
	4	MY	5/29/09	First Quarter 2009 Status Report
	5	MY	8/21/09	Second Quarter 2009 Status Report
	6	MY	10/7/09	Third Quarter 2009 Status Report

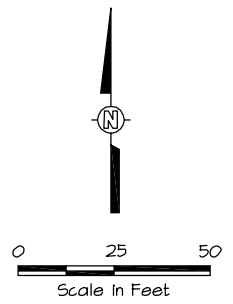
ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>BENZENE CONCENTRATION CONTOURS IN GROUNDWATER</b>			
PROJECT NO. 01Z0	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. 01Z011B0306.DWG		FIGURE 4	

11/3/2009 3:42PM 01Z011B0406.dwg



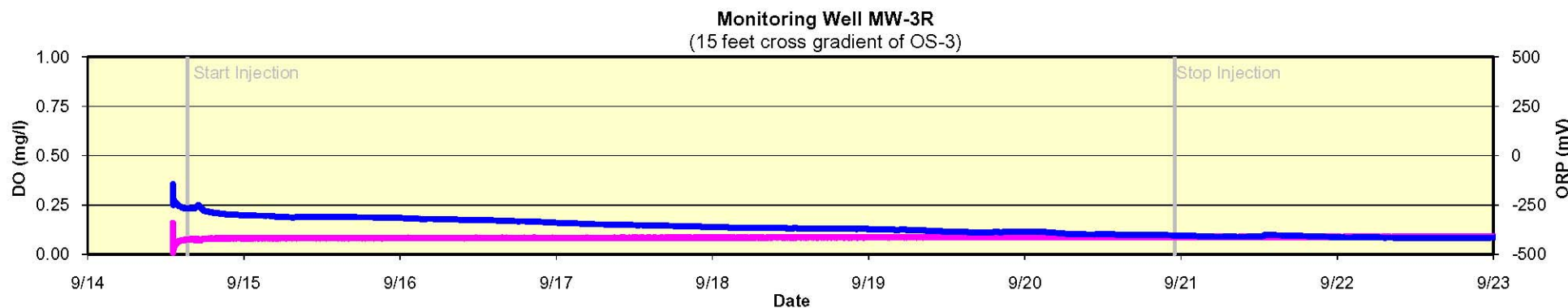
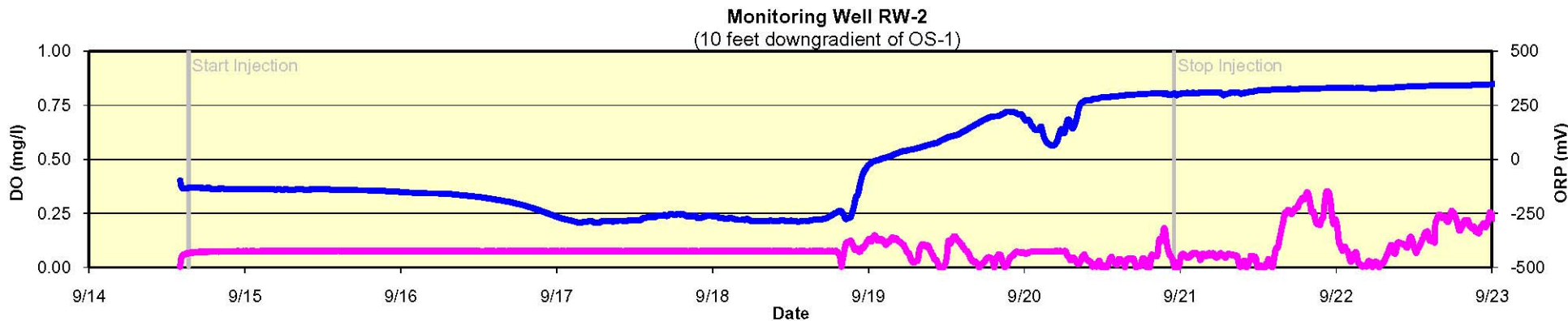
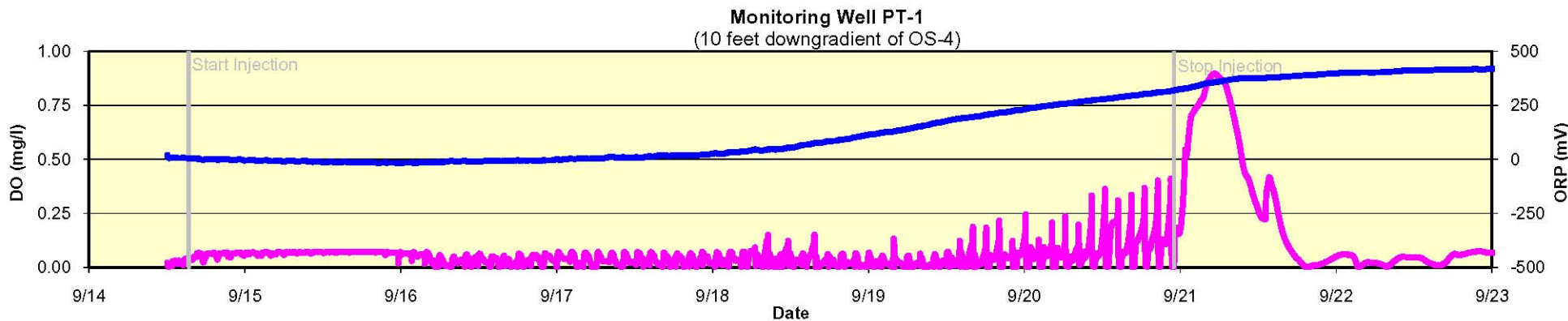
**Legend**

- MW-I (circle with crosshair) Monitoring Well with 4-15 April and 1 July 2009 Methyl Tert-Butyl Ether (MTBE) Results in  $\mu\text{g/l}$
- OS-I (circle with dot) Oxygen Injection Well
- DP-I (square with dot) Soil Boring
- ND Not Detected
- 5 (blue line) MTBE Concentration Contour ( $\mu\text{g/l}$ ), Queried Where Uncertain

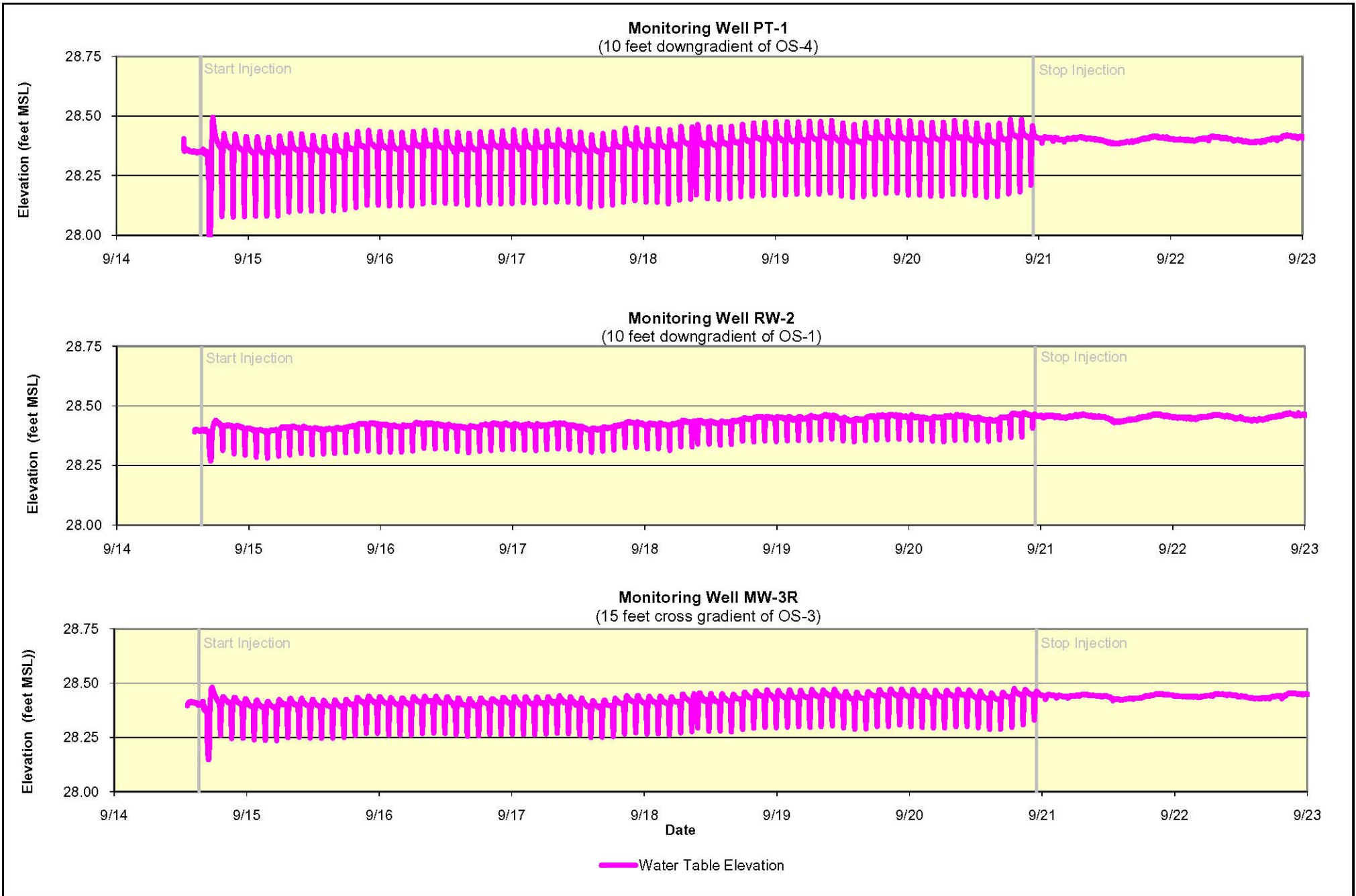


ARCTOS ENVIRONMENTAL			
TESORO - SAN LORENZO			
<b>MTBE CONCENTRATION CONTOUR IN GROUNDWATER</b>			
PROJECT NO. 01Z0	DRAWN BY MY	CHECKED BY MP	APPROVED BY JPG
FILE NO. 01Z011B0406.DWG		<b>FIGURE 5</b>	

REVISION	REVISIONS			
	NO.	BY	DATE	DESCRIPTION
6	3	MY	1/30/09	Fourth Quarter 2008 Status Report
	4	MY	5/29/09	First Quarter 2009 Status Report
	5	MY	8/21/09	Second Quarter 2009 Status Report
	6	MY	10/7/09	Third Quarter 2009 Status Report



— Dissolved Oxygen (DO) Concentrations     
 — Oxidation Reduction Potential (ORP) Readings



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



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

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**A.1 Field Activities for Groundwater Sampling**

Before groundwater sampling, the depth to groundwater of each well was measured and recorded on field data sheets. Depth to groundwater and groundwater elevations are summarized in attached tables.

During groundwater sampling, field observations of the groundwater were recorded on the field data sheets. Groundwater samples were collected after the temperature, pH, and specific conductivity of the groundwater had stabilized to within approximately 10 percent of the previous reading and at least 3 casing volumes of groundwater were removed from the well, unless the well purged dry. Well purge water was stored temporarily on site in 55-gallon drums.

Sampling was performed using new disposable polyethylene bailers suspended from new nylon line. The bailers were equipped with a bottom-release device. Water samples were collected from the wells in new 40-milliliter glass bottles with Teflon-lined caps provided by the analytical laboratory.

**A.2 Analytical Program**

The groundwater samples were analyzed by Kiff Analytical LLC, 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, also has electronically submitted the groundwater monitoring results to the State Water Resources Control Board (SWRCB). The data were submitted in the State-mandated Electronic Data Format (EDF), in accordance with Assembly Bill 2886 requirements for underground storage tank (UST) sites in California.

**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
VSI 55	#2	7/1/09	840	100%	Yes	100%	—	BM	
Watermeter	6217665			PH 4, 7, 10	Yes	40, 7.0 10.0	16	BM	
				COND 1413	Yes	1413	16	BM	

Notes/comments:

## Water Level Measurements

Job Number: MT-090701      Date: 7/1/09      Client: Orica

Site: 44 Lewelling Blvd San Lorenzo

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)		
MW1	804	2			16.88		27.69	TOC		
MW2	802	2			16.02		28.05			
MW3R	<del>811</del> 830	6			15.73		25.51			
MW4	807	2			17.86		27.33			
MW5	800	2			16.89		33.40			G/O
MW6	757	2			15.60		33.90			
MW7	749	2			15.06		28.10			G/O
MW8	745	2			15.92		24.55			G/O
MW9	752	2			18.22		29.30			
MW10	742	2			16.00		28.60			
MW11	740	2			18.90		24.20			
MW12	736	2			18.13		23.09			
RW1	823	6			16.53		23.70			
RW2	826	6			17.00		28.70			
PT-1	820	4			17.10		29.40			
OS-1	810	4			17.78		28.21			
OS-2	813	4			17.38		35.51			
OS-3	833	4			16.26		26.55			
OS-4	816	4			16.61		29.71			



## Purging And Sampling Data Sheet

<b>Job#:</b> <i>HI-090701</i>		<b>Sampler:</b> B Myers	<b>Client:</b> Orion
<b>Well ID:</b> <i>MW-1</i>		<b>Date:</b> <i>7/1/09</i>	<b>Site:</b> Tesoro #67107, San Lorenzo
<b>Well diam:</b> 1/4" 1" <u>2"</u> 3" 4" 6" Other:		<b>DTW:</b> <i>No. 85</i> <b>Total Depth:</b> <i>2769</i>	
<b>Purge equip:</b> ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System <u>disp baller</u> teflon bailer other: <b>Tubing:</b> OD: New Dedicated NA			
<b>Purge method:</b> 3-5 Case Volume Micro/Low-Flow Extraction Other:			
<b>Pump depth/ intake:</b>		<b>Multipliers:</b> 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"=1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume		80% Recovery (TD - DTW X 0.20 + DTW)	

1 Volume = 1.7 X 3 = 5 (Total Purge) 80%= 19.04

Time	Temp (°F)	pH	Cond (mS / <u>µS</u> )	Turbidity (NTU)	Purge Rate (gal or mL / min)	Volume Removed (gal / L)	Notes
<i>1549</i>	<i>20.0</i>	<i>7.9</i>	<i>660</i>	<i>44</i>	<i>-</i>	<i>1.7</i>	
<i>1551</i>	<i>19.8</i>	<i>7.8</i>	<i>679</i>	<i>41</i>	<i>-</i>	<i>3.4</i>	
<i>1553</i>	<i>19.6</i>	<i>7.8</i>	<i>692</i>	<i>35</i>	<i>-</i>	<i>5</i>	

Did well dewater? YES <u>NO</u>		Total volume removed: <u>5</u> (gal / L)	
Sample method: <u>Disp Bailer</u> Ded. Tubing New Tubing Ext. Port Other:			
Sample date: <i>7/1/09</i>		Sample time: <i>1555</i>	DTW at sample: <i>17.52</i>
Sample ID: <i>MW-1</i>		Lab: Kiff	Number of bottles: <u>3</u>
Analysis: See COC			
Equipment blank ID @		Field blank ID @	
Duplicate ID:		Pre-purge DO: <u>0.5</u>	Post purge DO:
Fe <sup>2+</sup> :		Pre-purge ORP: <u>-34</u>	Post purge ORP:
NAPL depth:		Volume of NAPL:	Volume removed: ml







## Purging And Sampling Data Sheet

Job#: <u>M1-090701</u>	Sampler: <u>B Myers</u>	Client: <u>Orion</u>
Well ID: <u>MW4</u>	Date: <u>7/1/09</u>	Site: <u>Tesoro #67107, San Lorenzo</u>
Well diam: 1/4" 1" <u>2"</u> 3" 4" 6" Other:	DTW: <u>17.86</u> Total Depth: <u>27.33</u>	
Purge equip: ES - diam: Bladder Peri Waterra Positive Air Displacement Ext. System		
<u>disp bailer</u> teflon bailer other: Tubing: OD: New Dedicated NA		
Purge method: 3-5 Case Volume Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"=1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = 1.5 X 3 = 4.5 (Total Purge)

80% = 19.75

Time	Temp (°C/°F)	pH	Cond (mS / <u>GS</u> )	Turbidity (NTU)	Purge Rate (gal or mL / min)	Volume Removed (gal / L)	Notes
<u>1510</u>	<u>19.8</u>	<u>8.1</u>	<u>657</u>	<u>36</u>		<u>1.5</u>	
<u>1520</u>	<u>19.7</u>	<u>7.8</u>	<u>659</u>	<u>31</u>		<u>3</u>	
<u>1522</u>	<u>19.6</u>	<u>7.8</u>	<u>660</u>	<u>29</u>		<u>4.5</u>	

Did well dewater? YES   NO Total volume removed: 4.5 (gal / L)

Sample method:  Disp Bailer  Ded. Tubing  New Tubing  Ext. Port  Other:

Sample date: 7/1/09 Sample time: 1525 DTW at sample: 19.53

Sample ID: MW-4 Lab: Kiff Number of bottles: 3

Analysis: See COC

Equipment blank ID @	Field blank ID @	
Duplicate ID:	Pre-purge DO: <u>0.8</u>	Post purge DO:
Fe <sup>2+</sup> :	Pre-purge ORP: <u>-124</u>	Post purge ORP:
NAPL depth:	Volume of NAPL:	Volume removed: ml















## Purging And Sampling Data Sheet

Job#: <u>11-090701</u>	Sampler: <u>B Myers</u>	Client: <u>Orion</u>
Well ID: <u>RW-1</u>	Date: <u>7/1/09</u>	Site: <u>Tesoro #67107, San Lorenzo</u>
Well diam: 1/4" 1" 2" 3" 4" <u>6"</u> Other:	DTW: <u>16.53</u> Total Depth: <u>23.70</u>	
Purge equip: <u>ES - diam</u> Bladder Peri Waterra Positive Air Displacement Ext. System disp bailer teflon bailer other: <b>Tubing:</b> OD: <u>New</u> Dedicated NA		
Purge method: 3-5 Case Volume Micro/Low-Flow Extraction Other:		
Pump depth/ intake:	Multipliers: 1"= 0.04 2"= 0.16 3"= 0.37 4"= 0.65 5"=1.02 6"= 1.47 Radius <sup>2</sup> X 0.163	
(TD - DTW X Multiplier = 1 Volume		80% Recovery (TD - DTW X 0.20 + DTW)

1 Volume = 10.5 X 3 = 31.5 (Total Purge)

80% = 17.96

Time	Temp (°C / °F)	pH	Cond (mS / (µS))	Turbidity (NTU)	Purge Rate (gal or mL / min)	Volume Removed (gal / L)	Notes
<u>1457</u>	<u>19.8</u>	<u>8.0</u>	<u>952</u>	<u>37</u>	<u>—</u>	<u>10.5</u>	
<u>1504</u>	<u>19.8</u>	<u>8.8</u>	<u>892</u>	<u>33</u>	<u>—</u>	<u>21</u>	
<u>1518</u>	<u>19.7</u>	<u>8.7</u>	<u>837</u>	<u>31</u>	<u>—</u>	<u>31.5</u>	

Did well dewater? YES <input type="radio"/> NO <input checked="" type="radio"/>		Total volume removed: <u>31.5</u> (gal / L)	
Sample method: <u>Disp Bailer</u> Ded. Tubing New Tubing Ext. Port Other:			
Sample date: <u>7/1/09</u>	Sample time: <u>1.515</u>	DTW at sample: <u>17.77</u>	
Sample ID: <u>RW-1</u>	Lab: <u>Kiff</u>	Number of bottles: <u>3</u>	
Analysis: <u>See COC</u>			
Equipment blank ID @	Field blank ID @		
Duplicate ID:	Pre-purge DO: <u>0.7</u>	Post purge DO:	
Fe <sup>2+</sup> :	Pre-purge ORP: <u>-71</u>	Post purge ORP:	
NAPL depth:	Volume of NAPL:	Volume removed: <u>  </u> ml	















# 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>Tesoro #167107 44 Lewelling Blvd San Lorenzo 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		
7. Transporter 2 Company Name				8. US EPA ID Number		B. Transporter 1 Phone <i>716-760-7841</i>		
9. Designated Facility Name and Site Address <i>ISZ 1105 Airport Rd. Rio Vista CA</i>				10. US EPA ID Number		C. State Transporter's ID		
						D. Transporter 2 Phone		
						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. <i>NOW HAZ PURGEWATER</i>						1	Poly	293 GAL
b.								
c.								
d.								
G. Additional Descriptions for Materials Listed Above <i>colors - clear odors - <del>o</del> solids - <del>o</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								
Printed/Typed Name <i>BRANDY MYERS</i>						Signature <i>Brandy Myers</i>		Date
								Month Day Year 7   1   09
18. Transporter 2 Acknowledgement of Receipt of Materials								
Printed/Typed Name						Signature		Date
								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>Instrat.</i>						Signature <i>Walt Belcher</i>		Date
								Month Day Year 7   2   09

NON-HAZARDOUS WASTE

GENERATOR

TRANSPORTER

FACILITY

**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		

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)	11/17/98	15.39	43.67	28.28
	2/18/99	13.52		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
	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		
4/30/07	16.17	29.81		



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-1 (Cont)	7/18/07	16.90	45.98	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
	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	
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
	3/12/96	13.11		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	--		

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)	11/5/97	16.75	43.09	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
	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	
	2/28/04	13.56	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		

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)	1/30/06	13.54	45.23	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			
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	
	7/18/07	23.11		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			

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)	7/16/08	15.63	45.21	29.58
	9/5/08	16.20	45.16	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
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
	3/12/96	14.77		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		

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)	5/28/98	NM	44.66	--
	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
	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	
	2/28/04	15.82	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		

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)	10/26/06	17.45	46.98	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
MW-5	2/18/92	17.37	43.79	26.42
	5/14/92	17.29		26.50
	8/27/92	22.18		21.61
	11/19/92	20.68		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		

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)	1/28/97	12.83	43.79	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
	11/15/00	16.71		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		

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)	2/4/05	15.17	46.12	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	
	7/16/08	16.71		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		
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	



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)	3/15/95	13.52	42.47	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
	8/18/97	15.54		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		

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)	2/20/03	15.64	44.79	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
	4/13/05	15.59		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	45.17	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	
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

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	2/3/93	14.10	41.54	27.44
(Cont)	6/23/93	14.33		27.21
	9/22/93	15.92		25.62
	1/24/94	16.07		25.47
	4/7/94	15.10		26.44
	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	

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)	5/21/01	14.31	41.54	27.23
	9/5/01	15.42		26.12
	11/7/01	16.18		25.36
	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	

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)	1/29/09	15.46	44.24	28.78
	4/14/09	14.16		30.08
	7/1/09	15.06		29.18
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	--		
8/19/98	14.15	28.11		
11/17/98	14.98	27.28		
2/18/99	13.41	28.85		

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-8 (Cont)	6/24/99	14.35	42.26	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
	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		
10/26/06	15.32	29.26		
2/2/07	15.52	29.06		
4/30/07	15.15	29.43		
7/18/07	15.80	28.78		

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)	10/30/07	16.23	44.58	28.35
	1/28/08	14.81		29.77
	3/14/08	14.67		29.91
	5/13/08	15.30		29.28
	7/16/08	15.82		28.76
	9/5/08	16.35	44.95	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
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
	9/28/95	18.04		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	--		

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)	11/5/97	18.61	44.94	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
	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	
	7/31/03	17.58	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		



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)	1/30/06	16.06	47.26	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			
MW-10	2/18/92	16.63	42.34	25.71	
	5/14/92	15.25		27.09	
	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			

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)	9/28/95	15.81	42.34	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
	8/30/99	15.26		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		

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)	10/28/03	16.39	44.65	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
	10/30/07	16.32		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	
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

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	1/24/94	19.79	45.00	25.21
(Cont)	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
	10/2/96	18.20		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	

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)	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
	7/16/04	18.01		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	

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	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
	7/16/08	17.70		29.18
	9/5/08	18.51		47.27
	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	
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
	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	
	4/13/05	24.21	21.26	

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)	8/10/05	33.59	45.47	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
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
	10/26/06	23.50		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		



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)	3/14/08	15.69	45.00	29.31
	5/13/08	16.32		28.68
	7/16/08	16.81		28.19
	9/5/08	17.39	46.40	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
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
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
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
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

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)
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

(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	0.92	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	--	--	--	--	

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.)	5/28/98	7,800	120	ND<10	39	55	9,300	--	--	--	--
	8/19/98	ND<250	12	ND<2.5	6	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	ND<0.5	3.9	2	2,800	--	--	--	--
	11/9/99	170	ND<0.5	ND<0.5	3.1	2	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	ND<2	ND<2	ND<2	550	--	--	--	--
	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	

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.)	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	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	

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	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	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	--	--	--	--	

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.)	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	--	--	--	--
	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<1000	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	



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.)	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	
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

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-3R (cont.)	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	1000	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	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
	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	
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	--	--	--	--	--

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.)	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	--	--	--	--	--
	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 <sup>(g)</sup>	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	--	--	--	--	

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.)	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<1000	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	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	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
	10/30/07	90 <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	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	

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.)	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
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	2.7	8	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	--	--	--	--
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	--	--	--	--	

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.)	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	--	--	--	--
	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	
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	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	--	--	--	--	--	

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.)	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	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	--	--	--	--
	6/11/96	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	--	--	--	--
	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	
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	--	--	--	--	--

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)	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	--	--	--	--
	3/31/98	ND<50	ND<0.5	ND<0.5	ND<0.5	1.3	6	--	--	--	--
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	--	--	--	--	



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.)	11/9/99	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	16	--	--	--	--
	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	
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	--	--	--	--	--

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.)	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	--	--	--	--
	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	

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.)	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
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	--	--	--	--	

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.)	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	--	--	--	--
	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	
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	--	--	--	--	--

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.)	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	--	--	--	--
	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	1,300	1,700	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	--	--	--	--	

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.)	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	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	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	6.5	74	72	29	ND<0.5	ND<0.5	ND<0.5	ND<5
	11/5/05	6,000	3	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	
2/2/07	4,900	0.72	2.3	7.4	15	21	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.)	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
	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	
MW-11	2/18/92	2400	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	0.6	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	--	--	--	--	--	

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.)	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	--	--	--	--
	11/17/98	580	15	4.4	14	ND<0.5	21	--	--	--	--
	2/18/99	390	8	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	



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.)	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	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	1	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	1.8	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	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	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	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	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	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	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	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	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	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	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	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	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	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	2.1	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-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
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	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	--	--	--	--	

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.)	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	--	--	--	--
	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	--	--	--	--
	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	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	

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.)	8/6/02	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
	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	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	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	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	
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	

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.)	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
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	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	

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-2 (cont.)	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
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

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-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
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
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
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	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

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
PT-1 (cont.)	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

- (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**



Report Number : 69137

Date : 07/09/2009

Mike Purchase  
Arctos Environmental  
1332 Peralta Avenue  
Berkeley, CA 94702

Subject : 16 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.

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

Sincerely,

A handwritten signature in black ink, appearing to read "Joel Kiff".

Joel Kiff



Report Number : 69137

Date : 07/09/2009

Subject : 16 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.

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

Project Number : **01ZO**

Sample : **OS-1**

Matrix : Water

Lab Number : 69137-01

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>19</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	07/03/2009

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

Project Number : **01ZO**

Sample : **OS-2**

Matrix : Water

Lab Number : 69137-02

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>33</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	<b>0.69</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.8</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	<b>1500</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	100		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/03/2009

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

Project Number : **01ZO**

Sample : **OS-4**

Matrix : Water

Lab Number : 69137-03

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>200</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>34</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	97.9		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/03/2009

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

Project Number : **01ZO**

Sample : **PT-1**

Matrix : Water

Lab Number : 69137-04

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>1100</b>	1.0	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>13</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	98.3		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/03/2009

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

Project Number : **01ZO**

Sample : **MW-6**

Matrix : Water

Lab Number : 69137-05

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>74</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>0.71</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	< <b>5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	< <b>50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	< <b>5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	< <b>50</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	98.6		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	07/03/2009





Report Number : 69137

Date : 07/09/2009

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

Project Number : **01ZO**

Sample : **MW-9**

Matrix : Water

Lab Number : 69137-06

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>28</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	< <b>0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	< <b>5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	< <b>50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	< <b>5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	< <b>50</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	99.7		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/03/2009



Report Number : 69137

Date : 07/09/2009

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

Project Number : **01ZO**

Sample : **RW-2**

Matrix : Water

Lab Number : 69137-07

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>32</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	<b>1.5</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>14</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	<b>6.7</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	<b>52</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	98.4		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	07/03/2009

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

Project Number : **01ZO**

Sample : **MW-3R**

Matrix : Water

Lab Number : 69137-08

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>39</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	<b>30</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Toluene</b>	<b>1.2</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethylbenzene</b>	<b>4.4</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Total Xylenes</b>	<b>2.0</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>19</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/03/2009
<b>Tert-Butanol</b>	<b>20</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/03/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/03/2009
<b>TPH as Gasoline</b>	<b>690</b>	50	ug/L	EPA 8260B	07/03/2009
1,2-Dichloroethane-d4 (Surr)	97.3		% Recovery	EPA 8260B	07/03/2009
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	07/03/2009

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

Project Number : **01ZO**

Sample : **OS-3**

Matrix : Water

Lab Number : 69137-09

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Iron</b>	<b>37</b>	0.10	mg/L	EPA 6010B	07/06/2009
<b>Benzene</b>	<b>220</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	<b>6.8</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	<b>190</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	<b>250</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>20</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	<b>18</b>	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	<b>2100</b>	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	96.3		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	07/06/2009

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

Project Number : **01ZO**

Sample : **MW-12**

Matrix : Water

Lab Number : 69137-10

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	98.2		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/06/2009



Report Number : 69137

Date : 07/09/2009

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

Project Number : **01ZO**

Sample : **MW-11**

Matrix : Water

Lab Number : 69137-11

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	2.1	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	240	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	98.7		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/06/2009



Report Number : 69137

Date : 07/09/2009

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

Project Number : **01ZO**

Sample : **MW-10**

Matrix : Water

Lab Number : 69137-12

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	<b>1.4</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.4</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	<b>&lt; 10</b>	10	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	<b>2900</b>	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	91.8		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	98.5		% Recovery	EPA 8260B	07/06/2009



Report Number : 69137

Date : 07/09/2009

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

Project Number : **01ZO**

Sample : **RW-1**

Matrix : Water

Lab Number : 69137-13

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	<b>0.67</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>1.7</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	<b>&lt; 0.50</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	<b>&lt; 50</b>	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	<b>&lt; 5.0</b>	5.0	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	<b>750</b>	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	99.2		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	107		% Recovery	EPA 8260B	07/06/2009



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

Project Number : **01ZO**

Sample : **MW-4**

Matrix : Water

Lab Number : 69137-14

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	97.4		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/06/2009



Report Number : 69137

Date : 07/09/2009

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

Project Number : **01ZO**

Sample : **MW-2**

Matrix : Water

Lab Number : 69137-15

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	1.6	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	98.5		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	105		% Recovery	EPA 8260B	07/06/2009



Report Number : 69137

Date : 07/09/2009

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

Project Number : **01ZO**

Sample : **MW-1**

Matrix : Water

Lab Number : 69137-16

Sample Date :07/01/2009

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
<b>Benzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Toluene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethylbenzene</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Total Xylenes</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Methyl-t-butyl ether (MTBE)</b>	<b>24</b>	0.50	ug/L	EPA 8260B	07/06/2009
<b>Diisopropyl ether (DIPE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Ethyl-t-butyl ether (ETBE)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-amyl methyl ether (TAME)</b>	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
<b>Tert-Butanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>Methanol</b>	< 50	50	ug/L	EPA 8260B	07/06/2009
<b>Ethanol</b>	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
<b>TPH as Gasoline</b>	<b>110</b>	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	98.3		% Recovery	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	106		% Recovery	EPA 8260B	07/06/2009

**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	07/06/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/02/2009
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
Methanol	< 50	50	ug/L	EPA 8260B	07/02/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/02/2009
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/02/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/02/2009
1,2-Dichloroethane-d4 (Surr)	97.6		%	EPA 8260B	07/02/2009
Toluene - d8 (Surr)	106		%	EPA 8260B	07/02/2009
Benzene	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
Toluene	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
Diisopropyl ether (DIPE)	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
Ethanol	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
Ethyl-t-butyl ether (ETBE)	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
Methanol	< 50	50	ug/L	EPA 8260B	07/06/2009
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
Tert-Butanol	< 5.0	5.0	ug/L	EPA 8260B	07/06/2009
Tert-amyl methyl ether (TAME)	< 0.50	0.50	ug/L	EPA 8260B	07/06/2009
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	07/06/2009
1,2-Dichloroethane-d4 (Surr)	99.9		%	EPA 8260B	07/06/2009
Toluene - d8 (Surr)	103		%	EPA 8260B	07/06/2009

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
Iron	69108-02	0.26	0.400	0.400	0.681	0.685	mg/L	EPA 6010B	7/6/09	104	105	0.498	75-125	20
Benzene	69141-06	<0.50	40.6	40.6	41.8	40.4	ug/L	EPA 8260B	7/2/09	103	99.5	3.58	70-130	25
Methyl-t-butyl ether	69141-06	<0.50	40.7	40.7	39.1	38.5	ug/L	EPA 8260B	7/2/09	96.1	94.6	1.57	70-130	25
Tert-Butanol	69141-06	<5.0	201	201	206	209	ug/L	EPA 8260B	7/2/09	102	104	1.38	70-130	25
Toluene	69141-06	<0.50	40.1	40.1	44.1	42.5	ug/L	EPA 8260B	7/2/09	110	106	3.65	70-130	25
Benzene	69137-11	<0.50	40.6	40.6	42.8	42.1	ug/L	EPA 8260B	7/6/09	105	104	1.62	70-130	25
Methyl-t-butyl ether	69137-11	2.1	40.7	40.7	41.7	41.2	ug/L	EPA 8260B	7/6/09	97.1	96.0	1.11	70-130	25
Tert-Butanol	69137-11	<5.0	201	201	207	209	ug/L	EPA 8260B	7/6/09	103	104	0.778	70-130	25
Toluene	69137-11	<0.50	40.1	40.1	44.3	43.4	ug/L	EPA 8260B	7/6/09	110	108	1.91	70-130	25

**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	7/6/09	106	85-115
Benzene	40.4	ug/L	EPA 8260B	7/2/09	102	70-130
Methyl-t-butyl ether	40.5	ug/L	EPA 8260B	7/2/09	94.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	7/2/09	101	70-130
Toluene	39.9	ug/L	EPA 8260B	7/2/09	109	70-130
Benzene	40.7	ug/L	EPA 8260B	7/6/09	106	70-130
Methyl-t-butyl ether	40.8	ug/L	EPA 8260B	7/6/09	100	70-130
Tert-Butanol	202	ug/L	EPA 8260B	7/6/09	104	70-130
Toluene	40.2	ug/L	EPA 8260B	7/6/09	112	70-130

# CALIFORNIA LABORATORY SERVICES

3249 Fitzgerald Road Rancho Cordova, CA 95742

July 10, 2009

CLS Work Order #: CSG0076  
COC #: 69137

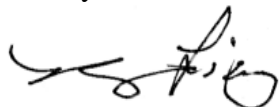
Debbie Daniels  
KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

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

Enclosed are the results of analyses for samples received by the laboratory on 07/02/09 09:00. 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: M1090701 Project Manager: Debbie Daniels	CLS Work Order #: CSG0076 COC #: 69137
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CLG0076

<b>KIFF Analytical LLC</b>		2795 Second Street, Suite 300 Davis, CA 95618 Lab: 530.297.4800 Fax: 530.297.4808		CLS 3249 Fitzgerald Road Rancho Cordova, CA 95742 916-638-7301		COC No. <b>69137</b> Page 1 of 1
Project Contact (Hardcopy or PDF to): <b>Debbie Daniels</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>M1090701</b>	P.O. No.: <b>69137</b>	Deliverables to (Email Address): <a href="mailto:inbox@kiffanalytical.com">inbox@kiffanalytical.com</a>				
Project Name: <b>Tesoro - San Lorenzo #67107</b>		Container / Preservative		Matrix		Standard
Project Address:		250ml Poly None 250ml Poly HNO3 250ml Poly H2SO4		Water		
<b>Sample Designation</b>	Date	Time				
OS-1	07/01/09	10:45	2	1		X
OS-2	07/01/09	11:25	2	1		X
OS-4	07/01/09	12:05	2	1		X
PT-1	07/01/09	12:30	2	1		X
MW-6	07/01/09	12:55	2	1		X
MW-9	07/01/09	10:05	2	1		X
RW-2	07/01/09	13:40	2	1		X
MW-3R	07/01/09	14:15	2	1		X
OS-3	07/01/09	14:45	2	1		X
Relinquished by:		Date	Time	Received by:		Remarks: Please refer to attached Test Detail.  <b>2-2°C</b> Bill to: Accounts Payable
Relinquished by:		Date	Time	Received by:		
Relinquished by:		Date	Time	Received by Laboratory: <b>Jonk 7-2-9 9:00</b>		



# CALIFORNIA LABORATORY SERVICES

Page 2 of 8

07/10/09 11:44

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

Project: Tesoro - San Lorenzo #67107  
Project Number: M1090701  
Project Manager: Debbie Daniels

**CLS Work Order #: CSG0076**  
COC #: 69137

## Test Detail for Kiff Work Order: 69137

**Anions by EPA 300.0 (1)**  
Nitrate as N  
Nitrite as N  
Sulfate

Page 1 of 1

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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

# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Tesoro - San Lorenzo #67107 Project Number: M1090701 Project Manager: Debbie Daniels	CLS Work Order #: CSG0076 COC #: 69137
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## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>OS-1 (CSG0076-01) Water    Sampled: 07/01/09 10:45    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	13	2.5	"	5	CS04907	07/02/09	07/06/09	EPA 300.0	HT-4
Nitrite as N	ND	0.10	"	1	"	"	07/03/09	"	
Total Phosphorus as P	0.59	0.050	"	"	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	39	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
<b>OS-2 (CSG0076-02) Water    Sampled: 07/01/09 11:25    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	4.6	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
Nitrite as N	ND	0.10	"	"	"	"	"	"	
Total Phosphorus as P	0.67	0.050	"	"	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	30	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
<b>OS-4 (CSG0076-03) Water    Sampled: 07/01/09 12:05    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	0.71	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
Nitrite as N	ND	0.10	"	"	"	"	"	"	
Total Phosphorus as P	1.6	0.50	"	10	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	41	0.50	"	1	CS04907	07/02/09	07/03/09	EPA 300.0	
<b>PT-1 (CSG0076-04) Water    Sampled: 07/01/09 12:30    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	ND	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
Nitrite as N	ND	0.10	"	"	"	"	"	"	
Total Phosphorus as P	3.4	0.50	"	10	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	41	0.50	"	1	CS04907	07/02/09	07/03/09	EPA 300.0	

# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Tesoro - San Lorenzo #67107 Project Number: M1090701 Project Manager: Debbie Daniels	CLS Work Order #: CSG0076 COC #: 69137
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## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>MW-6 (CSG0076-05) Water    Sampled: 07/01/09 12:55    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	18	2.5	"	5	CS04907	07/02/09	07/06/09	EPA 300.0	HT-4
Nitrite as N	ND	0.10	"	1	"	"	07/03/09	"	
Total Phosphorus as P	0.63	0.050	"	"	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	56	2.5	"	5	CS04907	07/02/09	07/06/09	EPA 300.0	
<b>MW-9 (CSG0076-06) Water    Sampled: 07/01/09 10:05    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	HT-B2
Nitrate as N	9.6	2.5	"	5	CS04907	07/02/09	07/06/09	EPA 300.0	HT-4
Nitrite as N	ND	0.10	"	1	"	"	07/03/09	"	
Total Phosphorus as P	0.51	0.050	"	"	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	34	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
<b>RW-2 (CSG0076-07) Water    Sampled: 07/01/09 13:40    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	ND	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
Nitrite as N	ND	0.10	"	"	"	"	"	"	
Total Phosphorus as P	9.3	0.50	"	10	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	25	0.50	"	1	CS04907	07/02/09	07/03/09	EPA 300.0	
<b>MW-3R (CSG0076-08) Water    Sampled: 07/01/09 14:15    Received: 07/02/09 09:00</b>									
Ferrous Iron	1.8	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	ND	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
Nitrite as N	ND	0.10	"	"	"	"	"	"	
Total Phosphorus as P	0.95	0.050	"	"	CS04960	07/06/09	07/06/09	SM4500-P E	
Sulfate as SO4	16	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	

# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Tesoro - San Lorenzo #67107 Project Number: M1090701 Project Manager: Debbie Daniels	CLS Work Order #: CSG0076 COC #: 69137
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## Conventional Chemistry Parameters by APHA/EPA Methods

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<b>OS-3 (CSG0076-09) Water    Sampled: 07/01/09 14:45    Received: 07/02/09 09:00</b>									
Ferrous Iron	ND	0.10	mg/L	1	CS04927	07/02/09	07/02/09	SM3500-Fe D	
Nitrate as N	ND	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	
Nitrite as N	ND	0.10	"	"	"	"	"	"	
<b>Total Phosphorus as P</b>	<b>0.72</b>	0.050	"	"	CS04960	07/06/09	07/06/09	SM4500-P E	
<b>Sulfate as SO4</b>	<b>19</b>	0.50	"	"	CS04907	07/02/09	07/03/09	EPA 300.0	

# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Tesoro - San Lorenzo #67107 Project Number: M1090701 Project Manager: Debbie Daniels	CLS Work Order #: CSG0076 COC #: 69137
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## 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 CS04907 - General Prep

**Blank (CS04907-BLK1)** Prepared & Analyzed: 07/02/09

Sulfate as SO4	ND	0.50	mg/L							
Nitrate as N	ND	0.50	"							
Nitrite as N	ND	0.10	"							

**LCS (CS04907-BS1)** Prepared & Analyzed: 07/02/09

Sulfate as SO4	5.26	0.50	mg/L	5.00		105	80-120			
Nitrate as N	0.468	0.50	"	0.451		104	80-120			
Nitrite as N	0.606	0.10	"	0.610		99	80-120			

**LCS Dup (CS04907-BSD1)** Prepared: 07/02/09 Analyzed: 07/03/09

Sulfate as SO4	5.24	0.50	mg/L	5.00		105	80-120	0.2	20	
Nitrite as N	0.609	0.10	"	0.610		100	80-120	0.4	20	
Nitrate as N	0.468	0.50	"	0.451		104	80-120	0	20	

**Matrix Spike (CS04907-MS1)** Source: CSF1200-01 Prepared & Analyzed: 07/02/09

Sulfate as SO4	5.21	0.50	mg/L	5.00	ND	104	75-125			
Nitrate as N	0.465	0.50	"	0.451	ND	103	80-120			
Nitrite as N	0.601	0.10	"	0.610	ND	98	75-125			

**Matrix Spike Dup (CS04907-MSD1)** Source: CSF1200-01 Prepared: 07/02/09 Analyzed: 07/03/09

Sulfate as SO4	5.34	0.50	mg/L	5.00	ND	107	75-125	2	25	
Nitrate as N	0.477	0.50	"	0.451	ND	106	80-120	3	20	
Nitrite as N	0.615	0.10	"	0.610	ND	101	75-125	2	25	

### Batch CS04927 - General Preparation

**Blank (CS04927-BLK1)** Prepared & Analyzed: 07/02/09

Ferrous Iron	ND	0.10	mg/L							
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# CALIFORNIA LABORATORY SERVICES

KIFF Analytical 2795 Second St. Suite 300 Davis, CA 95616	Project: Tesoro - San Lorenzo #67107 Project Number: M1090701 Project Manager: Debbie Daniels	CLS Work Order #: CSG0076 COC #: 69137
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## 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 CS04927 - General Preparation

<b>LCS (CS04927-BS1)</b>				Prepared & Analyzed: 07/02/09						
Ferrous Iron	0.261	0.10	mg/L	0.250		104	80-120			

<b>LCS Dup (CS04927-BSD1)</b>				Prepared & Analyzed: 07/02/09						
Ferrous Iron	0.252	0.10	mg/L	0.250		101	80-120	4	25	

<b>Matrix Spike (CS04927-MS1)</b>				Source: CSG0076-01		Prepared & Analyzed: 07/02/09				
Ferrous Iron	0.257	0.10	mg/L	0.250	0.00	103	75-125			

<b>Matrix Spike Dup (CS04927-MSD1)</b>				Source: CSG0076-01		Prepared & Analyzed: 07/02/09				
Ferrous Iron	0.281	0.10	mg/L	0.250	0.00	112	75-125	9	30	

### Batch CS04960 - General Preparation

<b>Blank (CS04960-BLK1)</b>				Prepared & Analyzed: 07/06/09						
Total Phosphorus as P	ND	0.050	mg/L							

<b>LCS (CS04960-BS1)</b>				Prepared & Analyzed: 07/06/09						
Total Phosphorus as P	0.335	0.050	mg/L	0.300		112	80-120			

<b>LCS Dup (CS04960-BSD1)</b>				Prepared & Analyzed: 07/06/09						
Total Phosphorus as P	0.330	0.050	mg/L	0.300		110	80-120	1	25	

<b>Matrix Spike (CS04960-MS1)</b>				Source: CSG0076-01		Prepared & Analyzed: 07/06/09				
Total Phosphorus as P	0.836	0.050	mg/L	0.300	0.588	82	75-125			

<b>Matrix Spike Dup (CS04960-MSD1)</b>				Source: CSG0076-01		Prepared & Analyzed: 07/06/09				
Total Phosphorus as P	0.836	0.050	mg/L	0.300	0.588	82	75-125	0	30	

# CALIFORNIA LABORATORY SERVICES

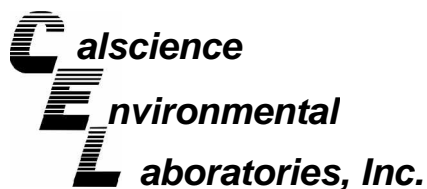
KIFF Analytical  
2795 Second St. Suite 300  
Davis, CA 95616

Project: Tesoro - San Lorenzo #67107  
Project Number: M1090701  
Project Manager: Debbie Daniels

**CLS Work Order #: CSG0076**  
COC #: 69137

## Notes and Definitions

- HT-B2 The remaining holding time was less than an hour when the sample was received at the laboratory. Therefore, it was analyzed outside the holding time.
- HT-4 Sample was originally analyzed within holding time. Due to high concentration of the analyte, the sample was reanalyzed with a dilution.
- 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



July 13, 2009

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

Subject: **Calscience Work Order No.: 09-07-0369**  
**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 7/7/2009 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. 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: 07/07/09  
Work Order No: 09-07-0369  
Preparation: N/A  
Method: RSK-175M

Project: Tesoro - San Lorenzo #67107

Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OS-1	09-07-0369-1-A	07/01/09 10:45	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01

Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

OS-2	09-07-0369-2-A	07/01/09 11:25	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01
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Parameter	Result	RL	DF	Qual	Units
Methane	160	1.00	1		ug/L

OS-4	09-07-0369-3-A	07/01/09 12:05	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01
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Parameter	Result	RL	DF	Qual	Units
Methane	1.78	1.00	1		ug/L

PT-1	09-07-0369-4-A	07/01/09 12:30	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01
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Parameter	Result	RL	DF	Qual	Units
Methane	20.7	1.00	1		ug/L

MW-6	09-07-0369-5-A	07/01/09 12:55	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01
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Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

MW-9	09-07-0369-6-A	07/01/09 10:05	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01
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Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

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

## Analytical Report



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

Date Received: 07/07/09  
Work Order No: 09-07-0369  
Preparation: N/A  
Method: RSK-175M

Project: Tesoro - San Lorenzo #67107

Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
RW-2	09-07-0369-7-A	07/01/09 13:40	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01

Parameter	Result	RL	DF	Qual	Units
Methane	271	1.00	1		ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
MW-3R	09-07-0369-8-A	07/01/09 14:15	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01

Parameter	Result	RL	DF	Qual	Units
Methane	885	8.00	8		ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
OS-3	09-07-0369-9-A	07/01/09 14:45	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01

Parameter	Result	RL	DF	Qual	Units
Methane	443	8.00	8		ug/L

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	099-12-663-655	N/A	Aqueous	GC 33	N/A	07/07/09 00:00	090707L01

Parameter	Result	RL	DF	Qual	Units
Methane	ND	1.00	1		ug/L

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

## Analytical Report



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

Date Received: 07/07/09  
Work Order No: 09-07-0369

Project: Tesoro - San Lorenzo #67107

Page 1 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
OS-1	09-07-0369-1	07/01/09	Aqueous

Comment(s): (14) Sample received after recommended holding time.

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	294	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	ND	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH3 B/C
Carbon, Total Organic	2.2	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	290	5.0	1		mg/L	N/A	07/07/09	SM4500-CO2D

OS-2	09-07-0369-2	07/01/09	Aqueous
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Comment(s): (14) Sample received after recommended holding time.

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	370	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	ND	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH3 B/C
Carbon, Total Organic	2.5	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	23	1.0	1		mg/L	N/A	07/07/09	SM4500-CO2D

OS-4	09-07-0369-3	07/01/09	Aqueous
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Comment(s): (14) Sample received after recommended holding time.

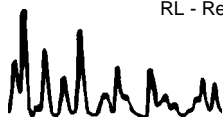
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	362	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	ND	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH3 B/C
Carbon, Total Organic	2.9	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	21	1.0	1		mg/L	N/A	07/07/09	SM4500-CO2D

PT-1	09-07-0369-4	07/01/09	Aqueous
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Comment(s): (14) Sample received after recommended holding time.

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	388	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	0.17	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH3 B/C
Carbon, Total Organic	4.7	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	28	1.0	1		mg/L	N/A	07/07/09	SM4500-CO2D

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



## Analytical Report



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

Date Received: 07/07/09  
Work Order No: 09-07-0369

Project: Tesoro - San Lorenzo #67107

Page 2 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
<b>MW-6</b>	<b>09-07-0369-5</b>	<b>07/01/09</b>	<b>Aqueous</b>

Comment(s): (14) Sample received after recommended holding time.

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	370	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	ND	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH <sub>3</sub> B/C
Carbon, Total Organic	2.6	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	68	1.0	1		mg/L	N/A	07/07/09	SM4500-CO <sub>2</sub> D

<b>MW-9</b>	<b>09-07-0369-6</b>	<b>07/01/09</b>	<b>Aqueous</b>
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Comment(s): (14) Sample received after recommended holding time.

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	364	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	ND	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH <sub>3</sub> B/C
Carbon, Total Organic	2.0	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	73	1.0	1		mg/L	N/A	07/07/09	SM4500-CO <sub>2</sub> D

<b>RW-2</b>	<b>09-07-0369-7</b>	<b>07/01/09</b>	<b>Aqueous</b>
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Comment(s): (14) Sample received after recommended holding time.

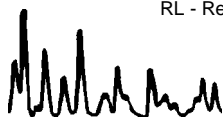
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	436	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	0.22	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH <sub>3</sub> B/C
Carbon, Total Organic	5.2	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	96	1.0	1		mg/L	N/A	07/07/09	SM4500-CO <sub>2</sub> D

<b>MW-3R</b>	<b>09-07-0369-8</b>	<b>07/01/09</b>	<b>Aqueous</b>
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Comment(s): (14) Sample received after recommended holding time.

Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	560	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	0.84	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH <sub>3</sub> B/C
Carbon, Total Organic	4.4	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	100	5.0	1		mg/L	N/A	07/07/09	SM4500-CO <sub>2</sub> D

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



## Analytical Report



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

Date Received: 07/07/09  
Work Order No: 09-07-0369

Project: Tesoro - San Lorenzo #67107

Page 3 of 3

Client Sample Number	Lab Sample Number	Date Collected	Matrix
OS-3	09-07-0369-9	07/01/09	Aqueous

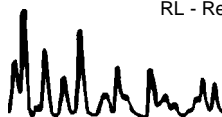
Comment(s): (14) Sample received after recommended holding time.

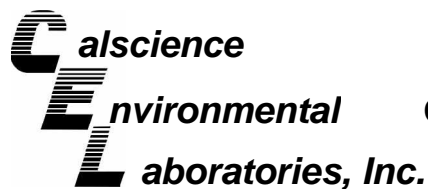
Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	544	5.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	ND	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH <sub>3</sub> B/C
Carbon, Total Organic	3.9	0.50	1		mg/L	N/A	07/07/09	SM 5310 D
Carbon Dioxide (14)	64	1.0	1		mg/L	N/A	07/07/09	SM4500-CO <sub>2</sub> D

<b>Method Blank</b>					N/A			Aqueous
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Parameter	Result	RL	DF	Qual	Units	Date Prepared	Date Analyzed	Method
Alkalinity, Total (as CaCO <sub>3</sub> )	ND	1.0	1		mg/L	N/A	07/07/09	SM 2320B
Ammonia (as N)	ND	0.10	1		mg/L	07/10/09	07/10/09	SM 4500-NH <sub>3</sub> B/C
Carbon, Total Organic	ND	0.50	1		mg/L	N/A	07/07/09	SM 5310 D

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





## Quality Control - Spike/Spike Duplicate



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

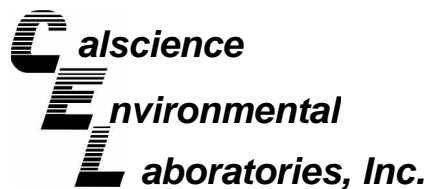
Date Received: N/A  
Work Order No: 09-07-0369

Project: Tesoro - San Lorenzo #67107

Matrix: Aqueous

<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 D	MW-9	07/07/09	N/A	92	93	70-130	1	0-25	

RPD - Relative Percent Difference , CL - Control Limit



## Quality Control - Duplicate



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

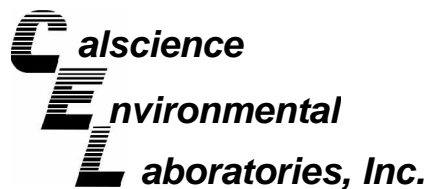
Date Received: N/A  
Work Order No: 09-07-0369

Project: Tesoro - San Lorenzo #67107

Matrix: Aqueous

<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>
Carbon Dioxide	SM4500-CO2D	OS-1	07/07/09	290	300	1	0-25	
Alkalinity, Total (as CaCO3)	SM 2320B	OS-1	07/07/09	294	296	1	0-25	
Ammonia (as N)	SM 4500-NH3 B/C	09-07-0398-1	07/10/09	ND	ND	NA	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: N/A  
Work Order No: 09-07-0369  
Preparation: N/A  
Method: RSK-175M

Project: Tesoro - San Lorenzo #67107

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-663-655	Aqueous	GC 33	N/A	07/07/09	090707L01

<u>Parameter</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>%REC CL</u>	<u>RPD</u>	<u>RPD CL</u>	<u>Qualifiers</u>
Methane	96	98	79-109	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit





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

Date Received:  
 Work Order No:

N/A  
 09-07-0369

Project: Tesoro - San Lorenzo #67107

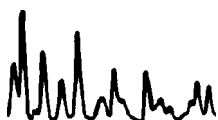
Matrix : Aqueous

<u>Parameter</u>	<u>Method</u>	<u>Quality Control</u> <u>Sample ID</u>	<u>Date</u> <u>Analyzed</u>	<u>Date</u> <u>Extracted</u>	<u>Conc.</u> <u>Added</u>	<u>Conc.</u> <u>Recovered</u>	<u>LCS</u> <u>%Rec</u>	<u>%Rec.</u> <u>CL</u>	<u>Qualifiers</u>
Carbon, Total Organic	SM 5310 D	099-05-097-3,468	07/07/09	N/A	5.00	4.87	97	80-120	

RPD - Relative Percent Difference , CL - Control Limit

Work Order Number: 09-07-0369

<u>Qualifier</u>	<u>Definition</u>
*	See applicable analysis comment.
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 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 with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
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.
N	Nontarget Analyte.
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.
U	Undetected at the laboratory method detection limit.
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.

0369  
 69137

Page 1 of 1

Project Contact (Hardcopy or PDF to): **Debbie Daniels** EDF Report? **YES** Chain-of-Custody Record and Analysis Request

Company/Address: **Kiff Analytical** Recommended but not mandatory to complete this section:

Sampling Company Log Code: **CESC** Analysis Request TAT

Phone No.: **530-297-4800** FAX No.: **530-297-4808** Global ID: **T0600101414**

Project Number: **M1090701** P.O. No.: **69137** Deliverables to (Email Address): **inbox@kiffanalytical.com**

Project Name: **Tesoro - San Lorenzo #67107** Container / Preservative Matrix

Project Address: **Sampling**

Sample Designation Date Time 1-L Amber H2SO4 250ml Poly None 250ml Poly H2SO4 VOA 40 ml HCl Water Alkalinity SM 2320 (1) Ammonia Carbon Dioxide Hydrocarbons in Water by RSK 175 (1) Total Organic Carbon 4-Days For Lab Use Only

Sample Designation	Date	Time	1-L Amber H2SO4	250ml Poly None	250ml Poly H2SO4	VOA 40 ml HCl	Water	Alkalinity SM 2320 (1)	Ammonia	Carbon Dioxide	Hydrocarbons in Water by RSK 175 (1)	Total Organic Carbon	4-Days	For Lab Use Only
OS-1	07/01/09	10:45	2	2	1	2	X	X	X	X	X	X	X	1
OS-2	07/01/09	11:25	2	2	1	2	X	X	X	X	X	X	X	2
OS-4	07/01/09	12:05	2	2	1	2	X	X	X	X	X	X	X	3
PT-1	07/01/09	12:30	2	2	1	2	X	X	X	X	X	X	X	4
MW-6	07/01/09	12:55	2	2	1	2	X	X	X	X	X	X	X	5
MW-9	07/01/09	10:05	2	2	1	2	X	X	X	X	X	X	X	6
RW-2	07/01/09	13:40	2	2	1	2	X	X	X	X	X	X	X	7
MW-3R	07/01/09	14:15	2	2	1	2	X	X	X	X	X	X	X	8
OS-3	07/01/09	14:45	2	2	1	2	X	X	X	X	X	X	X	9

Relinquished by: *[Signature]* **Kiff Analytical** Date: **07/06/09** Time: **1900** Received by:

Relinquished by: Date: Time: Received by:

Relinquished by: **ONTRAC B10244074547** Date: **7/7/09** Time: **0830** Received by Laboratory: **Woburn CA**

Remarks: Please refer to attached Test Detail.

Bill to: **Accounts Payable**

B10244074538

# Test Detail for Kiff Work Order: 69137

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

**Hydrocarbons in Water by RSK 175 (1)**  
Methane

**SAMPLE RECEIPT FORM**

Cooler 1 of 2

CLIENT: KIFF ANALYTICAL

DATE: 7 / 7 / 09

**TEMPERATURE:** (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.0 °C - 0.2 °C (CF) = 1.8 °C  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: WS

**CUSTODY SEALS INTACT:**

- Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A
- Sample  \_\_\_\_\_  No (Not Intact)  Not Present

Initial: WS

Initial: CK

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/> <u>8/1/09</u>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

- Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve  EnCores®  TerraCores®  \_\_\_\_\_
- Water:**  VOA  VOA<sup>h</sup>  VOA<sub>Na2</sub>  125AGB  125AGB<sup>h</sup>  125AGB<sup>p</sup>  1AGB  1AGB<sub>Na2</sub>  1AGB<sub>s</sub>
- 500AGB  500AGJ  500AGJ<sub>s</sub>  250AGB  250CGB  250CGB<sub>s</sub>  1PB  500PB  500PB<sub>Na</sub>
- 250PB  250PB<sub>n</sub>  125PB  125PB<sub>z<sup>nna</sup></sub>  100PJ  100PJ<sub>Na2</sub>  250PB<sub>s</sub>  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Summa®  \_\_\_\_\_ **Other:**  \_\_\_\_\_ **Checked/Labeled by:** CK

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar (Wide-mouth) B: Bottle (Narrow-mouth) **Reviewed by:** YL

**Preservative:** h: HCL n: HNO3 na<sub>2</sub>:Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> z<sub>nna</sub>: ZnAc<sub>2</sub>+NaOH f: Field-filtered **Scanned by:** YL

**SAMPLE RECEIPT FORM**

Cooler 2 of 2

CLIENT: KIFF ANALYTICAL

DATE: 7 / 7 / 09

**TEMPERATURE:** (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C - 0.2 °C (CF) = 2.4 °C  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: WS

**CUSTODY SEALS INTACT:**

- Cooler  \_\_\_\_\_  No (Not Intact)  Not Present  N/A
- Sample  \_\_\_\_\_  No (Not Intact)  Not Present

Initial: WS

Initial: CK

**SAMPLE CONDITION:**

	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
COC document(s) received complete.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
<input type="checkbox"/> COC not relinquished. <input type="checkbox"/> No date relinquished. <input type="checkbox"/> No time relinquished.			
Sampler's name indicated on COC.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample container label(s) consistent with COC.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sample container(s) intact and good condition.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Correct containers and volume for analyses requested.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Analyses received within holding time.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Proper preservation noted on COC or sample container.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace.....	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tedlar bag(s) free of condensation.....	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**CONTAINER TYPE:**

- Solid:**  4ozCGJ  8ozCGJ  16ozCGJ  Sleeve  EnCores®  TerraCores®  \_\_\_\_\_
- Water:**  VOA  VOAh  VOAna<sub>2</sub>  125AGB  125AGBh  125AGBp  1AGB  1AGBna<sub>2</sub>  1AGBs
- 500AGB  500AGJ  500AGJs  250AGB  250CGB  250CGBs  1PB  500PB  500PBna
- 250PB  250PBn  125PB  125PBz<sub>na</sub>  100PJ  100PJna<sub>2</sub>  250PBs  \_\_\_\_\_  \_\_\_\_\_

**Air:**  Tedlar®  Summa®  \_\_\_\_\_ **Other:**  \_\_\_\_\_ **Checked/Labeled by:** CK

**Container:** C: Clear A: Amber P: Plastic G: Glass J: Jar (Wide-mouth) B: Bottle (Narrow-mouth) **Reviewed by:** YL

**Preservative:** h: HCL n: HNO<sub>3</sub> na<sub>2</sub>: Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub> Na: NaOH p: H<sub>3</sub>PO<sub>4</sub> s: H<sub>2</sub>SO<sub>4</sub> z<sub>na</sub>: ZnAc<sub>2</sub>+NaOH f: Field-filtered **Scanned by:** YL





2795 2nd Street, Suite 300  
 Davis, CA 95618  
 Lab: 530.297.4800  
 Fax: 530.297.4802

SRG # / Lab No.

69137

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Project Contact (Hardcopy or PDF To): Mike Purchase  
 Company / Address: Arctos Environmental, 1332 Peralta Avenue, Berkeley, CA. 90806  
 Phone Number: (510) 525-2180  
 Fax Number: (510) 525-2392  
 Project #: MI-090701  
 P.O. #:   
 Project Name: Tesoro - San Lorenzo #67107

California EDF Report?  Yes  No  
 Sampling Company Log Code: CESC  
 Global ID: T0600101414  
 EDF Deliverable To (Email Address):  
 Bill to:  
 Sampler Signature: *[Signature]*

Chain-of-Custody Record and Analysis Request

Sample Designation	Date	Time	Containers & Preservatives								Matrix		Analysis Request										TAT	For Lab Use Only						
			40 ml HCl VOA	250 mL HDPE unpres	500 mL HDPE unpres	250 mL HDPE HNO	250 mL glass H <sub>2</sub> SO <sub>4</sub>	125 mL Amber glass w/ septae	250 mL HDPE	1 L Amber glass w/ septae	Water	Soil	Air	MTBE @ 0.5 ppb (EPA 8260B)	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (MTBE, DIPE, ETBE, TAME, TBA) (EPA 8260B)	7 Oxygenates (5 oxy + EtOH, MeOH) (EPA 8260B)	Lead Scav. (1,2 DCA & 1,2 EDB) (EPA 8260B)	Ammonia	Phosphorus, Nitrate, Nitrite and Sulfate (EPA 300.0/365)	circle method			Methane (RSK 175M)	Total Alkalinity (SM2320 B)	Carbon Dioxide (SM 4500-CO2D)	Total Organic Carbon (EPA 415.1)	Total Iron (EPA 6010)	Ferrous Iron (SM 3500-Fe D)
OS-1	7/1/09	1045	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		01
OS-2		1125	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		02
OS-4		1205	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		03
PT-1		1230	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		04
MW6		1255	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		05
MW9		1005	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		06
RW2		1340	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		07
MW3R		1415	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		08
OS-3		1445	5	4	1			2	2			X		X	X			X	X			X	X	X	X	X	X	X		09

Relinquished by: *[Signature]* Date: 7/1/09 Time: 1620  
 Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished by: \_\_\_\_\_ Date: 07/01/09 Time: 1620  
 Received by Laboratory: *[Signature]* Kiff Analytical

Remarks:  
 For Lab Use Only: Sample Receipt  
 Temp °C: \_\_\_\_\_ Initials: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Therm. ID #: \_\_\_\_\_ Coolant Present: Yes / No





2795 2nd Street, Suite 300  
 Davis, CA 95618  
 Lab: 530.297.4800  
 Fax: 530.297.4802

SRG # / Lab No.

69137

Page 2 of 2

Project Contact (Hardcopy or PDF To):		California EDF Report?		Chain-of-Custody Record and Analysis Request																																	
Mike Purchase		<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Analysis Request										TAT																							
Company / Address: Arctos Environmental 1332 Peralta Avenue, Berkley, CA. 90806		Sampling Company Log Code: CESC																																			
Phone Number: (510) 525-2180		Global ID: T0600101414																																			
Fax Number: (510) 525-2392		EDF Deliverable To (Email Address):																																			
Project #: <u>H1-090701</u>	P.O. #:	Bill to:																																			
Project Name: Tesoro - San Lorenzo #67107		Sampler Signature: <u>Branche 23</u>																																			
Sample Designation	Sampling		Containers & Preservatives						Matrix			MTBE @ 0.5 ppb (EPA 8260B)	BTEX (EPA 8260B)	TPH Gas (EPA 8260B)	5 Oxygenates (MTBE, DIPE, ETBE, TAME, TBA) (EPA 8260B)	7 Oxygenates (5 oxy + EtOH, MeOH) (EPA 8260B)	Lead Scav. (1,2 DCA & 1,2 EDB) (EPA 8260B)	Ammonia	Phosphorus, Nitrate, Nitrite and Sulfate (EPA 300.0/365)	circle method			1 wk	For Lab Use Only													
	Date	Time	40 ml HCl VOA	250 mL HDPE unpres	500 mL HDPE unpres	250 mL HDPE HNO <sub>3</sub>	250 mL glass H <sub>2</sub> SO <sub>4</sub>	125 mL Amber glass w/ septae	Water	Soil	Air									Methane (RSK 175M)	Total Alkalinity (SM2320 B)	Carbon Dioxide (SM 4500-CO2D)			Total Organic Carbon (EPA 415.1)	Total Iron (EPA 6010)	Ferrous Iron (SM 3500-Fe D)	12 hr	24 hr	48 hr	72 hr						
MW-12	7/1/09	905	3							X			X	X																							
MW-11		920	3							X			X	X																							
MW-10		940	3							X			X	X																							
RW-1		1515	3							X			X	X																							
MW-4		1525	3							X			X	X																							
MW-2		1540	3							X			X	X																							
MW-1		1555	3							X			X	X																							
Relinquished by: <u>Branche 23</u>		Date: <u>7/1/09</u>	Time: <u>1620</u>	Received by: _____		Remarks: _____																															
Relinquished by: _____		Date: _____	Time: _____	Received by: _____																																	
Relinquished by: _____		Date: <u>07/01/09</u>	Time: <u>1620</u>	Received by Laboratory: <u>[Signature]</u> KIFF Analytical																																	
										For Lab Use Only: Sample Receipt																											
Temp °C	Initials	Date	Time	Therm. ID #	Coolant Present																																
					Yes / No																																



### SAMPLE RECEIPT CHECKLIST

RECEIVER  
TJB  
Initials

SRG#: 69137 Date: 070109  
Project ID: Tesoro - San Lorenzo #67107  
Method of Receipt:  Courier  Over-the-counter  Shipper

**COC Inspection**

Is COC present?  Yes  No  
Custody seals on shipping container?  Intact  Broken  Not present  N/A  
Is COC Signed by Relinquisher?  Yes  No Dated?  Yes  No  
Is sampler name legibly indicated on COC?  Yes  No  
Is analysis or hold requested for all samples  Yes  No  
Is the turnaround time indicated on COC?  Yes  No  
Is COC free of whiteout and uninitialed cross-outs?  Yes  No, Whiteout  No, Cross-outs

**Sample Inspection**

Coolant Present:  Yes  No (includes water)  
Temperature °C 2-2 Therm. ID# 112-5 Initial DA Date/Time 070109/2025  N/A  
Are there custody seals on sample containers?  Intact  Broken  Not present  
Do containers match COC?  Yes  No  No, COC lists absent sample(s)  No, Extra sample(s) present  
Are there samples matrices other than soil, water, air or carbon?  Yes  No  
Are any sample containers broken, leaking or damaged?  Yes  No  
Are preservatives indicated?  Yes, on sample containers  Yes, on COC  Not indicated  N/A  
Are preservatives correct for analyses requested?  Yes  No  N/A  
Are samples within holding time for analyses requested?  Yes  No  
Are the correct sample containers used for the analyses requested?  Yes  No  
Is there sufficient sample to perform testing?  Yes  No  
Does any sample contain product, have strong odor or are otherwise suspected to be hot?  Yes  No

**Receipt Details**

Matrix WA Container type VOA # of containers received 66  
Matrix WA Container type Poly # of containers received 63  
Matrix WA Container type Amber # of containers received 18  
Date and Time Sample Put into Temp Storage Date: 070109 Time: 2025

**Quicklog**

Are the Sample ID's indicated:  On COC  On sample container(s)  On Both  Not indicated  
If Sample ID's are listed on both COC and containers, do they all match?  Yes  No  N/A  
Is the Project ID indicated:  On COC  On sample container(s)  On Both  Not indicated  
If project ID is listed on both COC and containers, do they all match?  Yes  No  N/A  
Are the sample collection dates indicated:  On COC  On sample container(s)  On Both  Not indicated  
If collection dates are listed on both COC and containers, do they all match?  Yes  No  N/A  
Are the sample collection times indicated:  On COC  On sample container(s)  On Both  Not indicated  
If collection times are listed on both COC and containers, do they all match?  Yes  No  N/A

**COMMENTS:**

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**ATTACHMENT F**  
**OXYGEN INJECTION PERFORMANCE MONITORING**

TABLE F-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	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>(b)</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
9/5/09	--	--	--	--	--	
OS-2	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
OS-3	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
	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	--	--	--	--	--

TABLE F-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-4	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	--	--	--	--	--	
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
8/11/09	--	--	--	--	--	
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
	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	

(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.