

Ultramar

Ultramar, Inc.
P.O. Box 466
525 W. Third Street
Hanford, CA 93232-0466
(209) 582-0241

Telecopy: 209-585-5685 Credit
209-583-3330 Administrative
209-583-3302 Information Services
209-583-3358 Accounting

July 22, 1997

Ms. Amy Leach
Hazardous Materials Program
Department of Environmental Health
Alameda County Health Care Services
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

SUBJECT: BEACON STATION NO. 721, 44 LEWELLING BLVD., SAN LORENZO, CALIFORNIA

Dear Ms. Leach:

Enclosed is a copy of the **Quarterly Ground Water Monitoring Report, Second Quarter 1997** for the above-referenced Ultramar facility. Also included is a copy of the Quarterly Status Report.

Please call if you have any questions regarding this project.

Sincerely,

ULTRAMAR INC.

Terrence A. Fox

Terrence A. Fox
Senior Project Manager
Marketing Environmental Department

Enclosures

cc w/encl: Mr. Steve Morse, San Francisco Bay Region, RWQCB



A Member of the Ultramar Group of Companies

BEACON
#1 Quality and Service

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ENVIRONMENTAL PROJECT QUARTERLY STATUS REPORT

DATE REPORT SUBMITTED: July 22, 1997
QUARTER ENDING: June 30, 1997

SERVICE STATION NO.: 721
ADDRESS: 44 Lewelling Blvd., San Lorenzo, CA
COUNTY: Alameda

ULTRAMAR CONTACT: Terrence A. Fox

TEL. NO: 209-583-5545

BACKGROUND:

In April 1987, three underground gasoline storage tanks were excavated and removed. Samples collected from beneath the former tanks indicated that hydrocarbons were present in the soil. In May 1987, three monitoring wells (MW-1 through MW-3) were installed by Conoco. Hydrocarbons were detected in soil and ground-water samples collected from the wells. In December 1988, four additional wells (MW-4 through MW-7) were installed. Dissolved-phase hydrocarbons were detected in the new wells. In September 1989, two additional wells (MW-8 and MW-9) were installed. The site has been on a monitoring program since May 1987.

In July 1990, the site was purchased by Ultramar Inc. from Conoco. The monitoring program has continued. Submitted work plan for additional assessment on March 14, 1991.

In October 1991, drilled two additional offsite wells (MW-10 and MW-11) southwest of the site and one onsite recovery well (RW-1). In November 1991, performed ground-water pump test and vapor extraction test.

In April 1992, Ultramar submitted an Interim Remediation Plan. The plan was approved in June 1992.

In March 1993, installed the subsurface piping for the remediation system. Completed installation of ground-water remediation system in April 1993. Began operation in June 1993.

In April 1993, the ground-water extraction system began operation. In March 1994, the vapor extraction system began operation.



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BEACON
#1 Quality and Service

Beacon Station 721
Quarterly Status Report
Page 2

Obtained the Permit to Operate for the vapor extraction system on June 8, 1994.

In December 1995, installed an air sparging system.

In January 1997, discontinued to operate the remediation system. Approximately 1,184,392 gallons of ground water have been removed, treated, and discharged. Approximately 103 gallons of hydrocarbons have been removed the vapor extraction system.

SUMMARY OF THIS QUARTER'S ACTIVITIES:

Performed quarterly monitoring on May 20, 1997.

Clean out MW-3 and sampled well in July 1997.

RESULT OF QUARTERLY MONITORING:

Monitoring data indicates that benzene concentrations remained not detected in wells MW-1, MW-4, MW-5, MW-6, MW-7, MW-8, MW-9, and MW-11. The benzene concentration decreased in MW-10 from 5.9 ppb to not detected. The benzene concentration increased in MW-2 from not detected to 120 ppb. MW-3, which was not sampled last quarter, was not detected for benzene.

PROPOSED ACTIVITY OR WORK FOR NEXT QUARTER:

<u>ACTIVITY</u>	<u>ESTIMATED COMPLETION DATE</u>
Continue quarterly ground-water monitoring.	Ongoing
Submit workplan for confirmation borings.	July 31, 1997
Evaluate site for closure.	



Delta
Environmental
Consultants, Inc.

ENVIRONMENTAL
PROTECTION

97 JUL 24 PM 2:37

3164 Gold Camp Drive
Suite 200
Rancho Cordova, CA 95670
916/638-2085
FAX: 916/638-8385

July 17, 1997

Mr. Terrence A. Fox
Ultramar, Inc.
525 West Third Street
Hanford, California 93230

Subject: *Quarterly Ground Water Monitoring Report, Second Quarter 1997*
Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California
Delta Project No. D093-936

Dear Mr. Fox:

Delta Environmental Consultants, Inc. (Delta), has been authorized by Ultramar, Inc. (Ultramar), to conduct quarterly ground water monitoring and perform remedial actions at the above-referenced site. The monitoring is intended to evaluate the distribution of dissolved petroleum hydrocarbon constituents in ground water in the vicinity of the site. This letter report summarizes the results of ground water monitoring activities performed at the site on May 20, 1997. The site location is shown in Figure 1 and site features are illustrated in Figure 2.

Ground water monitoring included measurement of depth to ground water, subjective analyses of water samples to evaluate the presence or absence of free petroleum product or product sheen and collection of ground water samples for chemical analysis. Methods used to perform these tasks are described in Enclosure A.

Ground Water Table Measurements and Flow Direction

Depth to ground water was measured in all of the wells at depths ranging from 13.46 (MW-7) to 17.36 (MW-11) feet below the top of well casings. Ground water monitoring well MW-3 was plugged by an obstruction at 13.5 below surface grade. Ground water elevations have decreased an average of approximately 2.27 feet since the previous quarterly event in January 1997. Cumulative ground water table measurements at the site are compiled in Table 1. Based on the ground water table measurements, the inferred ground water flow is toward the southwest with a gradient of less than 0.01. The ground water recovery system was not operating during this monitoring event. A ground water table contour map prepared from the current event data is included as Figure 3.

Ground Water Analytical Results

Ground water samples were collected from all of the monitoring wells, with the exception of MW-3. The ground water samples were submitted to Kiff Analytical of Davis, California (a California-certified laboratory), for analysis of benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) using EPA Method 602/5030, and total petroleum

Mr. Terrence A. Fox

Ultramar, Inc.

July 17, 1997

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hydrocarbons (TPH) as gasoline using EPA Method 8015 Modified. A copy of the sampling information data sheets are included in Enclosure B.

Benzene was not detected at or above the laboratory detection limit in ground water samples collected from MW-1, MW-4 through MW-11, and RW-1. Benzene was only reported in the ground water samples collected from monitoring well MW-2 at a concentration of 120 micrograms per liter ($\mu\text{g}/\text{L}$). Using the May 1997 ground water analytical data, a benzene concentration map was constructed and is included as Figure 4. Cumulative ground water analytical results for TPH as gasoline, BTEX, and MTBE are summarized in Table 2. A copy of the certified analytical report with chain-of-custody documentation is provided in Enclosure C.

Clearing of Monitoring Well MW-3

On July 9, 1997, a vacuum truck was used to remove the obstruction from monitoring well MW-3. The obstruction appeared to be silt which was measured at a depth of 14.31 feet below the top of casing. After removing the silt the well depth was measured at 29.3 feet. On July 10, 1997, after the well was allowed to stabilize, a ground water sample was collected for analysis of BTEX, MTBE and TPH as gasoline. The analytical results are included in Table 2 and a copy of the laboratory report with chain-of-custody documentation is included in Enclosure C.

Velocity of Ground Water Flow

At the request of the Alameda County Environmental Health Department, the velocity of ground water flow was calculated to be an average of 14.34 feet per day. This calculation is based on transmissivity data from a pump test performed on November 12, 1991, by Resna Industries, Inc. In addition to the transmissivity data, gradient data was utilized from three prior quarterly monitoring events and porosity was estimated to be 38 percent. The porosity estimate is based on the conservative default value provided in Appendix X.2 from ASTM E-1739. A spreadsheet documenting the values used in the calculation is provided in Enclosure D.

Remediation System Status

The ground water treatment system was shut down in October 1996 due to low influent concentrations. The soil vapor extraction and air sparging systems were shut down on June 22, 1997, as the results indicate asymptotic levels had been reached.

Remarks\Signatures

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

Mr. Terrence A. Fox
Ultramar, Inc.
July 17, 1997
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It is recommended that copies of this document be forwarded to:

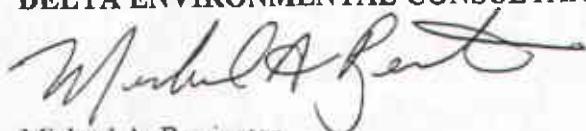
Mr. Steven Ritchie
California Regional Water Quality Control Board,
San Francisco Bay Region
2101 Webster Street
Oakland, California 94612

Ms. Amy Leech
Alameda County Environmental
Health Dept.
470 27th Street, Room 322
Oakland, California 94612

If you have any questions, please contact Keoni Almeida at (916) 638-2085.

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.



Michael A. Berrington
Project Geologist



Charles Keoni Almeida
Project Manager



Owen M. Kittredge, R.G.
California Registered Geologist No. 5853

MAB (LRP008.936)
Enclosures



TABLE 1
GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)^a</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-1	02/18/92	43.67	16.42	27.25	
	05/14/92		17.28	26.39	
	08/27/92		19.48	24.19	
	11/19/92		20.57	23.10	
	02/03/93		15.91	27.76	
	06/23/93		16.21	27.46	No free product or sheen
	09/22/93		17.85	25.82	No free product or sheen
	01/24/94		17.91	25.76	
	04/07/94		16.94	26.73	No free product or sheen
	06/07/94		17.20	26.47	No free product or sheen
	09/28/94		18.73	24.94	No free product or sheen
	12/14/94		17.56	26.11	Product sheen
	03/15/95		14.92	28.75	Product sheen
	06/13/95		15.38	28.29	No free product or sheen
	09/28/95		16.75	26.92	No free product or sheen
	12/28/95		17.28	26.39	No free product or sheen
	03/12/96		14.13	29.54	No free product or sheen
	06/11/96		14.90	28.77	No free product or sheen
	10/02/96		16.31	27.36	No free product or sheen
	01/28/97		12.99	30.68	No free product or sheen
	05/20/97		15.28	28.39	No free product or sheen

TABLE 1-Continued

GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-2	02/18/92	43.09	16.65	26.44	
	05/14/92		16.64	26.45	
	08/27/92		16.61	26.28	
	11/19/92		19.91	23.18	
	02/03/93		15.23	27.86	
	06/23/93		15.55	27.54	No free product or sheen
	09/22/93		17.22	25.87	No free product or sheen
	01/24/94		17.20	25.89	
	04/07/94		16.26	26.83	No free product or sheen
	06/07/94		16.46	26.63	No free product or sheen
	09/28/94		18.06	25.03	No free product or sheen
	12/14/94		16.86	26.23	No free product or sheen
	03/15/95		14.08	29.01	No free product or sheen
	06/13/95		14.67	28.42	No free product or sheen
	09/28/95		16.07	27.02	No free product or sheen
	12/28/95		16.46	26.63	No free product or sheen
	03/12/96		13.11	29.98	No free product or sheen
	06/11/96		14.14	28.95	No free product or sheen
	10/02/96		15.71	27.38	No free product or sheen
	01/28/97		12.05	31.04	No free product or sheen
	05/20/97		14.65	28.44	No free product or sheen

TABLE 1-Continued
GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-3	02/18/92	43.10	16.89	26.21	
	05/14/92		16.60	26.50	
	08/27/92		18.96	24.14	
	11/18/92		20.38	23.01	
	02/03/93		15.43	27.67	
	06/23/93		15.67	27.43	Product sheen
	09/22/93		17.20	25.90	No free product or sheen
	01/24/94		17.35	25.75	
	04/07/94		14.48	28.62	No free product or sheen
	06/07/94		13.37	29.73	Product sheen
	09/28/94		18.05	25.05	No free product or sheen
	12/14/94		16.92	26.18	Product sheen
	03/15/95		14.22	28.88	Product sheen
	06/13/95		14.49	28.61	Product sheen
	09/28/95		15.17	27.93	No free product or sheen
	12/28/95		15.45	27.65	No free product or sheen
	03/12/96		11.35	31.75	No free product or sheen
	06/11/96	Dry	Dry	Dry	Dry
	10/02/96	Dry	Dry	Dry	Dry
	01/28/97	Dry	Dry	Dry	Dry
	05/20/97	Dry	Dry	Dry	Plugged at 14 feet

TABLE 1-Continued**GROUND WATER ELEVATIONS**

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-4	02/18/92	44.66	18.51	26.15	
	05/14/92		18.22	26.44	
	08/27/92		20.47	24.19	
	11/19/92		21.58	23.08	
	02/03/93		16.98	27.68	
	06/23/93		17.23	27.43	No free product or sheen
	09/22/93		18.83	25.83	No free product or sheen
	01/24/94		18.86	25.80	
	04/07/94		17.90	26.76	No free product or sheen
	06/07/94		18.08	26.58	No free product or sheen
	09/28/94		19.70	24.96	No free product or sheen
	12/14/94		18.55	26.11	No free product or sheen
	03/15/95		16.14	28.52	No free product or sheen
	06/13/95		16.41	28.25	No free product or sheen
	09/28/95		17.88	26.78	No free product or sheen
	12/28/95		17.81	26.85	No free product or sheen
	03/12/96		14.77	29.89	No free product or sheen
	06/11/96		15.88	28.78	No free product or sheen
	10/02/96		17.40	27.26	No free product or sheen
	01/28/97		14.11	30.55	No free product or sheen
	05/20/97		16.24	28.42	No free product or sheen

TABLE 1-Continued

GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-5	02/18/92	43.79	17.37	26.42	
	05/14/92		17.29	26.50	
	08/27/92		22.18	21.61	
	11/19/92		20.68	23.11	
	02/03/93		15.91	27.88	
	06/23/93		16.24	27.55	No free product or sheen
	09/22/93		17.93	25.86	No free product or sheen
	01/24/94		17.82	25.97	
	04/07/94		16.91	26.88	No free product or sheen
	06/07/94		17.10	26.69	No free product or sheen
	09/28/94		18.73	25.06	No free product or sheen
	12/14/94		17.53	26.26	No free product or sheen
	03/15/95		14.96	28.83	No free product or sheen
	06/13/95		15.30	28.49	No free product or sheen
	09/28/95		16.74	27.05	No free product or sheen
	12/28/95		15.10	28.69	No free product or sheen
	03/12/96		13.67	30.12	No free product or sheen
	06/11/96		14.88	28.91	No free product or sheen
	10/02/96		16.42	27.37	No free product or sheen
	01/28/97		12.83	30.96	No free product or sheen
	05/20/97		15.33	28.46	No free product or sheen

TABLE 1-Continued

GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-6	02/18/92	42.47	15.87	26.60	
	05/14/92		16.04	26.43	
	08/27/92		18.17	24.30	
	11/19/92		19.30	23.17	
	02/03/93		14.60	27.87	
	06/23/93		15.00	27.47	No free product or sheen
	09/22/93		16.66	25.81	No free product or sheen
	01/24/94		16.52	25.95	
	04/07/94		15.70	26.77	No free product or sheen
	06/07/94		15.88	26.59	No free product or sheen
	09/28/94		17.51	24.96	No free product or sheen
	12/14/94		16.27	26.20	No free product or sheen
	03/15/95		13.52	28.95	No free product or sheen
	06/13/95		13.96	28.51	No free product or sheen
	09/28/95		15.61	26.86	No free product or sheen
	12/28/95		15.54	26.93	No free product or sheen
	03/12/96		11.88	30.59	No free product or sheen
	06/11/96		13.52	28.95	No free product or sheen
	10/02/96		15.10	27.37	No free product or sheen
	01/28/97		11.18	31.29	No free product or sheen
	05/20/97		14.00	28.47	No free product or sheen

TABLE 1-Continued

GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-7	02/18/92	41.54	15.51	26.03	
	05/14/92		15.41	26.13	
	08/27/92		17.45	24.09	
	11/19/92		18.54	23.00	
	02/03/93		14.10	27.44	
	06/23/93		14.33	27.21	No free product or sheen
	09/22/93		15.92	25.62	No free product or sheen
	01/24/94		16.07	25.47	
	04/07/94		15.10	26.44	
	06/07/94		15.16	26.38	No free product or sheen
	09/28/94		16.82	24.72	No free product or sheen
	12/14/94		15.75	25.79	No free product or sheen
	03/15/95		14.00	27.54	No free product or sheen
	06/13/95		13.44	28.10	No free product or sheen
	09/28/95		14.84	26.70	No free product or sheen
	12/28/95		14.55	26.99	No free product or sheen
	03/12/96		11.88	29.66	No free product or sheen
	06/11/96		13.52	28.58	No free product or sheen
	10/02/96		14.50	27.04	No free product or sheen
	01/28/97		11.08	30.46	No free product or sheen
	05/20/97		13.46	28.08	No free product or sheen

TABLE 1-Continued

GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-8	02/18/92	42.26	16.57	25.69	
	05/14/92		16.24	26.02	
	08/27/92		18.28	23.98	
	11/19/92		19.32	22.94	
	02/03/93		14.87	27.39	
	06/23/93		15.18	27.08	No free product or sheen
	09/22/93		18.79	23.47	No free product or sheen
	01/24/94		17.06	25.20	
	04/07/94		15.95	26.31	No free product or sheen
	06/07/94		15.10	27.16	No free product or sheen
	09/28/94		17.63	24.63	No free product or sheen
	12/14/94		16.66	25.60	No free product or sheen
	03/15/95		14.30	27.96	No free product or sheen
	06/13/95		14.37	27.89	No free product or sheen
	09/28/95		15.62	26.64	No free product or sheen
	12/28/95		15.62	26.64	No free product or sheen
	03/12/96		12.75	29.51	No free product or sheen
	06/11/96		13.94	28.32	No free product or sheen
	10/02/96		15.41	26.85	No free product or sheen
	01/28/97		12.30	29.96	No free product or sheen
	05/20/97		14.42	27.84	No free product or sheen

TABLE 1-Continued
GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-9	02/18/92	44.94	18.87	26.07	
	05/14/92		18.55	26.39	
	08/27/92		20.80	24.14	
	11/19/92		21.90	23.04	
	02/03/93		17.25	27.69	
	06/23/93		17.61	27.33	No free product or sheen
	09/22/93		19.18	25.76	No free product or sheen
	01/24/94		19.17	25.77	
	04/07/94		18.23	26.71	No free product or sheen
	06/07/94		18.40	26.54	No free product or sheen
	09/28/94		20.01	24.93	No free product or sheen
	12/14/94		18.88	26.06	No free product or sheen
	03/15/95		16.24	28.70	No free product or sheen
	06/13/95		16.75	28.19	No free product or sheen
	09/28/95		18.04	26.90	No free product or sheen
	12/28/95		17.87	27.07	No free product or sheen
	03/12/96	NM		NC	Not measured
	06/11/96		16.26	28.68	No free product or sheen
	10/02/96		17.74	27.20	No free product or sheen
	01/28/97		14.51	30.43	No free product or sheen
	05/20/97		16.73	28.21	No free product or sheen

TABLE 1-Continued

GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-10	02/18/92	42.34	16.63	25.71	
	05/14/92		15.25	27.09	
	08/27/92		18.35	23.99	
	11/19/92		19.43	22.91	
	02/03/93		15.01	27.33	
	06/23/93		15.30	27.04	No free product or sheen
	09/22/93		16.90	25.44	No free product or sheen
	01/24/94		NM	NC	Not measured
	04/07/94		15.97	26.37	No free product or sheen
	06/07/94		16.04	26.30	No free product or sheen
	09/28/94		17.69	24.65	No free product or sheen
	12/14/94		16.65	25.69	No free product or sheen
	03/15/95		14.08	28.26	No free product or sheen
	06/13/95		14.49	27.85	No free product or sheen
	09/28/95		15.81	26.53	No free product or sheen
	12/28/95		15.46	26.88	No free product or sheen
	03/12/96		12.62	29.72	No free product or sheen
	06/11/96		14.40	27.94	No free product or sheen
	10/02/96		15.47	26.87	No free product or sheen
	01/28/97		15.69	26.65	No free product or sheen
	05/20/97		14.48	27.86	No free product or sheen

TABLE 1-Continued

GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
MW-11	02/18/92	45.00	17.00	28.00	
	05/14/92		19.02	25.98	
	08/27/92		21.13	23.87	
	11/19/92		17.91	27.09	
	02/03/92		17.91	27.09	
	06/23/93		18.14	26.86	No free product or sheen
	09/22/93		19.63	25.37	No free product or sheen
	01/24/94		19.79	25.21	
	04/07/94		18.78	26.22	No free product or sheen
	06/07/94		18.88	26.12	No free product or sheen
	09/28/94		20.45	24.55	No free product or sheen
	12/14/94		19.45	25.55	No free product or sheen
	03/15/95		17.32	27.68	No free product or sheen
	06/13/95		17.43	27.57	No free product or sheen
	09/28/95		18.67	26.33	No free product or sheen
	12/28/95		18.31	26.69	No free product or sheen
	03/12/96		15.89	29.11	No free product or sheen
	06/11/96		16.98	28.02	No free product or sheen
	10/02/96		18.20	26.80	No free product or sheen
	01/28/97		12.53	32.47	No free product or sheen
	05/20/97		17.36	27.64	No free product or sheen

TABLE 1-Continued
GROUND WATER ELEVATIONS

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

<u>Monitoring Well</u>	<u>Date</u>	<u>Top of Riser Elevation (ft)</u>	<u>Depth to Water (ft)</u>	<u>Ground Water Elevation (ft)</u>	<u>Physical Observation of Free Product or Sheen</u>
RW-1	05/14/92	43.17	16.88	26.29	
	08/27/92		19.05	24.12	
	11/19/92		21.11	22.07	
	02/03/92		15.48	27.69	
	06/23/93		28.25	14.92	No free product or sheen
	09/22/93		17.83	25.34	No free product or sheen
	01/24/94		24.00	19.17	
	04/07/94		16.05	27.12	No free product or sheen
	06/07/94		16.00	27.17	No free product or sheen
	09/28/94		18.35	24.82	No free product or sheen
	12/14/94		19.50	23.67	No free product or sheen
	03/15/95		17.00	26.17	No free product or sheen
	06/13/95		14.95	28.22	No free product or sheen
	09/28/95		27.63	15.54	No free product or sheen
	12/28/95		14.54	28.63	No free product or sheen
	03/12/96		11.02	32.15	No free product or sheen
	06/11/96		14.52	28.65	No free product or sheen
	10/02/96		15.53	27.64	No free product or sheen
	01/28/97		12.59	30.58	No free product or sheen
	05/20/97		14.85	28.32	No free product or sheen

^a All top of riser elevations surveyed by Aegis Environmental, and are assumed relative to mean sea level.

NM = Not measured.

NC = Not calculated.

Note: Aegis Environmental, Inc., collected data prior to 06/23/93.

TABLE 2
GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

<u>Monitoring Well</u>	<u>Date Sampled</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Total Xylenes</u>	<u>TPH as gasoline</u>	<u>MTBE</u>
MW-1	02/18/92	NS	NS	NS	NS	NS	NS
	05/15/92	2,000	47	1,200	400	41,000	NA
	08/28/92	3,800	54	850	970	110,000	NA
	11/19/92	200	<5.0	90	140	3,600	NA
	02/03/93	180	22	79	130	3,000	NA
	06/23/93	2,400	74	650	510	12,000	NA
	09/22/93	3,000	290	1,100	1,200	23,000	NA
	01/24/94	2,400	280	1,100	1,700	18,000	NA
	04/07/94	4,200	820	1,600	2,100	20,000	NA
	06/07/94	1,800	510	1,100	1,600	26,000	NA
	09/28/94	1,700	210	970	870	18,000	NA
	12/14/94	4,400	2,400	2,300	4,300	31,000	NA
	03/15/95	830	310	840	1,200	17,000	NA
	06/13/95	1,300	99	1,500	1,100	22,000	NA
	09/28/95	580	<25	780	410	8,800	NA
	12/28/95	4.9	<1.3	<1.3	290	4,800	74
	01/30/96	17	7.1	20	45	1,500	63
	03/12/96	<0.5	<0.5	<0.5	<0.5	110	44
	06/11/96	48	0.9	37	26	600	75
	10/02/96	16	<0.5	6.0	0.92	210	11
	01/28/97	<0.5	<0.5	<0.5	<0.5	150	160
	05/20/97	<2.5	<2.5	<2.5	<2.5	680	640

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total <u>Xylenes</u>	TPH as gasoline	<u>MTBE</u>
MW-2	02/18/92	<0.5	<0.5	1.9	<0.5	1,600	NA
	05/14/92	1.2	1.0	1.3	<0.5	740	NA
	08/27/92	6.5	1.1	0.6	<0.5	1,400	NA
	11/19/92	<0.5	<0.5	2.7	<0.5	360	NA
	02/03/93	1.2	1.6	4.5	6.4	590	NA
	06/23/93	<0.5	<0.5	0.52	0.50	160	NA
	09/22/93	<0.5	0.59	1.2	0.59	290	NA
	01/24/94	<0.5	<0.5	0.68	<0.5	330	NA
	04/07/94	<0.5	<0.5	<0.5	4.4	490	NA
	06/07/94	<0.5	<0.5	1.5	<0.5	550	NA
	09/28/94	<0.5	<0.5	<0.5	<0.5	190	NA
	12/14/94	7.2	0.84	<0.5	<0.5	1,400	NA
	03/15/95	39	<0.5	0.53	<0.5	730	NA
	06/13/95	8.3	<0.5	<0.5	<0.5	750 ^a	NA
	09/28/95	<0.5	<0.5	<0.5	<0.5	670 ^a	NA
	12/28/95	9.5	<5.0	<5.0	5.2	3,100	4,600
	03/12/96	<1.3	<1.3	<1.3	<1.3	710	3,200
	06/11/96	1.6	<1.3	<1.3	<1.3	1,900 ^a	5,100
	10/02/96	<2.5	<2.5	<2.5	<2.5	2,800	7,900
	01/28/97	<0.5	<0.5	<0.5	<0.5	130	210
	05/20/97	120	16	<2.5	4.0	1,400	390

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

<u>Monitoring Well</u>	<u>Date Sampled</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Total Xylenes</u>	<u>TPH as gasoline</u>	<u>MTBE</u>
MW-3	02/18/92	NS	NS	NS	NS	NS	NS
	05/15/92	6,300	5,900	1,700	6,100	160,000	NA
	08/28/92	2,500	40,000	6,700	44,000	1,300,000	NA
	11/19/92	NS	NS	NS	NS	NS	NS
	02/03/93	7,200	11,000	2,900	13,000	82,000	NA
	06/23/93	3,200	5,300	2,500	9,100	61,000	NA
	09/22/93	12,000	14,000	3,900	18,000	94,000	NA
	01/24/94	14,000	17,000	4,200	14,000	110,000	NA
	04/07/94	6,500	1,800	1,700	4,100	28,000	NA
	06/07/94	6,400	2,300	1,500	3,500	27,000	NA
	09/28/94	7,400	4,300	1,500	4,600	40,000	NA
	12/14/94	17,000	21,000	3,900	22,000	140,000	NA
	03/15/95	4,900	1,900	1,800	7,100	58,000	NA
	06/13/95	7,200	2,900	1,200	4,600	44,000	NA
	09/28/95	5,600	2,100	1,900	6,900	30,000	NA
	12/28/95	32	5.8	18	4,700	16,000	360
	01/30/96	850	800	190	1,700	8,700	430
	03/12/96	48	64	5.3	630	2,400	97
	06/11/96	NS	NS	NS	NS	NS	NS
	10/02/96	NS	NS	NS	NS	NS	NS
	01/28/97	NS	NS	NS	NS	NS	NS
	05/20/97	NS	NS	NS	NS	NS	NS
	07/10/97	<0.50	<0.50	<0.50	4.8	300	40

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl- benzene</u>	<u>Total Xylenes</u>	TPH as <u>gasoline</u>	<u>MTBE</u>
MW-4	02/18/92	<0.5	<0.5	12	21	5,100	NA
	05/14/92	<0.5	5.6	1.8	2.2	4,600	NA
	08/28/92	6.6	1.3	1.6	3.1	1,700	NA
	11/19/92	<0.5	<0.5	<0.5	<0.5	400	NA
	02/03/93	<0.5	<0.5	<0.5	<0.5	1,100	NA
	06/23/93	<0.5	<0.5	<0.5	<0.5	120	NA
	09/22/93	<0.5	<0.5	<0.5	<0.5	110	NA
	01/24/94	<0.5	<0.5	<0.5	<0.5	260	NA
	04/07/94	<0.5	<0.5	<0.5	<0.5	430	NA
	06/07/94	<0.5	<0.5	<0.5	<0.5	150	NA
	09/28/94	<0.5	<0.5	<0.5	<0.5	75	NA
	12/14/94	<0.5	<0.5	<0.5	<0.5	160	NA
	03/15/95	<0.5	<0.5	<0.5	<0.5	500	NA
	06/13/95	<0.5	<0.5	<0.5	<0.5	210 ^a	NA
	09/28/95	<0.5	<0.5	<0.5	<0.5	140 ^a	NA
	12/28/95	<0.5	<0.5	<0.5	<0.5	510 ^a	<5.0
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	06/11/96	<0.5	<0.5	<0.5	<0.5	50 ^a	<5.0
	10/02/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	01/28/97	<0.5	<0.5	<0.5	<0.5	270 ^a	<5.0
	05/20/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total <u>Xylenes</u>	TPH as <u>gasoline</u>	MTBE
MW-5	02/18/92	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/14/92	<0.5	<0.05	<0.5	<0.5	<50	NA
	08/27/92	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/19/92	<0.5	<0.5	<0.5	<0.5	<50	NA
	02/03/93	3.0	2.7	8.0	9.9	55	NA
	06/23/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/22/93	0.66	1.1	<0.5	0.6	<50	NA
	01/24/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/07/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/07/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/14/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/15/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/13/95	<0.5	0.52	<0.5	<0.5	<50	NA
	09/28/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/28/95	<0.5	<0.5	<0.5	<0.5	120	<5.0
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	9.2
	06/11/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	10/02/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	01/28/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/20/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH as gasoline	MTBE
MW-6	02/18/92	4.8	<0.5	<0.5	<0.5	370	NA
	05/14/92	<0.5	<0.5	<0.5	<0.5	120	NA
	08/27/92	1.2	<0.5	<0.5	<0.5	<50	NA
	11/19/92	1.3	<0.5	1.0	1.1	66	NA
	02/03/93	1.9	2.6	23	12	100	NA
	06/23/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/22/93	2.2	3.8	0.53	2.7	81	NA
	01/24/94	<0.5	<0.5	<0.5	<0.5	98	NA
	04/07/94	0.71	<0.5	<0.5	<0.5	150	NA
	06/07/94	<0.5	<0.5	<0.5	<0.5	180	NA
	09/28/94	<0.5	<0.5	<0.5	<0.5	100	NA
	12/14/94	<0.5	<0.5	<0.5	<0.5	140	NA
	03/15/95	<0.5	<0.5	<0.5	<0.5	110	NA
	06/13/95	<0.5	0.87	<0.5	<0.5	150 ^a	NA
	09/28/95	0.78	<0.5	<0.5	<0.5	<50	NA
	12/28/95	<0.5	<0.5	<0.5	6.3	410	70
	01/30/96	1.0	<0.5	<0.5	11	81	46
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	7.1
	06/11/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	10/02/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	01/28/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/20/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total <u>Xylenes</u>	TPH as gasoline	<u>MTBE</u>
MW-7	02/18/92	16	<0.5	10	16	670	NA
	05/14/92	44	<0.5	38	88	1,500	NA
	08/27/92	400	5.8	290	1,400	23,000	NA
	11/19/92	29	<0.5	10	53	330	NA
	02/03/93	200	<0.5	110	480	2,000	NA
	06/23/93	20	<0.5	16	16	280	NA
	09/22/93	71	2.2	33	210	860	NA
	01/24/94	61	<1.3	10	160	900	NA
	04/07/94	53	<0.5	7.1	49	630	NA
	06/07/94	55	<0.5	14	24	730	NA
	09/28/94	21	<0.5	2.3	3.1	300	NA
	12/14/94	19	<0.5	3.3	32	430	NA
	03/15/95	0.88	<0.5	<0.5	<0.5	70	NA
	06/13/95	7.3	0.79	7.6	8.9	190	NA
	09/28/95	1.5	<0.5	1.2	0.84	60	NA
	12/28/95	<0.5	<0.5	0.91	0.69	60	9.8
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	11
	06/11/96	<0.5	<0.5	<0.5	<0.5	79	16
	10/02/96	<0.5	<0.5	<0.5	<0.5	<50	26
	01/28/97	<0.5	<0.5	<0.5	<0.5	<50	13
	05/20/97	<0.5	0.85	<0.5	<0.5	78	40

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS

Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721

44 Lewelling Boulevard

San Lorenzo, California

<u>Monitoring Well</u>	<u>Date Sampled</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Total Xylenes</u>	<u>TPH as gasoline</u>	<u>MTBE</u>
MW-8	02/18/92	<0.5	<0.5	9.5	<0.5	1,200	NA
	05/14/92	<0.5	<0.5	<0.5	<0.5	130	NA
	08/28/92	<0.5	<0.5	<0.5	<0.5	140	NA
	11/19/92	<0.5	<0.5	2.0	<0.5	320	NA
	02/03/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/23/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/22/93	<0.5	0.67	<0.5	<0.5	<50	NA
	01/24/94	<0.5	<0.5	<0.5	<0.5	290	NA
	04/07/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/07/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/14/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/15/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/13/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/28/95	NS	NS	NS	NS	NS	NA
	12/28/95	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	06/11/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	10/02/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	01/28/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/20/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total <u>Xylenes</u>	TPH as <u>gasoline</u>	MTBE
MW-9	02/18/92	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/14/92	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/27/92	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/19/92	<0.5	<0.5	<0.5	1.3	<50	NA
	02/03/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/23/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/22/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	01/24/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/07/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/07/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/14/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/15/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/13/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/28/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/28/95	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	03/12/96	NS	NS	NS	NS	NS	NA
	06/11/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	10/02/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	01/28/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/20/97	<0.5	<0.5	<0.5	<0.5	<50	<5.0

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total <u>Xylenes</u>	TPH as <u>gasoline</u>	<u>MTBE</u>
MW-10	02/18/92	110	57	440	53	18,000	NA
	05/15/92	24	9.8	97	<0.5	8,500	NA
	08/29/92	20	2.8	40	3.5	9,600	NA
	11/19/92	36	21	330	31	5,700	NA
	02/03/93	15	4.6	36	9.6	2,200	NA
	06/23/93	21	24	540	45	8,100	NA
	09/22/93	22	17	350	16	6,200	NA
	01/24/94	NS	NS	NS	NS	NS	NA
	04/07/94	6.4	2.9	150	4.7	4,000	NA
	06/07/94	5.6	<2.5	150	5.7	6,700	NA
	09/28/94	2.2	2.6	110	44	5,700	NA
	12/14/94	<1.3	<1.3	77	27	3,500	NA
	03/15/95	<5.0	6.7	150	23	7,200	NA
	06/13/95	9.0	48	610	130	8,400	NA
	09/28/95	22	17	360	24	6,300	NA
	12/28/95	4.4	5.6	340	11	5,000	37
	03/12/96	1.4	5.9	41	73	4,500	120
	06/11/96	<5.0	25	350	81	7,500	<25
	10/02/96	18	<2.5	<2.5	<2.5	2,600	<25
	01/28/97	5.9	<2.5	29	19	2,800	<25
	05/20/97	<20	34	290	74	6,000	<100

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total <u>Xylenes</u>	TPH as gasoline	MTBE
MW-11	02/18/92	<0.5	<0.5	<0.5	<0.5	2,400	NA
	05/15/92	<0.5	1.9	1.3	0.7	1,600	NA
	08/27/92	15	2	0.6	1.2	2,100	NA
	11/19/92	<0.5	<0.5	<0.5	<0.5	490	NA
	02/03/93	<0.5	<0.5	0.55	<0.5	500	NA
	06/23/93	<0.5	<0.5	<0.5	<0.5	350	NA
	09/22/93	<0.5	0.65	<0.5	0.71	200	NA
	01/24/94	<0.5	<0.5	<0.5	<0.5	450	NA
	04/07/94	<0.5	<0.5	<0.5	<0.5	500	NA
	06/07/94	<0.5	<0.5	<0.5	0.64	560	NA
	09/28/94	<0.5	<0.5	<0.5	<0.5	600	NA
	12/14/94	<0.5	<0.5	<0.5	<0.5	340	NA
	03/15/95	<0.5	<0.5	<0.5	<0.5	340	NA
	06/13/95	<0.5	<0.5	<0.5	<0.5	210 ^a	NA
	09/28/95	4.1	0.50	<0.5	<0.5	93	NA
	12/28/95	<0.5	<0.5	<0.5	<0.5	380 ^a	<5.0
	03/12/96	<0.5	<0.5	<0.5	<0.5	110	<5.0
	06/11/96	<0.5	<0.5	<0.5	<0.5	400 ^a	<5.0
	10/02/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	01/28/97	<0.5	<0.5	<0.5	<0.5	110 ^a	<5.0
	05/20/97	<0.5	<0.5	<0.5	<0.5	330	<5.0

TABLE 2-Continued

GROUND WATER SAMPLE ANALYTICAL RESULTS
 Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
 44 Lewelling Boulevard
 San Lorenzo, California

Monitoring <u>Well</u>	Date <u>Sampled</u>	Benzene	Toluene	Ethyl- benzene	Total Xylenes	TPH as gasoline	MTBE
RW-1	05/15/92	270	62	29	140	790	NA
	08/29/92	1,300	200	68	810	24,000	NA
	11/19/92	NS	NS	NS	NS	NS	NS
	02/03/93	71	35	22	110	620	NA
	06/23/93	30	33	9.8	35	220	NA
	09/22/93	800	400	170	910	4,100	NA
	01/24/94	33	6.0	6.9	23	190	NA
	04/07/94	110	57	32	260	1,500	NA
	06/07/94	130	51	45	180	1,700	NA
	09/28/94	54	9.2	12	29	350	NA
	12/14/94	6.8	2.1	1.2	3.4	79	NA
	03/15/95	NS	NS	NS	NS	NS	NS
	04/10/95	54	11	11	69	410	NA
	06/13/95	1,600	780	340	1,400	8,200	NA
	09/28/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/28/95	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	03/12/96	<0.5	<0.5	<0.5	<0.5	86	110
	06/11/96	38	11	4.7	50	230	68
	10/02/96	68	29	14	75	360	47
	01/28/97	0.77	<0.5	<0.5	<0.5	<50	8.8
	05/20/97	<0.5	<0.5	<0.5	<0.5	<50	32

^a Product is not typical gasoline.

TPH = Total petroleum hydrocarbons by EPA Method 8015 Modified.

MTBE = Methyl tertiary butyl ether.

NS = Not sampled.

NA = Not analyzed.

Note: Aegis Environmental, Inc., collected data prior to 06/23/93.

TABLE 3
VOLUME OF GROUND WATER TREATED
by Remediation System

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

<u>Date</u>	<u>Volume (gallons)^a</u>
06/21/93	2,120
07/14/93	117,367
08/14/93	210,470
09/22/93	255,241
01/24/94	399,520
03/31/94	460,075
06/21/94	597,663
09/28/94	662,894
12/14/94	723,160
03/15/95	902,621
06/30/95	929,056
09/26/95	1,018,150
12/06/95	1,053,866
03/19/96	1,076,752 ^b
06/27/96	1,175,632 ^b
09/18/96	1,176,762 ^b
10/22/96	1,184,392 ^b

^a Cumulative volume of water discharged to sanitary sewer at the indicated date.

^b Flow meter changed out on 01/30/96; volume = reading of new meter + 1,067,852.

TABLE 4
GROUND WATER SYSTEM ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

<u>Sample</u>	<u>Date</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Total Xylenes</u>	<u>TPH as gasoline</u>	<u>MTBE</u>
Influent	12/14/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/22/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/10/95	3.9	0.57	0.65	5.5	<50	NA
	06/13/95	NS	NS	NS	NS	NS	NS
	08/10/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/14/95	<0.5	<0.5	<0.5	<0.5	490 ^a	NA
	12/06/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	01/30/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	02/27/96	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	5.3
	04/16/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/07/96	<0.5	<0.5	<0.5	<0.5	<50	7.9
	06/11/96	2.4	0.57	5.9	2.8	190	610
	09/18/96	<0.5	<0.5	<0.5	<0.5	<50	11
Mid Carbon	12/14/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/22/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/10/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/13/95	NS	NS	NS	NS	NS	NS
	08/10/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/14/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/06/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	01/30/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	02/27/96	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	04/16/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/07/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	06/11/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	09/18/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0

TABLE 4-Continued

GROUND WATER SYSTEM ANALYTICAL RESULTS
Concentrations in micrograms per liter ($\mu\text{g/L}$)

Beacon Station No. 721
44 Lewelling Boulevard
San Lorenzo, California

<u>Sample</u>	<u>Date</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Total Xylenes</u>	<u>TPH as gasoline</u>	<u>MTBE</u>
Effluent	05/28/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	10/01/93	<0.5	<0.5	<0.5	<0.5	<50	NA
	01/24/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/07/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/18/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/28/94	NS	NS	NS	NS	NS	NS
	12/14/94	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/22/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	04/10/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	06/13/95	NS	NS	NS	NS	NS	NS
	07/28/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/10/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	09/14/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	12/06/95	<0.5	<0.5	<0.5	<0.5	<50	NA
	01/30/96	<0.5	<0.5	<0.5	<0.5	<50	NA
	02/27/96	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/12/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	04/16/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/07/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	06/11/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	09/18/96	<0.5	<0.5	<0.5	<0.5	<50	<5.0

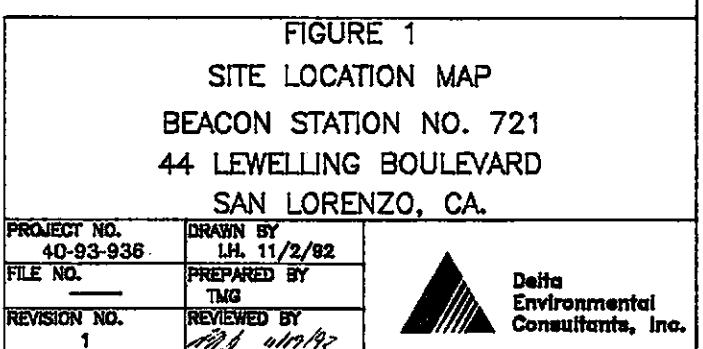
^a Not typical gasoline.

TPH = Total petroleum hydrocarbons by EPA Method 8015 Modified.

MTBE = Methyl tertiary butyl ether.

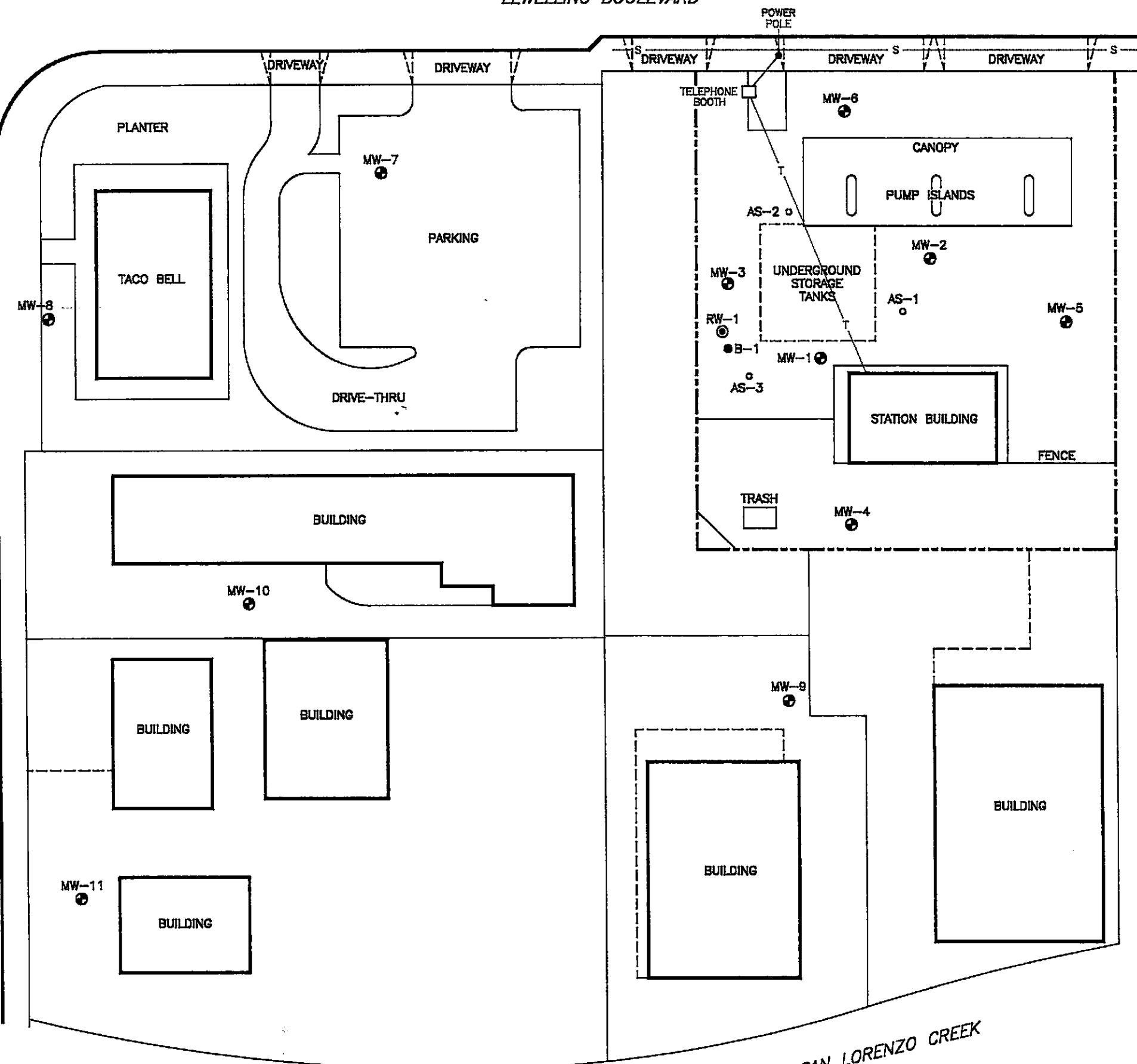
NA = Not analyzed.

NS = Not sampled.



LEWELLING BOULEVARD

VIA GRANADA



North

LEGEND:

- B-1 SOIL BORING LOCATION
- ◎ RW-1 RECOVERY WELL LOCATION
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGING WELL LOCATION

UTILITIES

- T — TELEPHONE LINE (OVERHEAD)
- S — SEWER LINE (BURIED)

NOTE:

BASE MAP ADAPTED FROM RESNA FIGURE DATED 1/9/92
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED



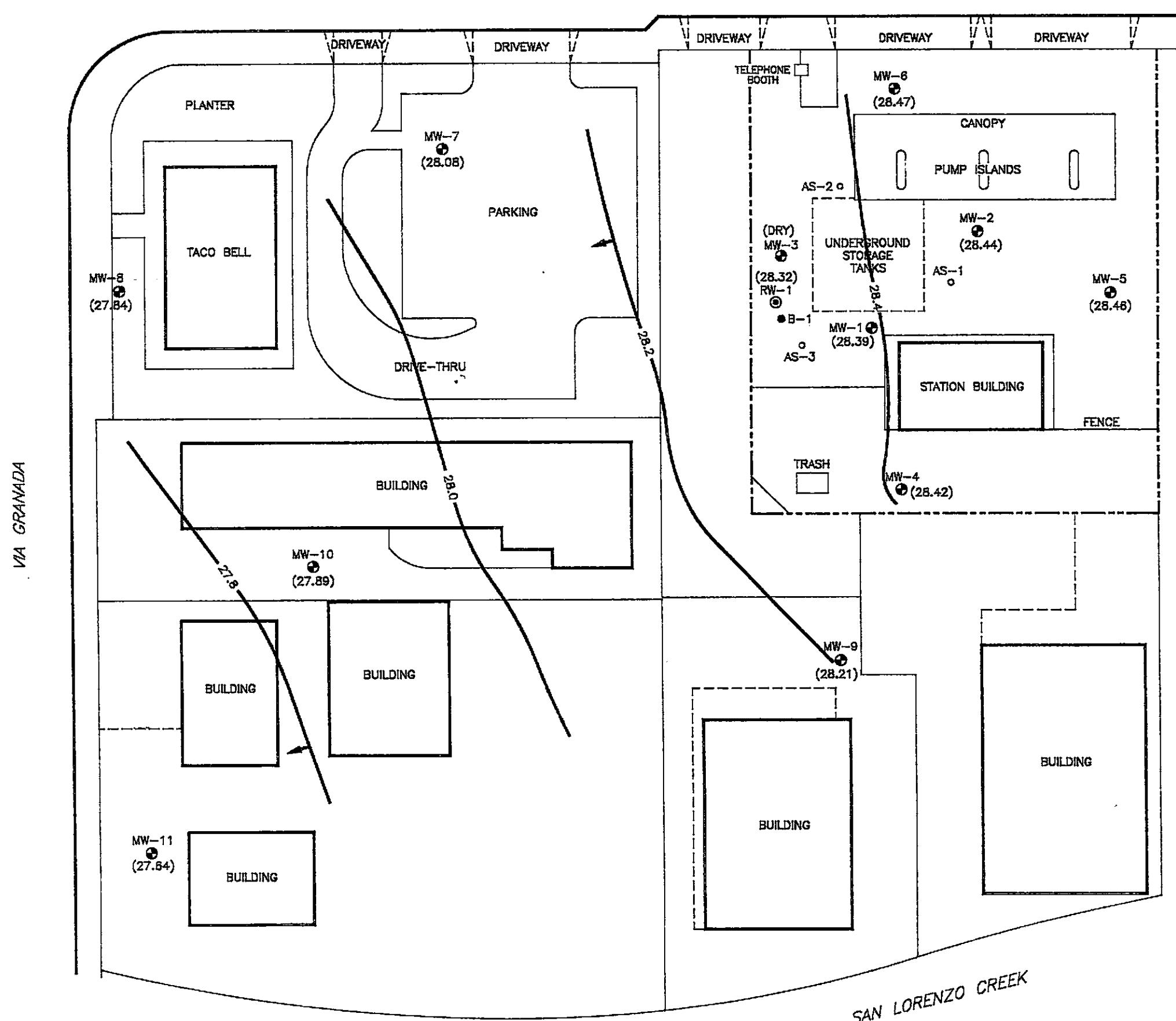
FIGURE 2
SITE VICINITY MAP

BEACON STATION NO. 721
44 LEWELLING BOULEVARD
SAN LORENZO, CA.

PROJECT NO. D093-838	DRAWN BY I.H. 10/12/88
FILE NO. 83-838-1	PREPARED BY JWS
REVISION NO. 3	REVIEWED BY <i>EOP</i>



LEWELLING BOULEVARD



North

LEGEND:

- B-1 SOIL BORING LOCATION
- ◎ RW-1 RECOVERY WELL LOCATION
- MW-1 MONITORING WELL LOCATION
- AS-1 AIR SPARGING WELL LOCATION
- (DRY) MW-3 (28.32)
- (28.21) GROUND WATER ELEVATION ASSUMED RELATIVE TO MEAN SEA LEVEL
- 28.2 — WATER TABLE CONTOUR ASSUMED RELATIVE TO MEAN SEA LEVEL
- ← GROUND WATER FLOW DIRECTION

NOTE:

BASE MAP ADAPTED FROM RESNA FIGURE DATED 1/9/92
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED

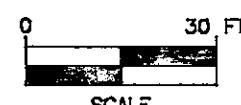


FIGURE 3
WATER TABLE CONTOUR MAP - 5/20/97

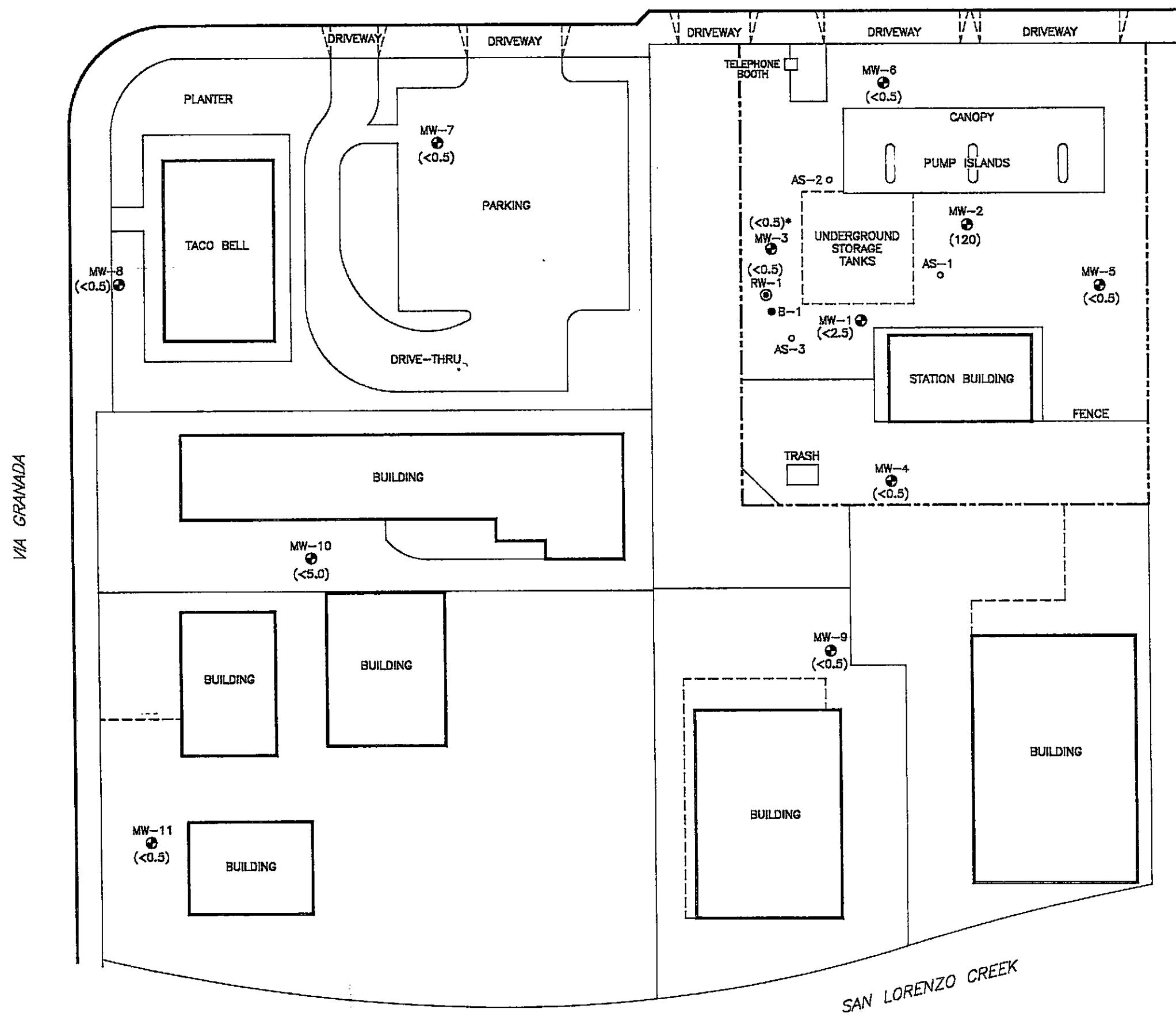
BEACON STATION NO. 721
44 LEWELLING BOULEVARD
SAN LORENZO, CA.

PROJECT NO. D93-938	DRAWN BY ML 5/26/97
FILE NO. 93-938-1	PREPARED BY MAS
REVISION NO. 4	REVIEWED BY <i>MAS</i>



LEWELLING BOULEVARD

North



LEGEND:

- B-1 SOIL BORING LOCATION
 - ◎ RW-1 RECOVERY WELL LOCATION
 - MW-1 MONITORING WELL LOCATION
 - AS-1 AIR SPARGING WELL LOCATION
 - (120) BENZENE CONCENTRATION IN MICROGRAMS
PER LITER ($\mu\text{g}/\text{L}$)
 - 5 — BENZENE ISOCONCENTRATION IN $\mu\text{g}/\text{L}$
 - (<0.5)* SAMPLE COLLECTED ON 7/10/97

NOTE:

BASE MAP ADAPTED FROM RESNA FIGURE DATED 1/9/92
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED



FIGURE 4
DISSOLVED BENZENE CONCENTRATION MAP
5/20/97
BEACON STATION NO. 721
44 LEWELLING BOULEVARD
SAN LORENZO, CA.

PROJECT NO. 0093-936	DRAWN BY M.L 6/25/97
FILE NO. 93-936-1	PREPARED BY MAB
REVISION NO. 1	REVIEWED BY <i>CJL</i>



ENCLOSURE A

Field Methods and Procedures

QUALITY ASSURANCE PLAN

This section describes the field and analytical procedures to be followed throughout the investigation.

General Sample Collection and Handling Procedures

Proper collection and handling are essential to ensure the quality of a sample. Each sample is collected in a suitable container, preserved correctly for the intended analysis, and stored prior to analysis for no longer than the maximum allowable holding time. Details on the procedures for collection and handling of samples used on this project can be found in this section.

Water Sample Collection for Volatile Organic Analyses

For volatile organic analyses (VOA), the water sample is decanted into each VOA vial in such a manner that there is no meniscus at the top of the vial. A cap is quickly secured to the top of the vial. The vial is inverted and gently tapped to see if air bubbles are present. If none are present, the vial is labeled and refrigerated according to soil and water sample labeling and preservation.

Water Sample Labeling and Preservation

Label information includes a unique sample identification number, job identification number, date, and time. After labeling all soil and water samples are placed in a Ziploc® type bag and placed in an ice chest cooled to approximately 4° Celsius. Upon arriving at Delta's office the samples are transferred to a locked refrigerator cooled to approximately 4° Celsius. Chemical preservation is controlled by the required analysis and is noted on the chain of custody form.

Upon recovery, the sample container is sealed to minimize the potential of volatilization and cross-contamination prior to chemical analysis. Soil sampling tubes are typically closed at each end with Teflon® sheeting and plastic caps. The sample is then placed in a Ziploc® type bag and sealed. The sample is labeled and refrigerated at approximately 4° Celsius for delivery, under strict chain-of-custody, to the analytical laboratory.

Sample Identification and Chain-of-Custody Procedures

Sample identification and chain-of-custody procedures document sample possession from the time of collection to ultimate disposal. Each sample container submitted for analysis has a label affixed to identify the job number, sampler, date and time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling

methodology, names of on-site personnel, and any other pertinent field observations, is recorded on the borehole log or in the field records. Samples are analyzed by a California-certified laboratory.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at the laboratory. When the samples are shipped, the person in custody of them relinquishes the samples by signing the chain-of-custody form and noting the time. The sample-control officer at the laboratory verifies sample integrity and confirms that the samples are collected in the proper containers, preserved correctly, and contain adequate volumes for analysis.

If these conditions are met, each sample is assigned a unique log number for identification throughout analysis and reporting. The log number is recorded on the chain-of-custody form and in the legally-required log book, maintained by the laboratory, in the laboratory. The sample description, date received, client's name, and other relevant information is also recorded.

ENCLOSURE B

Field Sampling Data Sheets

Sample ID# MW-1 Project Name: Beacon 721 Project No. D093-936
Location (address) 44 LEWELLING Blvd. SAN LORENZO, CA
Date Sampled: 5/20/97 Time: 1300
Wellhead assembly condition: Good Fair Poor (If poor, see comments)
Equipment Replaced: bait locks locking cap
Well Depth 31.20 ft below top of casing Casing diameter 2 inches
Depth to water (below top of casing) 15.28 ft Date: 5/20/97 Time 1710
Well Casing Volume Multiplier: 0.16 for 2", 0.65 for 4", 1.47 for 6"
Pumping method: Submersible pump Bailer Casing/side pump Other
At least B well volumes have been evacuated before sampling.
Tubing (type): _____ The (_____ or previously used) was used to purge well
Sampling method: Disposable bailer Sampling port
Samples collected 2 VOA's - BTEX; TOC Sample temperature 66.4
Note any sampling problems None

GROUND WATER EVACUATION/STABILIZATION DATA

~~C-1~~ DOZ 0.6 pp

Transportation (therapeutic measures) Cooler + ice

~~From original by~~ ——————

Scanned by:

SAMPLING INFORMATION SHEET



Sample ID: MW-2 Project Name: BEACON 721 Project No. D093-936

Location (address) 44 LEWELLING BLVD. SAN LORENZO, CA

Date Sampled: 5/20/97 Time: (245)

Well-defined assembly condition: Good Fair Poor (If poor, see comments)

Equipment Required: _____ coins _____ locks _____ locking cap

Well Depth 32.30 ft below sea or surface Casting diameter 2 inches

Depth of water flowing up or rising) 14.65 ± Date 5/20/87 Time 1205

Wet Casting Volume Multiplier: 0.16 for 2", 0.65 for 4", 1.67 for 6"

Sampling method: Submersible pump Paper: Continuous pump Other _____

At least 3 wet volumes have been evacuated before sampling.

Fusing (type: _____). **(new or previously used)** was used to fuse well

Sampling method: Disposable baits Sampling port

Samples collected 2 vials - β tex, γ tex Sample appearance cloudy

Are any sampling problems now

For more information about the study, please contact Dr. John P. Morrissey at (212) 639-7300 or via e-mail at john.morrissey@nyu.edu.

SEWAGE WATER EVACUATION/STABILIZATION DATA

$$\text{Conc} = D_0 = 0.2 \text{ g DM}$$

~~Transpiration (thermohalocline)~~ COOLER & ICE

Sponsored by

SAMPLING INFORMATION SHEET



Delta
Environmental
Consultants Inc.

Sample ID# NW-3 Project Name: BERCON 721 Project No. D093-936

Location (address) 44 CEWELLING BLK. SAN LORENZO, CA

Date Sampled: _____ / _____ / _____ Times: _____

Welded assembly condition: Good Fair Poor (If poor, see comments)

Equipment Required: _____ tools _____ locks _____ locking cap

Well Depth 29.30 ft below top of casing Casing diameter 2 inches

Depth in water (below top of casting) _____ ft Date: ____ / ____ / ____ Time: ____

Well Casting Volume Multiplier: 0.16 for Z, 0.65 for A, 1.67 for G

Environ. Monit. Assess. 2006, **117**, 1–10
DOI 10.1007/s10661-005-9070-2

Precious metals Silver Copper Other

At least _____ well volumes have been evacuated before sampling.

Tuning (type: _____). (new or previously used) was used to tune each

Sampling method _____ Disposable baiter _____ Sampling port

Samples collected 2 VOA's - Btex TP4 Sample sequence

Non-enzymatic reactions

GROUND WATER EVACUATION STABILIZATION DATA

~~-----~~ Well is sited up to 14-13

is Dry

Transpiration (through respiration) COOLED by ice

Form completed by: _____

Searched by

SAMPLING INFORMATION SHEET



Sample ID# MW-4 Project Name: BEACON 721 Project No. D093-936

Section (address) 441 EWELLING BLD SAN LORENZO CA

Date Sampled: 5/20/97 Time: 1315

Wellhead assembly condition: Good Fair Poor (If poor, see comments)

Equipment Replaced: _____ carts _____ locks _____ locking set

Well Depth 24.60 ft below top of mine Casting diameter 1 inches

Date: 5/12/87 Page: 1211

Wall Casting Volume Multiplier 0.16 ft³ / 0.65 m³ / 1.5 m³

Sampling methods Submersible pump Tiller X Conditioner pump Other

4 and visitors have been encouraged to use sandpits.

(Signature) I certify that I have read the above document and it is true to the best of my knowledge.

Sampling method: Disseminate baiters Sampling rate:

Name any competing architects None

100 any language process

SOLID WASTE EVACUATION/STABILIZATION DATA

~~0.00~~ 0.00

~~Temperature (in Fahrenheit)~~ cooler ice

Entered by: _____

Sawadei bvr

SAMPLING INFORMATION SCREEN



Sample ID# MW-5 Project Name: BEACON 721 Project No. D093-936

Location (address): 44 LEWELLING Blvd. San Lorenzo CA

Date Sampled: 5/20/97 Time: 1230

Wellhead assembly condition: Good Fair Poor (If poor, see comments)

Equipment Replaced: _____ bats _____ locks _____ locking cap

Well Depth 29.20 ft below top of casing Casing diameter 2 inches

Depth in water (below top of casting) 15.33 ± Date: 5/20/97 Time /203

Weld Casting Volume Multiplier = 0.16 in³, 0.65 in³, 1.67 in³

Primary methods **Secondary sources** **Tables** **Comparative studies** **Other**

Well volumes have been extracted before sampling.

Tuning (type): *[]* (new or previously used) was used to tune each

Sampling method: Disposable tainer Sampling port:

Samples collected 2 vials - 3 TEs; TPHs Sample acceptance Cloudy

Note any sampling artifacts None

SOLID WASTE EVACUATION/STABILIZATION DATA

~~2~~ 2020.4 ppn

Transpiration (transpiration) cooler & ice

Is your child being educated by: *J*

Digitized by

SAMPLING INFORMATION SHEET



Sample ID# MW-6 Project Name: BEACON T21 Project No. DO93-936
 Location (address) 44 LEWISING BLVD. SAN LORENZO, CA
 Date Sampled: 5/20/97 Time: 12p
 Wellhead assembly condition: Good Fair Poor (If poor, see comments)
 Equipment Replaced: bait lock locking cap
 Well Depth 23.70 ± below top of casing Casing diameter 2 1 inches
 Depth to water (below top of casing) 14.00 ± Date: 5/20/97 Time (20)
 Well Casing Volume Multiplier: 0.16 for 2", 0.65 for 4", 1.67 for 6"
 Pumping method: Submersible pump Baiter X Continuous pump Other
 At least 3 well volumes have been evacuated before sampling.
 Tubing (type): T-jew or previously used was used to purge well
 Sampling method: X Disposable baiter Sampling port
 Samples collected: 2 VOA's - 3 TEX, 1 Pkg Sample type: Cloudy
 Note any sampling problems: None

SOIL WATER EVACUATION STABILIZATION DATA

卷之三

~~Temperature (heat transfer)~~ Cooler $\frac{1}{2}$ ice

— 2 —

سید

SAMPLING INFORMATION SHEET



Sample ID# MW-7 Project Name: BENSON 721 Project No. D093-936
Location (address) 44 LEWELLING BLVD. SAN LORENZO, CA
Date Sampled: 5/20/97 Time: 1130
Wellhead assembly condition: Good Fair Poor (If poor, see comments)
Equipment Required: tools locks locking cap
Well Depth 24.30 ft below top of casing Casing diameter 2 inches
Depth to water (below top of casing) 13.46 ft Date: 5/20/97 Time 1115
Well Casting Volume Multiplier: 0.16 for 2", 0.63 for 4", 1.47 for 6"
Purging method: Submersible pump Bailer Compressed空气 Other
At least 4 well volumes have been evacuated before sampling.
Tuning (type): T. (New or previously used) was used to tune well
Sampling method: Disposable bailer Sampling port
Samples collected 2 VOA's - BTEX, TPH_x Sample weather: Cloudy
Note any sampling problems: None

SECOND WAVE EVACUATION/STABILIZATION DATA

~~C~~ Dos 0.4 ppm

~~Temperature (thermometer)~~ Coated 1/4 in.

Sampled by: _____

SAMPLING INFORMATION SHEET



Sample ID# MW-8 Project Name: BEACON 721 Project No. D093-936
Location (address) 44 LEWELLING BLD. SAN LORENZO, CA
Date Sampled: 5/20/97 Time: 1110
Wellhead assembly condition: Good Fair Poor (If poor, see comments)
Equipment Replaced: bolts locks locking cap
Well Depth 23.20 ft below top of casing Casing diameter 2 inches
Depth to water (below top of casing) 14.42 ft Date: 5/20/97 Time 1100
Well Casting Volume Multiplier: 0.16 for 2", 0.65 for 4", 1.47 for 6"
Pumping method: Submersible pump Bailer Centrifugal pump Other
At least 4 well volumes have been evacuated before sampling.
Tuning (type) (new or previously used) was used to tune well
Sampling method: Disposable bailer Sampling port
Samples collected 2 VVA's - 8TEX; TDI₂ Sample appearance cloudy
Note any sampling problems None

SOIL WATER EXACTRATION/STABILIZATION DATA

~~Comments~~ $D\theta = 0.6 \text{ ppm}$

~~Transcription (turn in reservation)~~ COOLER & ICE

Form completed by: M

Sanitized by: _____

SAMPLING INFORMATION SHEET



**Delta
Environmental
Consultants Inc.**

Sammie ID# MW-9 Project Name: BEACON 721 Project No. D093-93L

Location (address) 44 JEWELLING BLD. SAN LORENZO, CA

Date Sampled: 51 20197 Time: 1150

Weather assembly condition: Good Fair Poor (If poor, see comments)

Equipment Required: _____ tools _____ locks _____ locking cap

Well Depth 23.50 ft below top of casing Casing diameter 2 inches

Depth in water (below top of casing) 16-73 ft Date: 5/20/97 Time 1135

Well Casting Volume Multiplier: 0.16 for 1", 0.65 for 4", 1.47 for 6"

Planting method: Submergible pump Bailer Conventional jumping Other _____

At least 4 well volumes have been evacuated before sampling.

Tuning (type: _____) (new or previously used) was used to judge well

Sampling method Disposable baits Sampling pot

Samuels ciliatum 2 VOA's - BTEX: TOL Samuels ciliatum Chloro

Note any sampling problems None

Note city sampling problems _____

SOUND WATER EVALUATION/STABILIZATION DATA

$$C_{\text{max}} = 0.6 \text{ ppm}$$

Transpiration (thermal convection) cools to ice

Form completed by: CJ

Sampled by: _____

SAMPLING INFORMATION SHEET



Delta
Environmental
Consultants, Inc.

Sample ID: MN-10 Project Name: BEACON 721 Project No. D093-93L

1. Return address: 44 LEWELLING BLVD. SAN LORENZO, CA

Date Sampled: 5/20/97 Time: 1055

Well-heated assembly condition: Good Fair Poor (If poor, see comments)

Equipment Required: _____ bolts _____ locks _____ locking cap

Well Depth 29.50 ft below top of casing Casing diameter 2 inches

Date: 5/20/97 Time 1040

Mean Casting Volume Minuteman = 0.16 ft³, 0.05 ft³, 1.47 ft³

Sampling method: Submersible pump Trawl Seine *X* Hand collection Other _____

well volunteers have been examined before sampling.

new or previously used) was sent to you?

Sampling type: Disseminate baiter Sampling date:

Samie ~~moore~~ Cloutier

Sample EVAS Staging

Note any sampling problems

BORN WATERS EXACHTION/STABILIZATION DATA

~~Transition (thin section)~~ Cooler & ice

Entered by: 9A

Sampled by: 7

Sample ID# MW-11 Project Name: BEACON 721 Project No. D093-936

Location (address) 44 CEWELLING BLDG. SAN LORENZO, CA

Date Sampled: 5/20/92 Time: 1020

Wellhead assembly condition: Good Fair Poor (If poor, see comments)

Equipment Required: _____ bats _____ locks _____ locking cap

Well Depth 29.50 feet below top of casting Casing diameter 7 inches

Benthic water (below top of casing): 17-3L Date: 5/20/97 Time 1010

West Casting Volume Multiplier: 0.16 in³, 0.63 in⁴, 1.67 in⁶

Breeding methods: Synchronous Asynchronous Other _____

All numbers have been converted before saving.

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Taping (type: _____) (new or previously used) was used to support the

Sampling method: Disposable baiter Sampling point

Samples collected 2 VOA's - BTEX, TRBZ Sample appearance clarity

GROUND WATER EVACUATION/STABILIZATION DATA

~~DOZ~~ 0.6 ppm

~~Temperature (heat transfer)~~ \rightarrow Converge to 1e

~~This document is~~ by: A

Sampled by: _____

SAMPLING INFORMATION SHEET



Delta
Environmental
Consultants, Inc.

Sample ID# RW-1 Project Name: BEACON 721 Project No. D093-936

Location (address) 44 CENELLING BLVD. SAN LORENZO, CA

Date Sampled: 5/20/97 Time: 1350

Wellhead assembly condition: Good Fair Poor (If poor, see comments)

Equipment Replaced: _____ bolts _____ locks _____ locking cap

Well Depth 29.50 ft below top of casing Casing diameter 10 inches

Depth in water (below sea level) 14.85 ft Date: 5/20/97 Time 1208

Wind Catching Volume Multipliers: 0.16 for 2", 0.65 for 4", 1.47 for 6"

Well, I think you must be off now, so I'll say goodnight.

Purging method: Submersible pump Bauer Centrifugal pump Other _____

At least 4 well volumes have been evacuated before sampling.

Tubing (type: _____) (new or previously used) was used to purge well

Sampling method: Dispositional baiter Sampling point

Samples collected _____ Sample appearance dairy

Note any sampling problems *none*

Now my singing is all

GROUND WATER EVACUATION/STABILIZATION DATA

Comments $D_0 = 21 \text{ ppm}$

Transportation (thermal preservation), Canoe ice

Form completed by: _____

Scanned by

ENCLOSURE C

Ground Water Sample Laboratory Report

From: Joel Kiff To: Delta Environmental

Date: 7/14/97 Time: 9:48:46 PM

Page 1 of 22

JUL-14-97 MON 21:31

KIFF ANALYTICAL

FAX NO. 9162974808

P. 01/04



Report Number : 10236

Date : 07/14/97

Keoni Almeida
Delta Environmental Consultants, Inc.
3164 Gold Camp Drive, Suite 200
Rancho Cordova, CA 95670

Subject : Analysis of 1 Water Sample
Project Name : Beacon 721
Project Number : D093-936

Dear Mr. Almeida,

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 916-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is written in a cursive style with a large, stylized "J" at the beginning.

From: Joel Kiff To: Delta Environmental

Date: 7/14/97 Time: 9:48:46 PM

Page 2 of 22

JUL-14-97 MON 21:31

KIFF ANALYTICAL

FAX NO. 9162974808

P. 02/04



Report Number : 10230

Date : 07/14/97

Subject : 1 Water Sample
Project Name : Beacon 721
Project Number : D093-936

Case Narrative

The reporting limit for Methyl-t-butyl ether in sample MW-3 is increased due to the presence of interfering compounds. GC/MS analysis is recommended if increased sensitivity is required.

Approved By: 
Joel Kiff

720 Olive Drive, Suite D Davis, CA 95616 916-297-4800

JUL-14-97 MON 21:32

KIFF ANALYTICAL

FAX NO. 9162974808

P. 03/04



Report Number : 10236

Date : 07/14/97

Project Name : Beacon 721

Project Number : D093-936

Sample : MW-3

Matrix : Water

Sample Date : 07/10/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	07/14/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	07/14/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	07/14/97
Total Xylenes	4.8	0.50	ug/L	EPA 8020	07/14/97
Methyl-t-butyl ether	< 10	10	ug/L	EPA 8020	07/14/97
TPH as Gasoline	300	50	ug/L	M EPA 8015	07/14/97
aaa-Trifluorotoluene (8020 Surrogate)	101		% Recovery	EPA 8020	07/14/97
aaa-Trifluorotoluene (Gasoline Surrogate)	108		% Recovery	M EPA 8015	07/14/97

Approved By: A handwritten signature in black ink that reads "Joel Kiff". It is positioned above a horizontal line.



Ultramar Inc.

10236

BEACON

Beacon Station No. 721	Sampler (Print Name) <i>Jay Stoops</i>	ANALYSES			Date 7-10-97	Form No. 1 of 1
Project No. D093-836	Sampler (Signature) <i>Jay Stoops</i>				Kits	
Project Location San Joaquin 20	Affiliation Delta				Standard TDTT.	
Sample No./Identification MW - 3	Date 7-10-97	Time 1100	Lab No. -01	BTEX		REMARKS
				TPH (gasoline)		
				TPH (diesel)		
					No. of Containers 2	
Relinquished by: (Signature/Affiliation) <i>Jay Stoops</i>	Date 7-10-97	Time 1100	Received by: (Signature/Affiliation)		Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation)		Date	Time
Relinquished by: (Signature/Affiliation)	Date	Time	Received by: (Signature/Affiliation) <i>Spurley</i>		Date	Time
Report To: Kern Oil Inc. - Delta	Bill to: ULTRAMAR INC. 525 West Third Street Hanford, CA 93230 Attention: T. Kox					

WHITE: Return to Client with Report

YELLOW: Laboratory Copy

PINK: Originator Copy



Report Number : 10050

Date : 05/27/97



Owen Kittredge
Delta Environmental Consultants
3164 Gold Camp Drive, Suite 200
Rancho Cordova, CA 95670

Subject : Analysis of 11 Water Samples

Project Name : Beacon 721

Project Number : D093-936

Location : San Lorenzo

Dear Mr. Kittredge,

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 916-297-4800.

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is fluid and cursive, with "Joel" on top and "Kiff" below it, enclosed in a small oval shape.



Report Number : 10050

Date : 05/27/97

Subject : 11 Water Samples

Project Name : Beacon 721

Project Number : D093-936

Location : San Lorenzo

Case Narrative

The Reporting Limit for MTBE for sample MW-10 is increased due to the presence of interfering compounds.

Approved By:  Joel Kiff



Report Number : 10050

Date : 05/27/97

Project Name : Beacon 721

Project Number : D093-936

Sample : MW-2

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	120	2.5	ug/L	EPA 8020	05/23/97
Toluene	16	2.5	ug/L	EPA 8020	05/23/97
Ethylbenzene	< 2.5	2.5	ug/L	EPA 8020	05/23/97
Total Xylenes	4.0	2.5	ug/L	EPA 8020	05/23/97
Methyl-t-butyl ether	390	25	ug/L	EPA 8020	05/23/97
TPH as Gasoline	1400	250	ug/L	M EPA 8015	05/23/97
aaa-Trifluorotoluene (8020 Surrogate)	112		% Recovery	EPA 8020	05/23/97
aaa-Trifluorotoluene (Gasoline Surrogate)	99.3		% Recovery	M EPA 8015	05/23/97

Sample : MW-1

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 2.5	2.5	ug/L	EPA 8020	05/23/97
Toluene	< 2.5	2.5	ug/L	EPA 8020	05/23/97
Ethylbenzene	< 2.5	2.5	ug/L	EPA 8020	05/23/97
Total Xylenes	< 2.5	2.5	ug/L	EPA 8020	05/23/97
Methyl-t-butyl ether	640	25	ug/L	EPA 8020	05/23/97
TPH as Gasoline	680	250	ug/L	M EPA 8015	05/23/97
aaa-Trifluorotoluene (8020 Surrogate)	98.0		% Recovery	EPA 8020	05/23/97
aaa-Trifluorotoluene (Gasoline Surrogate)	98.8		% Recovery	M EPA 8015	05/23/97

Approved By: Joel Kiff



Report Number : 10050

Date : 05/27/97

Project Name : Beacon 721

Project Number : D093-936

Sample : MW-4

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	05/23/97
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	05/23/97
aaa-Trifluorotoluene (8020 Surrogate)	105		% Recovery	EPA 8020	05/23/97
aaa-Trifluorotoluene (Gasoline Surrogate)	98.0		% Recovery	M EPA 8015	05/23/97

Sample : RW-1

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Methyl-t-butyl ether	32	5.0	ug/L	EPA 8020	05/23/97
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	05/23/97
aaa-Trifluorotoluene (8020 Surrogate)	105		% Recovery	EPA 8020	05/23/97
aaa-Trifluorotoluene (Gasoline Surrogate)	98.0		% Recovery	M EPA 8015	05/23/97

Approved By: Joel Kiff



Report Number : 10050

Date : 05/27/97

Project Name : Beacon 721

Project Number : D093-936

Sample : MW-6

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	05/22/97
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	05/22/97
aaa-Trifluorotoluene (8020 Surrogate)	98.6		% Recovery	EPA 8020	05/22/97
aaa-Trifluorotoluene (Gasoline Surrogate)	97.5		% Recovery	M EPA 8015	05/22/97

Sample : MW-5

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	05/23/97
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	05/23/97
aaa-Trifluorotoluene (8020 Surrogate)	99.7		% Recovery	EPA 8020	05/23/97
aaa-Trifluorotoluene (Gasoline Surrogate)	98.2		% Recovery	M EPA 8015	05/23/97

Approved By: Joel Kiff



Report Number : 10050

Date : 05/27/97

Project Name : Beacon 721

Project Number : D093-936

Sample : MW-8

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Ethybenzene	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/23/97
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	05/23/97
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	05/23/97
aaa-Trifluorotoluene (8020 Surrogate)	105		% Recovery	EPA 8020	05/23/97
aaa-Trifluorotoluene (Gasoline Surrogate)	98.2		% Recovery	M EPA 8015	05/23/97

Approved By: Joel Kiff



Report Number : 10050

Date : 05/27/97

Project Name : Beacon 721

Project Number : D093-936

Sample : MW-7

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Toluene	0.85	0.50	ug/L	EPA 8020	05/22/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Methyl-t-butyl ether	40	5.0	ug/L	EPA 8020	05/22/97
TPH as Gasoline	78	50	ug/L	M EPA 8015	05/22/97
aaa-Trifluorotoluene (8020 Surrogate)	102		% Recovery	EPA 8020	05/22/97
aaa-Trifluorotoluene (Gasoline Surrogate)	99.2		% Recovery	M EPA 8015	05/22/97

Sample : MW-9

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	05/22/97
TPH as Gasoline	< 50	50	ug/L	M EPA 8015	05/22/97
aaa-Trifluorotoluene (8020 Surrogate)	103		% Recovery	EPA 8020	05/22/97
aaa-Trifluorotoluene (Gasoline Surrogate)	97.1		% Recovery	M EPA 8015	05/22/97

Approved By: Joel Kiff



Report Number : 10050

Date : 05/27/97

Project Name : Beacon 721

Project Number : D093-936

Sample : MW-11

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Toluene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Total Xylenes	< 0.50	0.50	ug/L	EPA 8020	05/22/97
Methyl-t-butyl ether	< 5.0	5.0	ug/L	EPA 8020	05/22/97
TPH as Gasoline	330	50	ug/L	M EPA 8015	05/22/97
aaa-Trifluorotoluene (8020 Surrogate)	98.3		% Recovery	EPA 8020	05/22/97
aaa-Trifluorotoluene (Gasoline Surrogate)	103		% Recovery	M EPA 8015	05/22/97

Sample : MW-10

Matrix : Water

Sample Date : 05/20/97

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 20	20	ug/L	EPA 8020	05/23/97
Toluene	34	5.0	ug/L	EPA 8020	05/23/97
Ethylbenzene	290	5.0	ug/L	EPA 8020	05/23/97
Total Xylenes	74	5.0	ug/L	EPA 8020	05/23/97
Methyl-t-butyl ether	< 100	100	ug/L	EPA 8020	05/23/97
TPH as Gasoline	6000	500	ug/L	M EPA 8015	05/23/97
aaa-Trifluorotoluene (8020 Surrogate)	109		% Recovery	EPA 8020	05/23/97
aaa-Trifluorotoluene (Gasoline Surrogate)	106		% Recovery	M EPA 8015	05/23/97

Approved By: Joel Kiff



Ultramar Inc.
CHAIN OF CUSTODY REPORT

10050

BEACON

Beacon Station No. <u>721</u>	Sampler (Print Name) <u>Jay Stoops</u>	ANALYSES	Date <u>5-20-97</u>	Form No. <u>1 of 2</u>	
Project No. <u>D093-936</u>	Sampler (Signature) <u>Jay Stoops</u>	BTEX	Kiff Analytical Davis, CA		
Project Location <u>San Lorenzo</u>	Affiliation <u>Delta</u>	TPH (gasoline)	Standard TBT		
Sample No./Identification <u>MW-11</u>	Date <u>5-20-97</u>	Time <u>1020</u>	Lab No. <u>-01</u>	REMARKS	
			-02		
<u>MW-10</u>		<u>1055</u>			
<u>MW-2</u>		<u>1130</u>	<u>-03</u>		
<u>MW-9</u>		<u>1150</u>	<u>-04</u>		
<u>MW-6</u>		<u>1220</u>	<u>-05</u>		
<u>MW-5</u>		<u>1230</u>	<u>-06</u>		
<u>MW-2</u>		<u>1245</u>	<u>-07</u>		
<u>MW-1</u>		<u>1300</u>	<u>-08</u>		
Relinquished by: (Signature/Affiliation) <u>John H. Berg</u>	Date <u>5-22-97</u>	Time <u>1150</u>	Received by: (Signature/Affiliation) <u>Richard Preuss / Kiff Analytical</u>	Date <u>5-22-97</u>	Time <u>1150</u>
Relinquished by: (Signature/Affiliation) <u>Richard Preuss / Kiff</u>	Date <u>5-22-97</u>	Time <u>1225</u>	Received by: (Signature/Affiliation)	Date	Time
Relinquished by: (Signature/Affiliation) <u>Owen Kitteridge - Delta</u>	Date <u>5-22-97</u>	Time <u>1225</u>	Received by: (Signature/Affiliation) <u>McC L Kiff</u>	Date	Time
Report To: <u>Owen Kitteridge - Delta</u>			Bill To: <u>ULTRAMAR INC.</u> <u>525 West Third Street</u> <u>Hanford, CA 93230</u> Attention: <u>T. FOX</u>		



Ultramar Inc.
CHAIN OF CUSTODY REPORT

10050

BEACON

Beacon Station No. <i>721</i>	Sampler (Print Name) <i>Terry Sloops</i>	ANALYSES						Date <i>5-20-97</i>	Form No. <i>2 of 2</i>		
Project No. <i>D093934</i>	Sampler (Signature) <i>[Signature]</i>							No. of Containers	<i>Kiff Analytical</i>		
Project Location <i>San Lorenzo</i>	Affiliation <i>Delta</i>							No. of Containers	<i>Davis, CA</i>		
Sample No./Identification <i>MW-4</i>	Date <i>5-20-97</i>	Time <i>1315</i>	Lab No. <i>-09</i>	BTEX	TPH (gasoline)	TPH (diesel)			REMARKS		
<i>MW-1</i>	<i>✓</i>	<i>1350</i>	<i>-10</i>	X	X	X					
<i>MW-8</i>	<i>5-20-97</i>	<i>1110</i>	<i>-11</i>	X	X	X					
Relinquished by: (Signature/Affiliation) <i>[Signature] Delta</i>	Date <i>5-22-97</i>	Time <i>1150</i>	Received by: (Signature/Affiliation) <i>Rickard Romm /Kiff Analytical/</i>						Date <i>5-22-97</i>	Time <i>1150</i>	
Relinquished by: (Signature/Affiliation) <i>Rickard Romm /Kiff</i>	Date <i>5-22-97</i>	Time <i>1225</i>	Received by: (Signature/Affiliation)						Date	Time	
Relinquished by: (Signature/Affiliation)	Date <i>5-22-97</i>	Time <i>1225</i>	Received by: (Signature/Affiliation) <i>Jane C. [Signature]</i>						Date	Time	
Report To: <i>David K. Herder - Delta</i>	Bill to:			ULTRAMAR INC. 525 West Third Street Hanford, CA 93230							
				Attention: <i>T. Fox</i>							

ENCLOSURE D

Velocity of Ground Water Flow Calculation Spreadsheets

Velocity of Ground Water Flow Calculation Spreadsheet

Assuming 38 Percent Porosity

Beacon Station 721

44 Lewelling Boulevard

San Lorenzo, California

Wells MW-1 to MW-10 Calculations

	Fourth Quarter 1996			First Quarter 1997			Second Quarter 1997		
	RW-1	MW-1	MW-3	RW-1	MW-1	MW-3	RW-1	MW-1	MW-3
Source well for transmissivity	105	5230	6320	105	5230	6320	105	5230	6320
Transmissivity in gallons per day per foot (K)	27.36	27.36	27.36	30.68	30.68	30.68	28.39	28.39	28.39
Ground water elevation in feet for MW-1 (h_1)	26.87	26.87	26.87	26.65	26.65	26.65	27.86	27.86	27.86
Ground water elevation in feet for MW-10 (h_2)	160	160	160	160	160	160	160	160	160
Distance between wells in feet (L)	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38	0.38
Porosity (η)	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
Gallons per cubic foot	0.11	5.62	6.79	0.93	46.22	55.85	0.12	6.08	7.35
Velocity of ground water in feet per day (Va)	14.34								
Average velocity of ground water									

Equation used for the above calculation

$$V_a = \frac{K(|h_1 - h_2|)}{L}$$

$$7.5 * \eta$$