



1704 Via Riata, Roseville, CA 95747
May 25, 2001

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

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

JUN 13 2001

Subject: *Quarterly Ground Water Monitoring and
Remediation System Status Report, First Quarter 2001*
Beacon Station No. 3720
1088 Marina Boulevard
San Leandro, California
Doulos Project No. 00-3720

Dear Mr. Seery:

This report describes quarterly ground water monitoring and remediation system activities conducted during the **First Quarter 2001**.

STATUS OF GROUND WATER MONITORING

Doulos Environmental, Inc. (Doulos) has been authorized by Ultramar Inc. to perform quarterly ground water monitoring and remediation system oversight for the subject site. This report describes quarterly ground water monitoring and remediation system status for the **First Quarter 2001**.

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

- Historical ground water flow direction is to the southwest.

Work Performed During the First Quarter 2001:

- Doulos performed ground water sampling on **February 27, 2001**.

Interim Remediation:

- On **October 4, 2000**, 1,500 gallons of ground water were over purged from Monitoring wells MW-2 and MW-3 using a vacuum truck. Analytical results are included in Table 2.
- On **October 17, 2000**, 1,200 gallons of ground water were over purged from Monitoring wells MW-2 and MW-3 using a vacuum truck. Analytical results are included in Table 2.
- On **November 29, 2000**, a dual phase extraction (DPE) test was conducted on monitoring wells MW-1 and MW-2. Approximately 1,800 gallons of ground water were extracted during the DPE test.

Cost Effective Solutions

Interim Remediation (Continued):

- On December 4, 2000, approximately 1,600 gallons of ground water were extracted during the DPE test.
- On January 4, 2001, approximately 1,000 gallons of ground water were extracted during the DPE test.
- The evaluation of these interim remediation events is included in the Doulos report entitled *Evaluation of Interim Remediation with Vacuum Truck/Dual Phase Extraction Events*.
- Follow-up DPE events are schedule for the **Second Quarter 2001**.

Analytical results from the above referenced interim remediation are included in Table 2. Laboratory analytical results for the above referenced interim remediation activities are included in Enclosure C.

STATUS OF REMEDIATION SYSTEM

Operation and maintenance is performed bi-monthly by Doulos on a remediation system consisting of ground water treatment, soil vapor extraction (SVE) and air sparging components. A process flow diagram showing details of the system is shown as Figures 5.

Operation & Maintenance Site Visits:

- Operation and maintenance site visits were conducted for the **First Quarter 2001** on:
 - **January 4 and 19, 2001**
 - **February 15 and 23, 2001**
 - **March 1 and 23, 2001**

Ground Water Extraction System Performance:

- The Ground Water Treatment System did not operate during the **First Quarter 2001**.
- **During the First Quarter 2001, the ground water system processed Zero (0) gallons.**
As of **March 23, 2001**, the ground water system has processed approximately **228,500** gallons.
- The Ground Water Treatment system has not operated continuously since **March 1998** and has only processed purge water since that time.
- Due to the elevated concentration reported in the most recent ground water sampling events, Ultramar may to start-up the ground water system in the future. The sanitary sewer agency will be notified of system modification or system start-up.
- Monitoring well MW-4, MW-5 and MW-9 are recovery wells.

Soil Vapor Extraction System Performance:

- The SVE system operated continuously during the **First Quarter 2001**.
- ~~During the First Quarter 2001, the SVE system removed approximately 23.0 pounds of vapor equivalent gasoline.~~
- As of **March 23, 2001**, the SVE system has removed approximately **2,448** pounds (**401** gallons) of vapor equivalent gasoline.
- Soil vapor extraction is conducted on MW-1 through MW-5, MW-8, MW-9 and vapor well VW-1.
- The SVE analytical results are included in Table 3 and the SVE performance data is included in Table 4. Remediation system analytical results are included in Enclosure E.

Mr. Scott Seery
Alameda County Health Care Agency
Department of Environmental Health
May 25, 2001
Page 3

Air Sparging System Performance:

- The Air Sparging system did not operate during the **First Quarter 2001**.
- Air sparging system is connected to sparge points SP-1 through SP-6.

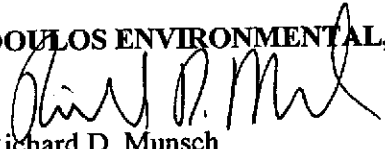
CONCLUSIONS/RECOMMENDATIONS


Doulos recommends continued operation of the remediation system and quarterly ground water monitoring.

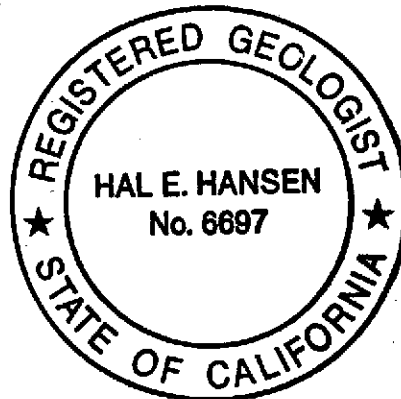
The interpretations contained in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices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

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

DOULOS ENVIRONMENTAL, INC.


Richard D. Munsch
Project Manager


Hal Hansen, R.G.
California Registered Geologist No. 6697



RDM (3720 1Q GWM 2-27-01)

cc: Mr. Joe Aldridge – Ultramar Inc.
Mr. Paul Zolfarelli – City of San Leandro
Case Worker – California Regional Water Quality Control Board – San Francisco Bay Region

Enclosures:

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

TABLE 1

GROUND WATER MONITORING DATA

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

Monitoring Well	Date	Reference Elevation (ft)	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Comments
MW-1	03/12/98	33.10	11.09	22.01	<0.5	<0.5	5.0	2.8	100	<5.0	No sheen
	05/28/98		11.36	21.74	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	08/31/98		12.61	20.49	<0.5	<0.5	6.4	1.4	130	<5.0	No sheen
	11/19/98		13.84	19.26	0.75	<0.5	<0.5	3.0	120	<5.0	No sheen
	03/15/99		11.95	21.15	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/07/99		13.45	19.65	1.6	1.9	230	110	5,200	<5.0	No sheen
	09/07/99		13.10	20.00	1.0	<0.5	22	15	490	<5.0	No sheen
	12/13/99		14.29	18.81	<2.5	<2.5	170	110	4,100	<25	No sheen
	03/08/00		11.22	21.88	<0.5	<0.5	21	7.7	1,200	150	No sheen
	06/12/00		12.85	20.25	1.5	0.9	160	98	3,000	34	No sheen
	11/15/00		14.19	18.91	<20	<20	470	390	8,500	14,000	No sheen
	02/27/01		12.35	20.75	5.4	2.6	260	190	6,100	4,300	No sheen
MW-2	03/12/98	32.80	10.92	21.88	32	1.0	12	6.5	440	20	No sheen
	05/28/98		10.41	22.39	<0.5	<0.5	<0.5	<0.5	<50	27	No sheen
	08/31/98		12.29	20.51	9.3	0.95	4.9	8.8	270	20	No sheen
	11/19/98		13.47	19.33	16	0.72	<0.5	4.3	180	7.4	No sheen
	03/15/99		11.95	20.85	12	3.5	59	840	2,400	10	No sheen
	06/07/99		13.11	19.69	21	0.99	6.9	10	690	6.1	No sheen
	09/07/99		12.92	19.88	7.8	1.2	42	100	610	<5.0	No sheen
	12/13/99		13.96	18.84	26	0.93	52	96	3,000	<5.0	No sheen
	03/08/00		10.87	21.93	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/12/00		12.53	20.27	51	17	170	320	5,500	18	No sheen
	11/15/00		13.96	18.84	75	48	1,200	2,800	16,000	19,000	No sheen
	02/27/01		12.29	20.51	54	24	320	870	10,000	6,000	No sheen
MW-3	03/12/98	32.30	10.81	21.49	0.67	<0.5	7.1	3.4	1,200	7.3	No sheen
	05/28/98		11.45	20.85	<0.5	0.5	<0.5	<0.5	350	<5.0	No sheen
	08/31/98		12.21	20.09	<0.5	0.89	0.69	<0.5	240	<5.0	No sheen
	11/19/98		13.26	19.04	5.3	0.72	0.86	4.2	440	<5.0	No sheen
	03/15/99		11.89	20.41	3.3	1.3	0.77	<0.5	410	<5.0	No sheen
	06/07/99		12.91	19.39	<0.5	2.0	<0.5	0.66	680	<5.0	No sheen
	09/07/99		12.81	19.49	<0.5	0.62	<0.5	8.7	150	12	No sheen
	12/13/99		13.75	18.55	<0.5	0.52	<0.5	1.0	830	<5.0	No sheen
	03/08/00		11.39	20.91	0.58	<0.5	0.77	<0.5	960	<5.0	No sheen
	06/12/00		12.58	19.72	1.7	<0.5	46	6.3	1,700	<5.0	No sheen
	11/15/00		13.85	18.45	<200	<200	<200	<200	<20,000	84,000	No sheen
	02/27/01		12.22	20.08	98	<20	130	30	3,500	16,000	No sheen

TABLE 1

GROUND WATER MONITORING DATA

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

Monitoring Well	Date	Reference Elevation (ft)	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Comments
MW-4	03/12/98	32.90	11.31	21.59	2,200	1,500	630	3,000	14,000	440	No sheen
	05/28/98		10.40	22.50	<0.5	0.75	0.68	6.9	67	26	No sheen
	08/31/98		12.54	20.36	1.8	2.5	0.65	3.4	<50	<5.0	No sheen
	11/19/98		13.99	18.91	<0.5	<0.5	<0.5	0.61	<50	17	No sheen
	03/15/99		12.06	20.84	1.2	1.6	0.76	4.5	160	9.3	No sheen
	06/07/99		13.57	19.33	210	370	350	2,000	5,800	<20	No sheen
	09/07/99		10.30	22.60	2.2	2.8	4.8	25	130	12	No sheen
	12/13/99		14.18	18.72	1.3	1.0	1.2	4.8	<50	12	No sheen
	03/08/00		11.77	21.13	78	200	160	750	3,700	11	No sheen
	06/12/00		13.47	19.43	<0.5	<0.5	<0.5	<0.5	<50	24	No sheen
	11/15/00		14.33	18.57	12	38	28	130	710	1,300	No sheen
02/27/01	14.25	18.65	67	300	310	1,400	6,500	1,000	No sheen		
MW-5	03/12/98	32.70	11.11	21.59	2,600	160	470	2,200	12,000	<250	No sheen
	05/28/98		10.92	21.78	480	99	160	730	4,700	<250	No sheen
	08/31/98		12.79	19.91	200	14	55	220	1,400	180	No sheen
	11/19/98		13.39	19.31	1.4	<0.5	<0.5	<0.5	<50	39	No sheen
	03/15/99		11.71	20.99	320	17	290	780	3,400	33	No sheen
	06/07/99		13.26	19.44	220	8.9	240	290	3,200	<25	No sheen
	09/07/99		9.70	23.00	8.5	<0.5	8.5	12	140	38	No sheen
	12/13/99		14.06	18.64	<0.5	<0.5	<0.5	13	140	<5.0	No sheen
	03/08/00		11.80	20.90	0.66	<0.5	2.5	30	280	<5.0	No sheen
	06/12/00		12.99	19.71	22	1.2	79	170	2,700	6.4	No sheen
	11/15/00		14.23	18.47	36	1.6	180	180	4,500	10	No sheen
02/27/01	12.66	20.04	33	1.6	160	220	2,800	110	No sheen		
MW-6	03/12/98	30.40	10.49	19.91	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	05/28/98		10.58	19.82	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	08/31/98		10.85	19.55	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	11/19/98		10.88	19.52	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	03/15/99		10.83	19.57	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/07/99		11.01	19.39	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	09/07/99		11.89	18.51	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	12/13/99		12.09	18.31	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	03/08/00		10.02	20.38	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/12/00		11.07	19.33	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	11/15/00		12.34	18.06	<0.5	<0.5	<0.5	<0.5	<50	<0.5	No sheen
02/27/01	10.75	19.65	<0.5	<0.5	<0.5	<0.5	<50	<0.5	No sheen		

TABLE 1

GROUND WATER MONITORING DATA

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

Monitoring Well	Date	Reference Elevation (ft)	Depth to Ground Water (ft)	Ground Water Elevation (ft)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)	Comments
MW-7	03/12/98	31.20	10.14	21.06	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	05/28/98		10.93	20.27	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	08/31/98		12.01	19.19	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	11/19/98		12.54	18.66	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	03/15/99		10.94	20.26	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/07/99		12.05	19.15	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	09/07/99		12.67	18.53	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	12/13/99		12.73	18.47	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	03/08/00		10.90	20.30	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/12/00		12.61	18.59	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	11/15/00		13.06	18.14	<0.5	<0.5	<0.5	<0.5	<50	<0.5	No sheen
02/27/01	11.85	19.35	<0.5	<0.5	<0.5	<0.5	<50	<0.5	No sheen		
MW-8	03/12/98	33.80	11.81	21.99	1.4	<0.5	<0.5	<0.5	72	<5.0	No sheen
	05/28/98		12.14	21.66	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	08/31/98		13.16	20.64	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	11/19/98		14.56	19.24	510	24	1,200	2,800	14,000	<5.0	No sheen
	03/15/99		12.40	21.40	160	16	910	2,100	14,000	<50	No sheen
	06/07/99		14.06	19.74	330	14	470	880	7,800	<50	No sheen
	09/07/99		14.01	19.79	150	2.6	260	370	3,200	<5.0	No sheen
	12/13/99		14.91	18.89	35	<5.0	280	730	6,700	<50	No sheen
	03/08/00		11.85	21.95	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/12/00		13.59	20.21	4.0	<0.5	4.9	2.1	140	<5.0	No sheen
	11/15/00		14.94	18.86	2.0	<0.5	3.1	2.6	100	110	No sheen
02/27/01	NM	NC	NS	NS	NS	NS	NS	NS	NS	Tank Over Well	
MW-9	03/12/98	32.56	10.93	21.63	320	23	180	720	3,700	190	No sheen
	05/28/98		11.31	21.25	110	6.4	87	300	2,200	220	No sheen
	08/31/98		12.16	20.40	240	23	690	1,900	11,000	<50	No sheen
	11/19/98		11.04	21.52	7.7	<0.5	10	22	280	67	No sheen
	03/15/99		11.81	20.75	<0.5	<0.5	<0.5	1.2	<50	<5.0	No sheen
	06/07/99		12.21	20.35	9.3	0.86	9.7	12	340	<5.0	No sheen
	09/07/99		10.10	22.46	0.76	<0.5	1.9	0.8	72	9.9	No sheen
	12/13/99		13.64	18.92	<0.5	<0.5	<0.5	<0.5	60	<5.0	No sheen
	03/08/00		10.88	21.68	<0.5	<0.5	<0.5	<0.5	<50	<5.0	No sheen
	06/12/00		12.50	20.06	0.9	<0.5	2.7	1.3	640	10	No sheen
	11/15/00		13.60	18.96	<0.5	<0.5	0.69	<0.5	200	12	No sheen
02/27/01	12.15	20.41	0.61	<0.5	2.2	1.2	360	42	No sheen		

TPH = Total petroleum hydrocarbons.

MTBE = Methyl tertiary butyl ether.

µg/L = Micrograms per liter.

TABLE 2

**VACUUM and DUAL PHASE EXTRACTION
GROUND WATER RESULTS**

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

Sample ID	Date Collected	Time	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE* (µg/L)	Oxygenate Compounds (µg/L)
MW-2-IN	10/04/00	5:58 AM	150	<100	180	390	<10,000	91,000	NA
MW-2-FI	10/04/00	8:50 AM	78	54	420	1,100	8,000	27,000	NA
MW-3-IN	10/04/00	8:40 AM	<200	<200	<200	<200	<20,000	150,000	NA
MW-3-FI	10/04/00	9:20 AM	60	12	54	23	2,600	100,000	NA
MW-2	10/17/00	9:45 AM	160	140	2,200	6,100	86,000	26,000	NA
MW-3	10/17/00	10:20 AM	57	<50	50	<50	5,200	110,000	NA
MW-2-PRE	11/29/00	7:30 AM	62	66	1,000	3,800	19,000	12,000	26 ^a ; 980 ^b
MW-2-POST	11/29/00	2:20 PM	41	5.9	110	240	3,600	16,000	22 ^a ; 650 ^b
MW-3-PRE	11/29/00	9:30 AM	94	<50	77	<50	<5,000	68,000	140 ^a ; 5,400 ^b
MW-3-POST	11/29/00	4:05 PM	<100	<100	<100	<100	<10,000	61,000	120 ^a ; 4,500 ^b
MW-2-PRE	12/04/00	10:35 AM	87	82	1,300	4,400	22,000	7,900	580 ^b
MW-2-POST	12/04/00	5:30 PM	51	<20	92	190	3,300	12,000	990 ^b
MW-3-PRE	12/04/00	10:35 AM	93	<50	74	<50	<5,000	65,000	96 ^a ; 6,000 ^b
MW-3-POST	12/04/00	7:10 PM	<100	<100	<100	<100	<10,000	47,000	100 ^a ; 2,700 ^b
MW-1	01/04/01	6:00 AM	<0.5	<0.5	<0.5	<0.5	<50	53	NA
MW-2	01/04/01	5:50 AM	<100	<100	1,500	4,200	32,000	4,800	NA
MW-3	01/04/01	5:40 AM	100	<50	120	<100	5,700	36,000	NA
MW-1	01/04/01	2:35 PM	<20	<20	190	330	5,300	11,000	NA
MW-2	01/04/01	12:35 PM	50	<20	57	350	3,500	10,000	NA
MW-3	01/04/01	10:35 AM	<50	<50	<50	52	<5,000	27,000	NA

a = tert-amyl methyl ether

b = tert-butanol

TPH = Total Petroleum Hydrocarbons

µg/L = micrograms per liter

*MTBE = Methyl tertiary butyl ether

Oxygenate Compounds = Diisopropyl ether, ethyl tertiary butyl ether, tert-amyl methyl ether, and tert-butanol by EPA Method 8260.

NA = Not Analyzed

ND = Non Detect

NM = Not Measured

NS = Not Sampled

TABLE 3

SVE SYSTEM ANALYTICAL RESULTS

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

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

TABLE 3

SVE SYSTEM ANALYTICAL RESULTS

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

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)
Mid-Carbon	07/21/98	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	08/11/98	<0.05	0.06	<0.05	0.071	<5.0
Mid-Carbon	08/11/98	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	08/11/98	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	09/10/98	0.16	0.46	0.062	0.20	16
Mid-Carbon	09/10/98	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	09/10/98	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	09/23/98	0.16	0.32	<0.05	0.20	9.4
Mid-Carbon	09/23/98	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	10/20/98	0.63	0.19	0.062	0.17	28
Mid-Carbon	10/20/98	0.79	0.37	<0.05	0.088	48
Effluent	10/20/98	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	11/26/97	0.13	0.43	0.072	0.35	9.2
Influent	12/08/99	0.73	2.2	0.15	0.71	43
Mid-Carbon	12/08/99	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	12/08/99	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	01/13/99	0.068	0.057	<0.05	0.095	6.5
Mid-Carbon	01/13/99	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	01/13/99	<0.05	<0.05	<0.05	<0.05	5.4
Effluent	01/28/99	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	02/10/99	1.1	1.2	0.071	0.28	56
Mid-Carbon	02/10/99	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	02/10/99	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	03/10/99	0.070	<0.05	<0.05	<0.05	<5.0
Mid-Carbon	03/10/99	0.069	<0.05	<0.05	<0.05	28
Effluent	03/10/99	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	04/07/99	0.22	0.078	<0.05	0.060	17
Influent	06/08/99	<0.05	<0.05	<0.05	<0.05	<5.0
Mid-Carbon	06/08/99	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	06/08/99	<0.05	<0.05	<0.05	<0.05	<5.0

TABLE 3

SVE SYSTEM ANALYTICAL RESULTS

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

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

TABLE 3

SVE SYSTEM ANALYTICAL RESULTS

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

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)
Influent	02/09/00	0.45	3.1	0.52	2.8	59
Mid-Carbon	02/09/00	0.18	<0.05	<0.05	<0.05	<5.0
Effluent	02/09/00	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	03/16/00	0.10	3.5	0.54	4.1	46
Mid-Carbon	03/16/00	0.83	0.31	<0.05	<0.05	22
Effluent	03/16/00	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	04/04/00	0.17	1.9	0.29	2.0	23
Mid	04/04/00	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	04/04/00	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	05/12/00	<0.05	0.059	<0.05	0.091	<5.0
Mid	05/12/00	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	05/12/00	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	06/19/00	<0.05	0.12	<0.05	<0.05	<5.0
Mid	06/19/00	<0.05	<0.05	<0.05	<0.05	<5.0
Effluent	06/19/00	<0.05	<0.05	<0.05	<0.05	<5.0
Influent	07/25/00	2.4	8.1	0.80	3.5	140
Mid	07/25/00	<0.050	0.07	<0.050	<0.050	12
Effluent	07/25/00	<0.05	<0.05	<0.05	<0.05	5.4
Influent	07/25/00	2.4	8.1	0.80	3.5	140
Mid	07/25/00	<0.050	0.07	<0.050	<0.050	12
Effluent	07/25/00	<0.05	<0.05	<0.05	<0.05	5.4
Influent	08/09/00	2.4	8.1	0.80	3.5	140
Mid	08/09/00	<0.050	0.07	<0.050	<0.050	12
Effluent	08/09/00	<0.05	<0.05	<0.05	<0.05	5.4
Influent	09/06/00	2.4	8.1	0.80	3.5	140
Mid	09/06/00	<0.050	0.07	<0.050	<0.050	12
Effluent	09/06/00	<0.05	<0.05	<0.05	<0.05	5.4
Influent	10/17/00	<0.05	0.075	<0.05	0.14	<5.0
Mid	10/17/00	<0.050	0.07	<0.050	<0.050	<5.0
Effluent	10/17/00	<0.05	<0.05	<0.05	<0.05	<5.0

TABLE 3

SVE SYSTEM ANALYTICAL RESULTS

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

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

TABLE 3**SVE SYSTEM ANALYTICAL RESULTS**

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

Sample ID	Date	Benzene (ppmv)	Toluene (ppmv)	Ethyl- benzene (ppmv)	Total Xylenes (ppmv)	TPH as gasoline (ppmv)
Infuent	03/01/01	0.97	1.2	0.13	0.64	18
Mid-Carbon	03/01/01	<0.05	0.053	<0.05	0.098	<5.0
Effluent	03/01/01	<0.05	0.11	<0.05	0.13	<5.0

TPH = Total petroleum hydrocarbons.

µg/L = Micrograms per liter.

ppmv = parts per million by volume.

TABLE 4
SVE SYSTEM THROUGHPUT CALCULATIONS

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

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

TABLE 4
SVE SYSTEM THROUGHPUT CALCULATIONS

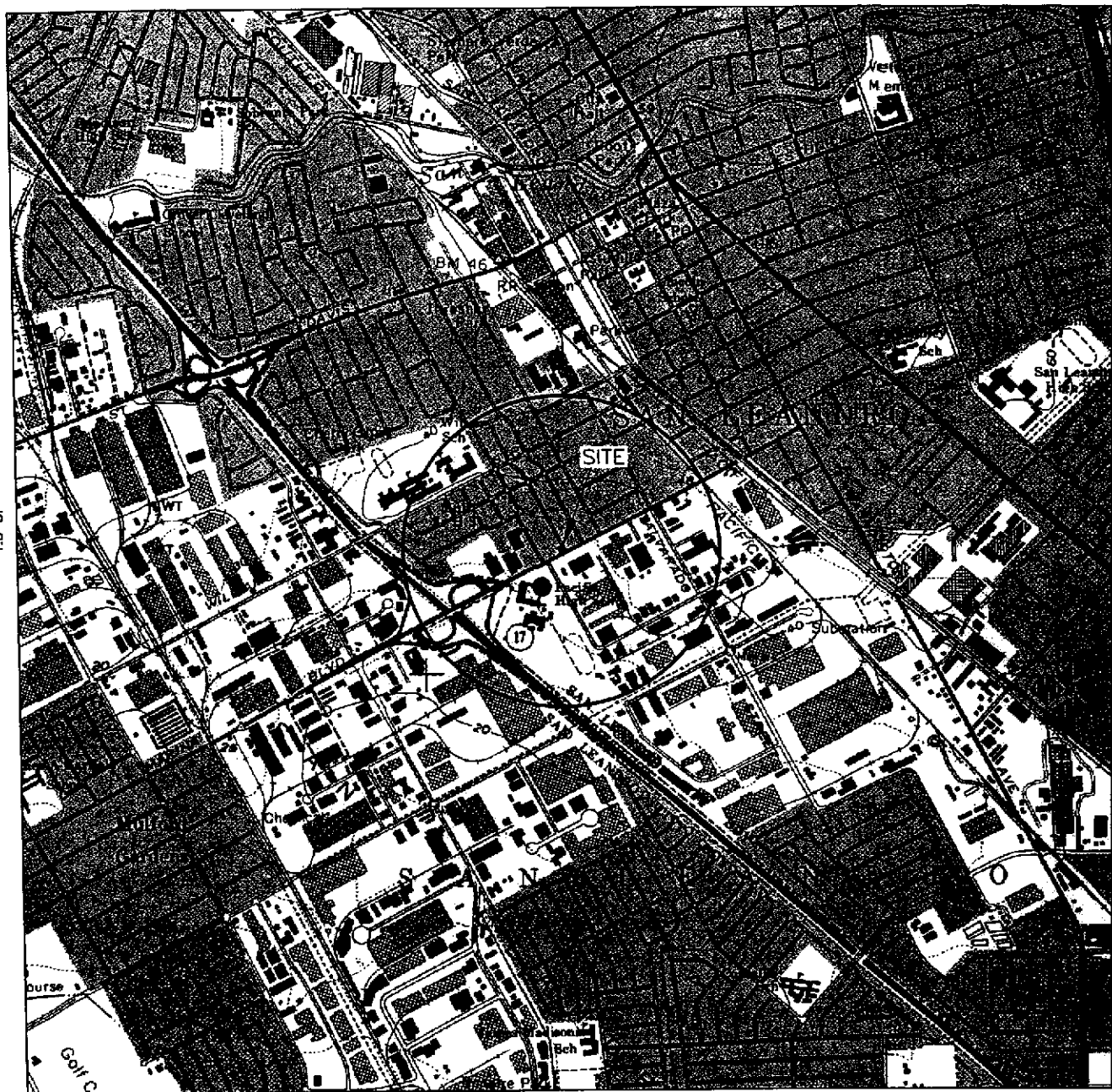
Beacon Station No. 3720
1088 Marina Boulevard
San Leandro, California

Date	Influent	Effluent	TPH		Benzene		TPH	Benzene	TPH	TPH	Benzene	Benzene	FID or LAB	Cumulative	Cumulative	Total Hours	Change in hours of operation
	Flow Rate (ft ³ /min)	Flow Rate (ft ³ /min)	Influent TPH (ppmv)	Effluent TPH (ppmv)	Influent Benzene (ppmv)	Effluent Benzene (ppmv)	Removal TPH (%)	Removal Benzene (%)	Extraction Rate (lbs/day)	Mass Emission (lbs/day)	Extraction Rate (lbs/day)	Emission Rate (lbs/day)		TPH Extraction (lbs)	TPH Extraction (gallons)		
10/17/00	40	40	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	2,411	395	14,054	448
11/29/00	40	40	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	2,414	396	15,062	1,008
12/07/00	40	40	<5.0	<5.0	<0.05	<0.05	NC	NC	< 0.06	< 0.06	< 0.001	< 0.001	LAB	2,414	396	15,328	266
01/19/01	87	87	17.0	<5.0	0.12	<0.05	NC	NC	< 0.47	< 0.14	< 0.003	< 0.001	LAB	2,425	397	16,259	931
02/23/01	67	67	32.0	<5.0	0.19	<0.05	NC	NC	< 0.69	< 0.11	< 0.004	< 0.001	LAB	2,445	401	17,096	837
03/01/01	60	60	18.0	<5.0	0.097	<0.05	NC	NC	< 0.35	< 0.10	< 0.002	< 0.001	LAB	2,448	401	17,247	151

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

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

NC = Not Calculated



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

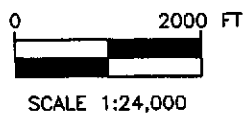


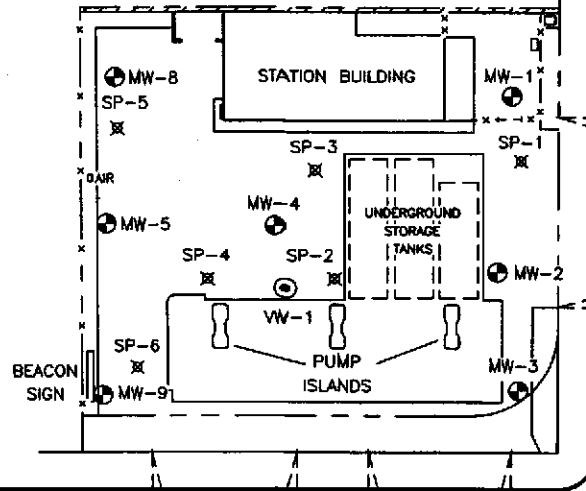
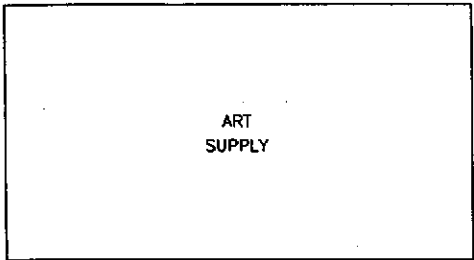
FIGURE 1
 SITE TOPOGRAPHIC MAP
 BEACON STATION NO 3720
 1088 MARINA BOULEVARD
 SAN LEANDRO, CA.

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



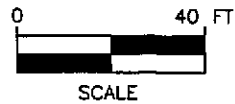
WAYNE AVENUE

MW-7



MARINA BOULEVARD

MW-6



LEGEND:

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

NOTES:

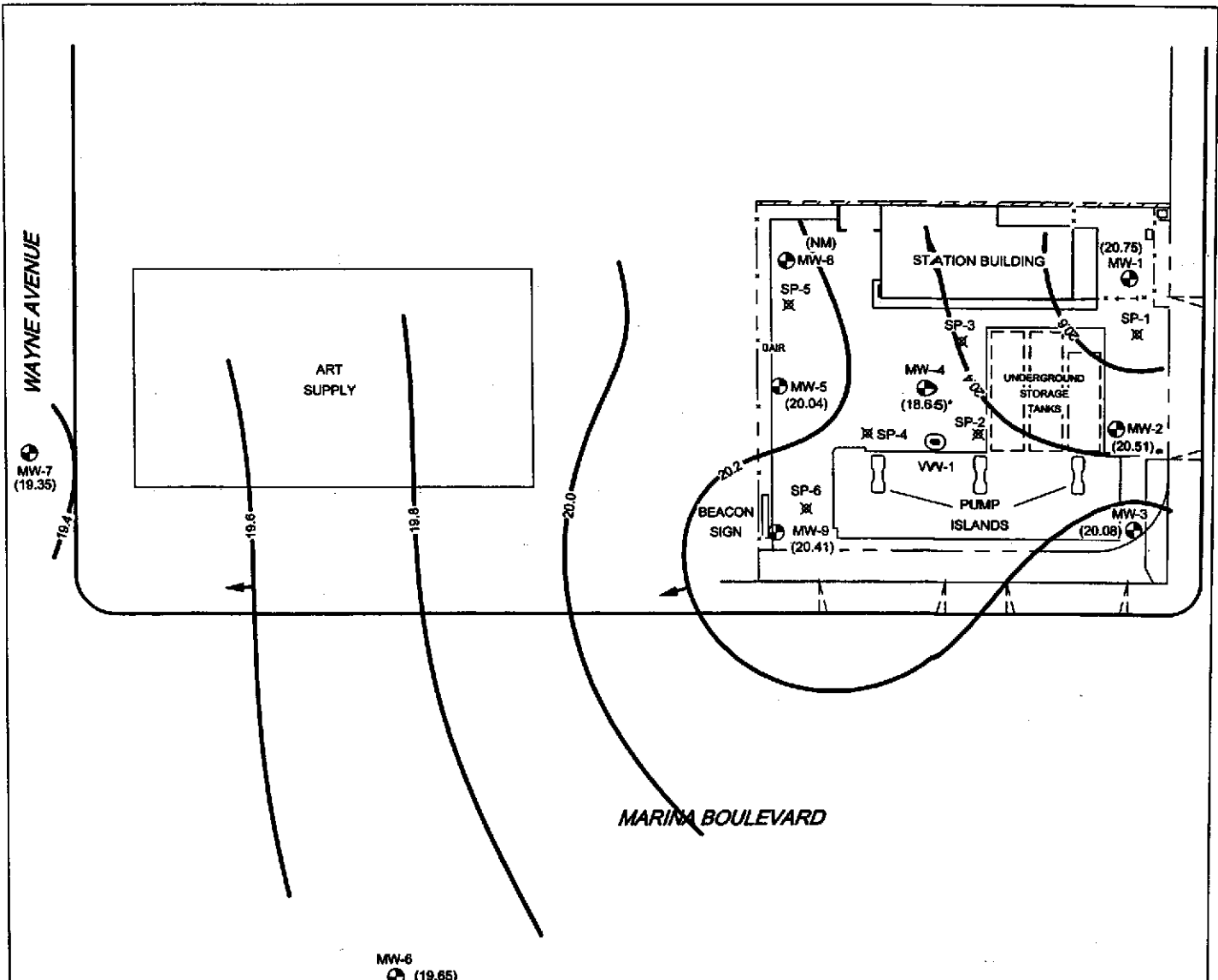
1. BASE MAP ADAPTED FROM FUGRO FIGURE DATED 10/24/95
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED.
2. MONITORING WELLS MW-6 AND MW-7 ARE OFF-SITE.

FIGURE 2
SITE MAP

BEACON STATION NO. 3720
1088 MARINA BOULEVARD
SAN LEANDRO, CA.

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





LEGEND:

- PROPERTY LINE
- - - FENCE
- ⊕ MW-1 MONITORING WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SP-1 AIR SPARGING WELL LOCATION
- (20.75) GROUND WATER ELEVATION IN FEET RELATIVE TO MEAN SEA LEVEL
- 20.0 - WATER ELEVATION CONTOUR IN FEET RELATIVE TO MEAN SEA LEVEL
- ← GROUND WATER FLOW DIRECTION
- * MW-4 NOT USED FOR CONTOUR CONSTRUCTION

NOTES:

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

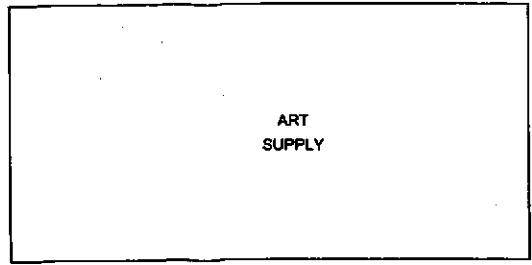
FIGURE 3
GROUND WATER ELEVATION CONTOUR MAP
 2/27/01
 BEACON STATION NO. 3720
 1088 MARINA BOULEVARD
 SAN LEANDRO, CA.

PROJECT NO. 00-3720	DRAWN BY M.L. 3/27/01
FILE NO. 00-3720-6	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY



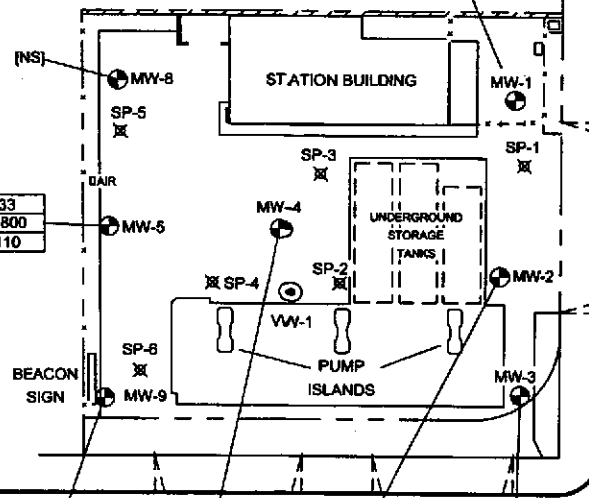
WAYNE AVENUE

MW-7		
B	<0.5	
TPHG	<50	
MTBE	<0.5	



B	33	
TPHG	2,800	
MTBE	110	

B	5.4	
TPHG	6,100	
MTBE	4,300	



B	0.61	
TPHG	360	
MTBE	42	

B	67	
TPHG	6,500	
MTBE	1,000	

B	54	
TPHG	10,000	
MTBE	6,000	

B	98	
TPHG	3,500	
MTBE	16,000	

MARINA BOULEVARD

MW-6		
B	<0.5	
TPHG	<50	
MTBE	<0.5	



LEGEND:

- PROPERTY LINE
- FENCE
- ⊕ MW-1 MONITORING WELL LOCATION
- ⊙ VW-1 VAPOR EXTRACTION WELL LOCATION
- ⊗ SP-1 AIR SPARGING WELL LOCATION
- BENZENE CONCENTRATION IN MICROGRAMS PER LITER (ug/L)
- TOTAL PETROLEUM HYDROCARBONS AS GASOLINE IN ug/L
- METHYL TERTIARY BUTYL ETHER IN ug/L

B	<0.5
TPHG	<50
MTBE	<5.0

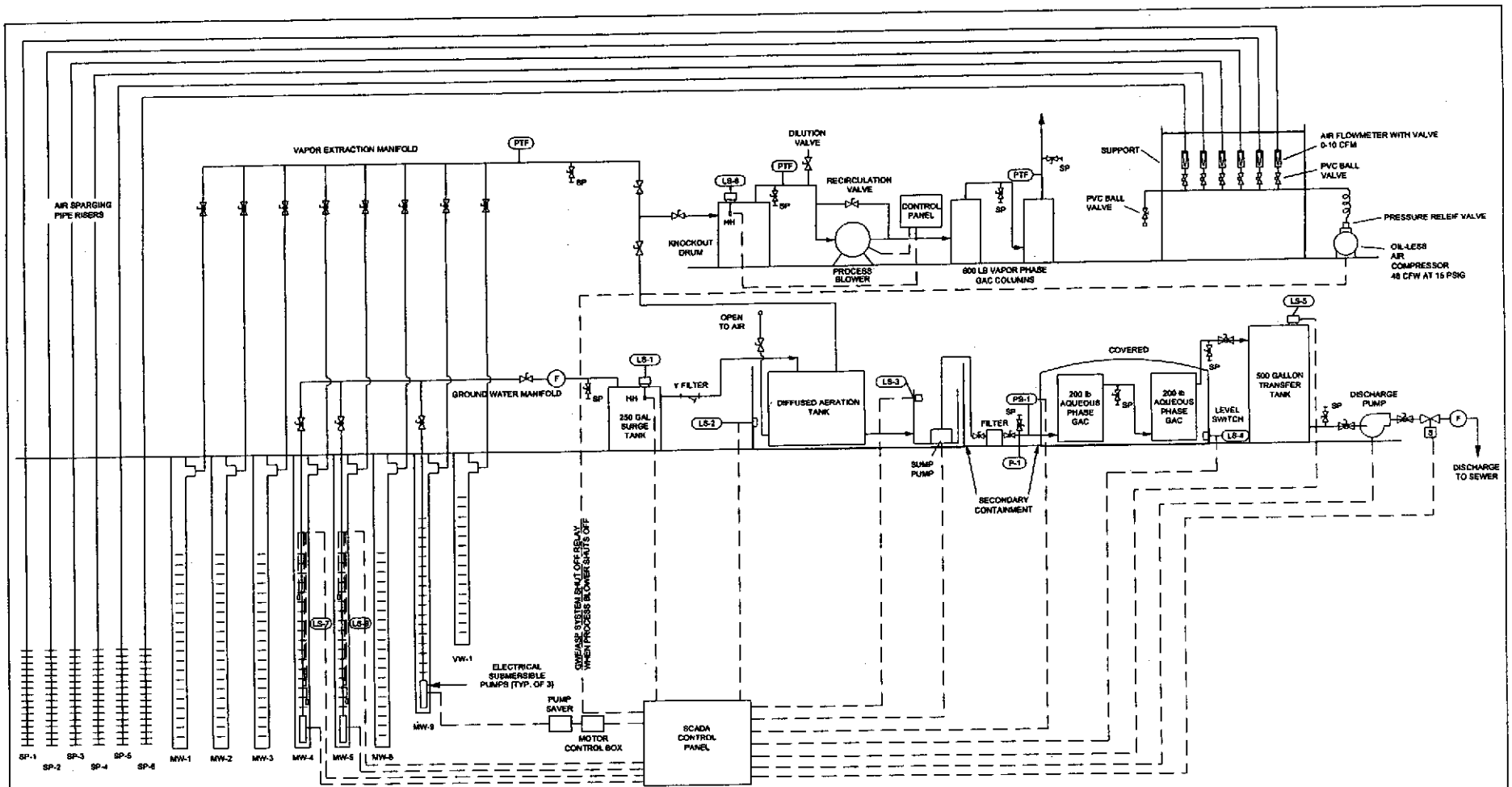
NOTES:

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

FIGURE 4
GROUNDWATER ANALYTICAL SUMMARY
 2/27/01
 BEACON STATION NO. 3720
 1088 MARINA BOULEVARD
 SAN LEANDRO, CA.

PROJECT NO. 00-3720	DRAWN BY M.L. 3/27/01
FILE NO. 00-3720-6	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY





LEGEND:

- BALL VALVE
- GATE VALVE
- SOLENOID VALVE
- SAMPLE PORT
- PRESSURE, TEMPERATURE, FLOW MONITORING POINT
- FLOW TOTALIZER
- PRESSURE GAUGE
- AQUEOUS PHASE CARBON PRESSURE SWITCH-
PRESSURE SWITCH-SHUTS DATS/SUMP PUMP AND WELL
PUMPS (WIREMOTRE RESET)

- SURGE TANK:
HIGH HIGH-SHUTS OFF WELL PUMPS (W/REMOTE RESET)
- SECONDARY CONTAINMENT VESSEL FOR DATS:
HIGH HIGH SHUTS OFF WELL PUMPS
- DATS/SUMP:
HIGH HIGH-SHUTS OFF WELL PUMPS
HIGH-TURNS ON DATS SUMP PUMP
LOW-TURNS OFF DATS SUMP PUMP
- SECONDARY CONTAINMENT VESSEL FOR AQUEOUS PHASE CARBON:
HIGH HIGH-SHUTS OFF DATS/SUMP PUMP AND WELL PUMPS
- DISCHARGE HOLDING TANK:
HIGH HIGH-SHUTS OFF DATS SUMP PUMP (W/REMOTE RESET)
HIGH-TURNS ON TRANSFER PUMP AND OPENS SEWER SOLENOID VALVE
LOW-TURNS OFF TRANSFER PUMP AND CLOSES SEWER SOLENOID VALVE
- RECOVERY WELL PROBES:
HIGH-TURNS ON SUBMERSIBLE WELL PUMP (MW-4)-TO BE CONTROLLED BY RELAY IN PANEL
LOW-TURNS OFF SUBMERSIBLE WELL PUMP (MW-4)-TO BE CONTROLLED BY RELAY IN PANEL
- RECOVERY WELL PROBES:
HIGH-TURNS ON SUBMERSIBLE WELL PUMP (MW-5)-TO BE CONTROLLED BY RELAY IN PANEL
LOW-TURNS OFF SUBMERSIBLE WELL PUMP (MW-5)-TO BE CONTROLLED BY RELAY IN PANEL

COMPASS SYSTEMS W/ OFF-BEAT WHEN PROCESS BLOWER SHUTS OFF

ELECTRICAL SUBMERSIBLE PUMPS (TYP. OF 3)

PUMP SAVER

MOTOR CONTROL BOX

SCADA CONTROL PANEL

DISCHARGE TO SEWER

FIGURE 5
SOIL VAPOR EXTRACTION, AIR SPARGING,
& GROUNDWATER PUMPING SYSTEM SCHEMATIC
BEACON STATION NO. 3720
1088 MARINA BLVD.
SAN LEANDRO, CA.

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



ENCLOSURE A

Site Background Information

HISTORICAL BACKGROUND INFORMATION

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

PREVIOUS OWNER

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

ULTRAMAR INC.

- July 1990 - The site was purchased by Ultramar Inc. from Conoco. The monitoring program has continued.
- August 1991 - A shallow ground water study was performed as a screening tool to locate wells.
- October 1991 - Three additional wells were installed to further define the extent of the dissolved hydrocarbon plume.
- October 1993 - Performed a ground-water pump test, a vapor extraction test, and an air-sparging test.
- May 1994 - A Problem Assessment Report/Remedial Action Plan was submitted.
- December 1994 - One additional monitoring well, six air sparging points and one vapor extraction well were installed.
- June 1997 - Began operation of vapor extraction system.
- July 1997 - The ground water recovery system and the air sparging system began operation.
- September 7, 1999 - Performed quarterly monitoring. Continued to operate the vapor extraction and air sparging systems. The ground-water system did not operate during the quarter.
- The ground water extraction system has processed approximately 228,850 gallons of water. Approximately 1,762 pounds of hydrocarbons have been removed by the vapor extraction system.

ENCLOSURE B

Ground Water Sampling Information

DOULOS ENVIRONMENTAL COMPANY
 GROUNDWATER/LIQUID LEVEL DATA
 (measurements in feet)

Project Address: Beacon #720, 1088 Marina Blvd.

Date: 9-27-01

San Leandro, CA

Project No.: 94-720-01

Recorded by: Hal Hansen

Well No	Time	Well Elev. TOC	Depth to Gr. Water	Measured Total Depth	Gr. Water Elevation	Depth to Product	Product Thickness	Comments
MW-1	7:26		12.35	17.73				
MW-2	7:22		12.29	22.70				
MW-3	7:18		12.22	28.40				
MW-4	7:30		14.25	27.44				
MW-5	7:38		12.66	28.84				PUMP IN WELL
MW-6	7:14		10.75	14.87				
MW-7	7:10		11.85	25.50				
MW-8								
MW-9	7:41		12.15	24.61				BAKER TANK OVER WELL

Notes:

Client: Ultramar

Sampling Date: 2-27-01

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-1

San Leandro, Ca

Is setup of traffic control devices required? NO YES time: _____ hours
 Is there standing water in well box? NO YES Above TOC Below TOC
 Is top of casing cut level? NO YES If no, see remarks
 Is well cap sealed and locked? NO YES If no, see remarks
 Height of well casing riser (in inches): 4
 Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
 12" BK _____ 12" DWP _____ 12" CNI 36" CNI _____ Other _____
 General condition of wellhead assembly: Excellent Good Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" 4" _____ 6" _____ 8" _____

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.
Initial Measurement Recharge Measurement
 Time: 7:26 Time: 9:45 Calculated purge: 3.4
 Depth of well: 17.73 Depth to water: 13.80 Actual purge: 3.4
 Depth to water: 12.35

Start purge: 9:30 Sampling time: 9:46

Time	Temp.	E.C.	pH	Turbidity	Volume
9:31	60.2	1340	7.45	—	1
9:32	60.4	1310	7.40	—	2
9:32	61.0	1280	7.33	—	3
9:33	61.7	1270	7.31	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item
 2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
 4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
 6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

Client: Ultramar

Sampling Date: 2-27-01

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-2

San Leandro, Ca

Is setup of traffic control devices required? NO YES time: _____ hours
 Is there standing water in well box? NO YES Above TOC Below TOC
 Is top of casing cut level? NO YES If no, see remarks
 Is well cap sealed and locked? NO YES If no, see remarks
 Height of well casing riser (in inches): 3
 Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
 12" BK _____ 12" DWP _____ 12" CNI 36" CNI _____ Other _____
 General condition of wellhead assembly: Excellent Good Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" 4" _____ 6" _____ 8" _____

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

Initial Measurement Recharge Measurement
 Time: 7:22 Time: 9:15 Calculated purge: 13.2
 Depth of well: 22.70 Depth to water: 13.98 Actual purge: 13.2
 Depth to water: 12.29

Start purge: 9:00 Sampling time: 9:17

Time	Temp.	E.C.	pH	Turbidity	Volume
9:01	62.3	1380	7.51	—	1
9:01	62.7	1310	7.42	—	2
9:02	63.8	1271	7.40	—	3
9:03	63.9	1260	7.38	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item
 2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
 4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
 6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

Client: Ultramar
Site: Beacon #720
1088 Marina Blvd.
San Leandro, Ca

Sampling Date: 2-27-01
Project No.: 94-720-01
Well Designation: MW-3

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

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
_____ 2" PVC bailer _____ Dedicated bailer
_____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" 4" _____ 6" _____ 8" _____

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.
Initial Measurement Recharge Measurement
Time: 7:18 Time: 8:50 Calculated purge: 10.3
Depth of well: 28.40 Depth to water: 13.86 Actual purge: 10.3
Depth to water: 12.22

Start purge: 8:38 Sampling time: 8:52

Time	Temp.	E.C.	pH	Turbidity	Volume
8:39	62.3	1380	7.48	—	1
8:39	62.7	1306	7.40	—	2
8:40	63.1	1210	7.36	—	3
8:41	63.8	1208	7.35	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item
2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

Client: Ultramar

Sampling Date: 1-27-01

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-4

San Leandro, Ca

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

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" 4" _____ 6" _____ 8" _____

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

Initial Measurement

Recharge Measurement

Time: 7:30 Time: 10:25 Calculated purge: 8.4
 Depth of well: 27.44 Depth to water: 16.18 Actual purge: 8.4
 Depth to water: 14.25

Start purge: 10:15 Sampling time: 10:27

Time	Temp.	E.C.	pH	Turbidity	Volume
10:16	62.3	1198	7.58	—	1
10:17	63.0	1191	7.50	—	2
10:18	63.7	1180	7.42	—	3
10:18	63.9	1170	7.40	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item
 2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
 4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
 6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

Client: Ultramar

Sampling Date: 1-27-01

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-5

San Leandro, Ca

Is setup of traffic control devices required? NO YES time: _____ hours
 Is there standing water in well box? NO YES Above TOC Below TOC
 Is top of casing cut level? NO YES If no, see remarks
 Is well cap sealed and locked? NO YES If no, see remarks

Height of well casing riser (in inches): _____
 Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
 12" BK _____ 12" DWP _____ 12" CNI 36" CNI _____ Other _____
 General condition of wellhead assembly: Excellent Good Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" 4" _____ 6" _____ 8" _____

Purge Vol. Multiplier: 0.16 0.65 1.47 2.61 gal/ft.
Initial Measurement Recharge Measurement
 Time: 7:38 Time: 10:50 Calculated purge: 10.3
 Depth of well: 28.84 Depth to water: 14.90 Actual purge: 10.3
 Depth to water: 12.66

Start purge: 10:39 Sampling time: 10:53

Time	Temp.	E.C.	pH	Turbidity	Volume
10:40	63.8	1130	7.40	—	1
10:40	64.1	1121	7.31	—	2
10:41	64.7	1116	7.20	—	3
10:42	64.9	1110	7.18	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item
 2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
 4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
 6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

Client: Ultramar

Sampling Date: 12-26-01

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-6

San Leandro, Ca

Is setup of traffic control devices required? NO YES time: _____ hours
 Is there standing water in well box? NO YES Above TOC Below TOC
 Is top of casing cut level? NO YES If no, see remarks
 Is well cap sealed and locked? NO YES If no, see remarks
 Height of well casing riser (in inches): 6
 Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
 12" BK _____ 12" DWP _____ 12" CNI _____ 36" CNI _____ Other 12 FOMECO
 General condition of wellhead assembly: Excellent Good Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" 4" _____ 6" _____ 8" _____

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

Initial Measurement

Recharge Measurement

Time: 7:14 Time: 8:30 Calculated purge: 2.6
 Depth of well: 14.87 Depth to water: 11.93 Actual purge: 2.6
 Depth to water: 10.75

Start purge: 8:12 Sampling time: 8:31

Time	Temp.	E.C.	pH	Turbidity	Volume
8:12	62.3	1480	7.41	—	1
8:13	62.7	1410	7.36	—	2
8:14	63.1	1398	7.31	—	3
8:16	63.8	1390	7.29	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item
 2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
 4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
 6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

Client: Ultramar

Sampling Date: 1-27-01

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-7

San Leandro, Ca

Is setup of traffic control devices required? NO YES time: _____ hours
 Is there standing water in well box? NO YES Above TOC Below TOC
 Is top of casing cut level? NO YES If no, see remarks
 Is well cap sealed and locked? NO YES If no, see remarks
 Height of well casing riser (in inches): 6
 Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
 12" BK _____ 12" DWP _____ 12" CNI _____ 36" CNI _____ Other 12 POMECO
 General condition of wellhead assembly: Excellent Good Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" 4" _____ 6" _____ 8" _____

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

Initial Measurement Time: 7:10 Recharge Measurement Time: 8:00
 Depth of well: 25.50 Depth to water: 13.01 Calculated purge: 8.7
 Depth to water: 11.85 Actual purge: 8.7

Start purge: 7:50 Sampling time: 8:01

Time	Temp.	E.C.	pH	Turbidity	Volume
7:51	62.9	1280	7.10	—	1
7:52	63.1	1210	6.98	—	2
7:53	63.8	1181	6.90	—	3
7:54	63.7	1160	6.73	—	4

Sample appearance: Clear Lock: Dolphin

Equipment replaced: (Check all that apply) Note condition of replaced item
 2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
 4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
 6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

Client: Ultramar

Sampling Date: 2-27-01

Site: Beacon #720

Project No.: 94-720-01

1088 Marina Blvd.

Well Designation: MW-9

San Leandro, Ca

Is setup of traffic control devices required? NO YES time: _____ hours
 Is there standing water in well box? NO YES Above TOC Below TOC
 Is top of casing cut level? NO YES If no, see remarks
 Is well cap sealed and locked? NO YES If no, see remarks
 Height of well casing riser (in inches): 6
 Well cover type: 8" UV _____ 12" UV _____ 12" EMCO _____ 8" BK _____
 12" BK _____ 12" DWP _____ 12" CNI 36" CNI _____ Other _____
 General condition of wellhead assembly: Excellent Good Fair Poor

Purging Equipment: _____ 2" disposable bailer _____ Submersible pump
 _____ 2" PVC bailer _____ Dedicated bailer
 _____ 4" PVC bailer Centrifugal pump

Sampled with: Disposable bailer: Teflon bailer: _____

Well Diameter: 2" _____ 4" 6" _____ 8" _____

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

Initial Measurement Recharge Measurement
 Time: 7:41 Time: 11:25 Calculated purge: 32.3
 Depth of well: 24.61 Depth to water: 14.60 Actual purge: 32.3
 Depth to water: 12.15

Start purge: 11:05 Sampling time: 11:26

Time	Temp.	E.C.	pH	Turbidity	Volume
11:08	62.8	1490	7.60	—	1
11:10	62.9	1410	7.51	—	2
11:12	63.2	1391	7.48	—	3
11:14	63.8	1380	7.40	—	4

Sample appearance: Clear Lock: NA

Equipment replaced: (Check all that apply) Note condition of replaced item
 2" Locking Cap: _____ Lock #3753: _____ 7/32 Allenhead: _____
 4" Locking Cap: _____ Lock-Dolphin: _____ 9/16 Bolt: _____
 6" Locking Cap: _____ Pinned Allenhead (DWP): _____

Remarks: _____

Signature: _____

ENCLOSURE C

Ground Water Analytical Results



Report Number : 19428

Date : 03/14/2001

Hal Hansen
Doulos Environmental
1537 Pine Valley Circle
Roseville, CA 95661

Subject : 8 Water Samples
Project Name : SAN LEANDRO 720
Project Number :
P.O. Number : 3720-58

Dear Mr. Hansen,

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

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

Sincerely,



Joel Kiff



Report Number : 19428

Date : 03/14/2001

Project Name : SAN LEANDRO 720

Project Number :

Sample : MW-1

Matrix : Water

Lab Number : 19428-01

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	5.4	1.0	ug/L	EPA 8260B	03/09/2001
Toluene	2.6	1.0	ug/L	EPA 8260B	03/09/2001
Ethylbenzene	260	1.0	ug/L	EPA 8260B	03/09/2001
Total Xylenes	190	1.0	ug/L	EPA 8260B	03/09/2001
Methyl-t-butyl ether (MTBE)	4300	20	ug/L	EPA 8260B	03/08/2001
TPH as Gasoline	6100	100	ug/L	EPA 8260B	03/09/2001
Toluene - d8 (Surr)	98.2		% Recovery	EPA 8260B	03/09/2001
4-Bromofluorobenzene (Surr)	98.8		% Recovery	EPA 8260B	03/09/2001

Sample : MW-2

Matrix : Water

Lab Number : 19428-02

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	54	10	ug/L	EPA 8260B	03/09/2001
Toluene	24	10	ug/L	EPA 8260B	03/09/2001
Ethylbenzene	320	10	ug/L	EPA 8260B	03/09/2001
Total Xylenes	870	10	ug/L	EPA 8260B	03/09/2001
Methyl-t-butyl ether (MTBE)	6000	10	ug/L	EPA 8260B	03/09/2001
TPH as Gasoline	10000	1000	ug/L	EPA 8260B	03/09/2001
Toluene - d8 (Surr)	98.6		% Recovery	EPA 8260B	03/09/2001
4-Bromofluorobenzene (Surr)	96.5		% Recovery	EPA 8260B	03/09/2001

Approved By:  Joel Kiff



Report Number : 19428

Date : 03/14/2001

Project Name : **SAN LEANDRO 720**

Project Number :

Sample : **MW-3**

Matrix : Water

Lab Number : 19428-03

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	98	20	ug/L	EPA 8260B	03/09/2001
Toluene	< 20	20	ug/L	EPA 8260B	03/09/2001
Ethylbenzene	130	20	ug/L	EPA 8260B	03/09/2001
Total Xylenes	30	20	ug/L	EPA 8260B	03/09/2001
Methyl-t-butyl ether (MTBE)	16000	20	ug/L	EPA 8260B	03/09/2001
TPH as Gasoline	3500	2000	ug/L	EPA 8260B	03/09/2001
Toluene - d8 (Surr)	98.5		% Recovery	EPA 8260B	03/09/2001
4-Bromofluorobenzene (Surr)	96.1		% Recovery	EPA 8260B	03/09/2001

Sample : **MW-4**

Matrix : Water

Lab Number : 19428-04

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	67	1.0	ug/L	EPA 8260B	03/08/2001
Toluene	300	1.0	ug/L	EPA 8260B	03/08/2001
Ethylbenzene	310	1.0	ug/L	EPA 8260B	03/08/2001
Total Xylenes	1400	1.0	ug/L	EPA 8260B	03/08/2001
Methyl-t-butyl ether (MTBE)	1000	1.0	ug/L	EPA 8260B	03/08/2001
TPH as Gasoline	6500	100	ug/L	EPA 8260B	03/08/2001
Toluene - d8 (Surr)	97.1		% Recovery	EPA 8260B	03/08/2001
4-Bromofluorobenzene (Surr)	95.5		% Recovery	EPA 8260B	03/08/2001

Approved By:  Joel Kiff



Report Number : 19428

Date : 03/14/2001

Project Name : SAN LEANDRO 720

Project Number :

Sample : MW-5

Matrix : Water

Lab Number : 19428-05

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	33	1.0	ug/L	EPA 8260B	03/09/2001
Toluene	1.6	1.0	ug/L	EPA 8260B	03/09/2001
Ethylbenzene	160	1.0	ug/L	EPA 8260B	03/09/2001
Total Xylenes	220	1.0	ug/L	EPA 8260B	03/09/2001
Methyl-t-butyl ether (MTBE)	110	1.0	ug/L	EPA 8260B	03/09/2001
TPH as Gasoline	2800	100	ug/L	EPA 8260B	03/09/2001
Toluene - d8 (Surr)	97.5		% Recovery	EPA 8260B	03/09/2001
4-Bromofluorobenzene (Surr)	94.2		% Recovery	EPA 8260B	03/09/2001

Sample : MW-6

Matrix : Water

Lab Number : 19428-06

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/08/2001
Toluene - d8 (Surr)	98.7		% Recovery	EPA 8260B	03/08/2001
4-Bromofluorobenzene (Surr)	88.6		% Recovery	EPA 8260B	03/08/2001

Approved By:  Joel Kiff



Report Number : 19428

Date : 03/14/2001

Project Name : **SAN LEANDRO 720**

Project Number :

Sample : **MW-7**

Matrix : Water

Lab Number : 19428-07

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	03/08/2001
Toluene - d8 (Surr)	97.6		% Recovery	EPA 8260B	03/08/2001
4-Bromofluorobenzene (Surr)	94.0		% Recovery	EPA 8260B	03/08/2001

Sample : **MW-9**

Matrix : Water

Lab Number : 19428-08

Sample Date :02/27/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.61	0.50	ug/L	EPA 8260B	03/08/2001
Toluene	< 0.50	0.50	ug/L	EPA 8260B	03/08/2001
Ethylbenzene	2.2	0.50	ug/L	EPA 8260B	03/08/2001
Total Xylenes	1.2	0.50	ug/L	EPA 8260B	03/08/2001
Methyl-t-butyl ether (MTBE)	42	0.50	ug/L	EPA 8260B	03/08/2001
TPH as Gasoline	360	50	ug/L	EPA 8260B	03/08/2001
Toluene - d8 (Surr)	99.4		% Recovery	EPA 8260B	03/08/2001
4-Bromofluorobenzene (Surr)	97.8		% Recovery	EPA 8260B	03/08/2001

Approved By:  Joel Kiff

ENCLOSURE D

Historical Ground Water Monitoring Data

TABLE 1
GROUND WATER ELEVATION DATA
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ¹	Ground Water Elevation ²	Well Depth	Comments
MW-1	03/30/92	33.10	13.58	19.52	---	
	07/01/92		14.80	18.30	---	
	09/30/92		16.12	16.98	---	
	11/19/92		16.34	16.76	27.76	
	02/03/93		12.61	20.49	27.72	
	05/25/93		13.12	19.98	27.70	
	09/22/93		14.18	18.92	27.73	
	12/21/93		14.36	18.74	27.70	
	03/18/94		13.64	19.46	27.67	
	06/15/94		14.30	18.80	27.69	
	09/14/94		15.18	17.92	27.66	
	12/19/94		13.79	19.31	27.70	
	12/21/95		13.86	19.24	---	
	03/07/95		12.74	20.36	29.51	
	06/08/95		12.95	20.15	29.54	
	09/22/95		13.94	19.16	29.54	
	12/27/95		13.57	19.53	29.92	
	03/26/96		12.13	20.97	29.90	
	06/13/96		13.10	20.00	17.02	
	09/10/96		14.08	19.02	17.03	
12/05/96	13.41	19.69	17.05			
03/10/97	12.70	20.40	17.04			
06/12/97	13.68	19.42	17.04			
08/19/97	14.31	18.79	17.01			
12/13/97	13.19	19.91	17.01			
MW-2	03/30/92	32.80	13.32	19.48	---	
	07/01/92		14.42	18.38	---	
	09/30/92		15.78	17.02	---	
	11/19/92		15.99	16.81	24.56	
	02/03/93		12.31	20.49	25.37	
	05/25/93		12.97	19.83	25.31	
	09/22/93		14.32	18.48	25.34	
	12/21/93		14.52	18.28	25.31	
	03/18/94		13.45	19.35	25.49	
	06/15/94		14.07	18.73	25.50	
	09/14/94		14.96	17.84	25.50	
	12/19/94		13.64	19.16	25.52	
	12/21/95		13.71	19.09	---	
	03/07/95		12.54	20.26	25.87	
	06/08/95		12.81	19.99	25.86	
	09/22/95		13.66	19.14	25.80	
	12/27/95		13.42	19.38	25.83	
	03/26/96		12.05	20.75	25.83	
	06/13/96		12.79	20.01	26.39	
	09/10/96		13.73	19.07	26.43	
12/05/96	13.29	19.51	26.45			
03/10/97	12.42	20.38	26.48			
06/12/97	13.18	19.62	26.50			
08/19/97	13.94	18.86	26.52			
12/13/97	12.91	19.89	19.02			

NOTES:

1 = Elevation referenced to mean sea level.

2 = Measurement from top of casing to bottom of well.

Well Depth --- = Not measured.

* = Well paved over.

TABLE 1
GROUND WATER ELEVATION DATA
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ¹	Ground Water Elevation ²	Well Depth	Comments
MW-3	03/30/92	32.30	12.96	19.34	---	
	07/01/92		14.00	18.30	---	
	09/30/92		15.36	16.94	---	
	11/19/92		15.57	16.73	24.45	
	02/03/93		11.96	20.34	24.54	
	05/25/93		14.12	18.18	24.50	
	09/22/93		13.88	18.42	24.50	
	12/21/93		14.12	18.18	24.50	
	03/18/94		13.04	19.26	24.57	
	06/15/94		13.65	18.65	24.78	
	09/14/94		14.54	17.76	24.59	
	12/19/94		13.28	19.02	24.71	
	12/21/95		13.30	19.00	---	
	03/07/95		12.26	20.04	26.03	
	06/08/95		12.42	19.88	26.02	
	09/22/95		13.25	19.05	26.00	
	12/27/95		13.04	19.26	26.00	
	03/26/96		11.62	20.68	26.01	
	06/13/96		12.61	19.69	28.45	
	09/10/96		13.49	18.81	28.42	
12/05/96	13.07	19.23	28.42			
03/10/97	12.23	20.07	28.41			
06/12/97	12.94	19.36	28.44			
08/19/97	12.85	19.45	28.45			
12/13/97	12.45	19.85	28.43			
MW-4	03/30/92	32.90	13.60	19.30	---	
	07/01/92		15.72	17.18	---	
	09/30/92		16.04	16.86	---	
	11/19/92		16.21	16.69	26.92	
	02/03/93		12.70	20.20	27.00	
	05/25/93		12.97	19.93	26.88	
	09/22/93		14.51	18.39	26.90	
	12/21/93		14.75	18.15	26.90	
	03/18/94		13.68	19.22	27.24	
	06/15/94		14.37	18.53	28.54	
	09/14/94		15.23	17.67	27.25	
	12/19/94		13.93	18.97	28.61	
	12/21/95		13.99	18.91	---	
	03/07/95		12.86	20.04	28.64	
	06/08/95		13.10	19.80	28.68	
	09/22/95		13.98	18.92	28.71	
	12/27/95		13.74	19.16	28.71	
	03/26/96		12.30	20.60	28.70	
	06/13/96		13.18	19.72	27.86	
	09/10/96		14.22	18.68	27.40	
12/05/96	13.65	19.25	27.40			
03/10/97	12.79	20.11	27.42			
06/12/97	13.51	19.39	27.40			
08/19/97	14.29	18.61	27.40			
12/13/97	13.43	19.47	27.43			

NOTES: 1 = Elevation referenced to mean sea level.
2 = Measurement from top of casing to bottom of well.
--- = Not measured.
* = Well paved over.

TABLE 1
GROUND WATER ELEVATION DATA
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ¹	Ground Water Elevation ²	Well Depth	Comments
MW-5	03/30/92	32.70	13.48	19.22	---	
	07/01/92		14.58	18.12	---	
	09/30/92		15.82	16.88	---	
	11/19/92		16.00	16.70	27.56	
	02/03/93		12.40	20.30	27.61	
	05/25/93		13.01	19.69	27.61	
	09/22/93		14.37	18.33	27.64	
	12/21/93		14.58	18.12	27.01	
	03/18/94		13.53	19.17	28.70	
	06/15/94		14.18	18.52	28.74	
	09/14/94		15.07	17.63	28.70	
	12/19/94		13.74	18.96	28.76	
	12/21/95		13.84	18.86	---	
	03/07/95		12.73	19.97	28.88	
	06/08/95		12.99	19.71	28.87	
	09/22/95		13.83	18.87	28.85	
	12/27/95		13.59	19.11	28.85	
	03/26/96		12.20	20.50	28.84	
	06/13/96		12.98	19.72	28.84	
	09/10/96		13.96	18.74	28.87	
12/05/96	13.36	19.34	28.87			
03/10/97	12.74	19.96	28.86			
06/12/97	13.06	19.64	28.83			
08/19/97	14.21	18.49	28.82			
12/13/97	13.51	19.19	28.85			
MW-6	03/30/92	30.40	12.62	17.78	---	
	07/01/92		12.70	17.70	---	
	09/30/92		13.40	17.00	---	
	11/19/92		13.59	16.81	15.10	
	02/03/93		12.43	17.97	15.01	
	05/25/93		---	---	---	
	10/11/93		12.82	17.58	15.10	
	12/21/93		13.06	17.34	15.10	
	03/18/94		12.16	18.24	15.16	
	06/15/94		12.59	17.81	15.17	
	09/14/94		12.86	17.54	14.97	
	12/19/94		12.48	17.92	15.19	
	12/21/95		11.61	18.79	---	
	03/07/95		12.37	18.03	14.98	
	06/08/95		11.14	19.26	15.00	
	09/22/95		12.44	17.96	15.00	
	12/27/95		12.21	18.19	14.98	
	03/26/96		12.26	18.14	14.97	
	06/13/96		12.55	17.85	14.98	
	09/10/96		12.31	18.09	15.01	
12/05/96	12.22	18.18	15.00			
03/10/97	12.19	18.21	15.01			
06/12/97	12.28	18.12	14.97			
08/19/97	12.30	18.10	14.98			
12/13/97	11.93	18.47	14.93			

NOTES: 1 = Elevation referenced to mean sea level.
2 = Measurement from top of casing to bottom of well.
--- = Not measured.
* = Well paved over.

TABLE 1
GROUND WATER ELEVATION DATA
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ¹	Ground Water Elevation ²	Well Depth	Comments
MW-7	03/30/92	31.20	12.34	18.86	---	
	07/01/92		15.54	15.66	---	
	09/30/92		14.64	16.56	---	
	11/19/92		14.80	16.40	25.10	
	02/03/93		11.36	19.84	25.02	
	05/25/93		---	---	---	
	09/22/93		13.18	18.02	25.01	
	12/21/93		13.42	17.78	25.02	
	03/18/94		12.36	18.84	25.13	
	06/15/94		13.01	18.19	25.21	
	09/14/94		13.88	17.32	25.13	
	12/19/94		12.61	18.59	25.23	
	12/21/95		12.38	18.82	---	
	03/07/95		11.56	19.64	25.22	
	06/08/95		11.82	19.38	25.20	
	09/22/95		12.67	18.53	25.23	
	12/27/95		12.34	18.86	25.23	
	03/26/96		11.03	20.17	25.21	
	06/13/96		11.76	19.44	25.20	
	09/10/96		12.71	18.49	24.56	
12/05/96	12.32	18.88	24.56			
03/10/97	11.38	19.82	24.53			
06/12/97	12.28	18.92	24.52			
08/19/97	12.92	18.28	24.52			
12/13/97	11.69	19.51	24.50			
MW-8	03/30/92	33.80	14.66	19.14	---	
	07/01/92		15.74	18.06	---	
	09/30/92		17.00	16.80	---	
	11/19/92		17.01	16.79	29.75	
	02/03/93		13.83	19.97	29.88	
	05/25/93		13.01	20.79	29.86	
	09/22/93		15.81	17.99	24.52	
	12/21/93		16.05	17.75	29.86	
	03/18/94		14.62	19.18	29.87	
	06/15/94		15.29	18.51	30.07	
	09/14/94		16.22	17.58	29.87	
	12/19/94		14.81	18.99	30.05	
	12/21/95		14.89	18.91	---	
	03/07/95		13.75	20.05	29.94	
	06/08/95		13.98	19.82	29.93	
	09/22/95		14.92	18.88	29.95	
	12/27/95		14.61	19.19	29.92	
	03/26/96		13.09	20.71	29.73	
	06/13/96		13.81	19.99	27.92	
	09/10/96		14.80	19.00	27.95	
12/05/96	14.05	19.75	27.96			
03/10/97	13.40	20.40	27.98			
06/12/97	14.31	19.49	27.95			
08/19/97	13.85	19.95	27.94			
12/13/97	13.92	19.88	27.93			

NOTES: 1 = Elevation referenced to mean sea level.
2 = Measurement from top of casing to bottom of well.
--- = Not measured.
• = Well paved over.

TABLE 1
GROUND WATER ELEVATION DATA
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(Measurements in feet)

Monitoring Well	Date	Reference Elevation (top of casing) ¹	Depth to Ground Water ¹	Ground Water Elevation ²	Well Depth	Comments
MW-9	12/21/95	32.56	13.76	18.80	—	
	03/07/95		12.79	19.77	24.71	
	06/08/95		12.96	19.60	24.70	
	09/22/95		13.73	18.83	24.72	
	12/27/95		13.53	19.03	24.71	
	03/26/96		12.27	20.29	24.70	
	06/13/96		12.84	19.72	24.53	
	09/10/96		13.49	19.07	24.58	
	12/05/96		13.18	19.38	24.60	
	03/10/97		12.25	20.31	24.66	
	06/12/97		12.70	19.86	24.66	
	08/19/97		17.89	14.67	24.68	
	12/13/97		15.79	16.77	24.68	

NOTES:

- 1 = Elevation referenced to mean sea level.
- 2 = Measurement from top of casing to bottom of well.
- = Not measured.
- = Well paved over.

TABLE 2
GROUND WATER ANALYTICAL RESULTS
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics				
		Gasoline	MTBE ¹	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-1	03/30/92	27,000		630	550	540	1,900
	07/01/92	55,000		840	1,000	830	3,600
	09/30/92	6,400		150	95	120	470
	11/19/92	1,300		90	11	50	87
	02/03/93	53,000		750	560	950	5,700
	05/25/93	9,400		200	86	470	1,500
	09/22/93	41,000		1,000	510	850	1,100
	12/21/93	41,000		1,000	490	2,700	13,000
	03/18/94	9,500		320	160	830	2,900
	06/15/94	8,000		310	80	990	2,300
	09/14/94	3,600		130	31	390	630
	12/19/94	17,000		350	150	1,500	5,200
	03/07/95	12,000		180	62	1,200	3,200
	06/08/95	6,300		76	8	560	860
	09/22/95	12,000		140	55	1,500	2,500
	12/27/95	3,900		60	13	480	870
	03/26/96	6,400		42	4.9	560	600
	06/13/96	9,600	<50	86	39	1,100	1,700
	09/10/96	16,000	<50	65	35	1,500	2,700
	12/05/96	6,400	<25	25	11	570	930
03/10/97	15,000	<50	42	<5.0	1,400	1,500	
06/12/97	16,000	<100	33	34	1,100	1,700	
08/19/97	17,000	<100	47	14	1,300	2,200	
12/13/97	5,800	<100	20	35	360	470	
MW-2	03/30/92	52,000		2,300	1,700	940	3,300
	07/01/92	130,000		3,500	2,900	1,900	7,900
	09/30/92	24,000		890	350	500	1,700
	11/19/92	32,000		1,900	1,700	870	3,400
	02/03/93	64,000		1,900	2,200	860	4,100
	05/25/93	34,000		3,300	1,500	1,300	5,900
	09/22/93	8,000		640	150	270	2,000
	12/21/93	18,000		1,500	410	1,300	5,000
	03/18/94	14,000		1,600	790	1,100	3,700
	06/15/94	13,000		1,600	580	1,200	4,100
	09/14/94	20,000		1,600	560	1,800	6,400
	12/19/94	19,000		1,700	750	1,600	5,800
	03/07/95	17,000		1,900	980	1,300	5,100
	06/08/95	19,000		2,100	740	1,500	4,900
	09/22/95	12,000		840	170	1,100	3,400
	12/27/95	16,000		1,100	540	1,400	5,100
	03/26/96	11,000		930	520	970	3,000
	06/13/96	11,000	1,200	1,800	1,400	1,500	4,500
	09/10/96	19,000	1,100	1,600	600	1,600	5,000
	12/05/96	12,000	180	650	180	1,000	2,800
03/10/97	6,800	69	430	95	590	1,800	
06/12/97	20,000	100	610	140	1,500	4,300	
08/19/97	3,600	<100	250	10	250	250	
12/13/97	8,300	75	370	150	450	1,600	

NOTES: < = Below indicated detection limit
 ND = Reported as "nondetect" by previous consultant.
 NS = Not sampled.

TABLE 2
GROUND WATER ANALYTICAL RESULTS
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics					
		Gasoline	MTBE ¹	Benzene	Toluene	Ethylbenzene	Total Xylenes	
MW-3	03/30/92	21,000		560	50	630	980	
	07/01/92	13,000		150	20	22	300	
	09/30/92	4,500		53	2.6	84	96	
	11/19/92	4,700		73	6.2	140	120	
	02/03/93	23,000		220	40	430	740	
	05/25/93	9,900		120	26	370	520	
	09/22/93	10,000		370	71	320	640	
	12/21/93	7,800		130	8.5	430	380	
	03/18/94	3,100		22	1.3	78	41	
	06/15/94	1,700		8.6	1.4	22	15	
	09/14/94	1,400		3.8	<1.3	13	18	
	12/19/94	3,800		70	1.7	140	110	
	03/07/95	2,200		9.4	<1.3	30	21	
	06/08/95	1,700		5.8	<1.3	2.3	14	
	09/22/95	1,200		<1.3	<1.3	1.3	<1.3	
	12/27/95	1,300		2.4	<1.3	3.3	3.6	
	03/26/96	1,200		4.3	<1.3	4.2	2	
	06/13/96	1,300		28	5.1	<0.50	21	6.5
	09/10/96	810		<5.0	1.4	4.8	1.6	2.1
	12/05/96	590		<5.0	<0.50	3.2	0.79	0.52
03/10/97	650		<5.0	0.73	3.8	2.4	1.6	
06/12/97	710		<5.0	<0.50	3.5	2.9	3.6	
08/19/97	1,400		13	2.2	0.58	11	34	
12/13/97	810		<5.0	0.96	<0.50	0.54	1.8	
MW-4	03/30/92	76,000		8,000	4,400	730	2,500	
	07/01/92	95,000		6,900	2,200	70	880	
	09/30/92	58,000		7,100	1,500	650	2,700	
	11/19/92	33,000		5,500	840	400	1,400	
	02/03/93	130,000		8,200	6,700	940	4,400	
	05/25/93	63,000		16,000	6,600	1,700	8,100	
	09/22/93	23,000		6,900	940	150	3,000	
	12/21/93	28,000		6,900	1,900	1,100	5,500	
	03/18/94	58,000		17,000	6,300	2,500	10,000	
	06/15/94	59,000		20,000	4,900	2,500	9,100	
	09/14/94	73,000		22,000	6,800	2,700	10,000	
	12/19/94	67,000		20,000	8,300	2,300	9,100	
	03/07/95	57,000		19,000	7,900	2,200	8,700	
	06/08/95	61,000		17,000	6,300	2,700	9,000	
	09/22/95	37,000		12,000	2,200	1,400	3,500	
	12/27/95	39,000		12,000	6,000	1,800	5,800	
	03/26/96	31,000		9,600	3,700	2,300	6,200	
	06/13/96	240		89	64	0.93	1.8	2.7
	09/10/96	91,000		2,900	13,000	20,000	3,200	16,000
	12/05/96	16,000		1,200	3,700	3,100	580	2,800
03/10/97	630		530	91	<0.50	<0.50	0.8	
06/12/97	36,000		1,100	4,600	5,300	1,200	5,500	
08/19/97	12,000		390	420	88	61	520	
12/13/97	4,800		360	560	740	130	1,100	

NOTES: < = Below indicated detection limit
ND = Reported as "nondetect" by previous consultant.
NS = Not sampled.

TABLE 2
GROUND WATER ANALYTICAL RESULTS
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics				
		Gasoline	MTBE ¹	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-5	03/30/92	29,000		2,600	980	390	1,100
	07/01/92	52,000		2,400	1,000	5,200	2,000
	09/30/92	32,000		1,800	780	370	1,700
	11/19/92	7,800		1,000	280	120	370
	02/03/93	74,000		3,500	3,000	780	3,200
	05/25/93	57,000		7,900	4,700	1,900	7,800
	09/22/93	52,000		7,600	2,400	1,200	8,800
	12/21/93	23,000		3,600	1,200	970	3,600
	03/18/94	47,000		8,200	5,000	1,400	6,100
	06/15/94	28,000		7,900	4,000	1,200	5,200
	09/14/94	32,000		8,000	5,100	1,400	5,600
	12/19/94	29,000		7,000	3,400	1,200	5,200
	03/07/95	36,000		9,800	5,800	1,800	7,800
	06/08/95	33,000		7,700	3,800	1,500	6,200
	09/22/95	39,000		9,500	3,800	1,900	7,000
	12/27/95	42,000		9,700	5,000	2,200	8,800
	03/26/96	37,000		9,800	4,900	2,300	8,800
	06/13/96	18,000	1,400	5,500	2,200	1,500	5,300
	09/10/96	22,000	860	5,600	1,400	1,100	3,500
	12/05/96	24,000	650	5,100	2,500	1,400	4,700
03/10/97	28,000	760	6,800	2,700	1,300	5,700	
06/12/97	49,000	700	7,500	3,200	2,300	9,200	
08/19/97	24,000	1,600	4,700	990	1,400	4,500	
12/13/97	18,000	360	2,700	760	630	4,200	
MW-6	03/30/92	73		2.1	1.1	ND	0.6
	07/01/92	ND		ND	ND	ND	ND
	09/30/92	ND		0.73	ND	ND	0.58
	11/19/92	96		1.5	<0.5	<0.5	0.9
	02/03/93	73		0.6	<0.5	<0.5	<0.5
	05/25/93	NS		NS	NS	NS	NS
	10/11/93	<50		<0.5	<0.5	<0.5	<0.5
	12/21/93	<50		<0.5	<0.5	<0.5	<0.5
	03/18/94	<50		<0.5	<0.5	<0.5	<0.5
	06/15/94	<50		<0.5	<0.5	<0.5	<0.5
	09/14/94	<50		<0.5	<0.5	<0.5	<0.5
	12/19/94	<50		<0.5	<0.5	<0.5	<0.5
	03/07/95	<50		<0.5	<0.5	<0.5	<0.5
	06/08/95	<50		<0.5	<0.5	<0.5	<0.5
	09/22/95	<50		<0.50	<0.50	<0.50	<0.50
	12/27/95	<50		<0.50	<0.50	<0.50	<0.50
	03/26/96	<50		<0.50	<0.50	<0.50	<0.50
	06/13/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	09/10/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	12/05/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
03/10/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	
06/12/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	
08/19/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	
12/13/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	

NOTES: < = Below indicated detection limit
ND = Reported as "nondetect" by previous consultant.
NS = Not sampled.

TABLE 2
GROUND WATER ANALYTICAL RESULTS
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics				
		Gasoline	MTBE ¹	Benzene	Toluene	Ethylbenzene	Total Xylenes
MW-7	03/30/92	ND		ND	ND	ND	ND
	07/01/92	ND		ND	ND	ND	ND
	09/30/92	ND		ND	ND	ND	ND
	11/19/92	<50		<0.5	<0.5	<0.5	<0.5
	02/03/93	<50		<0.5	<0.5	<0.5	<0.5
	05/25/93	NS		NS	NS	NS	NS
	09/22/93	<50		0.51	0.82	<0.5	0.81
	12/21/93	<50		<0.5	<0.5	<0.5	<0.5
	03/18/94	<50		<0.5	<0.5	<0.5	<0.5
	06/15/94	<50		<0.5	<0.5	<0.5	<0.5
	09/14/94	<50		<0.5	<0.5	<0.5	<0.5
	12/19/94	<50		<0.5	<0.5	<0.5	<0.5
	03/07/95	<50		<0.5	<0.5	<0.5	<0.5
	06/08/95	<50		<0.5	<0.5	<0.5	<0.5
	09/22/95	<50		<0.50	<0.50	<0.50	<0.50
	12/27/95	<50		<0.50	<0.50	<0.50	<0.50
	03/26/96	<50		<0.50	<0.50	<0.50	<0.50
	06/13/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	09/10/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
	12/05/96	<50	<5.0	<0.50	<0.50	<0.50	<0.50
03/07/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	
06/12/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	
08/19/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	
12/13/97	<50	<5.0	<0.50	<0.50	<0.50	<0.50	
MW-8	03/30/92	3,000		1,700	880	970	1,900
	07/01/92	72,000		1,800	550	520	2,200
	09/30/92	12,000		680	140	140	560
	11/19/92	9,600		530	310	130	560
	02/03/93	44,000		1,500	1,300	490	2,300
	05/25/93	7,400		580	160	170	480
	09/22/93	2,400		490	45	37	140
	12/21/93	1,400		240	7.5	<2.5	82
	03/18/94	8,600		1,600	680	470	1,900
	06/15/94	4,800		980	380	260	1,200
	09/14/94	6,600		1,200	280	330	1,100
	12/19/94	8,400		1,800	390	500	2,000
	03/07/95	7,400		1,400	370	440	2,000
	06/08/95	6,000		790	220	290	1,400
	09/22/95	4,100		750	93	230	860
	12/27/95	5,400		860	140	350	1,400
	03/26/96	1,700		180	27	100	370
	06/13/96	2,400	42	500	67	220	850
	09/10/96	7,000	<50	1,300	100	410	1,600
	12/05/96	6,300	<50	1,100	78	410	1,600
03/07/97	6,500	<130	840	67	330	1,500	
06/12/97	7,500	<50	1,000	79	390	1,400	
08/19/97	1,100	<20	170	14	38	220	
12/13/97	4,100	24	300	29	190	860	

NOTES: < = Below indicated detection limit
ND = Reported as "nondetect" by previous consultant.
NS = Not sampled.

TABLE 2
GROUND WATER ANALYTICAL RESULTS
BEACON STATION #720
1088 MARINA BOULEVARD, SAN LEANDRO, CALIFORNIA
(All results in micrograms per Liter)

Monitoring Well	Date Collected	Total Petroleum Hydrocarbons	Aromatic Volatile Organics				
		Gasoline	MTBE ¹	Benzene	Toluene	Ethyl-benzene	Total Xylenes
MW-9	12/20/94	16,000		2,500	1,400	690	2,800
	03/07/95	5,200		1,600	250	320	520
	06/08/95	4,900		1,000	98	300	200
	09/22/95	4,000		1,100	82	190	200
	12/27/95	2,800		960	100	200	250
	03/26/96	1,600		380	44	96	110
	06/13/96	1,800	750	540	71	140	180
	09/10/96	2,400	810	860	70	190	210
	12/05/96	5,500	960	2,100	420	380	720
	03/07/97	4,200	720	1,300	170	260	440
	06/12/97	11,000	1,000	2,500	490	560	1,300
	08/19/97	42,000	<1,000	7,700	3,500	2,000	8,300
	12/13/97	13,000	710	1,300	280	960	3,100

NOTES: < = Below indicated detection limit
 ND = Reported as "nondetect" by previous consultant.
 NS = Not sampled.

ENCLOSURE E

Remediation System Analytical Results



Report Number : 18995

Date : 1/26/01

Richard Munsch
Doulos Environmental
1704 Via Riata
Roseville, CA 95747

Subject : 3 Air Samples
Project Name : San Leandro
Project Number : 00-3720-0002
P.O. Number : 3720-57

Dear Mr. Munsch,

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

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

Sincerely,

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

Joel Kiff



Report Number : 18995

Date : 1/26/01

Project Name : San Leandro

Project Number : 00-3720-0002

Sample : Air-Inf

Matrix : Air

Lab Number : 18995-01

Sample Date :1/19/01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.12	0.050	Molar ppm	EPA 82 60B	1/20/01
Toluene	0.85	0.050	Molar ppm	EPA 82 60B	1/20/01
Ethylbenzene	0.16	0.050	Molar ppm	EPA 82 60B	1/20/01
Total Xylenes	0.92	0.050	Molar ppm	EPA 82 60B	1/20/01
TPH as Gasoline	17	5.0	Molar ppm	EPA 82 60B	1/20/01
Toluene - d8 (Surr)	99.9		% Recovery	EPA 82 60B	1/20/01
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 82 60B	1/20/01

Sample : Air-Mid

Matrix : Air

Lab Number : 18995-02

Sample Date :1/19/01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
Toluene	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
Total Xylenes	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	1/20/01
Toluene - d8 (Surr)	99.8		% Recovery	EPA 8260B	1/20/01
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/20/01

Approved By:  Joel Kiff



Report Number : 18995

Date : 1/26/01

Project Name : San Leandro

Project Number : 00-3720-0002

Sample : Air-Eff

Matrix : Air

Lab Number : 18995-03

Sample Date :1/19/01

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
Toluene	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
Total Xylenes	< 0.050	0.050	Molar ppm	EPA 8260B	1/20/01
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	1/20/01
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	1/20/01
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	1/20/01

Approved By:  Joel Kiff



720 Olive Drive, Suite D
 Davis, CA 95616
 Lab: 530.297.4800
 Fax: 530.297.4803

Lab No. 18995 Page of

Chain-of-Custody Record and Analysis Request

Project Manager: Richard Murch
 Company/Address: Doulos
 Project Number: 00-3720-0002 P.O. No.: 3720-57
 Project Name/Location: San Leandro

Phone No.: (916) 771-7098
 FAX No.: (916) 771-4584
 Email Address: [] .pdf [] .xls [] .doc [] other
 Sampler Signature: [Signature]

Analysis Request

Sample Designation	Sampling		Container (Type/Amount)	Method Preserved				Matrix		BTEX (8021B)	BTEX/TPH Gas/MTBE (8021B/MS015)	TPH as Diesel (MS015)	TPH as Motor Oil (MS015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7421/239.2) TOTAL (X) W.E.T. (X)	TAT	For Lab Use Only		
	Date	Time	40 ml VOA SLEEVE	HCl	HNO ₃	ICE	NONE	WATER/SOIL																		
Air - Inf	1/19	8:26	X					X	X																-01	
Air - Mid	1/19	8:24	X					X	X																	-02
Air Eff	1/19	8:22	X					X	X																	-03

Relinquished by: [Signature] Date: 1/19 Time: Received by:

Relinquished by: Date: Time: Received by:

Relinquished by: Date: 01/19/01 Time: 1805 Received by Laboratory: OSAMA ALBAKINI / KIFF Analytical

Remarks: STAT

Bill to: Ultaman Inc. Joe Aldridge

Distribution: White - Lab, Yellow - File, Pink - Originator



Report Number : 19346

Date : 03/06/2001

Richard Munsch
Doulos Environmental
1704 Via Riata
Roseville, CA 95747

Subject : 3 Air Samples
Project Name : San Leandro
Project Number : 00-3720-0002
P.O. Number : 3720-57

Dear Mr. Munsch,

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

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

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is stylized with a large, looping initial "J".

Joel Kiff



Report Number : 19346

Date : 03/06/2001

Project Name : **San Leandro**
Project Number : **00-3720-0002**

Sample : **Air-Inf** Matrix : **Air** Lab Number : **19346-01**
Sample Date : **02/23/2001**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.19	0.050	Molar ppm	EPA 8260B	02/24/2001
Toluene	1.6	0.050	Molar ppm	EPA 8260B	02/24/2001
Ethylbenzene	0.19	0.050	Molar ppm	EPA 8260B	02/24/2001
Total Xylenes	1.1	0.050	Molar ppm	EPA 8260B	02/24/2001
TPH as Gasoline	32	5.0	Molar ppm	EPA 8260B	02/24/2001
Toluene - d8 (Surr)	98.0		% Recovery	EPA 8260B	02/24/2001
4-Bromofluorobenzene (Surr)	97.0		% Recovery	EPA 8260B	02/24/2001

Sample : **Air-Mid** Matrix : **Air** Lab Number : **19346-02**
Sample Date : **02/23/2001**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
Toluene	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
Total Xylenes	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	02/24/2001
Toluene - d8 (Surr)	99.0		% Recovery	EPA 8260B	02/24/2001
4-Bromofluorobenzene (Surr)	96.9		% Recovery	EPA 8260B	02/24/2001

Approved By:  Joel Kiff



Report Number : 19346

Date : 03/06/2001

Project Name : San Leandro

Project Number : 00-3720-0002

Sample : Air-Eff

Matrix : Air

Lab Number : 19346-03

Sample Date :02/23/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
Toluene	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
Total Xylenes	< 0.050	0.050	Molar ppm	EPA 8260B	02/24/2001
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	02/24/2001
Toluene - d8 (Surr)	99.5		% Recovery	EPA 8260B	02/24/2001
4-Bromofluorobenzene (Surr)	98.2		% Recovery	EPA 8260B	02/24/2001

Approved By:  Joel Kiff



720 Olive Drive, Suite D
 Davis, CA 95616
 Lab: 530.297.4800
 Fax: 530.297.4803

Lab No. 19346 Page of

Project Manager: Richard Munsch Phone No.: (916) 771-7098
 Company/Address: Dorlos FAX No.: (916) 771-4584
 Project Number: 00-3720-0002 P.O. No.: 3720-57 Email Address: _____
 pdf xls doc other
 Project Name/Location: San Leandro Sampler Signature: [Signature]

Chain-of-Custody Record and Analysis Request

Sample Designation	Sampling		Container (Type/Amount)		Method Preserved				Matrix	Analysis Request										TAT	For Lab Use Only							
	Date	Time	40 ml VOA	SLEEVE	HCl	HNO ₃	ICE	NONE	WATER/SOIL	BTEX (8021B)	BTEX/TPH GAS/MTBE (8021B/M8015)	TPH as Diesel (M8015)	TPH as Motor Oil (M8015)	TPH Gas/BTEX/MTBE (8260B)	5 Oxygenates/TPH Gas/BTEX (8260B)	7 Oxygenates/TPH Gas/BTEX (8260B)	5 Oxygenates (8260B)	7 Oxygenates (8260B)	Lead Scav. (1,2 DCA & 1,2 EDB - 8260B)	EPA 8260B (Full List)	Volatile Halocarbons (EPA 8260B)	Lead (7412/239.2)	TOTAL (X)	W.E.T. (X)	12 hr/24 hr/48 hr/72 hr/1 wk	12 hr = Results by 9 a.m. of the next bus. day 24 hr = Results by 5 p.m. of the next bus. day 48 hr = Results by 5 p.m. of the 2nd bus. day 72 hr = Results by 5 p.m. of the 3rd bus. day 1 wk = Results by 5 p.m. of the 5th bus. day		
Air - Inf	2/23	8:20		+				+	+	X	X																	- 01
Air - Mid	2/23	8:18		+				+	+	X	X																	- 02
Air - 2ff	2/23	8:16		+				+	+	X	X																	- 03

Relinquished by: <u>[Signature]</u>	Date	Time	Received by: _____	Remarks: <u>STAT</u>
Relinquished by: _____	Date	Time	Received by: _____	
Relinquished by: _____	Date	Time	Received by Laboratory: <u>[Signature]</u> / KIFF	

Bill to: Ultamar Inc. / Joe Aldridge



Report Number : 19440

Date : 03/14/2001

Richard Munsch
Doulos Environmental
1704 Via Riata
Roseville, CA 95747

Subject : 3 Air Samples
Project Name : San Leandro
Project Number : 00-3720-0002
P.O. Number : 3720-57

Dear Mr. Munsch,

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

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

Sincerely,

A handwritten signature in black ink that reads "Joel Kiff". The signature is stylized with a large, looping initial "J".

Joel Kiff



Report Number : 19440

Date : 03/14/2001

Project Name : San Leandro

Project Number : 00-3720-0002

Sample : SVE-Inf

Matrix : Air

Lab Number : 19440-01

Sample Date :03/01/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	0.097	0.050	Molar ppm	EPA 8260B	03/03/2001
Toluene	1.2	0.050	Molar ppm	EPA 8260B	03/03/2001
Ethylbenzene	0.13	0.050	Molar ppm	EPA 8260B	03/03/2001
Total Xylenes	0.64	0.050	Molar ppm	EPA 8260B	03/03/2001
TPH as Gasoline	18	5.0	Molar ppm	EPA 8260B	03/03/2001
Toluene - d8 (Surr)	96.6		% Recovery	EPA 8260B	03/03/2001
4-Bromofluorobenzene (Surr)	104		% Recovery	EPA 8260B	03/03/2001

Sample : SVE-MID

Matrix : Air

Lab Number : 19440-02

Sample Date :03/01/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	03/03/2001
Toluene	0.053	0.050	Molar ppm	EPA 8260B	03/03/2001
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	03/03/2001
Total Xylenes	0.098	0.050	Molar ppm	EPA 8260B	03/03/2001
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	03/03/2001
Toluene - d8 (Surr)	96.1		% Recovery	EPA 8260B	03/03/2001
4-Bromofluorobenzene (Surr)	105		% Recovery	EPA 8260B	03/03/2001

Approved By:  Joel Kiff



Report Number : 19440

Date : 03/14/2001

Project Name : San Leandro

Project Number : 00-3720-0002

Sample : SVE-Eff

Matrix : Air

Lab Number : 19440-03

Sample Date :03/01/2001

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.050	0.050	Molar ppm	EPA 8260B	03/03/2001
Toluene	0.11	0.050	Molar ppm	EPA 8260B	03/03/2001
Ethylbenzene	< 0.050	0.050	Molar ppm	EPA 8260B	03/03/2001
Total Xylenes	0.13	0.050	Molar ppm	EPA 8260B	03/03/2001
TPH as Gasoline	< 5.0	5.0	Molar ppm	EPA 8260B	03/03/2001
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	03/03/2001
4-Bromofluorobenzene (Surr)	90.9		% Recovery	EPA 8260B	03/03/2001

Approved By:  Joel Kiff

