Weiss Associates Environmental and Geologic Services

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May 20, 1996

Kenneth Kan
Project Engineer
Chevron USA Products Company
P.O. Box 5004
San Ramon, California 94583-0804

Re: ***System Performance Report:***
Former Chevron Service Station 9-2960
2416 Grove Way
Castro Valley, California
WA Job #4-0552-88

Dear Mr. Kan:

As you requested, Weiss Associates (WA) presents the following system performance report for the ground water extraction and treatment (GWE) system and soil vapor extraction (SVE) system operating at the site referenced above (Figure 1). This report contains: a summary of petroleum hydrocarbon removal, a description of the GWE and SVE systems, a discussion of GWE and SVE system operations and maintenance activities, and an evaluation of system performance.

Summary of Petroleum Hydrocarbon Removal

The table below summarizes total petroleum hydrocarbons removed to date by the GWE system, SVE system, and manual bailing performed during system operation and maintenance visits.

Total Pounds Of Petroleum Hydrocarbons Removed	
Aqueous Phase	35
Soil Vapor Extraction	8,816
Manual Bailing	31
Total	[redacted]

System Descriptions

On October 18, 1993, WA began ground water extraction from well EW-1 using an electric submersible pump. The ground water treatment system consists of a particulate filter followed by two 1,000-lb aqueous-phase carbon vessels connected in series. As permitted by the Castro Valley Sanitary District (CVSD), treated ground water is discharged to the sanitary sewer. Table 1 and 2 present historical GWE system performance data and analytic results, respectively. Charts 1 and 2 present graphically the decrease in hydrocarbon removal rates and the decrease in influent TPH-G and benzene concentrations, respectively.

On June 28, 1994, WA began start-up procedures for the soil vapor extraction (SVE) system at this site. The SVE system extracts soil vapors from well C-1 with a 5 horse power blower and abates the vapors with a water knockout drum followed by a thermal oxidation unit utilizing natural gas as a supplemental fuel. Table 3 presents historical SVE system performance data. Charts 3 and 4 present graphically the decrease in hydrocarbon removal rates and the decrease in influent TPH concentrations, respectively.

Operational And Maintenance Activities

WA performs monthly operations and maintenance (O&M) in accordance with a Castro Valley Sanitary District (CVSD) permit for the ground water extraction system and a Bay Area Air Quality Management District (BAAQMD) permit for the soil vapor extraction system.

Ground Water Extraction:

WA tracks the cumulative pounds of hydrocarbons removed and the carbon consumption rate of the ground water extraction system to predict carbon breakthrough. Table 1 tracks the total hydrocarbon removed, the carbon consumption rate, and the amount of unspent carbon available in the ground water extraction system.

WA collects GWE system samples quarterly and analyzes for total petroleum hydrocarbons as gasoline (TPH-G) and benzene, toluene, ethylbenzene and xylenes (BTEX) by modified EPA methods 8015 and 8020, respectively. WA collects an effluent water sample and submits it for total

suspended solids (TSS) and chemical oxygen demand (COD) analysis annually. WA measures the effluent pH in the field quarterly. Table 2 presents historical GWE system analytic results.

Soil Vapor Extraction:

WA tracks the SVE system performance parameters including well flow rates, system flow rates, applied vacuum and operating temperatures monthly. WA collects flame ionization detector readings monthly and air samples for TPH-G and BTEX analysis biannually from the SVE system. Table 3 present historical SVE system performance parameters and analytic results.

Separate Phase Hydrocarbon Bailing:

Although not required, WA also periodically measures separate phase hydrocarbon (SPH) thickness in extraction well EW-1 and nearby soil vapor extraction well C-1. WA removes collected SPH from a passive skimmer (currently in EW-1). Table 4 summarizes SPH thickness measurements and the volume and mass of SPH removed. Charts 5 and 6 present graphically the removal of SPH and ground water elevations for wells C-1 and EW-1, receptively.

System Performance Evaluation

Based on the data WA collects from the remediation system and ground water monitoring data collected by Blaine Tech Services Inc. of San Jose (Attachment A), WA notes that:

- Since monitoring began in 1986, overall ground water concentrations from source area monitoring wells have decreased while down gradient monitoring wells have consistently remained near or below detection limits for TPH-G and BTEX.
- TPH-G and benzene concentrations in ground water extracted from EW-1 and processed by the ground water treatment system have decreased since the system started-up; consequently the mass removal rate for the ground water extraction and treatment system has also decreased.
- Separate phase hydrocarbons have not been detected by Blaine Tech in site monitoring wells for almost one year. Since soil vapor extraction system start-up, the separate phase hydrocarbon thickness has been reduced from several inches to zero in both wells C-1 and EW-1.

- Hydrocarbon concentrations in soil vapor have decreased since start-up of the soil vapor extraction system. The influent concentration curve on Chart 4 indicates that the influent concentrations are approaching an asymptotic level, consequently the mass removal rate for the soil vapor extraction system has declined.

The GWE and SVE systems have removed over 8,880 pounds of TPHs from the subsurface of this site. The subsurface conditions have improved as indicated by the:

- Removal of the SPH plume;
- Overall decrease of hydrocarbon concentrations in ground water from source area monitoring wells, and;
- Decrease in soil vapor concentrations measured from the SVE system.

If you have any questions please contact us at (510) 450-6000.

Sincerely,
Weiss Associates

Paul M. Nuti
Senior Staff Engineer

Fatima Lelic, P.E.
Principle Engineer

REGISTERED PROFESSIONAL ENGINEER
FATIMA S. LELIC
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MC/PMN:pmn

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Attachments:
Figure 1. Site Location Map
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Chart 5. Manual Bailing From C-1 and EW-1: Total Hydrocarbon Removal
Chart 6. Ground Water Elevations in Monitoring Wells C-1 and EW-1
A . Ground Water Monitoring Data From Blaine Tech Services Inc.

CC: Amy Leach, Alameda County Health Care Services Agency Department of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA, 94502

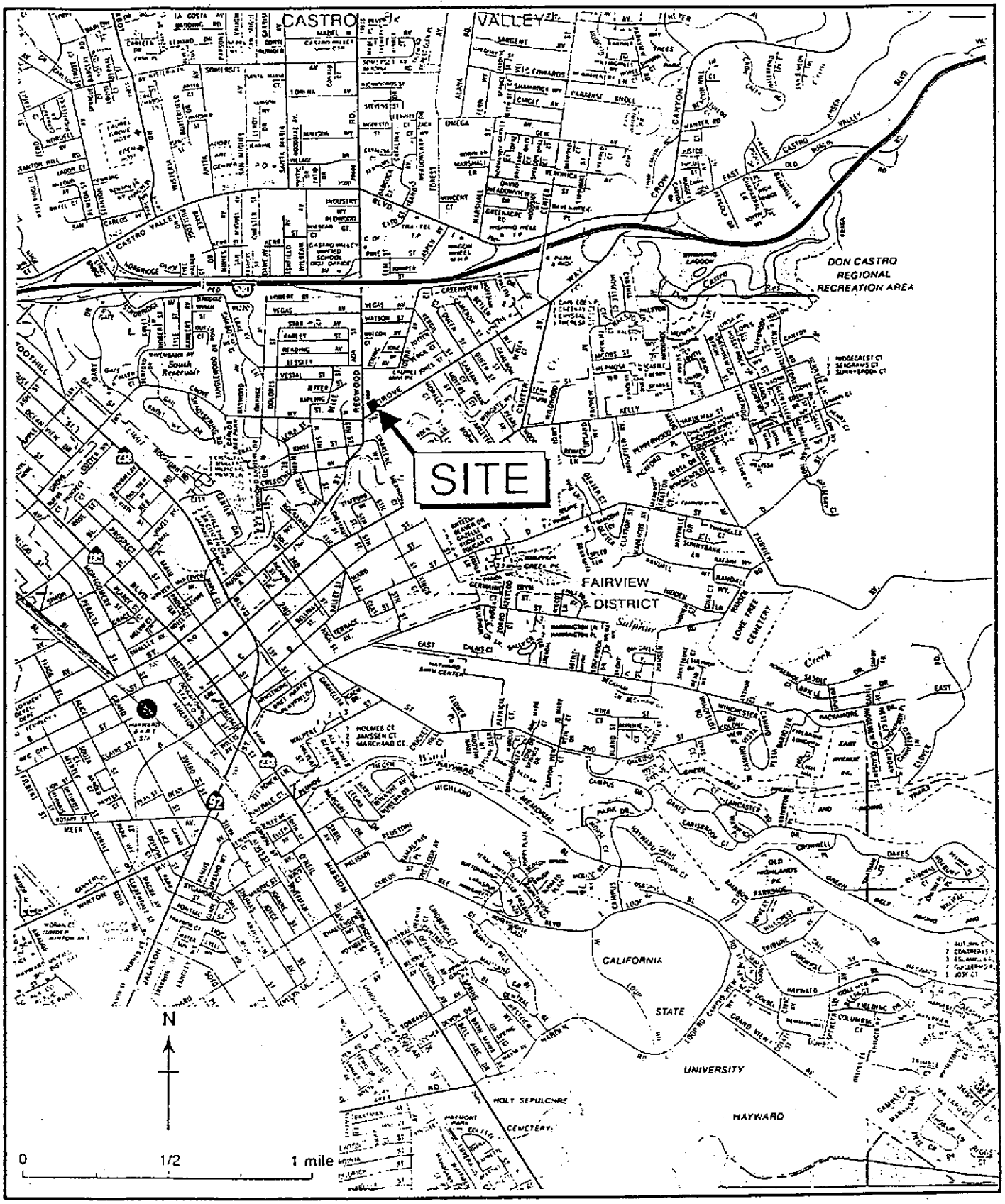


Figure 1. Site Location Map, Former Chevron Service Station #9-2960, 2416 Grove Way, Castro Valley, California

6/16/91

Table 1. Ground Water Treatment System Performance Summary, Former Chevron Service Station #9-2960, 2416 Grove Way, Castro Valley, CA

DATE	EW-1 TOTALIZER READING (gal)	FLOW BETWEEN READINGS (gal)	DAYS BETWEEN READINGS (days)	AVERAGE FLOW (gpm)	SYSTEM INFLUENT TPH-G (ppm) (b)	TOTAL POUNDS OF TPH-G REMOVED (lbs)	ESTIMATED CARBON CONSUMPTION (lbs/day)	ESTIMATED POUNDS OF UNSPENT CARBON (lbs)	COMMENTS
18-Oct-93	1,110	0	0	0.0	4.80	0	0	2000	System Started (a)
02-Nov-93	31,854	30,744	15	1.4	4.80	1.23	1.64	1975	
09-Nov-93	43,508	11,654	7	1.2	4.80	1.70	1.33	1966	
17-Nov-93	55,311	11,803	8	1.0	4.80	2.17	1.18	1957	
24-Nov-93	62,611	7,300	7	0.7	4.80	2.46	0.83	1951	
20-Dec-93	97,671	35,061	26	0.9	3.00	3.34	0.67	1933	Hose between pump and treatment system had leak. Temporarily repaired.
12-Jan-94	119,502	21,831	23	0.7	3.00	3.88	0.47	1922	Hose replaced.
28-Jan-94	155,877	36,375	16	1.6	0.97	4.18	0.37	1916	System shut down by WA, due to a toluene hit.
09-Feb-94	158,524	2,647	12	0.2	1.50	4.21	0.06	1916	System restarted by WA. Toluene hit assumed to be anomalous.
15-Mar-94	239,316	80,792	34	1.7	2.80	6.09	1.11	1878	
13-Apr-94	293,968	54,653	29	1.3	4.80	8.28	1.51	1834	
25-May-94	338,656	44,688	42	0.7	8.50	11.45	1.51	1771	
28-Jun-94	366,715	28,060	34	0.6	6.30	12.92	0.87	1742	SVE System Start-Up.
05-Jul-94	377,565	10,850	7	1.1	6.70	13.52	1.73	1730	
02-Aug-94	396,324	18,759	28	0.5	6.90	14.60	0.77	1708	
06-Sep-94	436,168	39,844	35	0.8	3.50	15.77	0.66	1685	
14-Sep-94	448,459	12,291	8	1.1	3.50	16.12	0.90	1678	no samples taken
15-Sep-94	449,836	1,377	1	1.0	3.50	16.16	0.80	1677	no samples taken
04-Oct-94	460,368	10,532	19	0.4	16.00	17.57	1.48	1649	quarterly samples collected
17-Oct-94	481,149	20,780	13	1.1	16.00	20.34	4.26	1593	no samples taken
22-Nov-94	490,524	9,376	36	0.2	16.00	21.59	0.69	1568	no samples taken
12-Dec-94	509,587	19,063	20	0.7	16.00	24.13	2.54	1517	System overhaul: redevelope EW-1, clean pump and discharge line.
05-Jan-95	558,435	48,848	24	1.4	5.30	26.29	1.80	1474	quarterly samples collected
01-Feb-95	603,505	45,070	27	1.2	5.30	28.28	1.47	1434	no samples taken
01-Mar-95	618,780	15,275	28	0.4	5.30	28.95	0.48	1421	no samples taken
12-Apr-95	654,438	35,658	42	0.6	4.30	30.23	0.61	1395	quarterly samples collected
22-May-95	681,576	27,138	40	0.5	4.30	31.20	0.49	1376	no samples taken, replaced broken 1" nipple in well vault.
29-Jun-95	762,836	81,260	38	1.5	4.30	34.12	1.53	1318	no samples taken
27-Jul-95	809,658	46,822	28	1.2	2.00	34.90	0.56	1302	quarterly samples collected
28-Aug-95	810,497	840	32	0.0	2.00	34.91	0.01	1302	system down due to low water level in extraction well
05-Sep-95	813,545	3,048	8	0.3	2.00	34.96	0.13	1301	system down due to low water level in extraction well
13-Sep-95	818,351	4,806	8	0.4	2.00	35.04	0.20	1299	system down due to low water level in extraction well
31-Oct-95	822,268	3,917	48	0.1	0.83	35.07	0.01	1299	quarterly samples collected
20-Nov-95	852,361	30,093	20	1.0	0.83	35.28	0.21	1294	system on but very low flow rate. Replaced pump controler.
14-Dec-95	879,351	26,990	24	0.8	0.83	35.46	0.16	1291	no samples taken, system running.
17-Jan-96	880,723	1,372	34	0.0	1.10	35.48	0.01	1290	system down due to high rain water level in secondary containment sump, quarterly samples collected

Notes:

Total lbs TPH-G removed = [flow rate (gpm) * concentration of TPH-G (parts/1,000,000) * density of water (8.34lb/gal) * 1440 (min/day)]*number of days of operation+the previous total.
Carbon Consumption = [flow rate (gpm) * concentration of TPH-G (parts/1,000,000) * density of water (8.34lb/gal) * 1440 (min/day)] / 0.05 (adsorption capacity of TPH-G on carbon)
Pounds Of Unspent Carbon = 2000 (lbs (two 1,000 lbs carbon vessels) - Carbon Consumption (lbs/day) * number of days (days)
gal = gallons
gpm = gallons per minute
(a) = Initial 1,110 gallons was from the 3 hour start-up test on 7/7/93.
The water was stored in a tank on site until analyzed and then discharged to the sanitary sewer on 7/20/93.
(b) = If no influent data is available, the influent concentration is assumed equal to the concentration when last sampled.

35.48 lbs

Table 2. Ground Water Treatment System Analytic Results Summary, Former Chevron Service Station #9-2960, 2416 Grove Way, Castro Valley, California

DATE SAMPLED	LAB	SYSTEM INFLUENT TPH-G	B	E	T	X	SYSTEM MIDPOINT First Carbon Effluent TPH-G	B	E	T	X	SYSTEM EFFLUENT Second Carbon Effluent TPH-G	B	E	T	X	pH	COD mg/l	TSS mg/l	
		<----------parts per billion (ppb)---------->																		
18-Oct-93	SPA	4,800	1,600	72	63	94	---	---	---	---	---	---	---	---	---	---	---	---	---	
26-Oct-93	SPA	---	---	---	---	---	---	---	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---	---	
02-Nov-93	SPA	---	---	---	---	---	---	---	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---	---	
09-Nov-93	SPA	---	---	---	---	---	---	---	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---	---	
17-Nov-93	SPA	---	---	---	---	---	---	---	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---	---	
24-Nov-93	SPA	3,000	880	24	110	130	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.78	<20	<0.10	(a)
20-Dec-93	SPA	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	7.24	---	---	(b)
12-Jan-94	SPA	970	250	1.8	44	88	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	0.7	<0.5	7.44	31	<10	(c)
28-Jan-94	SPA	1,500	520	18	82	110	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	7.05	28	<4	
15-Mar-94	SPA	2,800	800	31	120	270	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.96	<20	<10	
13-Apr-94	SPA	4,800	680	38	180	620	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	7.30	25	<10	
25-May-94	SPA	8,500	1,000	67	820	1,100	<50	0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.77	27	<4	
28-Jun-94	SPA	6,300	1,000	82	290	900	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.87	<20	<4	
05-Jul-94	SPA	6,700	1,600	56	170	650	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	---	57	<4	(d)
02-Aug-94	SPA	6,900	1,700	2.8	23	460	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.83	33	<4	
06-Sep-94	SPA	3,500	1,000	15	61	200	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	7.54	30	190	
04-Oct-94	SPA	16,000	2,800	55	420	700	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	7.10	51	<4	
05-Jan-95	SPA	5,300	1,200	35	130	340	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.93	<20	<10	
12-Apr-95	SQA	4,300	1,600	28	67	440	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.6	---	---	
27-Jul-95	GTEL	2,000	500	15	33	120	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.88	---	---	
31-Oct-95	SQA	830	210	13	3.7	42	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.9	30	6.5	
17-Jan-96	SQA	1,100	350	28	22.0	84	<50	<0.5	<0.5	<0.5	<0.5	<50	<0.5	<0.5	<0.5	<0.5	6.85	<20	<1.0	

Abbreviations:

TPH-G = Total petroleum hydrocarbons as gasoline by modified EPA Method 8015
B = Benzene by EPA Method 8020
E = Ethylbenzene by EPA Method 8020
T = Toluene by EPA Method 8020
X = Xylenes by EPA Method 8020
COD = Chemical oxygen demand by EPA Method 410.4
TSS = Total suspended solids by EPA Method 160.1
<n = Not detected at detection limit of n ppb
SPA = Superior Precision Analytical Laboratory, Martinez, California
SQA = Sequoia Analytical Laboratory, Redwood City, California.
mg/l = milligrams per liter
--- = Not analyzed

Notes:

(a) = Due to laboratory error, the sample was analyzed for settleable solids rather than total suspended solids.
(b) = Due to laboratory error, the samples for December were not analyzed.
(c) = The effluent toluene concentration is assumed to be an anomalous reading. A confirmation sample was collected on January 28, 1994, and was below detection limits for toluene.
(d) = Due to a field error an effluent pH measurement was not taken during the July 5, 1994 site visit.

Table 3. Thermal Oxidizer, Soil Vapor Extraction System Performance and Monitoring Data, Former Chevron Service Station #9-2960, 2416 Grove Way, Castro Valley, California

Date	Interval Days of Operation (days)	Well Flow Rate (scfm)	System Flow Rate (scfm)	Total Interval Throughput (cf)	Vacuum ("H2O)	Operating Temperature (degrees F)	Fuel Hydrocarbon Concentrations (ppmv) <--------Influent--------> OVM	TPH-G	Benzene	<-----Effluent-----> OVM	TPH-G	Benzene	TPH-G Removal Rate (#/day)	Total TPH-G Removed (#)	Emission Rates TPH-G Rate (#/day)	Benzene Rate	TPH-G Destruction Efficiency (%)	
28-Jun-94	0.5	48	48	34,560	18	960	23,200	10,000	160	0	390	6.2	179	90	6.984	0.0866	96.10%	a
13-Jul-94	1	38	33	47,520	30	1,060	14,500	10,000	140	80	130	2.8	123	213	1.600	0.0269	98.70%	b
2-Aug-94	14	17	43	866,880	24	1,114	8,400	---	---	20	---	---	135	2,099	0.321	---	99.76%	
6-Sep-94	17	15	50	1,224,000	26	1,100	6,900	---	---	1	---	---	129	4,287	0.019	---	99.99%	
4-Oct-94	30	---	43	1,857,600	24	1,195	3,100	---	---	0	---	---	50	5,779	0.000	---	100.00%	
22-Nov-94	36	76	17	881,280	26	1,150	3,800	---	---	0	---	---	24	6,647	0.000	---	100.00%	
12-Dec-94	1	13	23	33,120	28	NM	5,250	---	---	0	---	---	45	6,692	0.000	---	100.00%	
5-Jan-95	16	NM	26	599,040	29	1,160	3,600	---	---	0	---	---	35	7,250	0.000	---	100.00%	
1-Feb-95	27	31	23	894,240	38	1,160	5	---	---	0	---	---	0	7,251	0.000	---	100.00%	
1-Mar-95	10	10	23	331,200	24	1,175	27	140	1.5	2	ND<2.8	ND<0.031	1	7,263	0.000	0.0000	100.00%	
12-Apr-95	42	5	35	2,116,800	29	---	30	---	---	0	---	---	0	7,280	0.000	---	100.00%	
22-May-95	40	9	23	1,324,800	30	1,150	250	---	---	1	---	---	2	7,366	0.000	---	99.60%	
29-Jun-95	15	NM	31	669,600	27	1,165	1,000	---	---	7	---	---	12	7,539	0.000	---	99.35%	
27-Jul-95	28	9	29	1,169,280	29	1,148	65	---	---	0	---	---	1	7,559	0.000	---	100.00%	
28-Aug-95	32	7	28	1,290,240	31	1,140	12	---	---	5	---	---	0	7,563	0.000	---	58.33%	
13-Sep-95	11	9	16	253,440	29	1,155	570	---	---	35	---	---	3	7,600	0.000	---	93.86%	
30-Oct-95	47	8	16	1,082,880	28	1,150	3,750	640	10	207	ND<3.8	ND<0.031	4	7,780	0.000	0.0000	100.00%	
20-Nov-95	21	NM	40	1,209,600	30	1,251	220	---	---	4	---	---	3	7,849	0.000	---	98.18%	
14-Dec-95	20	13	40	1,152,000	30	1,251	3,200	---	---	0	---	---	48	8,804	0.000	---	100.00%	
17-Jan-96	1	10	45	64,800	30	1,240	700	280	3.4	0	ND<3.8	ND<0.031	12	8,816	0.000	0.0000	100.00%	

NOTES:

a = Initial attempt at start-up. System shut down on July 1, 1994, do to system malfunction. System was restarted on July 6, and shut down on July 7 do to a flame out. Initial confirmation test results received on July 8, 1994. The system was left off after receiving June 28, 1994 laboratory analytic results

b = Second attempt at start-up. Samples taken at higher operating temp. System shut-off before leaving the site. System restarted on July 26, 1994, after receiving July 13, 1994 laboratory analytic results.

ABBREVIATIONS:

ppmv = Parts per million by volume.

= Pounds

--- = Not analyzed or not available.

SVE = Soil vapor extraction from wells with a King Buck thermal oxidizer.

TPH-G = Total purgeable hydrocarbons as gasoline by EPA Method 8015 (or by OVM if no laboratory test was conducted).

BENZENE = Benzene by modified EPA Method 8020,

OVM = Flame Ionization Detector (FID).

TPH-G REMOVAL/EMISSION RATE = Rate based on Bay Area Air Quality Management District's Manual of Procedures for Soil Vapor Extraction dated July 17, 1991. Rate = lab concentration(ppmv) x system flow rate(scfm) x (1lb-mole/386ft3) x molecular weight (100 lb/lb-mole for TPH-G , 78 lb/lb-mole for benzene) x 1440 min/day x 1/1,000,000.
If laboratory analyses were not done, FID readings will be used in place of TPH-G for calculations and benzene calculations will be omitted.

TOTAL TPH-G REMOVAL = Average of the current and previous removal rates multiplied by the day-interval of operation plus the previous total amount removed. When the current removal rate exceeds the previous removal rate, the interval removal rate is based on the previous removal rate.

8816 lbs

Table 4. Separate Phase Hydrocarbon Thickness and Recovery Record. Former Chevron Service Station #9-2960, 2416 Grove Way, Castro Valley, California

DATE	C-1					EW-1					Passive Skimmer Location	Total Cumulative SPH Recovered (lbs)
	Depth to Water (ft)	Depth to SPH (ft)	SPH Thickness (ft)	SPH Recovered (gal)	Cumulative SPH Recovered (gal)	Depth to Water (ft)	Depth to SPH (ft)	SPH Thickness (ft)	SPH Recovered (gal)	Cumulative SPH Recovered (gal)		
18-Oct-93	16.91	NM	NM	NM	NM	16.49	NP	0	0	0	C-1	0
26-Oct-93	NM	NM	NM	NM	NM	NM	NM	NM	NM	0	C-1	0
02-Nov-93	18.59	17.71	0.88	NM	NM	23.70	NP	0	0	0	C-1	0
09-Nov-93	18.54	17.89	0.65	0.75	0.75	22.13	NP	0	0	0	C-1	4.95
17-Nov-93	NM	NM	NM	1.00	1.75	21.40	NP	0	0	0	C-1	11.55
24-Nov-93	18.15	18.03	0.12	0.55	2.30	22.47	NP	0	0	0	C-1	15.18
20-Dec-93	17.72	17.38	0.34	NM	2.30	NM	NM	NM	NM	0	C-1	15.18
12-Jan-94	17.75	NM	NM	0.25	2.55	16.36	NP	0	0	0	C-1	16.83
28-Jan-94	18.59	17.81	0.78	NM	2.55	NM	NM	NM	NM	0	Reset Skimmer lower in well	16.83
15-Mar-94	17.63	17.15	0.48	0.50	3.05	26.60	NP	0	0	0	C-1	20.13
13-Apr-94	17.35	NM	NM	1.00	4.05	28.52	NP	0	0	0	C-1	26.73
25-May-94	16.63	16.6	0.03	NB	4.05	20.74	20.46	0.28	NB	0	C-1	26.73
28-Jun-94 (a)	17.90	17.76	0.14	0.25	4.30	23.03	22.67	0.36	NB	0	C-1 (Skimmer set in EW-1)	28.38
05-Jul-94 (b)	17.31	17.19	0.12	NB	4.30	21.70	21.49	0.21	0.5	0.50	EW-1	31.68
02-Aug-94 (b)	16.67	16.6	0.07	NB	4.30	17.49	NP	0	0	0.50	EW-1	31.68
06-Sep-94 (b)	17.63	17.08	0.55	NB	4.30	20.22	NP	0	0	0.50	EW-1	31.68
04-Oct-94 (b)	NM	NM	NM	0	4.30	16.89	NP	0	0	0.50	EW-1	31.68
22-Nov-94	NM	NM	NM	0	4.30	NM	NM	NM	0	0.50	EW-1	31.68
12-Dec-94 (b)	16.53	16.50	0.03	NB	4.30	16.70	NP	0	0	0.50	EW-1	31.68
05-Jan-95 (b)	16.65	16.65	Sheen	NB	4.30	18.60	NP	0	0	0.50	EW-1	31.68
01-Feb-95 (b)	14.48	14.48	Sheen	NB	4.30	14.41	NP	0	0	0.50	EW-1	31.68
01-Mar-95 (b)	15.57	15.56	Sheen	NB	4.30	15.84	NP	0	0	0.50	EW-1	31.68
12-Apr-95 (b)	14.32	NP	0.00	0	4.30	16.85	NP	0	0	0.50	EW-1	31.68
22-May-95 (b)	NA	NP	0.00	0	4.30	15.43	NP	0	0	0.50	EW-1	31.68
29-Jun-95 (b)	16.93	NP	0.00	0	4.30	28.05	NP	0	0	0.50	EW-1	31.68
27-Jul-95 (b)	15.80	NP	0.00	0	4.30	27.50	NP	0	0	0.50	EW-1	31.68
28-Aug-95 (b)	15.75	NP	0.00	0	4.30	27.92	NP	0	0	0.50	EW-1	31.68
13-Sep-95 (b)	16.91	NP	0.00	0	4.30	24.75	NP	0	0	0.50	EW-1	31.68
30-Oct-95 (b)	15.80	NP	0.00	0	4.30	16.24	NP	0	0	0.50	EW-1	31.68
20-Nov-95 (b)	NM	NM	NM	NM	4.30	NM	NM	NM	NM	0.50	EW-1	31.68
14-Dec-95 (b)	17.40	NP	0.00	0	4.30	17.30	NP	0	0	0.50	EW-1	31.68
17-Jan-96	16.06	NP	0.00	0	4.30	16.01	NP	0	0	0.50	EW-1	31.68

Notes:

(a) = SVE system started extracting soil vapor from well C-1.

(b) = EW-1 water level influenced by the soil vapor extraction (SVE).

SPH = separate phase hydrocarbons

NM = Not measured

NP = No SPH

NB = SPH was not removed

NA = Well was inspected for SPH but no measurements were recored because the SVE system was operating.

Sheen = A hydrocarbon sheen was present on the water in the observation well.

Chart 1

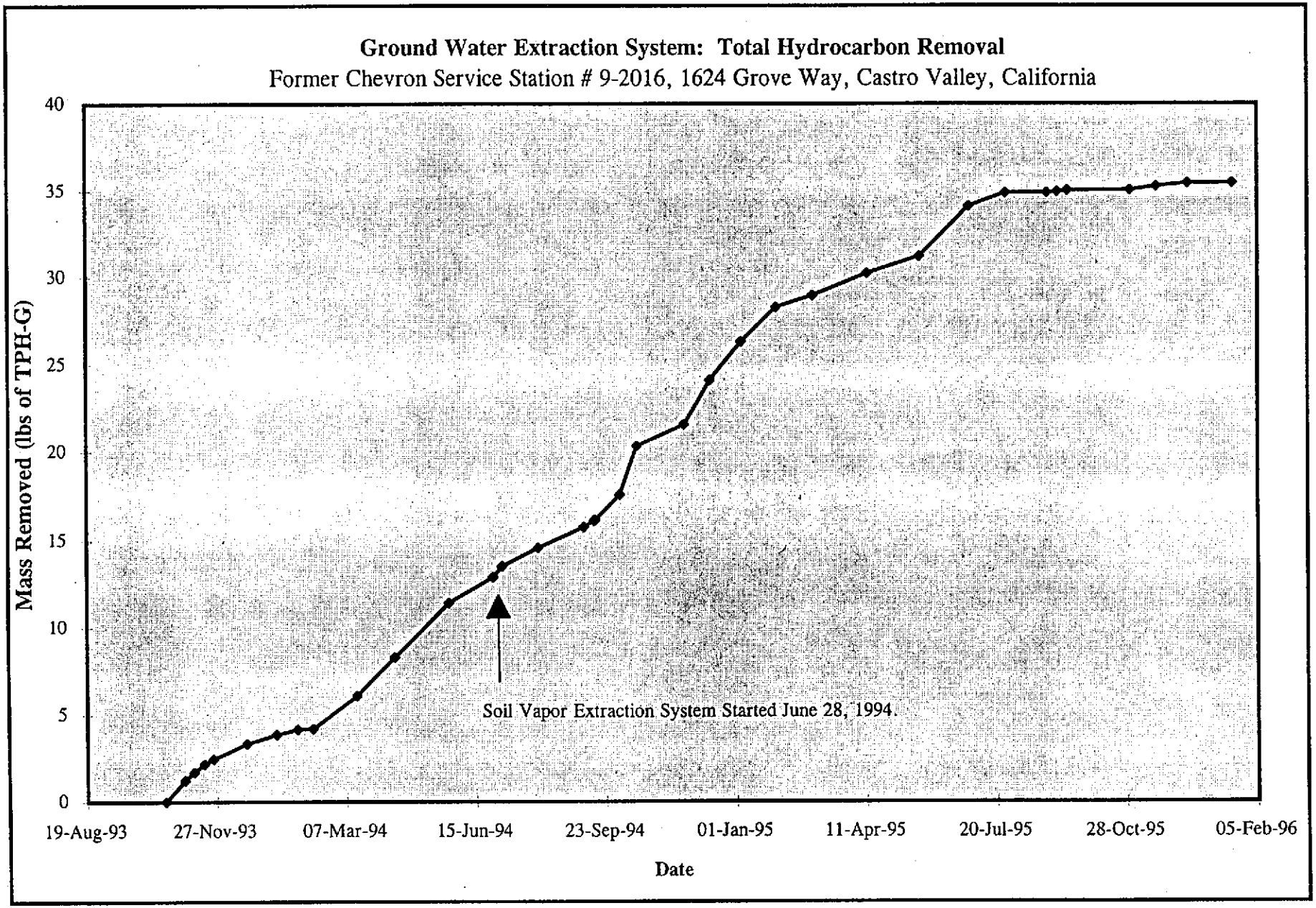

Ground Water Extraction System: Total Hydrocarbon Removal
Former Chevron Service Station # 9-2016, 1624 Grove Way, Castro Valley, California
Mass Removed (lbs of TPH-G)
40
35
30
25
20
15
10
5
0
Soil Vapor Extraction System Started June 28, 1994.
19-Aug-93
27-Nov-93
07-Mar-94
15-Jun-94
23-Sep-94
01-Jan-95
11-Apr-95
20-Jul-95
28-Oct-95
05-Feb-96
Date

Chart 2

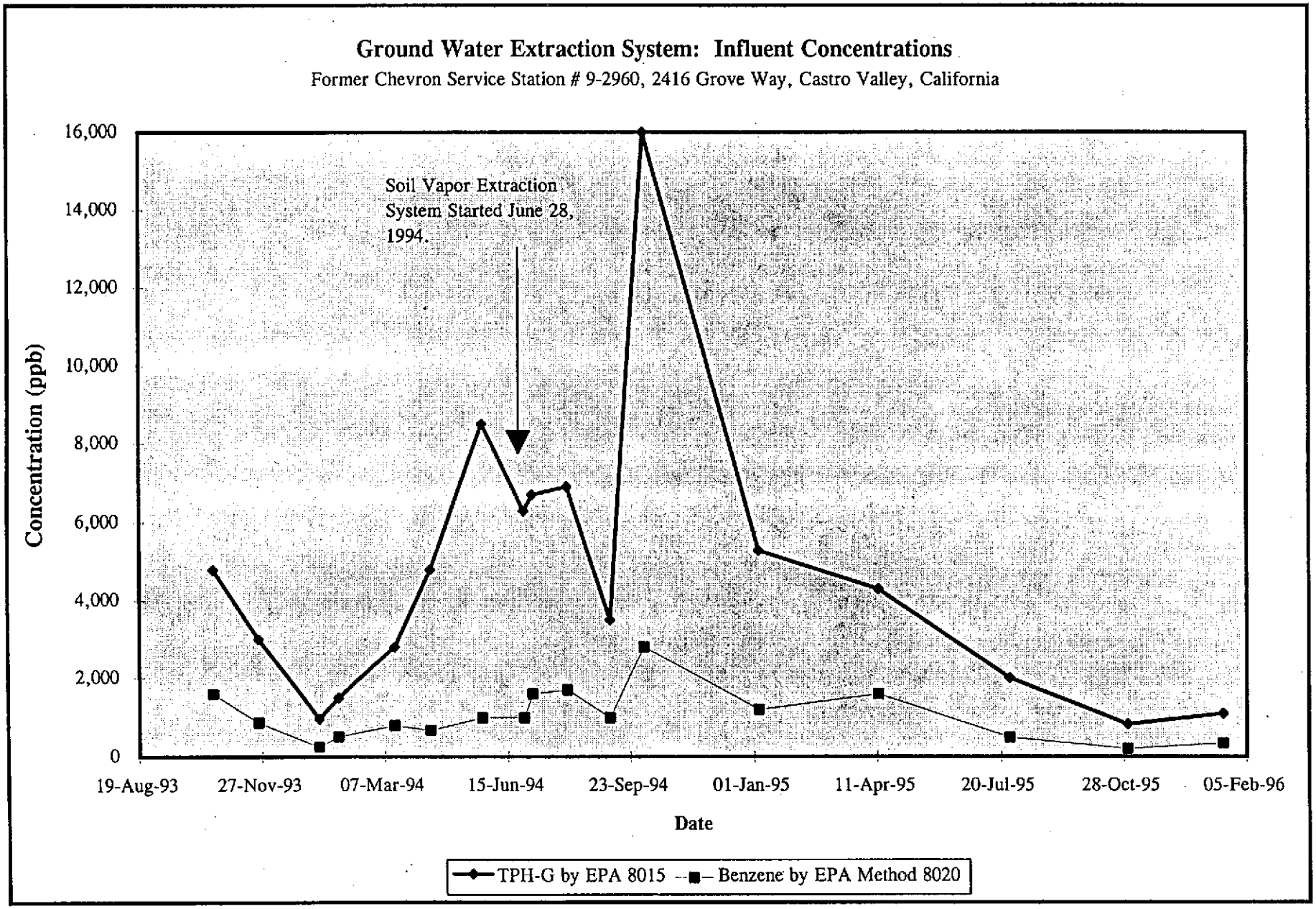

Ground Water Extraction System: Influent Concentrations
Former Chevron Service Station # 9-2960, 2416 Grove Way, Castro Valley, California
Soil Vapor Extraction System Started June 28, 1994.
Concentration (ppb)
16,000
14,000
12,000
10,000
8,000
6,000
4,000
2,000
0
19-Aug-93
27-Nov-93
07-Mar-94
15-Jun-94
23-Sep-94
01-Jan-95
11-Apr-95
20-Jul-95
28-Oct-95
05-Feb-96
Date
TPH-G by EPA 8015
Benzene by EPA Method 8020

Chart 3

Soil Vapor Extraction System: Total Hydrocarbon Removal

Former Chevron Service Station # 9-2960, 2416 Grove Way, Castro Valley, California

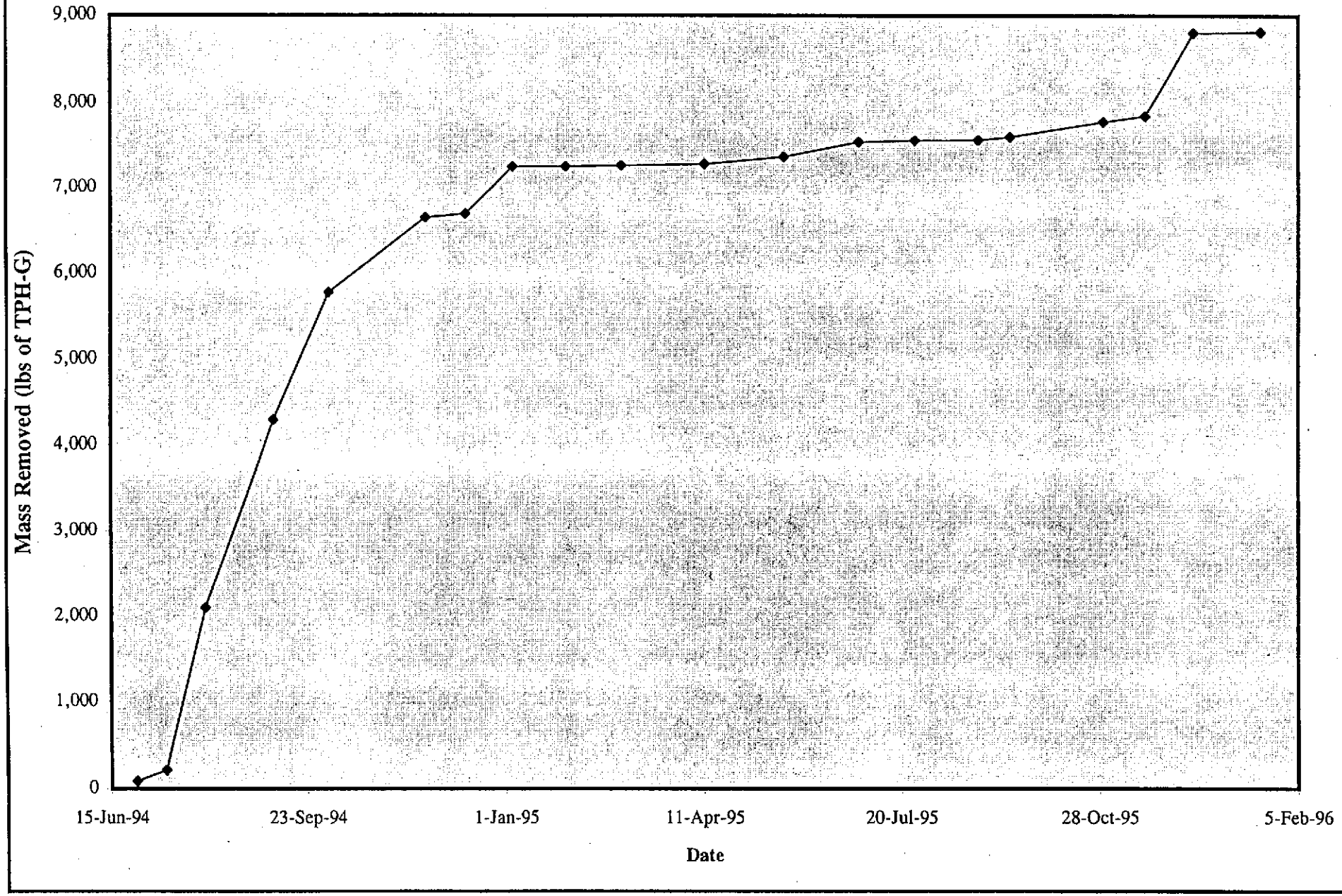


Chart 4

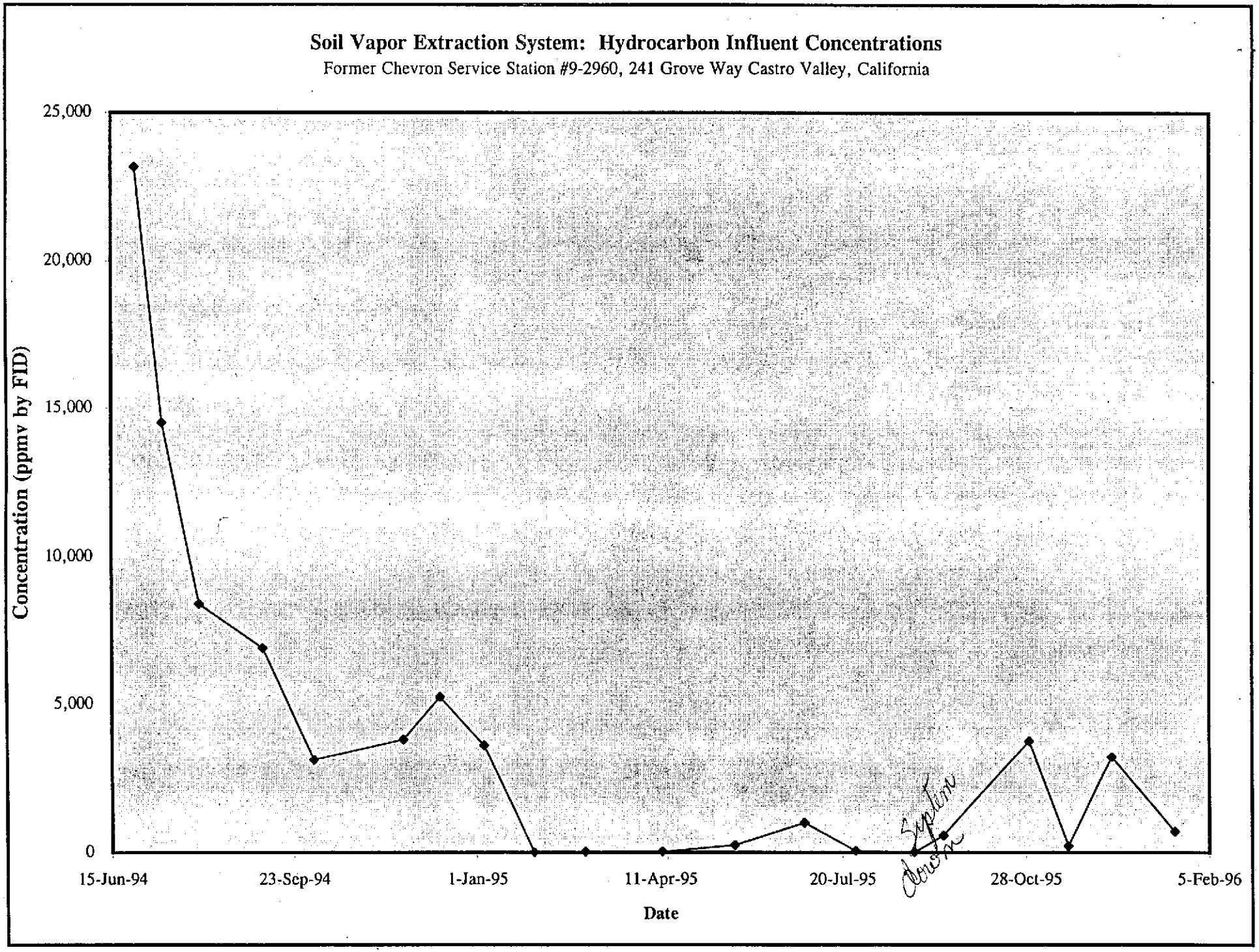

Soil Vapor Extraction System: Hydrocarbon Influent Concentrations
Former Chevron Service Station #9-2960, 241 Grove Way Castro Valley, California
25,000
20,000
15,000
10,000
5,000
0
Concentration (ppmv by FID)
15-Jun-94
23-Sep-94
1-Jan-95
11-Apr-95
20-Jul-95
28-Oct-95
5-Feb-96
Date

Chart 5

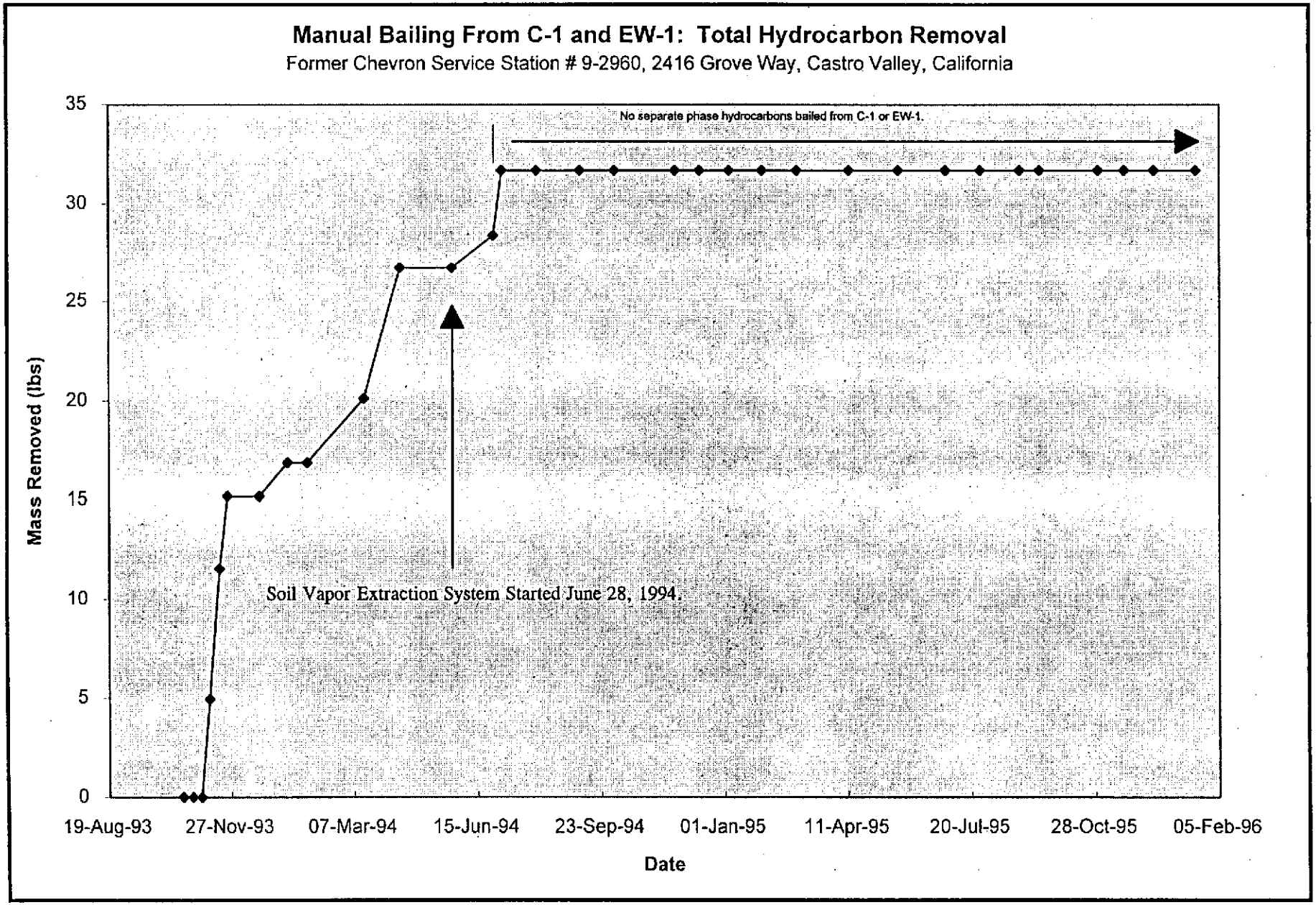
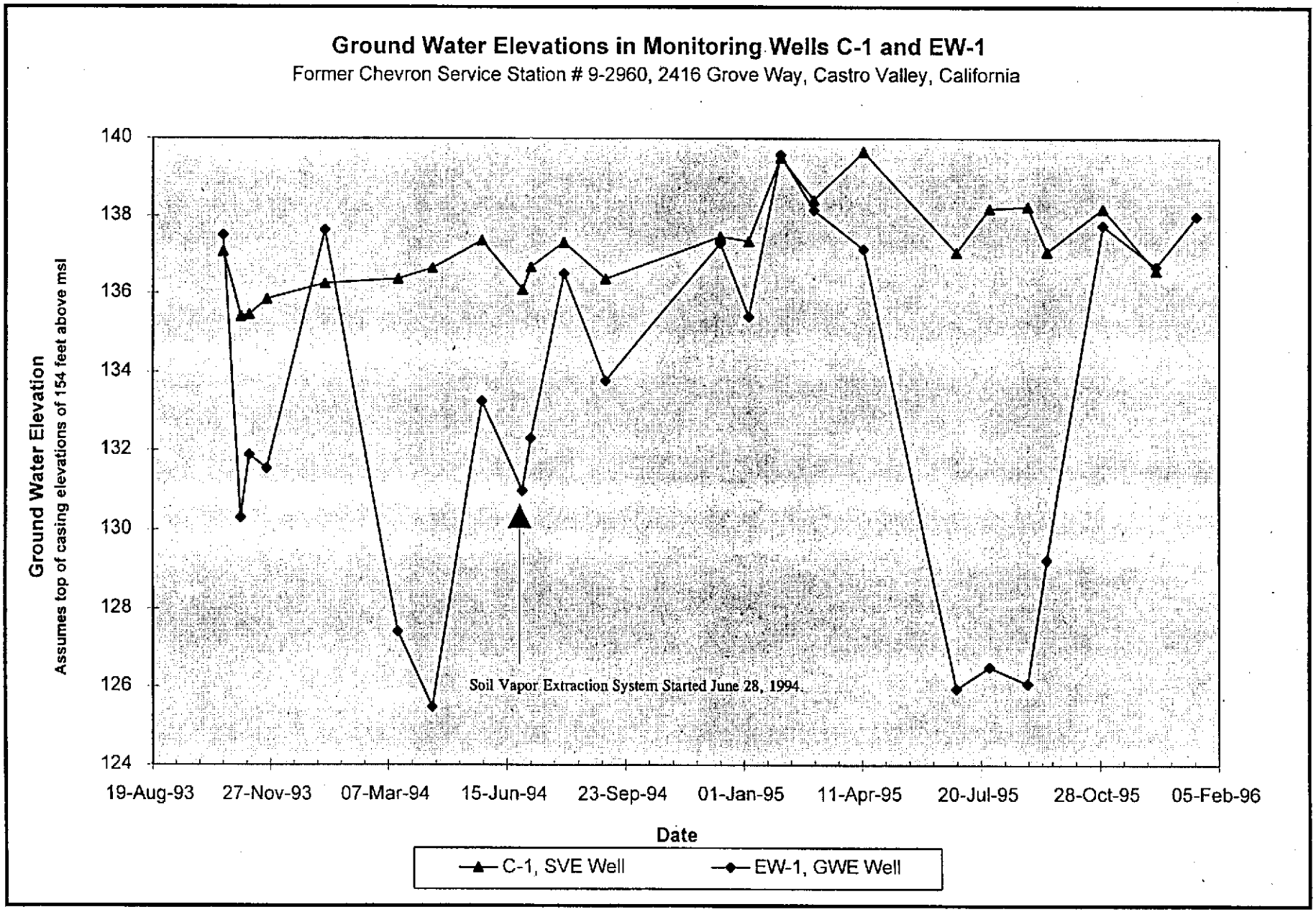

Manual Bailing From C-1 and EW-1: Total Hydrocarbon Removal
Former Chevron Service Station # 9-2960, 2416 Grove Way, Castro Valley, California
No separate phase hydrocarbons bailed from C-1 or EW-1.
Soil Vapor Extraction System Started June 28, 1994.
Mass Removed (lbs)
0
5
10
15
20
25
30
35
19-Aug-93
27-Nov-93
07-Mar-94
15-Jun-94
23-Sep-94
01-Jan-95
11-Apr-95
20-Jul-95
28-Oct-95
05-Feb-96
Date

Chart 6


Ground Water Elevations in Monitoring Wells C-1 and EW-1
Former Chevron Service Station # 9-2960, 2416 Grove Way, Castro Valley, California
Ground Water Elevation
Assumes top of casing elevations of 154 feet above msl
140
138
136
134
132
130
128
126
124
19-Aug-93
27-Nov-93
07-Mar-94
15-Jun-94
23-Sep-94
01-Jan-95
11-Apr-95
20-Jul-95
28-Oct-95
05-Feb-96
Soil Vapor Extraction System Started June 28, 1994.
Date
C-1, SVE Well
EW-1, GWE Well

ATTACHMENT A

GROUND WATER MONITORING DATA FROM BLAINE TECH SERVICES INC.

BLAINE TECH SERVICES INC.

985 TIMOTHY DRIVE
SAN JOSE, CA 95133
(408) 995-5535
FAX (408) 293-8773

DATE 2/9/96

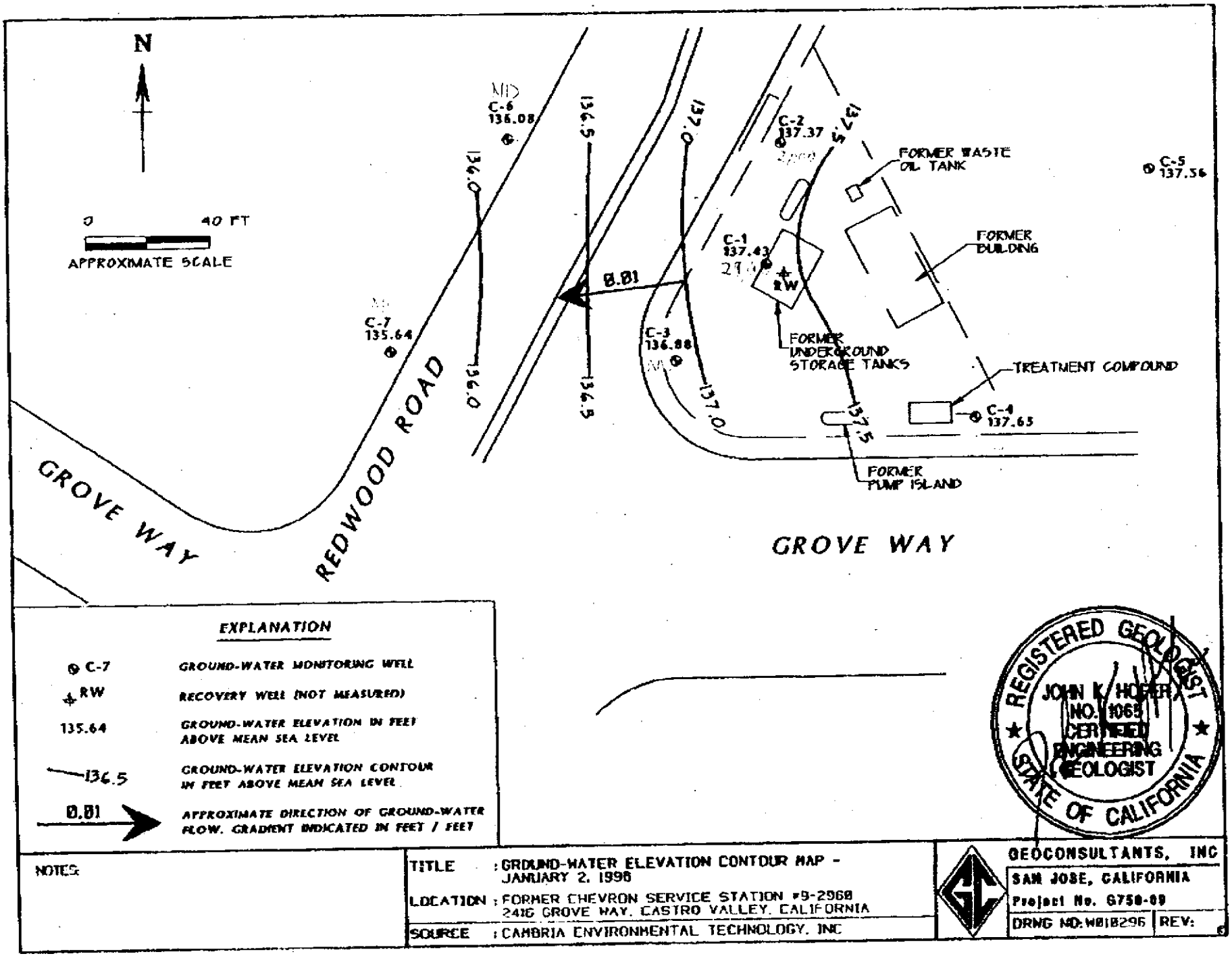
Total pages including cover sheet 10

TO PAUL NUTI

OF WEISS

FROM FRAN THIE

REMARKS: HERE ARE THE LATEST TABLES FROM 9-2960 YOU REQUESTED



EXPLANATION

⊕ C-7	GROUND-WATER MONITORING WELL
⊕ RW	RECOVERY WELL (NOT MEASURED)
135.64	GROUND-WATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
136.5	GROUND-WATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL
0.01 →	APPROXIMATE DIRECTION OF GROUND-WATER FLOW. GRADIENT INDICATED IN FEET / FEET

REGISTERED GEOLOGIST
JOHN K. HOEFER
NO. 1065
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

NOTES:

TITLE : GROUND-WATER ELEVATION CONTOUR MAP - JANUARY 2, 1996

LOCATION : FORMER CHEVRON SERVICE STATION #9-2960
2416 GROVE WAY, CASTRO VALLEY, CALIFORNIA

SOURCE : CAMBRIA ENVIRONMENTAL TECHNOLOGY, INC

GEOCONSULTANTS, INC
SAN JOSE, CALIFORNIA
Project No. G750-09
DRWG NO: W0818296 | REV:

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-1													
10/23/86	153.36	--	--	--	--	--	--	3100	6400	3700	--	4300	--
09/10/87	153.36	--	--	--	--	--	--	120,000	25,000	60,000	13,000	56,000	--
10/03/90	153.36	134.69	18.67	--	--	--	--	--	--	--	--	--	--
10/25/90	153.36	135.22	18.71	0.71	--	--	--	--	--	--	--	--	--
01/22/91	153.36	135.22	18.70	0.70	--	--	--	--	--	--	--	--	--
02/21/91	153.36	135.44	18.62	0.88	--	--	--	--	--	--	--	--	--
04/01/91	153.36	136.47	16.91	0.03	--	--	--	--	--	--	--	--	--
04/11/91	153.36	136.49	16.90	0.04	--	--	--	--	--	--	--	--	--
07/01/91	153.36	135.75	17.61	0.00	--	--	--	--	--	--	--	--	--
09/24/91	153.36	135.17	18.98	0.99	--	--	--	--	--	--	--	--	--
10/23/91	153.36	135.03	19.32	1.24	--	--	--	--	--	--	--	--	--
11/22/91	153.36	134.53	18.83	0.97	--	--	--	--	--	--	--	--	--
01/09/92	153.36	136.10	17.26	--	--	--	--	--	--	--	--	--	--
03/06/92	153.36	137.16	16.69	0.61	--	--	--	--	--	--	--	--	--
06/04/92	153.36	136.44	17.10	0.22	--	--	--	--	--	--	--	--	--
09/28/92	153.36	--	18.71	0.77	--	--	--	--	--	--	--	--	--
12/17/92	153.36	--	17.54	0.45	--	--	--	--	--	--	--	--	--
04/29/93	153.36	137.50	16.40	0.68	--	--	--	--	--	--	--	--	--
07/26/93	153.36	136.92	16.85	0.51	--	--	--	--	--	--	--	--	--
10/22/93	153.36	135.55	17.83	0.03	--	--	--	--	--	--	--	--	--
01/24/94	153.36	--	--	--	--	--	--	--	--	--	--	--	--
04/11/94	153.36	136.01	17.76	0.51	--	--	--	--	--	--	--	--	--
07/01/94	153.36	135.95	17.46	0.06	--	--	--	--	--	--	--	--	--
10/06/94	153.36	135.24	18.18	0.08	--	--	--	--	--	--	--	--	--
01/11/95	153.36	136.63	16.79	0.08	0.04	0.04	--	44,000	410	100	130	5400	--
04/07/95	153.36	139.23	14.13	0.00	0.00	0.04	--	16,000	96	81	53	1000	--
07/20/95	153.36	136.84	16.52	0.00	0.00	0.04	--	59,000	150	36	16	56	--
09/22/95	153.36	137.22	16.14	0.00	0.00	0.04	--	29,000	4500	1100	520	1900	<250
01/02/96	153.36	137.43	15.93	0.00	0.00	0.04	--						

SVE start up

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-2													
10/23/86	151.84	--	--	--	--	--	--	30,000	2700	1900	--	1500	--
09/10/87	151.84	--	--	--	--	--	--	14,000	2600	2900	500	1200	--
10/16/89	151.84	--	--	--	--	--	--	600	260	34	1.7	41	--
01/04/90	151.84	--	--	--	--	--	--	2600	470	150	23	130	--
04/05/90	151.84	--	--	--	--	--	--	500	280	29	6.3	19	--
07/02/90	151.84	--	--	--	--	--	--	2400	670	110	17	76	--
10/03/90	151.84	--	--	--	--	--	--	--	--	--	--	--	--
10/25/90	151.84	135.24	16.60	--	--	--	--	1300	390	47	9.0	58	--
01/22/91	151.84	135.15	16.69	--	--	--	--	2600	680	88	29	130	--
02/21/91	151.84	135.53	16.31	--	--	--	--	--	--	--	--	--	--
04/01/91	151.84	136.76	15.08	--	--	--	--	--	--	--	--	--	--
04/11/91	151.84	136.61	15.23	--	--	--	--	--	--	--	--	--	--
07/01/91	151.84	135.88	15.96	--	--	--	--	--	--	--	--	--	--
09/24/91	151.84	135.33	16.51	--	--	--	--	3600	1400	63	6.9	63	--
10/23/91	151.84	135.18	16.66	--	--	--	--	--	--	--	--	--	--
11/22/91	151.84	135.47	16.37	--	--	--	--	--	--	--	--	--	--
01/09/92	151.84	136.28	15.56	--	--	--	--	7100	770	740	190	690	--
03/06/92	151.84	137.47	14.37	--	--	--	--	3200	250	230	59	220	--
06/04/92	151.84	136.80	15.04	--	--	--	--	1500	<0.5	180	42	130	--
09/28/92	151.84	135.44	16.40	--	--	--	--	6400	940	230	57	220	--
12/17/92	151.84	136.46	15.38	--	--	--	--	1500	370	160	6.0	25	--
04/29/93	151.84	136.87	14.97	0.00	--	--	--	1800	690	120	74	140	--
07/29/93	151.84	136.92	14.92	0.00	--	--	--	4300	1500	96	29	96	--
10/22/93	151.84	136.03	15.81	0.00	--	--	--	820	560	57	15	58	--
01/24/94	151.84	--	--	--	--	--	--	--	--	--	--	--	--
04/11/94	151.84	136.49	15.35	0.00	--	--	--	2000	240	48	36	110	--
07/01/94	151.84	136.44	15.40	0.00	--	--	--	370	55	12	3.1	8.6	--
10/06/94	151.84	135.84	16.00	0.00	--	--	--	150	47	4.8	1.8	5.4	--
01/11/95	151.84	137.06	14.78	0.00	--	--	--	52	0.65	<0.5	<0.5	<0.5	--
04/07/95	151.84	138.93	12.91	0.00	--	--	--	1500	260	64	52	85	--
07/20/95	151.84	136.81	15.03	0.00	--	--	--	3000	500	100	96	110	--
09/22/95	151.84	137.05	14.79	0.00	--	--	--	2000	630	120	20	79	--
01/02/96	151.84	137.37	14.47	0.00	--	--	--	1900	240	110	58	180	<12

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-3													
10/23/86	154.13	--	--	--	--	--	--	3300	49	24	--	20	--
09/10/87	154.13	--	--	--	--	--	--	200	110	2.6	<2.0	<2.0	--
10/16/89	154.13	--	--	--	--	--	--	900	640	4.2	1.6	16	--
01/04/90	154.13	--	--	--	--	--	--	920	430	7.0	6.0	7.0	--
04/05/90	154.13	--	--	--	--	--	--	930	690	3.4	5.1	4.8	--
07/02/90	154.13	--	--	--	--	--	--	1700	590	11	4.8	9.4	--
10/03/90	154.13	134.97	19.16	--	--	--	--	--	--	--	--	--	--
10/25/90	154.13	134.85	19.28	--	--	--	--	750	510	2.0	6.0	5.0	--
01/22/91	154.13	134.95	19.18	--	--	--	--	430	260	2.0	2.0	5.0	--
01/22/91	154.13	134.95	19.18	--	--	--	--	400	250	2.0	2.0	5.0	--
02/21/91	154.13	135.25	18.88	--	--	--	--	--	--	--	--	--	--
04/01/91	154.13	136.54	17.59	--	--	--	--	--	--	--	--	--	--
04/11/91	154.13	136.32	17.81	--	--	--	--	--	--	--	--	--	--
07/01/91	154.13	135.57	18.56	--	--	--	--	--	--	--	--	--	--
09/24/91	154.13	135.01	19.12	--	--	--	--	260	52	0.7	0.8	2.2	--
10/23/91	154.13	134.89	19.24	--	--	--	--	--	--	--	--	--	--
11/22/91	154.13	135.10	19.03	--	--	--	--	--	--	--	--	--	--
01/09/92	154.13	135.90	18.23	--	--	--	--	240	120	0.9	<0.5	1.6	--
03/06/92	154.13	137.09	17.04	--	--	--	--	230	68	1.2	1.2	1.3	--
06/04/92	154.13	136.34	17.79	--	--	--	--	80	36	0.6	0.5	0.7	--
09/28/92	154.13	135.13	19.00	--	--	--	--	84	49	<0.5	<0.5	1.5	--
12/17/92	154.13	135.95	18.18	--	--	--	--	220	30	<0.5	<0.5	<0.5	--
04/29/93	154.13	135.35	18.78	0.00	--	--	--	380	12	0.6	<0.5	<1.5	--
07/26/93	154.13	136.41	17.72	0.00	--	--	--	800	38	1.1	<0.5	<1.5	--
10/22/93	154.13	135.63	18.50	0.00	--	--	--	200	64	0.6	<0.5	<1.5	--
01/24/94	154.13	135.62	18.51	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	154.13	136.09	18.04	0.00	--	--	--	100	3.6	2.1	<0.5	2.3	--
07/01/94	154.13	136.01	18.12	0.00	--	--	--	140	3.7	1.2	<0.5	1.0	--
10/06/94	154.13	135.50	18.63	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/11/95	154.13	137.01	17.12	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	154.13	138.34	15.79	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	154.13	136.37	17.76	0.00	--	--	--	<50	1.5	1.9	<0.5	3.5	--
09/22/95	154.13	136.58	17.55	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/02/96	154.13	136.88	17.25	0.00	--	--	--	<50	<0.5	<0.5	<0.5	1.1	<2.5

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-4													
10/23/86	156.00	--	--	--	--	--	--	570	3.0	4.0	--	5.0	--
09/10/87	156.00	--	--	--	--	--	--	500	3.0	<0.5	<0.5	<0.5	--
10/16/89	156.00	--	--	--	--	--	--	<500	12	1.0	<0.5	0.8	--
01/04/90	156.00	--	--	--	--	--	--	<500	5.0	<0.5	<0.5	0.9	--
04/05/90	156.00	--	--	--	--	--	--	<50	6.6	<0.5	<0.5	0.7	--
07/02/90	156.00	--	--	--	--	--	--	71	4.1	<0.5	<0.5	<0.5	--
10/03/90	156.00	--	--	--	--	--	--	--	--	--	--	--	--
10/25/90	156.00	135.57	20.43	--	--	--	--	<50	2.0	<0.5	<0.5	<0.5	--
01/22/91	156.00	135.50	20.50	--	--	--	--	<50	3.0	<0.5	<0.5	<0.5	--
02/21/91	156.00	135.77	20.23	--	--	--	--	--	--	--	--	--	--
04/01/91	156.00	136.97	19.03	--	--	--	--	--	--	--	--	--	--
04/11/91	156.00	136.95	19.05	--	--	--	--	--	--	--	--	--	--
07/01/91	156.00	136.10	19.90	--	--	--	--	--	--	--	--	--	--
09/24/91	156.00	135.59	20.41	--	--	--	--	87	1.6	<0.5	<0.5	<0.5	--
10/23/91	156.00	135.47	20.53	--	--	--	--	--	--	--	--	--	--
11/22/91	156.00	135.65	20.35	--	--	--	--	--	--	--	--	--	--
01/09/92	156.00	136.46	19.54	--	--	--	--	51	4.3	<0.5	<0.5	<0.5	--
01/09/92	156.00	136.46	19.54	--	--	--	--	<50	4.8	<0.5	<0.5	<0.5	--
03/06/92	156.00	137.74	18.26	--	--	--	--	<50	0.8	<0.5	<0.5	<0.5	--
06/04/92	156.00	137.08	18.92	--	--	--	--	<50	<0.5	<0.5	<0.5	0.7	--
09/28/92	156.00	135.69	20.31	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/17/92	156.00	136.43	19.57	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/29/93	156.00	138.22	17.78	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/26/93	156.00	--	--	--	--	--	--	--	--	--	--	--	--
08/18/93	156.00	137.09	18.91	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/93	156.00	136.61	19.39	0.00	--	--	--	<50	2.9	2.1	1.1	4.3	--
01/24/94	156.00	136.58	19.42	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	156.00	136.86	19.14	0.00	--	--	--	<50	<0.5	0.6	<0.5	0.5	--
07/01/94	156.00	136.80	19.20	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/06/94	156.00	136.26	19.74	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/11/95	156.00	139.70	16.30	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	156.00	139.49	16.51	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	156.00	137.20	18.80	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/22/95	156.00	137.26	18.74	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/02/96	156.00	137.65	18.35	0.00	--	--	--	<50	1.6	1.8	0.95	4.1	<2.5

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-5													
10/03/90	153.38	135.60	17.78	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/25/90	153.38	135.46	17.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
11/09/90	153.38	135.46	17.92	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/22/91	153.38	135.58	17.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/21/91	153.38	135.87	17.51	--	--	--	--	--	--	--	--	--	--
04/01/91	153.38	137.07	16.31	--	--	--	--	--	--	--	--	--	--
04/11/91	153.38	137.02	16.36	--	--	--	--	--	--	--	--	--	--
07/01/91	153.38	136.26	17.12	--	--	--	--	--	--	--	--	--	--
09/24/91	153.38	135.68	17.70	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/24/91	153.38	135.68	17.70	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/23/91	153.38	135.56	17.82	--	--	--	--	--	--	--	--	--	--
11/22/91	153.38	135.77	17.61	--	--	--	--	--	--	--	--	--	--
01/09/92	153.38	136.34	17.04	--	--	--	--	<50	<0.5	0.7	<0.5	<0.5	--
03/06/92	153.38	137.62	15.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/04/92	153.38	136.98	16.40	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/28/92	153.38	135.80	17.58	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/17/92	153.38	136.56	16.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/29/93	153.38	138.14	15.24	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/26/93	153.38	137.08	16.30	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/93	153.38	136.30	17.08	0.00	--	--	--	52	2.3	2.7	1.1	5.2	--
01/24/94	153.38	136.25	17.13	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	153.38	136.75	16.63	0.00	--	--	--	<50	<0.5	0.7	<0.5	0.6	--
07/01/94	153.38	136.73	16.65	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/06/94	153.38	136.16	17.22	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/11/95	153.38	137.41	15.97	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	153.38	139.37	14.01	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	153.38	137.17	16.21	0.00	--	--	--	<50	<0.5	<0.5	<0.5	0.61	--
09/22/95	153.38	137.07	16.31	0.00	--	--	--	62	<0.5	<0.5	<0.5	<0.5	--
01/02/96	153.38	137.56	15.82	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-6													
10/03/90	152.84	134.70	18.14	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/25/90	152.84	134.55	18.29	--	--	--	--	<50	<0.5	1.0	<0.5	<0.5	--
11/09/90	152.84	134.58	18.26	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/22/91	152.84	134.69	18.15	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
02/21/91	152.84	134.92	17.92	--	--	--	--	--	--	--	--	--	--
04/01/91	152.84	135.73	17.11	--	--	--	--	--	--	--	--	--	--
04/11/91	152.84	135.83	17.01	--	--	--	--	--	--	--	--	--	--
07/01/91	152.84	135.12	17.72	--	--	--	--	--	--	--	--	--	--
09/24/91	152.84	135.72	17.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/23/91	152.84	134.59	18.25	--	--	--	--	--	--	--	--	--	--
11/22/91	152.84	134.79	18.05	--	--	--	--	--	--	--	--	--	--
01/09/92	152.84	135.42	17.42	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/06/92	152.84	136.33	16.51	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/04/92	152.84	135.83	17.01	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/28/92	152.84	134.84	18.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/17/92	152.84	135.58	17.26	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/29/93	152.84	136.61	16.23	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/29/93	152.84	135.88	16.96	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/93	152.84	135.38	17.46	0.00	--	--	--	74	7.4	6.1	3.3	9.7	--
01/24/94	152.84	135.38	17.46	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	152.84	135.64	17.20	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/01/94	152.84	135.66	17.18	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/06/94	152.84	135.19	17.65	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/11/95	152.84	136.18	16.66	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	152.84	137.25	15.59	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	152.84	135.80	17.04	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/22/95	152.84	135.74	17.10	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/02/96	152.84	136.08	16.76	0.00	--	--	--						

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
C-7													
10/03/90	155.34	134.52	20.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/25/90	155.34	134.43	20.91	--	--	--	--	<50	<0.5	1.0	<0.5	<0.5	--
11/09/90	155.34	134.40	20.94	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/22/91	155.34	133.84	21.50	--	--	--	--	<50	4.0	<0.5	<0.5	<0.5	--
02/21/91	155.34	134.63	20.71	--	--	--	--	--	--	--	--	--	--
04/01/91	155.34	135.34	20.00	--	--	--	--	--	--	--	--	--	--
04/11/91	155.34	135.29	20.05	--	--	--	--	--	--	--	--	--	--
07/01/91	155.34	134.82	20.52	--	--	--	--	--	--	--	--	--	--
09/24/91	155.34	134.52	20.82	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/23/91	155.34	134.43	20.91	--	--	--	--	--	--	--	--	--	--
11/22/91	155.34	134.55	20.79	--	--	--	--	--	--	--	--	--	--
01/09/92	155.34	135.18	20.16	--	--	--	--	<50	<0.5	<0.5	<0.5	0.9	--
03/06/92	155.34	135.92	19.42	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/04/92	155.34	135.53	19.81	--	--	--	--	250	<0.5	<0.5	<0.5	<0.5	--
09/28/92	155.34	134.69	20.65	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/17/92	155.34	135.32	20.02	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/29/93	155.34	136.19	19.15	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/26/93	155.34	135.57	19.77	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/93	155.34	135.17	20.17	0.00	--	--	--	--	--	--	--	--	--
01/24/94	155.34	135.11	20.23	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	155.34	135.39	19.95	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/01/94	155.34	135.42	19.92	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/06/94	155.34	135.03	20.31	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/11/95	155.34	135.98	19.36	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	155.34	136.84	18.50	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	155.34	135.46	19.88	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/22/95	155.34	135.38	19.96	0.00	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
01/02/96	155.34	135.64	19.70	0.00	--	--	--						

Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Volumetric Measurements are in gallons. Analytical results are in parts per billion (ppb)

DATE	Well Head Elev.	Ground Water Elev.	Depth To Water	SPH Thickness	SPH Removed	Total SPH Removed	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylene	MTBE
TRIP BLANK													
10/03/90	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/25/90	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
11/09/90	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/22/91	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/24/91	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/09/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
03/06/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
06/04/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/28/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
12/17/92	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/29/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
07/26/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
10/22/93	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--
01/24/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/11/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/01/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
10/06/94	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/11/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
04/07/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
07/20/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
09/22/95	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--
01/02/96	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--

Note: Blaine Tech Services, Inc. began routine monitoring of the groundwater wells at this site on November 1, 1994.
Earlier field data and analytical results are drawn from the September 27, 1994 Groundwater Technology, Inc. report.

ABBREVIATIONS:
TPH = Total Petroleum Hydrocarbons
SPH = Separate-Phase Hydrocarbons
MTBE = Methyl t-butyl ether