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Chevron

December 31, 1993

Chevron U.S.A. Products Company
2410 Camino Ramon
San Ramon, CA 94583

Marketing Department
Phone 510 842 9500

Ms. Juliet Shin
Alameda County Health Care Services
Department of Environmental Health
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station #9-0504
15900 Hesperian Boulevard, San Lorenzo, CA

Dear Ms. Shin:

Enclosed is the Fourth Quarter 1993 Ground Water Monitoring Report dated November 22, 1993, prepared by our consultant Weiss Associates for the above referenced site. As indicated in the report, groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and BTEX. Benzene was detected only in monitor wells C-1, C-2, C-3, C-7, and C-8 at concentrations of 3.6, 63, 5.5, 23, and 49 ppb, respectively. Depth to groundwater was measured at approximately 10.2 to 14.9 feet below grade, and the direction of flow is to the south-southwest.

To date, the ground water extraction system has removed approximately 745,000 gallons of hydrocarbon impacted ground water. The pump in well C-1 has gone down and is being replaced. We have evaluated several different types of pumps during the past quarter and have decided to replace the pump in C-1 with a 3" Grundfos pump. This is an inexpensive pump which can be readily replaced, thereby reducing system down-time.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Sincerely,
CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller
Site Assessment and Remediation Engineer

Enclosure

cc: Mr. Eddy So, RWQCB - Bay Area
Mr. S.A. Willer
File (9-0504 QM6)

Mr. Bruce E. Prigoff, Esq.
Steefel, Levitt & Weiss
One Embarcadero Center, 29th Floor
San Francisco, CA 94111

Weiss Associates *Environmental and Geologic Services*

5500 Shellmound Street, Emeryville, CA 94608-2411 *Fax: 510-547-5043 Phone: **510-450-6000***

November 22, 1993

Mark Miller
Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, CA 94583-0804

Re: Fourth Quarter 1993
Ground Water Monitoring Report
Chevron Service Station #9-0504
15900 Hesperian Boulevard
San Lorenzo, California
WA Job #4-551-91

Dear Mr. Miller:

As you requested, Weiss Associates (WA) is providing this Ground Water Monitoring Report for the site referenced above (Figure 1). WA sampled the ground water monitoring wells (Figure 2) on October 27, 1993, in accordance with the requirements and procedures of the California Regional Water Quality Control Board - San Francisco Bay Region and local regulatory agencies.

SAMPLING PROCEDURES

Prior to purging and sampling the wells, WA measured the depth to ground water in each well to the nearest 0.01 ft using an electronic sounder (Table 1). We also checked the wells for floating hydrocarbons. No floating hydrocarbons were detected in any well.

WA collected ground water samples for analysis after purging at least 5 well-casing volumes of ground water from each well or purging the well dry and allowing it to recover to at least 80% of its static water level. Each sample was decanted from a dedicated bailer into the appropriate clean sample containers and delivered to a California-certified laboratory following proper sample preservation and chain-of-custody procedures. Purged ground water was processed through the onsite treatment system.

MONITORING AND ANALYTIC RESULTS

The top-of-casing elevation, depth to ground water and ground water elevation for each well is presented in Table 1. The ground water elevation contours and the ground water flow direction are shown on Figure 2.

Current and historical ground water analytic results are summarized in Table 2. The water sample collection records, and the analytic report and chain-of-custody forms are included as Attachments A and B, respectively.

SCHEDULE

The First Quarter 1994 ground water sampling is scheduled for January 1994. We will submit a report presenting the field and analytic data by March 1994.

We appreciate this opportunity to provide hydrogeologic consulting services to Chevron and trust that this submittal meets your needs. Please call if you have any questions regarding this report.

REGISTERED GEOLOGIST
JAMES W. CARMODY
No. EG 1576
CERTIFIED
ENGINEERING
GEOLOGIST
STATE OF CALIFORNIA

Sincerely,
Weiss Associates

Malieka Bundy
Technical Assistant

James W. Carmody
Senior Hydrogeologist, C.E.G.

MB/JWC:mb

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Attachments A - Water Sample Collection Records
B - Analytic Report and Chain-of-Custody Forms

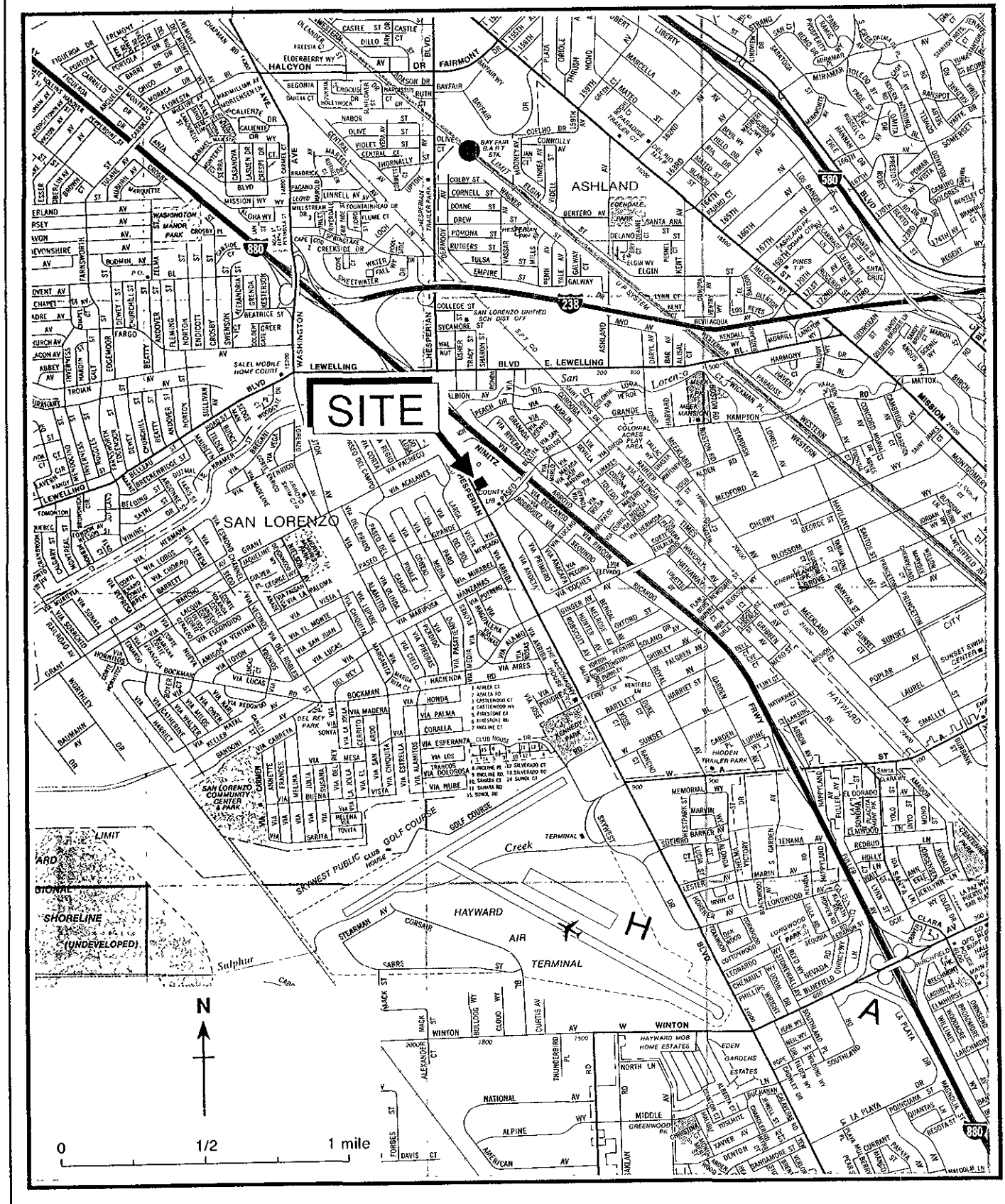

Figure 1. Site Location Map, Chevron Service Station #9-0504, 15900 Hesperian Blvd., San Lorenzo, California

6/18/91

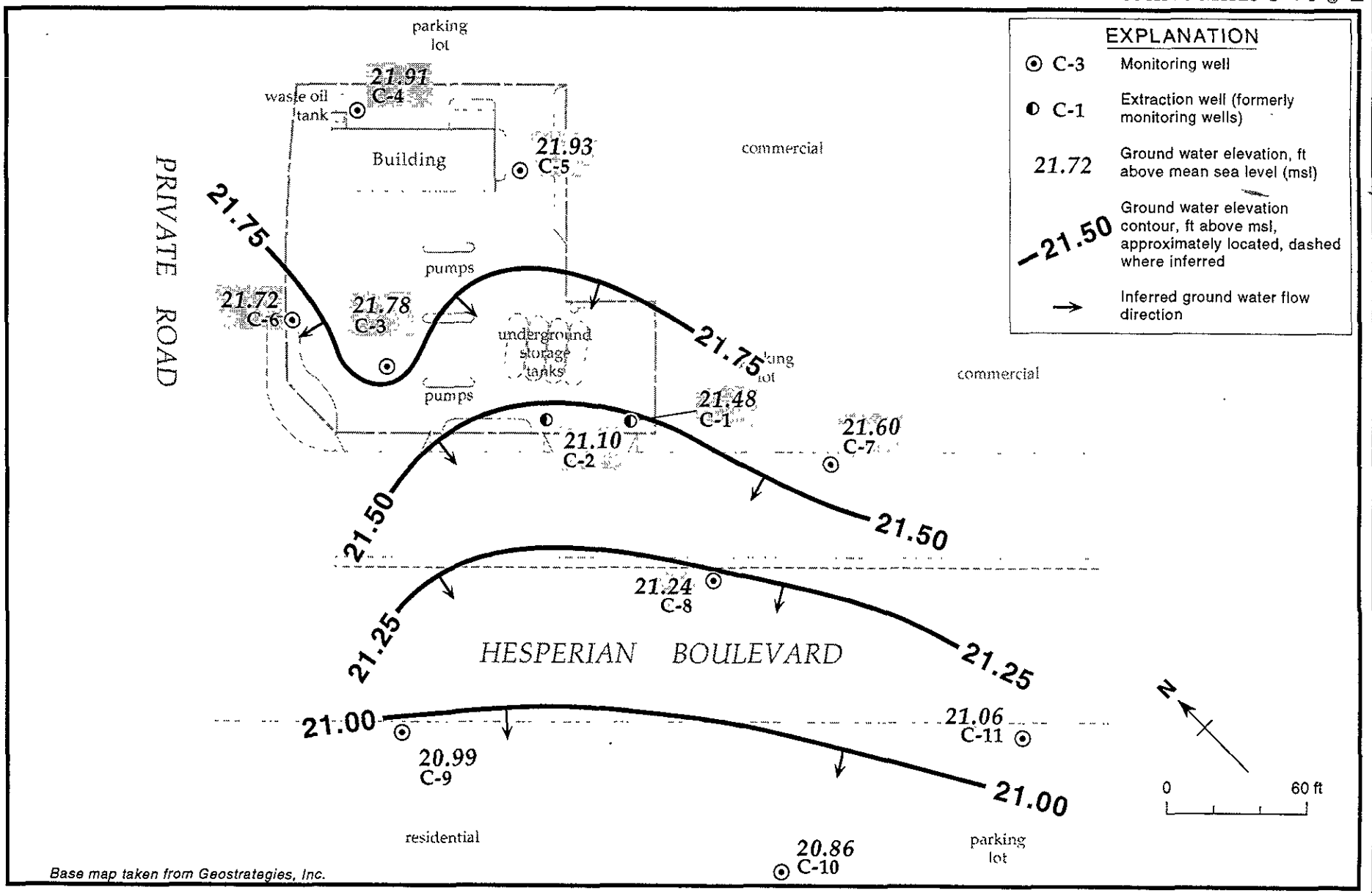

Figure 1. Ground Water Elevation Contour Map - October 27, 1993 - Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California

Table 1. Summary of Ground Water Elevations, Chevron Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons (ft)	Ground Water Elevation (ft above msl)[a]
C-1	06/06/89		—	—	—
	12/08/89		13.14	0.01	—
	09/07/90	33.93[b]	14.04	0.03	19.91
	12/20/90		13.87	0.01	20.07
	03/15/91		11.40		22.53
	06/28/91		12.25		21.68
	09/26/91		14.02		19.91
	01/27/92		12.63		21.30
	04/20/92		10.43		23.50
	07/17/92		12.61		21.32
	10/29/92		—		—
	01/20/93		9.42		24.51
	05/03/93		—		—
	07/28/93		10.48		23.45
	10/27/93	32.80	11.32		21.48
C-2	06/06/89		—	—	—
	12/08/89		13.44	0.15	—
	09/07/90	34.21[b]	14.28	0.10	20.01
	12/20/90		14.06	0.01	20.16
	03/15/91		11.59	0.01	22.63
	06/28/91		12.55		21.66
	09/26/91		14.20		20.01
	01/27/92		12.46		21.75
	04/20/92		10.24		23.97
	07/17/92		12.81		21.40
	10/29/92		—		—
	01/20/93		8.79		25.42
	05/03/93		—		—
	07/28/93		—		—
	10/27/93	33.46	12.36		21.10
C-3	06/06/89		—	—	—
	12/08/89		—	—	—
	09/07/90	35.46	15.31		20.15
	12/20/90		15.17		20.29
	03/06/91		13.27		22.19
	06/28/91		13.67		21.79
	09/26/91		15.32		20.14
	01/27/92		13.91		21.55
	04/20/92		11.66		23.80
	07/17/92		13.96		21.50
	10/29/92		15.51		19.95
	01/20/93		10.99		24.47

— Table 1 continues on next page —

Table 1. Summary of Ground Water Elevations, Chevron Station #9-0504, 15900 Hesperian Blvd., San Lorenzo, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons (ft)	Ground Water Elevation (ft above msl)[a]
	05/03/93		10.97		24.49
	07/28/93		12.41		23.05
	10/27/93		13.37		21.78
C-4	06/06/89	—	—		—
	12/08/89	—	—		—
	09/07/90	35.78[b]	15.58		20.20
	12/20/90		15.42		20.36
	03/06/91		13.54		22.24
	06/28/91		13.93		21.85
	09/26/91		15.64		20.14
	01/27/92		13.96		21.82
	04/20/92		11.71		24.07
	07/17/92		14.19		21.59
	10/29/92		15.72		20.06
	01/20/93		11.17		24.61
	05/03/93		10.94		24.84
	07/28/93		12.40		23.38
	10/27/93	35.23	13.32		21.91
C-5	06/06/89	—	—		—
	12/08/89	—	—		—
	09/07/90	35.31[b]	15.10		20.21
	12/20/90		14.94		20.37
	03/06/91		13.06		22.25
	06/28/91		13.46		21.85
	09/26/91		15.14		20.17
	01/27/92		13.31		22.00
	04/20/92		11.10		24.21
	07/17/92		13.73		21.58
	10/29/92		15.20		20.11
	01/20/93		10.72		24.59
	05/03/93		10.43		24.88
	07/28/93		11.81		23.50
	10/27/93	34.61	12.68		21.93
C-6	12/08/89	—	—		—
	09/07/90	36.89[b]	16.83		20.06
	12/20/90		16.66		20.23
	03/06/91		14.80		22.09
	06/28/91		15.16		21.73
	09/26/91		16.82		20.07
	01/27/92		15.44		21.45
	04/20/92		13.17		23.72

— Table 1 continues on next page —

Table 1. Summary of Ground Water Elevations, Chevron Station #9-0504, 15900 Hesperian Blvd., San Lorenzo, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons (ft)	Ground Water Elevation (ft above msl)[a]
	07/17/92		15.44		21.45
	10/29/92		16.98		19.91
	01/20/93		12.47		24.42
	05/03/93				
	07/28/93		13.86		23.03
	10/27/93	36.57	14.85		21.72
C-7	12/08/89	—	—		—
	09/07/90	32.75[b]	13.02		19.73
	12/20/90		12.28		20.47
	03/06/91		16.92		15.83
	06/28/91		11.31		21.44
	09/26/91		12.28		20.47
	01/27/92		11.43		21.32
	04/20/92		9.28		23.47
	07/17/92		11.49		21.26
	10/29/92		13.05		19.70
	01/20/93		8.69		24.06
	05/03/93		8.68		24.07
	07/28/93		9.99		22.76
	10/27/93	32.32	10.72		21.60
C-8	12/08/89	—	—		—
	09/07/90	33.82[b]	14.32		19.50
	12/20/90		14.20		19.61
	03/06/91		14.80		19.02
	06/28/91		12.65		21.17
	09/26/91		14.29		19.53
	01/27/92		12.60		21.22
	04/20/92		10.36		23.46
	07/17/92		12.88		20.94
	10/29/92		14.39		19.43
	01/20/93		10.02		23.80
	05/03/93		9.75		24.07
	07/28/93		11.14		22.68
	10/27/93	33.25	12.01		21.24
C-9	09/07/90	33.43[b]	14.06		19.37
	12/20/90		14.03		19.40
	03/06/91		12.12		21.31
	06/28/91		12.41		21.02
	09/26/91		14.02		19.41
	01/27/92		12.53		20.90
	04/20/92		10.22		23.21

— Table 1 continues on next page —

Table 1. Summary of Ground Water Elevations, Chevron Station #9-0504, 15900 Hesperian Blvd., San Lorenzo, California (continued)

Well ID	Date	Top-of-Casing Elevation (ft above msl)	Depth to Water (ft)	Thickness of Floating Hydrocarbons (ft)	Ground Water Elevation (ft above msl)[a]
	07/17/92		12.64		20.79
	10/29/92		14.20		19.23
	01/20/93		9.72		23.71
	05/03/93		9.55		23.66
	07/28/93		10.98		22.45
	10/27/93	32.97	11.98		20.99
C-10	09/07/90	31.63[b]	12.49		19.14
	12/20/90		12.36		19.27
	03/06/91		10.45		21.18
	06/28/91		10.74		20.69
	09/26/91		12.42		19.21
	01/27/92		10.84		20.79
	04/20/92		8.55		23.06
	07/17/92		11.02		20.61
	10/29/92		12.40		19.23
	01/20/93		8.14		23.49
	05/03/93		7.92		23.71
	07/28/93		9.36		22.27
	10/27/93	31.16	10.30		20.86
C-11	09/07/90	31.58[b]	12.22		13.36
	12/20/90		12.08		19.50
	03/06/91		16.15		15.43
	06/28/91		10.52		21.06
	09/26/91		12.20		19.38
	01/27/92		10.73		20.85
	04/20/92		8.56		23.02
	07/17/92		10.78		20.80
	10/29/92		12.07		19.51
	01/20/93		7.97		21.61
	05/03/93		7.95		23.63
	07/28/93		9.31		22.27
	10/27/93	31.23	10.17		21.06

Notes:

a = When floating hydrocarbons are present ground water elevation is adjusted using the relation: Ground Water Elevation = Top-of-casing elevation - depth to water + (0.8 x hydrocarbon thickness).

b = Elevation of Well Box

Data from June 6, 1989 to July 28, 1993 from Groundwater Technology, Inc. September 21, 1993 report.

Table 2. Analytic Results for Ground Water, Chevron Service Station #9-0504, 15900 Hesperian Boulevard, San Lorenzo, California

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X
			<----------parts per billion (µg/l)---------->				
C-1	06/06/89	---	5,100	250	200	170	990
	12/08/89	13.14	---	---	---	---	---
	09/07/90	14.04	---	---	---	---	---
	12/20/90	13.87	---	---	---	---	---
	03/15/91	11.40	37,000	220	53	53	1,900
	06/28/91	12.25	3,300	110	6.2	6.2	350
	09/26/91	14.02	3,200	220	6.9	6.9	710
	01/27/92	12.63	330	20	0.6	0.6	48
	04/20/92	10.43	2,700	130	3.4	3.4	690
	07/17/92	12.61	490	17	<0.5	<0.5	52
	10/29/92	---	---	---	---	---	---
	01/20/93	9.42	---	---	---	---	---
	05/03/93	---	---	---	---	---	---
	07/28/93	10.48	---	---	---	---	---
	10/27/93	11.32	240	3.6	11	<0.5	23
C-2	06/06/89	---	130,000	14,000	3,400	28,000	24,000
	12/08/89	13.44	---	---	---	---	---
	09/07/90	14.28	---	---	---	---	---
	12/20/90	14.06	---	---	---	---	---
	03/15/91	11.59	1,200,000	4,700	13,000	16,000	140,000
	06/28/91	12.55	150,000	3,500	2,100	4,200	16,000
	09/26/91	14.20	4,900	220	130	290	880
	01/27/92	12.46	8,200	510	230	590	1,300
	04/20/92	10.24	19,000	1,700	930	1,700	4,700
	07/17/92	12.81	20,000	950	1,300	950	4,700
	10/29/92	---	---	---	---	---	---
	01/20/93	8.79	---	---	---	---	---
	05/03/93	---	---	---	---	---	---
	07/28/93	---	---	---	---	---	---
	10/27/93	12.36	1,600	63	5.9	5.8	190
C-3	06/06/89	---	2,600	63	390	20	370
	12/08/89	---	680	6.0	31	1.0	58
	09/07/90	15.31	490	6.0	41	<0.5	120
	09/07/90[dup]	15.31	460	6.0	40	<0.5	110
	12/20/90	15.17	100	5.0	27	<0.5	130
	03/06/91	13.27	1,300	7.0	75	<0.5	250
	03/06/91[dup]	13.27	1,400	8.0	76	<0.5	250

-- Table 2 continues on next page --

Table 2. Analytic Results for Ground Water, Chevron Service Station #9-4750, 16th Street and "R" Street, Merced, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X
			<----------parts per billion (µg/l)---------->				
	06/28/91	13.67	770	6.0	81	<0.5	71
	06/28/91 dup	13.67	990	5.5	86	<0.5	75
	09/26/91	15.32	1,400	7.9	98	<0.5	340
	01/27/92	13.91	150	0.7	12	<0.5	12
	04/20/92	11.66	1,600	9.3	190	1.0	370
	07/17/92	13.96	460	18	20	<0.5	52
	10/29/92	15.51	520	2.4	30	1.0	79
	01/20/93	10.99	4,200	7.4	140	<0.5	380
	05/03/93	10.97	1,300	6.8	71	3.2	170
	07/28/93	12.41	220	1.4	17	<0.5	39
	10/27/93	13.37	1,800	5.5	68	0.7	290
C-4	06/06/89	---	<50	<0.05	<1.0	<1.0	<3.0
	12/08/89	---	<500	<0.5	<0.5	<0.5	<0.5
	09/07/90	15.58	<50	<0.5	<0.5	<0.5	<0.5
	12/20/90	15.42	170	1.0	<0.5	<0.5	4.0
	03/06/91	13.54	<50	<0.5	<0.5	<0.5	<0.5
	06/28/91	13.93	<50	<0.5	<0.5	<0.5	<0.8
	09/26/91	15.64	<50	<0.5	<0.5	<0.5	<0.5
	09/26/91 dup	15.64	<50	<0.5	<0.5	<0.5	
	01/27/92	13.96	<50	<0.5	<0.5	<0.5	<0.5
	04/20/92	11.71	<50	<0.5	<0.5	<0.5	<0.5
	07/17/92	14.19	<50	<0.5	<0.5	<0.5	<0.5
	10/29/92	15.72	<50	<0.5	<0.5	<0.5	<0.5
	01/20/93	11.17	<50	<0.5	<0.5	<0.5	<0.5
	05/03/93	10.94	<50	<0.5	<0.5	<0.5	<0.5
	07/28/93	12.40	<50	<0.5	<0.5	<0.5	<1.5
	10/27/93	13.32	<50	<0.5	<0.5	<0.5	<1.5
C-5	06/06/89	---	<50	<0.05	<1.0	<0.05	<3.0
	12/08/89	---	<500	<0.5	<0.5	<0.5	<0.5
	09/07/90	15.10	<50	<0.5	<0.5	<0.5	<0.5
	12/20/90	14.94	80	<0.5	<0.5	<0.5	<0.5
	03/06/91	13.06	<50	<0.5	<0.5	<0.5	<0.5
	06/28/91	13.46	<50	<0.5	<0.5	<0.5	<0.5
	09/26/91	15.14	<50	<0.5	<0.5	<0.5	<0.5
	01/27/92	13.31	<50	<0.5	<0.5	<0.5	<0.5
	04/20/92	11.10	<50	<0.5	<0.5	<0.5	<0.5
	07/17/92	13.73	<50	<0.5	<0.5	<0.5	<0.5

-- Table 2 continues on next page --

Table 2. Analytic Results for Ground Water, Chevron Service Station #9-4750, 16th Street and "R" Street, Merced, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X
			<----------parts per billion (µg/l)---------->				
	10/29/92	15.20	<50	<0.5	<0.5	<0.5	<0.5
	01/20/93	10.72	<50	<0.5	<0.5	<0.5	<0.5
	05/03/93	10.43	<50	<0.5	<0.5	<0.5	<1.5
	07/28/93	11.81	<50	<0.5	<0.5	<0.5	<1.5
	10/27/93	12.68	<50	<0.5	<0.5	<0.5	<1.5
C-6	12/08/89	---	<500	<0.5	<0.5	<0.5	<0.5
	09/07/90	16.83	57	<0.5	0.6	<0.5	4.0
	12/20/90	16.66	<50	<0.5	<0.5	<0.5	<0.5
	03/06/91	14.80	<50	<0.5	<0.5	<0.5	<0.5
	06/28/91	15.16	<50	<0.5	<0.5	<0.5	<0.5
	09/26/91	16.82	<50	<0.5	<0.5	<0.5	<0.5
	01/27/92	15.44	<50	<0.5	<0.5	<0.5	<0.5
	04/20/92	13.17	<50	<0.5	<0.5	<0.5	<0.5
	07/17/92	15.44	<50	<0.5	<0.5	<0.5	<0.5
	10/29/92	16.98	<50	<0.5	<0.5	<0.5	<0.5
	01/20/93	12.47	<50	<0.5	<0.5	<0.5	<0.5
	05/03/93	12.47	<50	<0.5	<0.5	<0.5	<0.5
	07/28/93	13.86	<50	<0.5	<0.5	<0.5	<1.5
	10/27/93	14.85	<50	<0.5	<0.5	<0.5	<1.5
C-7	12/08/89	---	1,700	32	17	12	150
	09/07/90	13.02	880	84	46	23	180
	12/20/90	12.28	560	24	19	3.0	21
	03/06/91	16.92	240	25	4.0	2.0	26
	06/28/91	11.31	2,400	130	82	13	220
	09/26/91	12.28	8,100	47	350	35	1,200
	01/27/92	11.43	12,000	170	420	40	830
	04/20/92	9.28	1,200	80	90	11	110
	07/17/92	11.49	2,400	20	95	7.4	200
	10/29/92	13.05	69	1.3	3.8	<0.5	7.2
	01/20/93	8.69	<50	<0.5	<0.5	<0.5	<0.5
	05/03/93	8.68	2,400	29	140	8.6	210
	07/28/93	9.99	3,600	38	290	16	920
	10/27/93	10.72	22,000	23	990	26	2,600
C-8	12/08/89	---	4,800	62	95	11	180
	09/07/90	14.32	3,700	170	180	31	270
	12/20/90	14.20	3,900	120	130	20	180

-- Table 2 continues on next page --

Table 2. Analytic Results for Ground Water, Chevron Service Station #9-4750, 16th Street and "R" Street, Merced, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X
			<----------parts per billion (µg/l)---------->				
	03/06/91	14.80	1,200	45	34	6.0	57
	06/28/91	12.65	6,900	180	340	46	640
	09/26/91	14.29	1,400	66	38	9.8	40
	01/27/92	12.60	3,600	100	170	26	260
	04/20/92	10.36	2,600	110	180	32	260
	07/17/92	12.88	1,100	34	35	5.9	52
	10/29/92	14.39	820	29	23	4.8	27
	01/20/93	10.02	6,000	81	200	22	310
	05/03/93	9.75	11,000	75	880	96	2,600
	07/28/93	11.14	2,800	60	92	13	150
	10/27/93	12.01	2,700	49	60	17	90
C-9	09/07/90	14.06	<50	<0.5	<0.5	<0.5	<0.5
	12/20/90	14.03	<50	<0.5	<0.5	<0.5	<0.5
	03/06/91	12.12	<50	<0.5	<0.5	<0.5	<0.5
	06/28/91	12.41	<50	<0.5	<0.5	<0.5	<0.5
	09/26/91	14.02	<50	<0.5	<0.5	<0.5	<0.5
	01/27/92	12.53	<50	<0.5	<0.5	<0.5	<0.5
	04/20/92	10.22	<50	<0.5	<0.5	<0.5	<0.5
	07/17/92	12.64	<50	<0.5	<0.5	<0.5	<0.5
	10/29/92	14.20	<50	<0.5	<0.5	<0.5	<0.5
	01/20/93	9.72	<50	<0.5	<0.5	<0.5	<0.5
	05/03/93	9.55	<50	<0.5	<0.5	<0.5	<1.5
	07/28/93	10.98	<50	<0.5	<0.5	<0.5	<1.5
	10/27/93	11.98	<50	<0.5	<0.5	<0.5	<1.5
C-10	09/07/90	12.49	<50	<0.5	<0.5	<0.5	<0.5
	12/20/90	12.36	<50	<0.5	<0.5	<0.5	<0.5
	03/06/91	10.45	<50	<0.5	<0.5	0.8	0.8
	06/28/91	10.74	<50	<0.5	<0.5	<0.5	<0.5
	09/26/91	12.42	<50	<0.5	<0.5	<0.5	<0.5
	01/27/92	10.84	<50	<0.5	<0.5	1.3	<0.5
	01/27/92[dup]	10.84	<50	<0.5	<0.5	1.3	<0.5
	04/20/92	8.55	<50	<0.5	<0.5	<0.5	<0.5
	07/17/92	11.02	<50	<0.5	<0.5	<0.5	<0.5
	10/29/92	12.40	<50	<0.5	<0.5	<0.5	<0.5
	01/20/93	8.14	<50	<0.5	<0.5	<0.5	<0.5
	05/03/93	7.92	<50	<0.5	<0.5	<0.5	<1.5

-- Table 2 continues on next page --

Table 2. Analytic Results for Ground Water, Chevron Service Station #9-4750, 16th Street and "R" Street, Merced, California (continued)

Well ID	Date Sampled	Depth to Water (ft)	TPH-G	B	E	T	X
			<----------parts per billion (µg/l)---------->				
	07/28/93	9.36	<50	<0.5	<0.5	<0.5	<1.5
	10/27/93	10.30	<50	<0.5	<0.5	<0.5	<1.5
C-11	09/07/90	12.22	<50	<0.5	<0.5	<0.5	<0.5
	12/20/90	12.08	<50	<0.5	<0.5	<0.5	<0.5
	03/06/91	16.15	<50	<0.5	<0.5	<0.5	<0.5
	06/28/91	10.52	<50	<0.5	<0.5	<0.5	<0.5
	09/26/91	12.20	<50	<0.5	<0.5	<0.5	<0.5
	01/27/92	10.73	<50	<0.5	<0.5	0.8	<0.5
	04/20/92	8.56	<50	<0.5	<0.5	<0.5	<0.5
	07/17/92	10.78	<50	<0.5	<0.5	<0.5	<0.5
	10/29/92	12.07	<50	<0.5	<0.5	<0.5	<0.5
	01/20/93	7.97	<50	<0.5	<0.5	<0.5	<0.5
	05/03/93	7.95	<50	<0.5	<0.5	<0.5	<1.5
	07/28/93	9.31	<50	<0.5	<0.5	<0.5	<1.5
	10/27/93	10.17	<50	<0.5	<0.5	<0.5	<1.5
Trip Blank	09/07/90		<50	<0.5	<0.5	<0.5	<0.5
	03/06/91		<50	<0.5	<0.5	<0.5	<0.5
	06/28/91		<50	<0.5	<0.5	<0.5	<0.5
	09/26/91		<50	<0.5	<0.5	<0.5	<0.5
	01/27/92		<50	<0.5	<0.5	<0.5	<0.5
	04/20/92		<50	<0.5	<0.5	<0.5	<0.5
	07/17/92		<50	<0.5	<0.5	<0.5	<0.5
	10/29/92		<50	<0.5	<0.5	<0.5	<0.5
	01/20/93		<50	<0.5	<0.5	<0.5	<0.5
	05/03/93		<50	<0.5	<0.5	<0.5	<1.5
	07/28/93		<50	<0.5	<0.5	<0.5	<1.5
	10/27/93		<50	<0.5	<0.5	<0.5	<1.5
DTSC MCLs			NE	1.0	680	100[b]	1,750

-- Table 2 continues on next page --

Table 2. Analytic Results for Ground Water, Chevron Service Station #9-4750, 16th Street and "R" Street, Merced, California (continued)

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
DTSC MCLs = Department of Toxic Substances Control maximum contaminant levels for drinking water
NE = Not established
<n = Not detected at detection limits of n ppb
dup = Duplicate sample

Analytical Laboratory:

Superior Precision Analytical, Inc. of San Francisco, California

Notes:

a = DTSC recommended action level for drinking water; MCL not established

ATTACHMENT A

WATER SAMPLE COLLECTION RECORDS

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-1 Date 10/27/93 Time of Sampling 1506
Job Name Chev. San Lorenzo Job Number 4-551-91 Initials HT
Sample Point Description M (M = Monitoring Well)
Location

WELL DATA: Depth to Water 11.32 ft (static, pumping) Depth to Product — ft.
Product Thickness — Well Depth — ft (spec) Well Depth 18.63 ft(sounded) Well Diameter 3 in
Initial Height of Water in Casing 7.31 ft. = volume 2.68 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 8.04 gal.

EVACUATION METHOD: Pump # and type grundfos Hose # and type poly
Bailer# and type — Dedicated — (Y/N)
Other —

Evacuation Time: Stop 1503
Start 1501
Total Evacation Time 2
Total Evacuated Prior to Sampling 8.1 gal.
Evacuation Rate 4.0 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling — ft. — time
Evacuated Dry? No After — gal. Time —
80% Recovery =
% Recovery at Sample Time — Time —

Formulas/Conversions
r = well radius in ft.
h = ht of water col in ft.
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number
Calibration: 4.0 7.0 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)

NA

SAMPLE: Color Clear Odor Slight
Description of matter in sample: Small amounts of particulate matter
Sampling Method: dis. BIR
Sample Port: Rate — gpm Totalizer — gal.
Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-1	w/v	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-2 Date 10/27/93 Time of Sampling 10:05

Job Name Chevron-San Lorenzo Job Number 4-552-91 Initials PC

Sample Point Description Extraction Well (M = Monitoring Well)

Location SW section of site

WELL DATA: Depth to Water 7.46 12.36 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth 19.62 ft (spec) Well Depth — ft(sounded) Well Diameter 3 in

Initial Height of Water in Casing — ft. = volume — gal.

— Casing Volumes to be Evacuated. Total to be evacuated — gal.

EVACUATION METHOD: Pump # and type _____ Hose # and type _____

Bailer# and type _____ Dedicated _____ (Y/N)

Other _____

Evacuation Time: Stop _____

Start _____

Total Evacation Time _____

Total Evacuated Prior to Sampling _____ gal.

Evacuation Rate _____ gal. per minute

Depth to Water during Evacuation _____ ft. _____ time

Depth to Water at Sampling _____ ft. _____ time

Evacuated Dry? _____ After _____ gal. Time _____

80% Recovery = _____

% Recovery at Sample Time N/A Time _____

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

$V_{2"}$ casing = 0.163 gal/ft

$V_{3"}$ casing = 0.367 gal/ft

$V_{4"}$ casing = 0.653 gal/ft

$V_{4.5"}$ casing = 0.826 gal/ft

$V_{6"}$ casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number _____

Calibration: _____ 4.0 _____ 7.0 _____ 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color None Odor Moderate

Description of matter in sample: None

Sampling Method: Sample port

Sample Port: Rate — gpm Totalizer — gal.

— Time

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-2	aa/cc	40ml	N	N	HCl	EPA-8015/8020	N	STA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-3 Date 10/27/93 Time of Sampling 1404

Job Name Chev San Lorenzo Job Number 4-551-91 Initials HT

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 13.37 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 19.26 ft(sounded) Well Diameter 3 in

Initial Height of Water in Casing ~~5.89~~ 5.89 ft. = volume 2.16 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 6.48 gal.

EVACUATION METHOD: Pump # and type grundfos Hose # and type poly

Bailer# and type — Dedicated — (Y/N)

Other —

Evacuation Time: Stop 1402

Start 14:00

Total Evacation Time 2

Total Evacuated Prior to Sampling 7 gal.

Evacuation Rate 3.5 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling — ft. — time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)
			NA		

SAMPLE: Color Clear Odor Slight

Description of matter in sample: None

Sampling Method: dis. BLR.

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-3	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-4 Date 10/27/93 Time of Sampling 13:16

Job Name Chev. San Lorenzo Job Number 4-551-91 Initials HT

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 13.32 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 19.93 ft(sounded) Well Diameter 3 in

Initial Height of Water in Casing 6.61 ft. = volume 2.43 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 7.27 gal.

EVACUATION METHOD: Pump # and type grundfos Hose # and type poly

Bailer# and type — Dedicated — (Y/N)

Other —

Evacuation Time: Stop 13:14

Start 13:12

Total Evacation Time 2

Total Evacuated Prior to Sampling 7.3 gal.

Evacuation Rate 3.6 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling — ft. — time

Evacuated Dry? No After — gal. Time —

80% Recovery =

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)
			NA		

SAMPLE: Color Slightly cloudy Odor ND

Description of matter in sample: Fine silt

Sampling Method: dis bir

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-4	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-5 Date 10/27/93 Time of Sampling 1242

Job Name Chev. San Lorenzo Job Number 4-551-91 Initials HT

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 12.68 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 18.73 ft(sounded) Well Diameter 3 in

Initial Height of Water in Casing 6.05 ft. = volume 2.22 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 6.66 gal.

EVACUATION METHOD: Pump # and type Grundfos Hose # and type Poly

Bailer# and type — Dedicated — (Y/N)

Other

Evacuation Time: Stop 1240

Start 1238

Total Evacation Time 2

Total Evacuated Prior to Sampling 7 gal.

Evacuation Rate 3.5 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling — ft. — time

Evacuated Dry? No After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)
		NA			

SAMPLE: Color Slightly Cloudy Odor ND

Description of matter in sample: Very Fine Silt

Sampling Method: Dis. Bir

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-5	W/V	40ml	N	Y	Ef. HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-6 Date 10/27/93 Time of Sampling 1223

Job Name Chev. San Lorenzo Job Number 4-551-91 Initials HT

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 14.85 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 24.17 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 9.32 ft. = volume 1.51 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 4.56 gal.

EVACUATION METHOD: Pump # and type grundfos Hose # and type poly

Bailer# and type — Dedicated — (Y/N)

Other —

Evacuation Time: Stop 12:19

Start 12:18

Total Evacation Time 1

Total Evacuated Prior to Sampling 4.6 gal.

Evacuation Rate 4.6 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling — ft. — time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)

SAMPLE: Color clear Odor ND

Description of matter in sample: None

Sampling Method: dis blr

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-6	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-7 Date 10/27/93 Time of Sampling 1345

Job Name Chev San Lorenzo Job Number 4-551-91 Initials HT

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 10.72 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 24.77 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 14.05 ft. = volume 2.3 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 6.9 gal.

EVACUATION METHOD: Pump # and type grundfos Hose # and type poly

Bailer# and type — Dedicated — (Y/N)

Other —

Evacuation Time: Stop 1343

Start 1341

Total Evacation Time 2

Total Evacuated Prior to Sampling 7 gal.

Evacuation Rate 3.5 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling — ft. — time

Evacuated Dry? NO After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)
			NA		

SAMPLE: Color Slightly Cloudy Odor Slight

Description of matter in sample: Fine silt

Sampling Method: dis. BIR.

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-7	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-8 Date 10/27/93 Time of Sampling 1427

Job Name Chev. San Lorenzo Job Number 4-551-91 Initials HT

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 12.01 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 24.83 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 12.82 ft. = volume 2.08 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 6.26 gal.

EVACUATION METHOD: Pump # and type grundfos Hose # and type poly

Bailer# and type — Dedicated — (Y/N)

Other —

Evacuation Time: Stop 1425

Start 1423

Total Evacation Time 2

Total Evacuated Prior to Sampling 6.3 gal.

Evacuation Rate 3.1 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling — ft. — time

Evacuated Dry? No After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)
		NA			

SAMPLE: Color Slightly cloudy Odor Moderate

Description of matter in sample: Fine silt

Sampling Method: dis Bail

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-8	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-9 Date 10/27/93 Time of Sampling 1203
Job Name Chev. San Lorenzo Job Number 4-551-91 Initials HT
Sample Point Description M (M = Monitoring Well)
Location

WELL DATA: Depth to Water 11.98 ft (static, pumping) Depth to Product — ft.
Product Thickness — Well Depth — ft (spec) Well Depth 24.64 ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 12.66 ft. = volume 2.06 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 6.17 gal.

EVACUATION METHOD: Pump # and type Grundfos Hose # and type poly
Bailer# and type — Dedicated — (Y/N)
Other —

Evacuation Time: Stop 12:02
Start 12:00
Total Evacation Time 2
Total Evacuated Prior to Sampling 6.2 gal.
Evacuation Rate 3.1 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling — ft. — time
Evacuated Dry? NO After — gal. Time —
80% Recovery = —
% Recovery at Sample Time — Time —

Formulas/Conversions
r = well radius in ft.
h = ht of water col in ft.
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number
Calibration: 4.0 7.0 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)
			NA		

SAMPLE: Color Cloudy Odor NO
Description of matter in sample: Fine silt
Sampling Method: disp. BLR.
Sample Port: Rate — gpm Totalizer — gal.
Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-9	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-10 Date 10/27/93 Time of Sampling 1142

Job Name Chev San Lorenzo Job Number 4-551-91 Initials HT

Sample Point Description M (M = Monitoring Well)

Location

WELL DATA: Depth to Water 10.30 ft (static, pumping) Depth to Product — ft.

Product Thickness — Well Depth — ft (spec) Well Depth 24.61 ft(sounded) Well Diameter 2 in

Initial Height of Water in Casing 14.31 ft. = volume 2.33 gal.

3 Casing Volumes to be Evacuated. Total to be evacuated 7.0 gal.

EVACUATION METHOD: Pump # and type grundfos Hose # and type poly

Bailer# and type — Dedicated — (Y/N)

Other —

Evacuation Time: Stop 1140

Start 1138

Total Evacation Time 2

Total Evacuated Prior to Sampling 7.0 gal.

Evacuation Rate 3.5 gal. per minute

Depth to Water during Evacuation — ft. — time

Depth to Water at Sampling — ft. — time

Evacuated Dry? No After — gal. Time —

80% Recovery = —

% Recovery at Sample Time — Time —

Formulas/Conversions

r = well radius in ft.

h = ht of water col in ft.

vol. in cyl. = $\pi r^2 h$

7.48 gal/ft^3

V_2" casing = 0.163 gal/ft

V_3" casing = 0.367 gal/ft

V_4" casing = 0.653 gal/ft

$V_{4.5}$" casing = 0.826 gal/ft

V_6" casing = 1.47 gal/ft

V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number

Calibration: 4.0 7.0 10.0

Measured:	SC/µmhos	pH	T°C	Time	Volume Evacuated (gal.)
			NA		

SAMPLE: Color Cloudy Odor ND

Description of matter in sample: Fine Silt

Sampling Method: dis BIR

Sample Port: Rate — gpm Totalizer — gal.

Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-10	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

WEISS ASSOCIATES

WATER SAMPLING DATA

Well Name C-11 Date 10/27/93 Time of Sampling 11:10
Job Name Chev. San Lorenzo Job Number 4-551-91 Initials HT
Sample Point Description M (M = Monitoring Well)
Location

WELL DATA: Depth to Water 10.17 ft (static, pumping) Depth to Product — ft.
Product Thickness — Well Depth — ft (spec) Well Depth 24.68 ft(sounded) Well Diameter 2 in
Initial Height of Water in Casing 14.51 ft. = volume 2.36 gal.
3 Casing Volumes to be Evacuated. Total to be evacuated 7.09 gal.

EVACUATION METHOD: Pump # and type — Hose # and type —
Bailer# and type 4"x2" #10 Dedicated No (Y/N)
Other —

Evacuation Time: Stop 11:06
Start 10:55
Total Evacation Time 16
Total Evacuated Prior to Sampling 7.10 gal.
Evacuation Rate 0.4 gal. per minute
Depth to Water during Evacuation — ft. — time
Depth to Water at Sampling — ft. — time
Evacuated Dry? No After — gal. Time —
80% Recovery =
% Recovery at Sample Time — Time —

Formulas/Conversions
r = well radius in ft.
h = ht of water col in ft.
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft^3
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft
V8 casing = 2.61 gal/ft

CHEMICAL DATA: Meter Brand/Number
Calibration: 4.0 7.0 10.0

Measured:	SC/μmhos	pH	T°C	Time	Volume Evacuated (gal.)
			NA		

SAMPLE: Color Brown Odor ND
Description of matter in sample: Fine Silt
Sampling Method: dis. BIR
Sample Port: Rate —gpm Totalizer — gal.
Time —

# of Cont.	Sample ID	Cont. Type[1]	Vol[2]	Fil[3]	Ref[4]	Preservative (specify)	Analytic Method	Turn[5]	LAB
2	C-11	W/V	40ml	N	Y	HCl	EPA 8015/8020	N	SPA

1 Sample Type Codes: W = Water, S = Soil, Describe Other
Container Type Codes: V = VOA/Teflon Septa, P = Plastic, C or B = Clear/Brown Glass, Describe Other
Cap Codes: PT = Plastic, Teflon lined;
2 = Volume per container; 3 = Filtered (Y/N); 4 = Refrigerated (Y/N)
5 Turnaround [N = Normal, W = 1 week, R = 24 hour, HOLD (spell)]

ADDITIONAL COMMENTS, CONDITIONS, PROBLEMS:

ATTACHMENT B

ANALYTIC REPORT AND CHAIN-OF-CUSTODY FORMS

Superior Precision Analytical, Inc.
1555 Burke, Unit I ▪ San Francisco, California 94124 ▪ (415) 647-2081 / fax (415) 821-7123

Weiss Associates
Attn: TOM BERRY

Project 4-551-91
Reported 11/04/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
14898- 1	C-1	10/27/93	11/04/93	Water
14898- 2	C-2	10/27/93	11/04/93	Water
14898- 3	C-3	10/27/93	11/04/93	Water
14898- 4	C-4	10/27/93	11/04/93	Water
14898- 5	C-5	10/27/93	11/04/93	Water
14898- 6	C-6	10/27/93	11/04/93	Water
14898- 7	C-7	10/27/93	11/04/93	Water
14898- 8	C-8	10/27/93	11/04/93	Water
14898- 9	C-9	10/27/93	11/04/93	Water
14898-10	C-10	10/27/93	11/04/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	14898- 1	14898- 2	14898- 3	14898- 4	14898- 5
Gasoline:	240	1600	1800	ND<50	ND<50
Benzene:	3.6	63	5.5	ND<0.5	ND<0.5
Toluene:	ND<0.5	5.8	0.7	ND<0.5	ND<0.5
Ethyl Benzene:	11	5.9	68	ND<0.5	ND<0.5
Total Xylenes:	23	190	290	ND<1.5	ND<1.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

Laboratory Number:	14898- 6	14898- 7	14898- 8	14898- 9	14898-10
Gasoline:	ND<50	22000	2700	ND<50	ND<50
Benzene:	ND<0.5	23	49	ND<0.5	ND<0.5
Toluene:	ND<0.5	26	17	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	990	60	ND<0.5	ND<0.5
Total Xylenes:	ND<1.5	2600	90	ND<1.5	ND<1.5
Concentration:	ug/L	ug/L	ug/L	ug/L	ug/L

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Weiss Associates
Attn: TOM BERRY

Project 4-551-91
Reported 11/04/93

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed	Matrix
14898-11	C-11	10/27/93	11/04/93	Water
14898-12	TB-LB	10/27/93	11/04/93	Water

RESULTS OF ANALYSIS

Laboratory Number:	14898-11	14898-12
Gasoline:	ND<50	ND<50
Benzene:	ND<0.5	ND<0.5
Toluene:	ND<0.5	ND<0.5
Ethyl Benzene:	ND<0.5	ND<0.5
Total Xylenes:	ND<1.5	ND<1.5
Concentration:	ug/L	ug/L

Superior Precision Analytical, Inc.
1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 14898

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT
ug/L = parts per billion (ppb)

OIL AND GREASE ANALYSIS By Standard Methods Method 5520F:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

ANALYTE	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	94/104	10%	72-116
Benzene:	96/108	12%	71-106
Toluene:	98/109	11%	69-116
Ethyl Benzene:	101/113	11%	66-121
Total Xylenes:	92/103	11%	67-108

Cecilia G. Joaquin
Senior Chemist
Account Manager

Fax copy of Lab Report and COC to Chevron Contact: ☐ No 121548

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number SS# 9-0504
Facility Address 15900 Hesperian San Lorenzo CA
Consultant Project Number 4-551-91
Consultant Name Weiss Associates
Address 5500 Shellmound St Emeryville CA 94608
Project Contact (Name) Tom Berry
(Phone) (510) 450 6000 (Fax Number) (510) 547-5043

Chevron Contact (Name) Mark Miller
(Phone) 842-8134
Laboratory Name Superior Precision
Laboratory Release Number 7583810
Samples Collected by (Name) Herb Toor
Collection Date 10/27/93
Signature Herb Toor

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
								Analyses To Be Performed													
C-1	1	2	W	G	1506	HCl	Y	X												
C-2	2				1005															
C-3	3				1404															
C-4	4				1316															
C-5	5				1242															
C-6	6				1223															
C-7	7				1345															
C-8	8				1427															
C-9	9				1203															
C-10	10				1142															
C-11	11				1110															
TB/LB	12	↓	↓	↓	0800	↓	↓	↓												
							↓	↓												

Note: Do Not Bill For TB/LB Samples.

Please initial: BB
Samples Stored in ice. ✓ 4°
Appropriate containers. ✓
Samples preserved. ✓
VOA's without headspace
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Herb Toor	WEISS	10/26/93 10:39	Frank Cotton	AERO	10-28-93 10:34
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Edward Tsap	Aero				
Relinquished By (Signature)	Organization	Date/Time	Recieved For Laboratory By (Signature)		Date/Time
					10/28/93 1430

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COC-3.DWG/03 91/HCH

Stored overnight in Secure Area

CHECKLIST FOR PROPER CHAIN OF CUSTODY COMPLETION

CONSULTANT INFORMATION SECTION

____ Facility #, Facility Address, Consultant Project #, and Laboratory Release #.
* Samples cannot be processed without release #.

____ Project Contact
* The final report will go to this person

____ Collection Date
* If more than one day, designate which samples were collected on which day, in the remarks section.

SAMPLE INFORMATION SECTION

____ Sample Number
* Identification which is pertinent to the consultant

____ Number of Containers and Sample Preservation

Tips for working with the laboratory
* Do not use electrician's tape
* When in doubt re-sample
* Use waterproof markers
* A trip blank is required

ANALYSES

SW-846	Common Name	MDL	Containers/Preservative
@8015	Total Petro. Hydrocarb. as Gasoline	W: 50 ppb S: 1 ppm	3 x 40 ml VOA/HCL 60g/none
8015	Total Petro. Hydrocarb. as Diesel	W: 50 ppb S: 1 ppm	2 x 1L bottle/none 100g/none
5520	Oil and Grease	W: 5000 ppb S: 50 ppm	1 x 1L bottle/HCL 100g/none
@8020	Arom. Volatiles - BTXE	W: 0.5 ppb S: 0.005 ppm	3 x 40mL VOA/HCL 60g/none
8240	Arom. Volatiles - GC/MS	W: 2-20 ppb S: 0.01-0.1 ppm	3 x 40mL VOA/HCL 60g/none
7240	Total Pb	W: 500 ppb S: 10 ppm	1 x 500mL bottle/HNO3 100g/none
1803	EDB	W: 0.05 ppb S: 0.0005 ppb	2 x 240mL bottle/none 100g/none
8010	Halocarbons	W: 0.5-4 ppb S: 0.005-0.01 ppm	3 x 40mL VOA/HCL 100g/none

____ Desired Analyses Marked and Correct

____ Turn Around Time
* If not noted the contracted TAT will be assumed.

@ May be run in series

CBR/jt:T4-130