Chevron U.S.A. Inc.
2410 Camino Ramon, San Ramon, California • Phone (415) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

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Marketing Operations

D. Moller
Manager, Operations
S. L. Patterson
Area Manager, Operations
C. G. Trimbach
Manager, Engineering

December 12, 1990

Mr. Rafat Shahid
Alameda County
Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Re: Chevron Service Station #9-5607
5269 Crow Canyon Road
Castro Valley, CA

Dear Mr. Shahid:

Enclosed we are forwarding the Quarterly Groundwater Sampling Report dated December 10, 1990, conducted by our consultant Alton Geoscience, Inc. at the above referenced site.

Chevron will continue to sample this site on a quarterly basis and monitor the progress of the existing groundwater extraction system.

If you have any questions or comments, please do not hesitate to contact me at (415) 842-9581.

Very truly yours,
C.G. Trimbach

By _____
Nancy Vukelich

NLV/jmr
Enclosure

cc: Mr. Lester Feldman
RWQCB - Bay Area
1800 Harrison St., Ste. 700
Oakland, CA 94612

Ms. Bette Brummett-Owen
Chevron Property Management Specialist

ALTON GEOSCIENCE, INC.

December 10, 1990

Ms. Nancy Vukelich
Chevron U.S.A., Inc.
Post Office Box 5004
San Ramon, California 94583-0804

30-321

Subject: Quarterly Ground Water Monitoring Report
Chevron Station No. 9-5607
5269 Crow Canyon Road
Castro Valley, California

Dear Ms. Vukelich:

In accordance with our agreement, Alton Geoscience, Inc. transmits this Quarterly Ground Water Monitoring and Sampling Report for Chevron Station No. 9-5607, located at 5269 Crow Canyon Road, Castro Valley, California. Figure 1 shows the site location.

Monitoring and sampling of the ground water monitoring wells were performed on September 21-24, 1990, in accordance with the requirements and procedures of the governing Regional Water Quality Control Board (RWQCB) and local regulatory agencies.

FIELD PROCEDURES

Prior to purging and sampling the wells, the depth to ground water in each well was measured from the top of casing to the nearest 0.01 foot using an electronic sounder. Ground water samples were collected and observed for the presence of free product or sheen.

Water samples were collected after more than 3 casing volumes of ground water were purged from each well. Each sample was collected using a clean bailer (dedicated for each well), and then transferred into the appropriate clean sample containers for delivery to a state-certified laboratory following proper preservation and chain of custody procedures. Purged ground water was stored on site in DOT-approved, 55-gallon drums until properly disposed of offsite.

SAMPLING AND ANALYTICAL RESULTS

The results of the monitoring and laboratory analyses of the ground water samples for this quarter, as well as the results of previous quarterly monitoring and sampling events are summarized in Table 1.

Based on the previous wellhead elevation survey data and depth to water measurements collected during this monitoring event, ground water elevations and flow direction were determined as shown in Figure 2.

Slight sheen was noted in the ground water sample C-7. No free product was observed. The water sampling survey forms presenting the results of the field activities and observations as well as the official laboratory reports and chain of custody records are included in Appendix A.

SCHEDULE

The next quarterly sampling event is scheduled for December 1990. A report presenting the results of the field and analytical data is scheduled to be submitted in February 1991.

Copies of this report should be submitted to the following agencies for their review:

Alameda County Environmental Health
80 Swan Way, Room 200
Oakland, California 94621
Attn: Mr. Rafat Shahid

Regional Water Quality Control Board
San Francisco Bay Region
1800 Harrison Street, Suite 700
Oakland, California 94612

Please call if you have any questions concerning this report.

Sincerely,

ALTON GEOSCIENCE, INC.

Stephan Rosen
Project Manager

Al Sevilla, R.C.E. 26392
Division General Manager

Enclosure

Table 1 - Summary of Results of Ground Water Sampling
Chevron Service Station # 9-5607, 5269 Crow Canyon Road
Castro Valley, California
Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (FT)	DEPTH TO WATER (TOC-FT)	FREE PRODUCT THICKNESS (FT)	GROUND WATER ELEVATION (ft above msl)	TPH-G (8015)	B (8020/ 602)	T (8020/ 602)	E (8020/ 602)	X (8020/ 602)	ANALYTICAL LAB
C-1	03/26/85	283.46	22.83	---	260.63	---	---	---	---	---	NA
C-1	07/03/86	283.46	23.58	---	259.88	---	---	---	---	---	NA
C-1	03/26/87	283.46	20.50	---	262.96	---	---	---	---	---	NA
C-1	03/28/88	283.46	26.00	---	257.46	---	---	---	---	---	NA
C-1	03/10/89	283.46	15.86	---	267.60	---	---	---	---	---	NA
C-1	04/03/89	283.46	16.85	---	266.61	---	---	---	---	---	NA
C-1	05/08/89	283.46	22.68	---	260.78	---	---	---	---	---	NA
C-1	06/05/89	283.46	24.66	---	258.80	---	---	---	---	---	NA
C-1	07/12/89	283.46	25.56	---	257.90	---	---	---	---	---	NA
C-1	08/10/89	283.46	25.89	---	257.57	---	---	---	---	---	NA
C-1	09/13/89	283.46	26.55	---	256.91	22000	3600	1100	1000	3500	NA
C-1	10/04/89	283.46	25.24	---	258.22	---	---	---	---	---	NA
C-1	11/03/89	283.46	25.03	---	258.43	---	---	---	---	---	NA
C-1	12/04/89	283.46	26.37	---	213.28	13000	2000	550	610	1600	NA
C-1	03/07/90	283.46	22.48	---	260.98	---	---	---	---	---	NA
C-1	03/09/90	---	---	---	---	---	---	---	---	---	SAL
C-1	06/12/90	283.46	24.35	---	259.11	21000	3500	1400	840	4000	SAL
C-1	09/20/90	283.46	26.27	0.0	257.19	23000	2100	1200	860	5000	SAL
C-2	03/26/85	284.37	---	---	---	---	---	---	---	---	NA
C-2	07/03/86	284.37	19.69	---	264.68	---	---	---	---	---	NA
C-2	03/26/87	284.37	15.45	---	268.92	---	---	---	---	---	NA
C-2	03/28/88	284.37	20.92	---	263.45	---	---	---	---	---	NA
C-2	03/10/89	284.37	12.80	---	271.57	---	---	---	---	---	NA
C-2	04/03/89	284.37	14.26	---	270.11	---	---	---	---	---	NA
C-2	05/08/89	284.37	18.42	---	265.95	---	---	---	---	---	NA
C-2	06/05/89	284.37	20.09	---	264.28	---	---	---	---	---	NA
C-2	07/12/89	284.37	20.79	---	263.58	---	---	---	---	---	NA
C-2	08/10/89	284.37	21.40	---	262.97	---	---	---	---	---	NA
C-2	09/13/89	284.37	21.86	---	262.51	320	62	4	10	14	NA
C-2	10/04/89	284.37	19.89	---	264.48	---	---	---	---	---	NA
C-2	11/03/89	284.37	20.76	---	263.61	---	---	---	---	---	NA
C-2	12/04/89	284.37	20.82	---	263.55	1000	240	37	66	130	NA
C-2	03/07/90	284.37	17.83	---	266.54	---	---	---	---	---	NA
C-2	03/09/90	284.37	17.83	---	266.54	390	280	35	27	50	SAL
C-2	06/12/90	284.37	19.89	---	264.48	700	260	34	28	55	SAL
C-2	09/24/90	284.37	21.97	0.0	262.40	---	---	---	---	---	NA
C-3	03/26/85	285.98	---	---	---	---	---	---	---	---	NA
C-3	07/03/86	285.98	26.04	---	259.94	---	---	---	---	---	NA
C-3	03/26/87	285.98	25.64	---	260.34	---	---	---	---	---	NA
C-3	03/28/88	285.98	28.82	---	257.16	---	---	---	---	---	NA
C-3	03/10/89	285.98	22.78	---	263.20	---	---	---	---	---	NA

Table 1 - (cont'd.)
Summary of Results of Ground Water Sampling
Chevron Service Station # 9-5607, 5269 Crow Canyon Road
Castro Valley, California
Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (FT)	DEPTH TO WATER (TOC-FT)	FREE PRODUCT THICKNESS (FT)	GROUND WATER ELEVATION (ft above msl)	TPH-G (8015)	B (8020/ 602)	T (8020/ 602)	E (8020/ 602)	X (8020/ 602)	ANALYTICAL LAB
C-3	04/03/89	285.98	22.71	---	263.27	---	---	---	---	---	NA
C-3	05/08/89	285.98	25.95	---	260.03	---	---	---	---	---	NA
C-3	06/05/89	285.98	27.62	---	258.36	---	---	---	---	---	NA
C-3	07/12/89	285.98	28.29	---	257.69	---	---	---	---	---	NA
C-3	08/10/89	285.98	28.46	---	257.52	---	---	---	---	---	NA
C-3	09/13/89	285.98	29.33	---	256.65	60000	1400	6800	2300	10000	NA
C-3	10/04/89	285.98	28.97	---	257.01	---	---	---	---	---	NA
C-3	11/03/89	285.98	28.72	---	257.26	---	---	---	---	---	NA
C-3	12/04/89	285.98	29.01	---	256.97	56000	1300	3300	1400	5700	NA
C-3	03/07/90	285.98	27.69	---	258.29	---	---	---	---	---	NA
C-3	03/09/90	285.98	27.69	---	258.29	42000	1100	5700	1600	7900	SAL
C-3	06/12/90	285.98	28.09	---	257.89	160000	1400	7100	3400	16000	SAL
C-3	09/24/90	285.98	29.18	0.0	256.80	53000	850	7700	2000	10000	SAL
C-4	03/26/85	273.01	15.14	---	257.87	---	---	---	---	---	NA
C-4	07/03/86	273.01	15.37	---	257.64	---	---	---	---	---	NA
C-4	03/26/87	273.01	---	---	---	---	---	---	---	---	NA
C-4	03/28/88	273.01	18.04	---	254.97	---	---	---	---	---	NA
C-4	03/10/89	273.01	---	---	---	---	---	---	---	---	NA
C-4	04/03/89	273.01	13.34	---	259.67	---	---	---	---	---	NA
C-4	05/08/89	273.01	15.60	---	257.41	---	---	---	---	---	NA
C-4	06/05/89	273.01	16.51	---	256.50	---	---	---	---	---	NA
C-4	07/12/89	273.01	16.99	---	256.02	---	---	---	---	---	NA
C-4	08/10/89	273.01	17.27	---	255.74	---	---	---	---	---	NA
C-4	09/13/89	273.01	18.16	---	254.85	57000	21000	3100	3200	11000	NA
C-4	10/04/89	273.01	18.24	---	254.77	---	---	---	---	---	NA
C-4	11/03/89	273.01	18.17	---	254.84	---	---	---	---	---	NA
C-4	12/04/89	273.01	18.45	---	254.56	48000	17000	2200	2800	9800	NA
C-4	03/07/89	273.01	17.20	---	255.81	---	---	---	---	---	NA
C-4	03/09/90	273.01	17.20	---	255.81	43000	20000	2300	2800	11000	SAL
C-4	06/12/90	273.01	16.66	---	256.35	82000	21000	2400	4000	16000	SAL
C-4	09/24/90	273.01	18.11	0.0	254.90	---	---	---	---	---	NA
C-5	03/26/85	287.95	25.33	---	262.62	---	---	---	---	---	NA
C-5	07/03/86	287.95	26.41	---	261.54	---	---	---	---	---	NA
C-5	03/26/87	287.95	24.96	---	262.99	---	---	---	---	---	NA
C-5	03/28/88	287.95	29.80	---	258.15	---	---	---	---	---	NA
C-5	03/10/89	287.95	25.89	---	262.06	---	---	---	---	---	NA
C-5	04/03/89	287.95	24.38	---	263.57	---	---	---	---	---	NA
C-5	05/08/89	287.95	27.80	---	260.15	---	---	---	---	---	NA
C-5	06/05/89	287.95	29.42	---	258.53	---	---	---	---	---	NA
C-5	07/12/89	287.95	29.86	---	258.09	---	---	---	---	---	NA
C-5	08/10/89	287.95	29.77	---	258.18	---	---	---	---	---	NA

Table 1 - (cont'd.)
Summary of Results of Ground Water Sampling
Chevron Service Station # 9-5607, 5269 Crow Canyon Road
Castro Valley, California
Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (FT)	DEPTH TO WATER (TOC-FT)	FREE PRODUCT THICKNESS (FT)	GROUND WATER ELEVATION (ft above msl)	TPH-G (8015)	B (8020/ 602)	T (8020/ 602)	E (8020/ 602)	X (8020/ 602)	ANALYTICAL LAB
C-5	09/13/89	287.95	30.95	---	257.00	310	ND	ND	ND	ND	NA
C-5	10/04/89	287.95	31.48	---	256.47	---	---	---	---	---	NA
C-5	11/03/89	287.95	31.32	---	256.63	---	---	---	---	---	NA
C-5	12/04/89	287.95	31.70	---	256.25	ND	ND	ND	ND	1	NA
C-5	03/07/90	287.95	30.28	---	257.67	---	---	---	---	---	NA
C-5	03/09/90	287.95	30.28	---	257.67	ND	ND	ND	ND	ND	SAL
C-5	06/12/90	287.95	30.48	---	257.47	90	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-5	09/24/90	287.95	31.78	0.0	256.17	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-6	03/26/85	---	16.74	---	---	---	---	---	---	---	NA
C-6	07/03/86	275.28	17.46	---	257.82	---	---	---	---	---	NA
C-6	03/26/87	275.28	18.37	---	256.91	---	---	---	---	---	NA
C-6	03/28/88	275.28	29.84	---	255.44	---	---	---	---	---	NA
C-6	03/10/89	275.28	14.44	---	260.84	---	---	---	---	---	NA
C-6	04/03/89	275.28	14.44	---	260.84	---	---	---	---	---	NA
C-6	05/08/89	275.28	17.16	---	258.12	---	---	---	---	---	NA
C-6	06/05/89	275.28	18.51	---	256.77	---	---	---	---	---	NA
C-6	07/12/89	275.28	18.71	---	256.97	---	---	---	---	---	NA
C-6	08/10/89	275.28	19.32	---	255.96	---	---	---	---	---	NA
C-6	09/13/89	275.28	19.95	---	255.33	47	5600	3000	2400	10000	NA
C-6	10/04/89	275.28	19.87	---	255.44	---	---	---	---	---	NA
C-6	11/03/89	275.28	19.35	---	255.93	---	---	---	---	---	NA
C-6	12/04/89	275.28	19.59	---	255.69	40000	8100	1800	1700	7500	NA
C-6	03/07/90	275.28	18.39	---	256.89	---	---	---	---	---	NA
C-6	03/09/90	275.28	18.39	---	256.89	73000	23000	5900	3400	17000	SAL
C-6	06/12/90	275.28	18.87	---	256.41	85000	19000	6500	3400	16000	SAL
C-6	09/24/90	275.28	19.99	0.0	255.29	72000	15000	3200	2600	11000	SAL
C-7	03/26/85	---	09.61	---	---	---	---	---	---	---	NA
C-7	07/03/86	270.70	10.74	---	259.96	---	---	---	---	---	NA
C-7	03/26/87	270.70	10.08	---	260.62	---	---	---	---	---	NA
C-7	03/28/88	270.70	13.79	---	256.91	---	---	---	---	---	NA
C-7	03/10/89	270.70	10.42	---	260.28	---	---	---	---	---	NA
C-7	04/03/89	270.70	09.14	---	261.56	---	---	---	---	---	NA
C-7	05/08/89	270.70	11.91	---	258.79	---	---	---	---	---	NA
C-7	06/05/89	270.70	11.54	---	259.16	---	---	---	---	---	NA
C-7	07/12/89	270.70	13.45	---	257.25	---	---	---	---	---	NA
C-7	08/10/89	270.70	13.37	---	257.33	---	---	---	---	---	NA
C-7	09/13/89	270.70	14.60	---	256.10	410	1.3	ND	10	ND	NA
C-7	10/04/89	270.70	15.17	---	255.53	---	---	---	---	---	NA
C-7	11/03/89	270.70	15.28	---	255.42	---	---	---	---	---	NA
C-7	12/04/89	270.70	15.70	---	255.00	1000	1	ND	5	ND	NA
C-7	03/07/90	270.70	14.22	---	256.48	---	---	---	---	---	NA

Table 1 - (cont'd.)
Summary of Results of Ground Water Sampling
Chevron Service Station # 9-5607, 5269 Crow Canyon Road
Castro Valley, California
Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (FT)	DEPTH TO WATER (TOC-FT)	FREE PRODUCT THICKNESS (FT)	GROUND WATER ELEVATION (ft above msl)	TPH-G (8015)	B (8020/ 602)	T (8020/ 602)	E (8020/ 602)	X (8020/ 602)	ANALYTICAL LAB
C-7	03/09/90	270.70	14.22	---	256.48	590	2.8	2.4	3.5	2.0	SAL
C-7	06/12/90	270.70	14.18	---	256.52	1200	ND<7	5.0	8.2	3.2	SAL
C-7	09/24/90	270.70	15.44	SHEEN	255.26	400	1.4	1.9	1.4	2.2	SAL
C-7D	09/24/90	270.70	15.44	SHEEN	255.26	580	ND<0.5	2.4	1.4	1.5	SAL
C-8	03/26/85	---	08.68	---	---	---	---	---	---	---	NA
C-8	07/03/86	288.40	13.89	---	274.51	---	---	---	---	---	NA
C-8	03/26/87	288.40	06.01	---	282.39	---	---	---	---	---	NA
C-8	03/28/88	288.40	10.66	---	277.74	---	---	---	---	---	NA
C-8	03/10/89	288.40	06.61	---	281.79	---	---	---	---	---	NA
C-8	04/03/89	288.40	06.46	---	281.94	---	---	---	---	---	NA
C-8	05/08/89	288.40	08.97	---	279.43	---	---	---	---	---	NA
C-8	06/05/89	288.40	10.88	---	277.52	---	---	---	---	---	NA
C-8	07/12/89	288.40	12.15	---	276.25	---	---	---	---	---	NA
C-8	08/10/89	288.40	12.46	---	275.94	---	---	---	---	---	NA
C-8	09/13/89	288.40	12.78	---	275.62	ND	ND	ND	ND	ND	NA
C-8	10/04/89	288.40	12.51	---	275.89	---	---	---	---	---	NA
C-8	11/03/89	288.40	14.63	---	273.77	---	---	---	---	---	NA
C-8	12/04/89	288.40	09.59	---	278.81	64	0.6	0.6	ND	> 1	NA
C-8	03/07/90	288.40	08.80	---	279.60	---	---	---	---	---	NA
C-8	03/09/90	288.40	08.80	---	279.60	ND	ND	ND	ND	ND	NA
C-8	06/12/90	288.40	08.94	---	279.46	120	2.5	1.2	1.0	1.4	SAL
C-8	09/24/90	288.40	13.54	0.0	274.86	---	---	---	---	---	NA
C-9	07/03/86	268.46	13.89	---	254.57	---	---	---	---	---	NA
C-9	03/26/87	268.46	13.74	---	254.72	---	---	---	---	---	NA
C-9	03/28/88	268.46	14.99	---	253.47	---	---	---	---	---	NA
C-9	03/10/89	268.46	13.39	---	255.07	---	---	---	---	---	NA
C-9	04/03/89	268.46	12.84	---	255.62	---	---	---	---	---	NA
C-9	05/08/89	268.46	14.38	---	254.08	---	---	---	---	---	NA
C-9	06/05/89	268.46	15.36	---	253.10	---	---	---	---	---	NA
C-9	07/12/89	268.46	15.65	---	252.81	---	---	---	---	---	NA
C-9	08/10/89	268.46	15.80	---	252.66	---	---	---	---	---	NA
C-9	09/13/89	268.46	16.53	---	251.93	42000	14000	1100	2800	4200	NA
C-9	10/04/89	268.46	16.52	---	251.94	---	---	---	---	---	NA
C-9	11/03/89	268.46	16.51	---	251.95	---	---	---	---	---	NA
C-9	12/04/89	268.46	16.79	---	251.67	36000	11000	670	2500	3800	NA
C-9	03/07/90	268.46	16.22	---	252.24	---	---	---	---	---	NA
C-9	03/09/90	268.46	16.22	---	252.24	28000	12000	940	3000	4700	NA
C-9	06/12/90	268.40	14.88	---	253.52	39000	11000	1600	2300	4800	SAL
C-9	09/24/90	268.40	16.30	0.0	252.10	120000	13000	1600	3700	5800	SAL
C-10A	03/07/90	264.84	20.21	---	244.63	---	---	---	---	---	NA

Table 1 - (cont'd.)
Summary of Results of Ground Water Sampling
Chevron Service Station # 9-5607, 5269 Crow Canyon Road
Castro Valley, California
Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (FT)	DEPTH TO WATER (TOC-FT)	FREE PRODUCT THICKNESS (FT)	GROUND WATER ELEVATION (ft above msl)	TPH-G (8015)	B (8020/ 602)	T (8020/ 602)	E (8020/ 602)	X (8020/ 602)	ANALYTICAL LAB
C-10A	03/09/90	---	---	---	---	ND	1.6	0.7	0.8	3.5	SAL
C-10A	06/12/90	264.84	19.70	---	245.14	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10	09/24/90	264.84	19.54	0.0	245.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10B	03/07/90	264.85	21.44	---	243.41	---	---	---	---	---	NA
C-10B	06/12/90	264.85	19.94	---	244.91	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-10B	09/24/90	264.85	19.77	0.0	245.08	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-11	03/07/90	265.30	22.74	---	242.56	---	---	---	---	---	NA
C-11	03/09/90	---	---	---	---	ND	1.2	0.7	ND	1.4	SAL
C-11	06/12/90	265.30	21.98	---	243.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-11	09/24/90	265.30	21.88	0.0	243.42	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-12	03/07/90	269.66	14.92	---	254.74	---	---	---	---	---	NA
C-12	03/09/90	---	---	---	---	1400	230	140	33	180	SAL
C-12	06/12/90	269.66	14.79	---	254.87	[illegible]	[illegible]	71	18	73	SAL
C-12	09/24/90	269.66	15.72	0.0	253.94	ND<50	1.1	ND<0.5	ND<0.5	.6	SAL
C-13	03/07/90	284.32	11.18	---	273.14	---	---	---	---	---	NA
C-13	03/09/90	---	---	---	---	ND	15	3.7	1.0	6.2	SAL
C-13	06/12/90	284.32	10.70	---	273.62	ND<50	2.6	ND<0.5	ND<0.5	ND<0.5	SAL
C-13	09/24/90	284.32	11.60	0.0	272.72	ND<50	2.4	ND<0.5	ND<0.5	ND<0.5	SAL
C-14	03/07/90	270.74	15.18	---	255.56	---	---	---	---	---	NA
C-14	03/09/90	270.74	---	---	---	ND	ND	ND	ND	ND	SAL
C-14	06/12/90	270.74	13.42	---	257.32	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-14	09/24/90	270.74	12.84	0.0	257.90	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-15	03/07/90	246.15	11.10	---	235.05	---	---	---	---	---	NA
C-15	03/09/90	246.15	---	---	---	410	ND	1.4	0.5	0.6	SAL
C-15	06/12/90	246.15	10.78	---	235.37	420	11	[illegible]	ND<0.5	ND<0.5	SAL
C-15	09/24/90	246.15	10.93	0.0	235.22	430	ND<0.5	[illegible]	ND<0.5	ND<0.5	SAL
C-16	03/07/90	246.69	10.50	---	256.02	---	---	---	---	---	NA
C-16	03/09/90	---	---	--	---	ND	ND	ND	ND	ND	SAL
C-16	06/12/90	246.69	11.42	---	235.27	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
C-16	09/24/90	246.69	11.39	0.0	235.30	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
RW	12/04/89	---	---	---	---	62000	29000	1700	1800	8800	NA
RW	03/07/90	274.52	18.50	---	256.02	---	---	---	---	---	NA
RW	06/12/90	274.52	18.49	---	256.03	31000	15000	2000	560	3100	SAL
RW*	09/24/90	NA	NA	0.0	NA	---	---	---	---	---	NA

Table 1 - (cont'd.)
Summary of Results of Ground Water Sampling
Chevron Service Station # 9-5607, 5269 Crow Canyon Road
Castro Valley, California
Concentrations in parts per billion (ppb)

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (FT)	DEPTH TO WATER (TOC-FT)	FREE PRODUCT THICKNESS (FT)	GROUND WATER ELEVATION (ft above msl)	TPH-G (8015)	B (8020/ 602)	T (8020/ 602)	E (8020/ 602)	X (8020/ 602)	ANALYTICAL LAB
RINSATE	09/24/90	NA	NA	0.0	NA	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	SAL
TB	09/24/90	NA	NA	0.0	NA	200	1.9	14	4.4	32	SAL

? spilled sample ?

EXPLANATION OF ABBREVIATIONS:

TPH-G : Total Petroleum Hydrocarbons as Gasoline (EPA method 8015 modified)
TPH-D : Total Petroleum Hydrocarbons as Diesel (EPA method 8015 modified)
B : Benzene (EPA method 8020)
T : Toluene (EPA method 8020)
E : Ethylbenzene (EPA method 8020)
X : Xylenes (EPA method 8020)

TOG : Total Oil and Grease (EPA method 503D & 503E)
--- : Not Analyzed/Not Measured
NA : Not applicable/Not available
ND : Not Detected
TB : Trip Blank
D : Duplicate
ft above asl : Feet Above Mean Sea Level

SAL : Superior Analytical Laboratory
GTEL : GTEL Labs
PACE : PACE Labs
MT : Med-Tox Associates
ITC : International Technology Corporation
BCL : Brown and Caldwell Laboratories

NOTES:

1. Depth to Water level measured from top of well casing (in feet).
2. C-7D Duplicate of C-7.
3. * = Dry well.
4. C-2, C-4 and C-8 sampled annually.

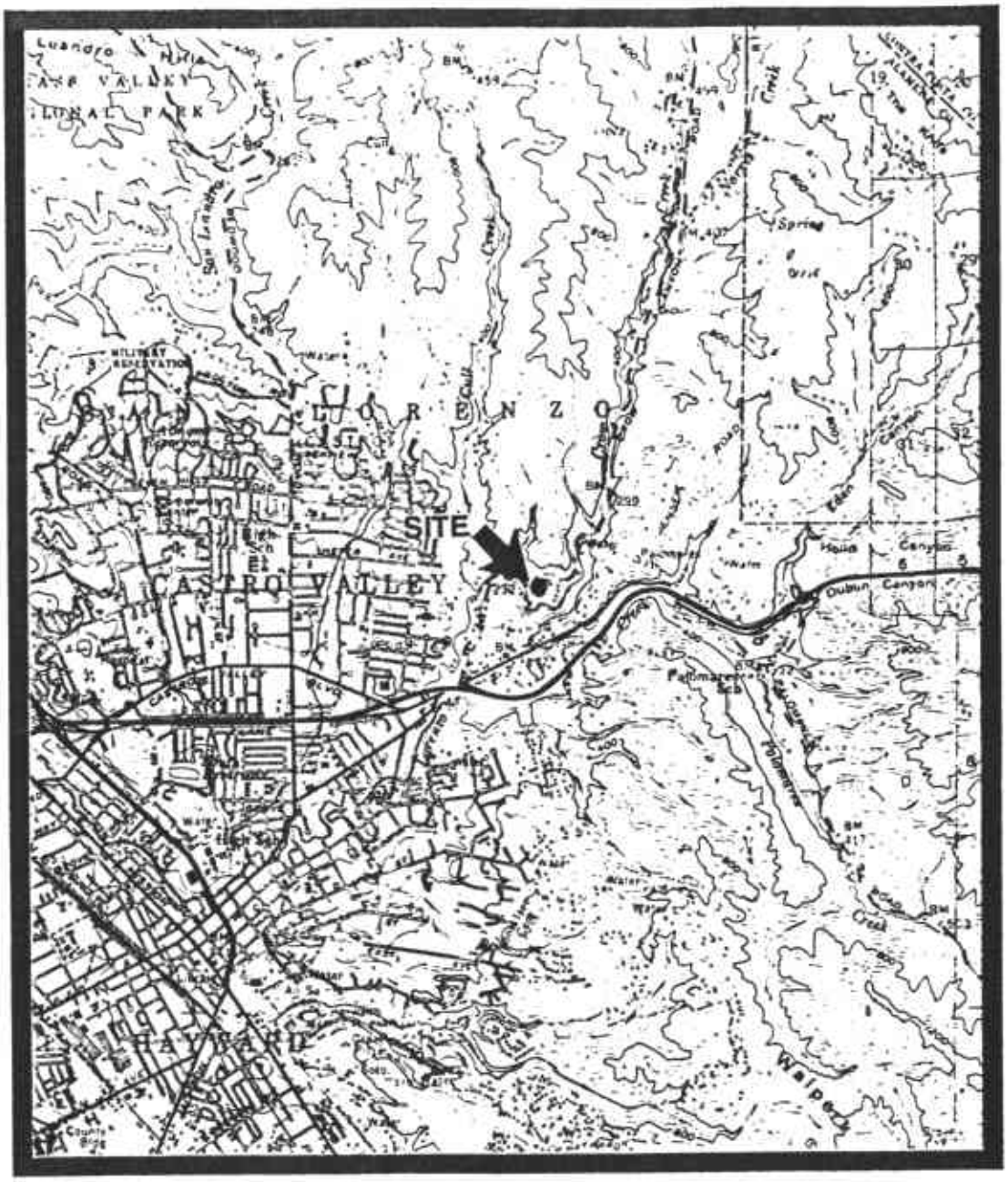


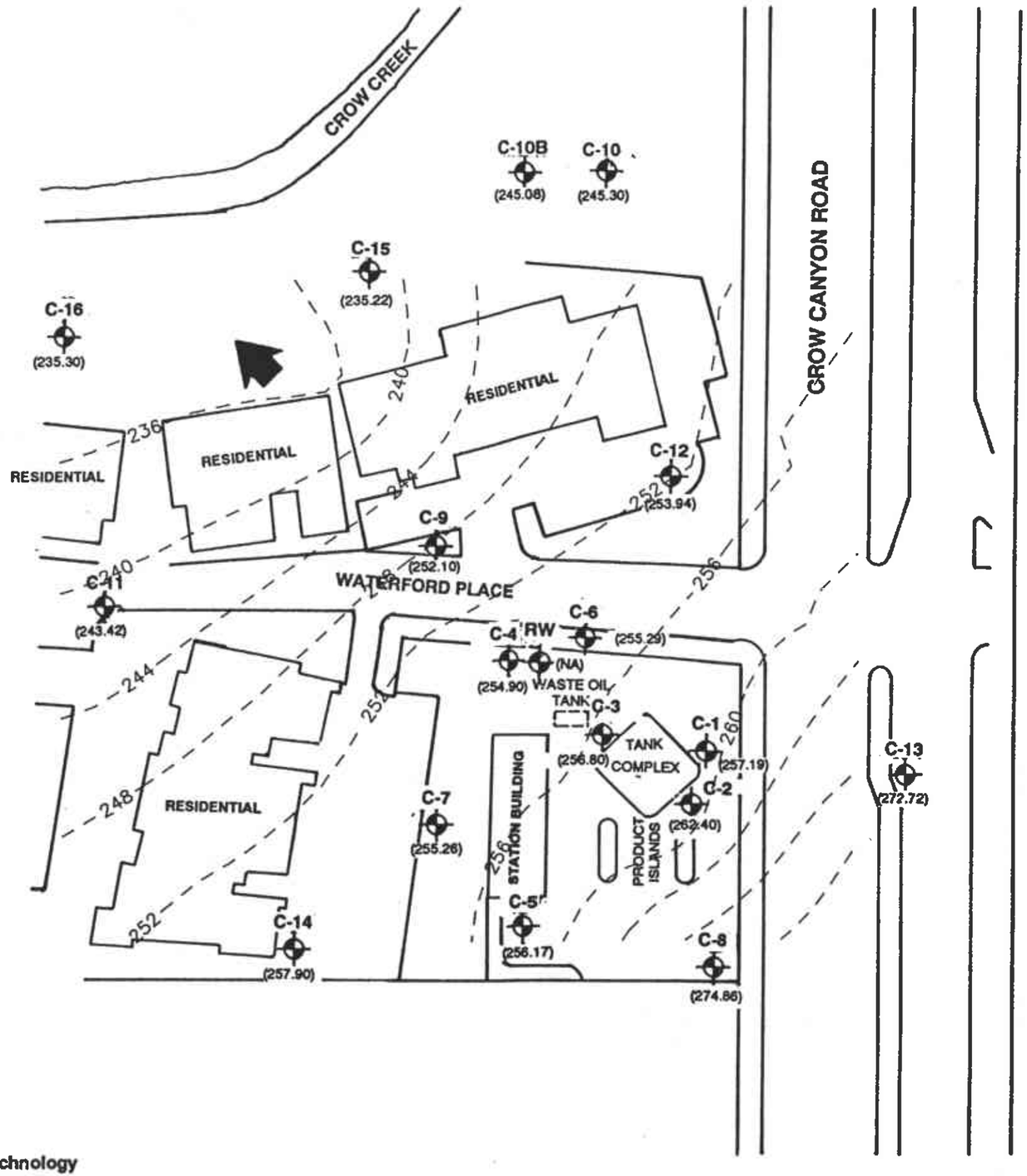
FIGURE 1. VICINITY MAP

CHEVRON SERVICE STATION NO. 9-5607
5269 CROW CANYON ROAD
CASTRO VALLEY, CALIFORNIA

PROJECT NO. 30-321

SOURCE: HAYWARD QUADRANGLE,
USGS 15 MINUTE (TOPOGRAPHIC)

ALTON GEOSCIENCE
1000 Burnett Ave., Ste. 140
Concord, CA 94520



Source: Groundwater Technology

PROJECT NO. 30-321

N

0 50

APPROXIMATE SCALE IN FEET

LEGEND:

- GROUND WATER MONITORING WELL
- (264.48) GROUND WATER ELEVATION (FEET ABOVE MEAN SEA LEVEL [NGVD-1929])
- GROUND WATER ELEVATION CONTOUR
- GENERAL DIRECTION OF GROUND WATER FLOW

Note:
Contour lines are interpretive based on fluid levels in monitoring wells measured on 9/24/90. Elevations in feet above sea level (NGVD-1929).

FIGURE 2. GROUND WATER ELEVATION CONTOUR MAP

Chevron Service Station No. 9-5607
5269 Crow Canyon Road
Castro Valley, California

ALTON GEOSCIENCE
1000 Burnett Ave., Ste. 140
Concord, CA 94520

APPENDIX A

FIELD SAMPLE FORMS,

OFFICIAL LABORATORY RESULTS, AND

CHAIN OF CUSTODY FORMS

ALTON GEOSCIENCE, INC
1170 Burnett Ave., Ste. S
Concord, CA 94520

JOB NUMBER 95607 TECHNICIAN Bennett

JOB LOCATION Castro Valley DATE 092090

PUMPOUT ☐ YES ☐ NO	DATE OF LAST PUMPOUT:			WEATHER: TIME:		COMMENTS (Notes, conditions, etc.)
	HOLD	CUT	LEVEL			
WELL #	DEPTH TO WATER	DEPTH TO PRODUCT	PROD. THICKNESS (FT)	TOTAL DEPTH	DEPTH TO PUMP	
C-1	26.27			43.76		
C-2	21.97			44.64		
C-3	29.18			49.72		
C-4	18.11			32.02		
C-5	31.78			40.04		
C-6	19.99	1473		30.75		
C-7	15.44			26.88		
C-8	13.54			25.25		
C-9	16.30			29.0		
C-10	19.54			22.66		
C-10B	19.77			33.52		
C-11	21.88	2533		31.78		
C-12	15.72			28.69		
C-13	11.60			28.20		
C-14	12.84			27.92		
C-15	10.93			19.39		
C-16	11.39	3165		30.78		
RW						Dry

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092290

Well: C-1 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with TSP

Well Development/ Well Sampling Data

Total Well Depth: 43.76 feet Time: _____ Water level Before Pumping: 26.27

Water Column		Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
17.49	feet x	0.16	(0.65)	11.4	3	34.1

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: light Grey

Time	Volume	pH	Conductivity	T	Notes
1312	28	9.12	1.01	76.1	light Grey
1326	30	7.40	.90	72.4	Same
1325	32	7.26	.89	70.2	Same
1333	34	7.13	.84	69.4	Same
1335	36	7.16	.91	69.7	Same

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 45.0

Time Sample Collection Begins: 1445

Time Sample Collection Ends: 1445

Total Gallons Purged: 45.0

Comments: 09b4b90

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30-189 Site: 95607 Date: 092390

Well: C-2 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with TSP

Well Development/ Well Sampling Data

Total Well Depth: 21.97 feet Time: _____ Water level Before Pumping: 44.64

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
22.67 feet x	0.16	(0.65)	14.7	3	44.2

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: _____

Time	Volume	pH	Conductivity	T	Notes
0802	40	7.92	1.06	69.9	grey
0811	41	7.49	1.07	69.3	grey
0822	42	7.38	1.07	68.7	grey
0830	43	7.28	1.07	68.3	grey
0840	45	7.35	1.05	68.4	grey

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 45.0

Time Sample Collection Begins: 1500

Time Sample Collection Ends: 1500

Total Gallons Purged: 45.0

Comments: 7/24/90

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092390

Well: C3 Sampling Team: Bennett

Well Development Method:

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling:
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 49.72 feet Time: Water level Before Pumping: 29.18

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
20.54 feet x	0.16	0.65	13.35	3	40.1

Depth Purging From: ____ feet. Time Purging Begins:

Notes on Initial Discharge: Grey - Strong Odor

Time	Volume	pH	Conductivity	T	Notes
1501	36	9.35	1.27	76.2	Grey - odor
1510	37	7.33	1.17	71.9	Same
1522	39	7.09	1.22	68.1	Same
1530	40	7.17	1.25	68.0	Same
1544	41	7.23	1.25	67.8	Same

Time Field Parameter Measurement Begins:

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 55.0

Time Sample Collection Begins: 1715

Time Sample Collection Ends: 1715

Total Gallons Purged: 55.0

Comments: 9/24/90

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092390

Well: C-4 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 32.02 feet Time: _____ Water level Before Pumping: 18.11

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
13.91 feet x	0.16	(0.65)	9.04	3	27.1

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
1304	20	7.68	1.29	68.6	grey
1310	22	7.12	1.28	66.7	grey
1326	23	7.11	1.26	65.3	grey
1336	25	7.10	1.27	63.6	grey
1430	28	7.11	1.28	65.3	grey

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 36

Time Sample Collection Begins: 1645

Time Sample Collection Ends: 1645

Total Gallons Purged: 36

Comments: 9/24/90

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30-189 Site: 93607 Date: 092290

Well: C-5 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with TSP

Well Development/ Well Sampling Data

Total Well Depth: 40.04 feet Time: _____ Water level Before Pumping: 31.78

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
8.26 feet x	0.16	(0.65)	5.37	3	16.1

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
1805	7	8.09	.81	66.9	Brown
1810	9	7.39	.80	65.4	Same
1823	7	7.27	.79	64.6	Same
1829	11	7.12	.77	64.3	Same
1835	14	7.50	.78	63.4	Same
	16	7.30	.79	65.2	

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 21.0

Time Sample Collection Begins: 1615

Time Sample Collection Ends: 1615

Total Gallons Purged: 21.0

Comments: _____

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 93607 Date: 092390

Well: C-6 Sampling Team: Bennett

Well Development Method:

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling:
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 30.75 feet Time: Water level Before Pumping: 19.99

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
10.76 feet x	0.16	(0.65)	6.99	3	21.0

Depth Purging From: ____ feet. Time Purging Begins: ____

Notes on Initial Discharge: grey - strong odor

Time	Volume	pH	Conductivity	T	Notes
0930	15	7.99	1.21	67.5	Same
1020	17	7.39	1.15	66.7	Same
1103	18	6.93	1.20	63.9	Same
1200	20	6.92	1.21	65.4	Same
1223	21	6.80	1.20	65.3	Same

Time Field Parameter Measurement Begins:

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 28.0

Time Sample Collection Begins: 1700

Time Sample Collection Ends: 1700

Total Gallons Purged: 28.0

Comments: 9/24/90

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092290

Well: C-7 Sampling Team: VBennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 26.88 feet Time: _____ Water level Before Pumping: 15.44

Water Column		Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
11.44	feet x	0.16	0.65	1.83	3	5.49

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: Sheen - very slight odor

Time	Volume	pH	Conductivity	T	Notes
0703	1	8.80	.52	73.5	Light Brown / Same as
0720	3	7.84	.78	70.8	Same
0732	4	7.32	.74	69.7	Same
0745	5	7.31	.77	70.1	Same
0813	6	7.06	.79	69.6	Same

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 8.0

Time Sample Collection Begins: 1330

Time Sample Collection Ends: 1330

Total Gallons Purged: 8.0

Comments: 092490

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30-189 Site: T5607 Date: 092290

Well: C-9 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: Triple Rinse with TSP

Well Development/ Well Sampling Data

Total Well Depth: 25.25 feet Time: _____ Water level Before Pumping: 13.54

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
11.71 feet x	(0.16)	0.65	1.87	3	5.62

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
1711	3	8.13	.55	71.2	Brown
1713	3.5	7.95	.53	69.4	Same
1722	4.0	7.87	.56	68.5	Same
1730	5.0	7.81	.57	67.9	clear
1735	6.0	7.85	.56	67.6	clear

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 6.0

Time Sample Collection Begins: 1550

Time Sample Collection Ends: 1550

Total Gallons Purged: 6.0

Comments: _____

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30-189 Site: 93607 Date: 092390

Well: C-9 Sampling Team: Bennett

Well Development Method:

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling:
Triple Rinse with TSP

Well Development/ Well Sampling Data

Total Well Depth: 29.0 feet Time: Water level Before Pumping: 16.30

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
12.70 feet x	0.16	0.65	8.26	3	24.8

Depth Purging From: ___ feet. Time Purging Begins:

Notes on Initial Discharge: grey

Time	Volume	pH	Conductivity	T	Notes
1631	18	9.75	1.24	70.8	grey
1647	19	6.85	1.22	68.8	same
1655	21	6.66	1.21	67.7	same
1716	23	6.62	1.21	67.6	same
1720	25	7.13	1.23	67.3	same

Time Field Parameter Measurement Begins:

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 33.0

Time Sample Collection Begins: 1630

Time Sample Collection Ends: 1630

Total Gallons Purged: 33.0

Comments: 9/24/90

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092290

Well: C-10 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with TSP

Well Development/ Well Sampling Data

Total Well Depth: 22.66 feet Time: _____ Water level Before Pumping: 19.54

Water Column		Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
3.12	feet x	0.16	(36) 0.65	1.12	3	3.4

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
1510	0.75	7.65	1.42	76.9	clear
1514	1.5	7.71	1.41	71.9	clear
1523	2.25	7.00	1.40	69.8	light grey
1540	3.0	6.89	1.39	68.2	same
1550	4.0	6.76	1.35	68.1	same

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 4.0

Time Sample Collection Begins: 13:43

Time Sample Collection Ends: 1345

Total Gallons Purged: 4.0

Comments: _____

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092290

Well: C-10 B Sampling Team: Bennett

Well Development Method:

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling:
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 33.5 feet Time: Water level Before Pumping: 19.77

Water Column		Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
13.73	feet x	0.16	0.65	4.95	3	14.9

Depth Purging From: ____ feet. Time Purging Begins:

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
1420	8	8.98	.81	84.9	gray
1422	9	7.95	.73	74.0	" "
1430	10	8.13	.71	69.8	" same
1435	11	7.82	.72	67.9	same
1442	13	8.02	.72	68.2	same

Time Field Parameter Measurement Begins:

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 20.0

Time Sample Collection Begins: 1355

Time Sample Collection Ends: 1355

Total Gallons Purged: 20.0

Comments:

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30-189 Site: 95607 Date: 09/27/90

Well: C-11 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 31.78 feet Time: _____ Water level Before Pumping: 21.88

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
9.90 feet x	0.16	(.36) 0.65	3.56	3	10.7

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
1505	5	9.41	1.16	68.7	Not Brown
1513	6	7.09	1.13	66.1	Same
1516	7	7.25	1.10	64.9	Same
1520	9	7.44	1.09	64.6	Same
1526	11	7.46	1.11	64.4	Same

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 13.0

Time Sample Collection Begins: 1530

Time Sample Collection Ends: 1530

Total Gallons Purged: 13.0

Comments: 092490

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092290

Well: C-12 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 28.69 feet Time: _____ Water level Before Pumping: 15.72

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
12.97 feet x	0.16	(.36)	0.65	4.71	3	14.1

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: Grey

Time	Volume	pH	Conductivity	T	Notes
1150	10	7.75	.80	76.9	Grey
1153	11	7.61	.81	70.6	Same
1202	12	7.57	.81	68.6	Same
1207	13	7.08	.79	67.4	Same
1212	15	7.46	.78	66.3	Same

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 19.0

Time Sample Collection Begins: 1300

Time Sample Collection Ends: 1300

Total Gallons Purged: 19.0

Comments: 092490

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 93607 Date: 092290

Well: C-15 Sampling Team: Bennett

Well Development Method: _____

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling: _____
Triple Rinse with T.S.P.

Well Development/ Well Sampling Data

Total Well Depth: 19.39 feet Time: _____ Water level Before Pumping: 10.93

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
8.46 feet x	0.16	(.36) 0.65	3.03	3	9.14

Depth Purging From: ____ feet. Time Purging Begins: _____

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
1106	7	11.03	1.34	79.7	Brown
1115	8	7.50	1.26	72.8	Brown
1122	9	6.91	1.23	70.5	Same
1125	10	6.93	1.21	68.6	Same
1128	11	7.16	1.21	67.6	Same

Time Field Parameter Measurement Begins: _____

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 13.0

Time Sample Collection Begins: 1430

Time Sample Collection Ends: 1430

Total Gallons Purged: 13.0

Comments: 092490

ALTON GEOSCIENCE, INC.
Well Development and
Water Sampling Field Survey

Project # 30189 Site: 95607 Date: 092290

Well: C-16 Sampling Team: Bennett

Well Development Method:

Sampling Method: Hand Bailer

Describe Equipment Decontamination Before Sampling:

Well Development/ Well Sampling Data

Total Well Depth: 30.78 feet Time: Water level Before Pumping: 11.39

Water Column	Casing Diameter 2-inch	4-inch	Volume	Factor	Volume to Purge
19.39 feet x	0.16	(.36) 0.65	6.98	3	20.9

Depth Purging From: ____ feet. Time Purging Begins:

Notes on Initial Discharge: clear

Time	Volume	pH	Conductivity	T	Notes
0906	16	11.82	.90	72.5	grey
0914	17	8.82	.83	69.2	grey
0922	18	8.08	.84	66.6	Same
0930	19	7.81	.83	63.7	Same
0940	21	7.65	.83	65.2	Same

Time Field Parameter Measurement Begins:

	Rep #1	Rep #2	Rep #3	Rep #4
pH				
Conductivity				
Temperature (F)				

Presample Collection Gallons Purged: 28.0

Time Sample Collection Begins: 1410

Time Sample Collection Ends: 1410

Total Gallons Purged: 28.0

Comments: 092490

OCT 5 1990

SUPERIOR ANALYTICAL LABORATORIES, INC.

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319
DOHS #220

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 81605
CLIENT: Alton Geoscience
CLIENT JOB NO.: FACIL#95607

DATE RECEIVED: 09/26/90
DATE REPORTED: 10/03/90

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
81605- 1	C-1	09/24/90	10/03/90
81605- 2	C-2	09/24/90	/ /
81605- 3	C-3	09/24/90	10/03/90
81605- 4	C-4	09/24/90	/ /
81605- 5	C-5	09/24/90	10/03/90
81605- 6	C-6	09/24/90	10/03/90
81605- 7	C-7	09/24/90	10/03/90
81605- 8	C-8	09/24/90	/ /
81605- 9	C-9	09/24/90	10/03/90
81605-10	C-10	09/24/90	10/03/90

Laboratory Number:	81605 1	81605 2	81605 3	81605 4	81605 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/l)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	23000	NA	53000	NA	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	2100	NA	850	NA	ND<0.5
TOLUENE:	1200	NA	7700	NA	ND<0.5
ETHYL BENZENE:	660	NA	2000	NA	ND<0.5
XYLENES:	5000	NA	10000	NA	ND<0.5

Laboratory Number:	81605 6	81605 7	81605 8	81605 9	81605 10
ANALYTE LIST	Amounts/Quantitation Limits (ug/l)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	72000	400	NA	120000	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	15000	1.4	NA	13000	ND<0.5
TOLUENE:	3200	1.9	NA	1600	ND<0.5
ETHYL BENZENE:	2600	1.4	NA	3700	ND<0.5
XYLENES:	11000	2.2	NA	6800	ND<0.5

OCT 5 1990

SUPERIOR ANALYTICAL LABORATORIES, INC.

825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512

DOHS #319
DOHS #220

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 81605
CLIENT: Alton Geoscience
CLIENT JOB NO.: FACIL#95607

DATE RECEIVED: 09/26/90
DATE REPORTED: 10/03/90

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
81605-11	C-10B	09/24/90	10/03/90
81605-12	C-11	09/24/90	10/03/90
81605-13	C-12	09/24/90	10/03/90
81605-14	C-13	09/24/90	10/03/90
81605-15	C-14	09/24/90	10/03/90
81605-16	C-15	09/24/90	10/03/90
81605-18	C-16	09/24/90	10/03/90
81605-19	C-7D	09/24/90	10/03/90
81605-20	RINSATE	09/24/90	10/03/90
81605-21	TRIP BLANK	09/24/90	10/03/90

Laboratory Number:	81605 11	81605 12	81605 13	81605 14	81605 15
ANALYTE LIST	Amounts/Quantitation Limits (ug/l)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	ND<50	ND<50	ND<50	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	1.1	2.4	ND<0.5
TOLUENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ETHYL BENZENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
XYLENES:	ND<0.5	ND<0.5	.6	ND<0.5	ND<0.5

Laboratory Number:	81605 16	81605 18	81605 19	81605 20	81605 21
ANALYTE LIST	Amounts/Quantitation Limits (ug/l)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	430	ND<50	580	ND<50	200
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	ND<0.5	ND<0.5	ND<0.5	1.9
TOLUENE:	1.5	ND<0.5	2.4	ND<0.5	14
ETHYL BENZENE:	ND<0.5	ND<0.5	1.4	ND<0.5	4.4
XYLENES:	ND<0.5	ND<0.5	1.5	ND<0.5	32

OCT 5 1990

SUPERIOR ANALYTICAL LABORATORIES, INC.
825 ARNOLD, STE. 114 • MARTINEZ, CALIFORNIA 94553 • (415) 229-1512
DOHS #319
DOHS #220

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
Diesel by Modified EPA SW-846 Method 8015
Gasoline by Purge and Trap: EPA MEthod 8015/5030
ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES
by EPA SW-846 Methods 5030 and 8020

QA/QC INFORMATION
SET: 81605

NA = ANALYSIS NOT REQUESTED
ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

ug/L = part per billion (ppb)

8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/L
Daily Standard run at 2mg/L; %Diff Gasoline = 3
MS/MSD Average Recovery = 100%: Duplicate RPD = 0

8020/BTXE
Minimum Quantitation Limit in Water: 0.50ug/L
Daily Standard run at 20ug/L; %Diff = <15%
MS/MSD Average Recovery = 96%: Duplicate RPD = <2

Richard Srna, Ph.D.
Dorena Srna fo
Laboratory Director

updated 09/28/90 - 0915 AM

Chain-of-Custody Record

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

Chevron Facility Number: 95607

Consultant Release Number: 3496310

Consultant Project Number: 30189

Consultant Name: Alton Geoscience

Address: 1000 Burnett Ave #140 Concord, CA

Fax Number: 415 682 1582

Project Contact (Name): Stephan Rosen

(Phone): 415 842 9625

Chevron Contact (Name): John Randall

(Phone): 415 842 9625

Laboratory Name: Superior

Lab Rel. Number: 2542150

Samples Collected by (Name): Matt Bennett

Collection Date: 092490

Signature: Bennett

Sample Number	Lab Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite	Time	Sample Preservation	Iced	Modified EPA 8015 Total Petro. Hydrocarb as Gasoline	Modified EPA 8015 Total Petro. Hydrocarb as Gasoline + Diesel	503 Oil and Grease	Arom. Volatiles - BTXE Soil: 8020/Wtr.: 602	Arom. Volatiles - BTXE Soil: 8240/Wtr.: 624	Total Lead DHS-Luft	EDB DHS-AB 1803				Remarks
C-1		3	W	G	1445	HCL	yes	X			X							
~~C-2~~					1500			X			X	DO NOT ANALYZE (C-2)						
C-3					1715			X			X							
~~C-4~~					1645			X			X	DO NOT ANALYZE (C-4)						
C-5					1615			X			X							
C-6					1700			X			X							
C-7					1320			X			X							
~~C-8~~					1550			X			X	DO NOT ANALYZE (C-8)						
C-9					1630			X			X							
C-10					1345			X			X							
C-10B					1355			X			X							
C-11					1530			X			X							
C-12					1300			X			X							

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	Turn Around Time (Circle Choice)
M Bennett	Alton	092690 1420	Ken Brown	ExpressLab	[illegible] 2:10	24 Hrs
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time	48 Hrs
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time	5 Days
						10 Days

MS 5136 (6-89)