

**GROUNDWATER
TECHNOLOGY, INC.**
OIL RECOVERY SYSTEMS

4080 Pike Lane, Suite D, Concord, CA 94520-1227 (415) 671-2387

~~January 19, 1987~~
Project No. 20-3231
~~2575607~~

Mr. Mark Nelson
Chevron USA
2 Annabel Lane
San Ramon, CA 94583

Dear Mr. Nelson:

This letter report presents an update of Groundwater Technology, Inc.'s activities, observations and status of the product recovery operations at the Chevron service station located at the corner of Crow Canyon Road and Waterford Place in Castro Valley, California. This quarterly report provides an update from September 1986 through the month of December 1986.

Groundwater monitoring of the nine monitoring wells and one recovery well located at the site has been performed bi-weekly (once every two weeks). Monthly water samples have been collected from both the influent and effluent pipes of the carbon absorption system for laboratory analysis of benzene, toluene, xylene and total hydrocarbon concentrations (See Table 1).

A groundwater gradient map (See Figure 1) has been prepared using the December 3, 1986 data. The map indicates that the groundwater gradient is to the southwest with a slight northeast/southwest elongation due to the recovery well pumping activity. The piezometric surface elevations monitored during this quarter show an overall decrease which is expected due to the seasonal variations in groundwater recharge (See Table 2).

The recovery well water table depression pump has been set and bi-weekly adjustments have been made to maintain a pumping rate of between one and three gallons per minute.

The bi-monthly monitoring has found small and intermittent accumulations of product across the site. Groundwater Technology personnel have hand bailed approximately 2 gallons of free floating product from the recovery well and monitoring wells during this quarter. The total volume of free product removed since October 1985 is now approximately 26.5 gallons.

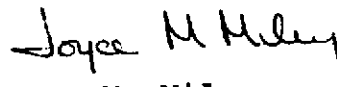
Mr. Mark Nelson
January 19, 1987
Page 2

It is Groundwater Technology, Inc.'s opinion that the present system of bi-weekly monitoring, monthly water samples and quarterly letter reports is currently the best method to keep Chevron updated on the status of this project.

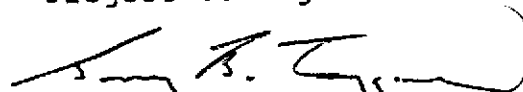
If you have any questions or comments, please feel free to contact us at our Concord office.

Sincerely,
GROUNDWATER TECHNOLOGY, INC.

Lee A. Otis
Staff Geologist

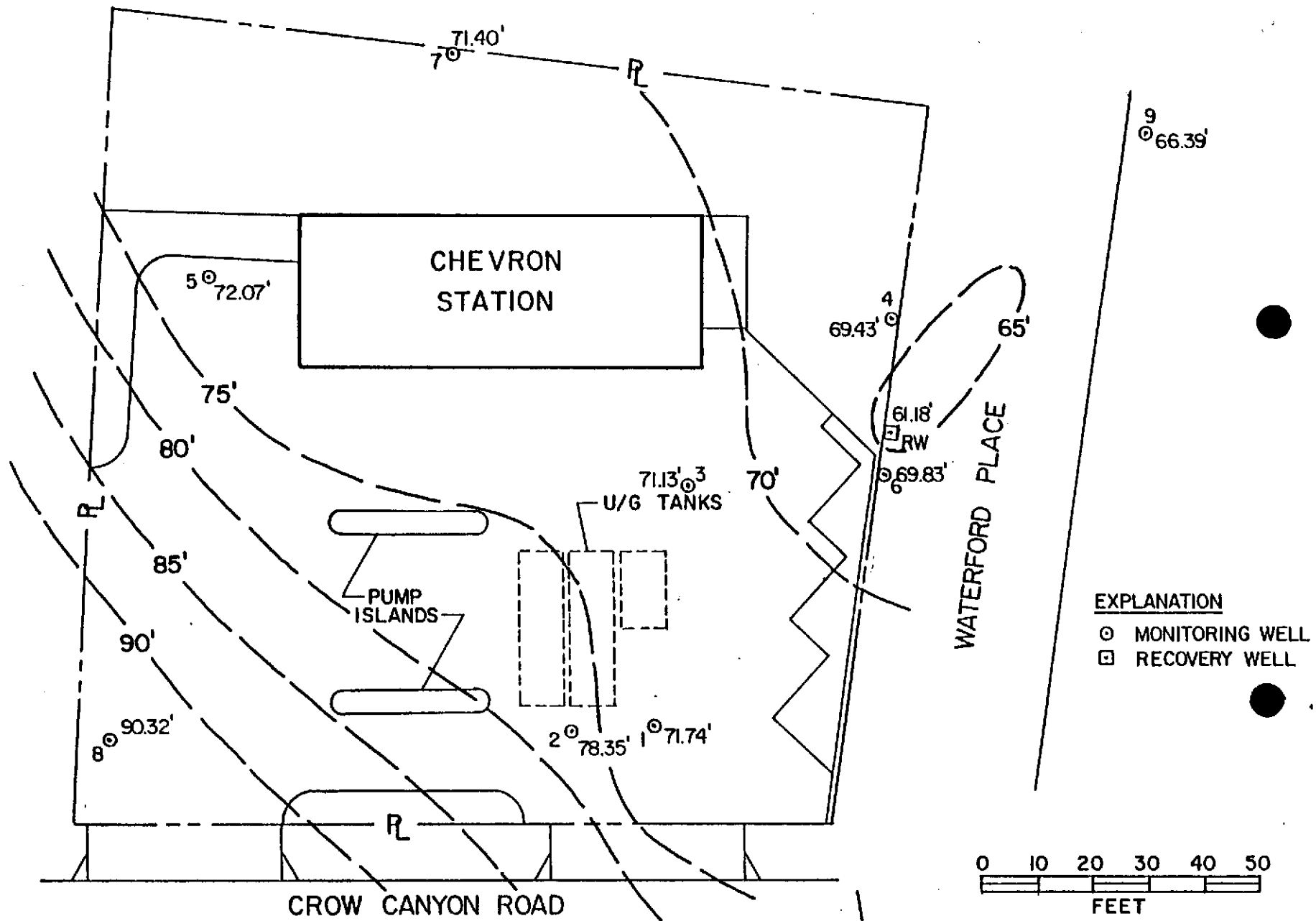


Joyce M. Miley
Project Geologist



Gary B. Yaggart
District Manager
Certified Engineering
Geologist #1061

LAO:JMM:GBT:kmh
Enclosure



CHEVRON SERVICE STATION
CASTRO VALLEY, CALIFORNIA

FIGURE I
GROUNDWATER GRADIENT MAP
DECEMBER 3, 1986


 GROUNDWATER
TECHNOLOGY, INC.
CONSULTING GROUNDWATER GEOLOGISTS

TABLE 1
SAMPLE ANALYSES SUMMARY SHEET

PROJECT: Chevron 20-3231 LOCATION: Castro Valley YEAR: 1986/1987



	July 3	August 27	Sept 25	Oct. 22	December 3												
Carbon Tank-Influent	Benzene	9620	6400	8500	8300	3300											
	Toluene	2870	4100	4410	4600	2000											
	Ethyl Benzene	380	810	860	950	----											
	Total Xylenes	9380	3500	4600	3700	2500											
	Aliphatic Hydro.	11200	1200	7700	8800	----											
	Misc. Aromatics	7000	4400	3500	2100	----											
	Total Hydro.	40400	21000	29000	29000	78000											
Carbon Tank-Effluent	Benzene	ND	ND	ND	ND	ND											
	Toluene	ND	ND	ND	ND	ND											
	Ethyl Benzene	ND	ND	ND	ND	ND											
	Total Xylenes	ND	ND	ND	ND	ND											
	Aliphatic Hydro.	11	ND	1.8	ND	ND											
	Misc. Aromatics	ND	1000	ND	ND	ND											
	Total Hydro.	11	1000	1.8	ND	ND											
Well #9	Benzene																
	Toluene																
	Ethyl Benzene																
	Total Xylenes	-	-	-													
	Aliphatic Hydro.																
	Misc. Aromatics																
	Total Hydro.																
	Benzene																
	Toluene																
	Ethyl Benzene																
	Total Xylenes																
	Aliphatic Hydro.																
	Misc. Aromatics																
	Total Hydro.																

GTL: Groundwater Technology Lab *Analysis in ppb
- : NOT SAMPLED

PROJECT: CHEVRON CASTRO VALLEY
 JOB NUMBER: 20-3231
 DATE: DECEMBER 1986

TABLE 2

		WELL 1	WELL 2	WELL 3	WELL 4	WELL 5	WELL 6	WELL 7	WELL 8	WELL 9	RW 1
DATE	ELEV. (ft.)	96.55	98.43	98.98	86.65	101.42	89.06	84.74	101.60	82.14	-
11-19-86	DTW	20.63	25.29	28.35	20.03	10.82	17.87	13.48	29.48	16.04	28.31
	DTP	-	25.27	28.32	TRACE	-	-	-	-	-	28.19
	PT	0	0.02	0.03	-	0	0	0	0	0	0.12
12-03-86	DTW	24.81	20.08	27.85	17.22	29.35	19.23	13.34	11.23	15.75	27.43
	DTP	-	SHEEN	TRACE	-	-	SHEEN	-	-	-	27.35
	PT	0	-	-	0	0	-	0	0	0	0.08
12-12-86	DTW	28.35	19.05	24.53	18.75	29.75	21.04	13.80	9.60	16.14	28.88
	DTP	28.33	-	TRACE	-	-	TRACE	-	-	-	28.67
	PT	0.02	0	-	0	0	-	0	0	0	0.21
12-17-86	DTW	28.44	24.53	18.55	18.84	29.83	21.13	13.85	9.72	16.24	28.66
	DTP	28.43	SHEEN	-	-	-	TRACE	-	-	-	28.46
	PT	0.01	-	0	0	0	-	0	0	0	0.20
12-24-86	DTW	24.35	18.41	28.59	19.01	30.09	20.98	13.98	7.87	16.22	28.68
	DTP	-	-	28.58	-	-	-	-	-	-	28.33
	PT	0	0	0.01	0	0	0	0	0	0	0.35
12-31-86	DTW	28.81	25.25	20.07	21.26	29.94	18.92	14.00	8.52	16.33	28.82
	DTP	28.69	TRACE	-	TRACE	-	-	-	-	-	28.31
	PT	0.12	-	0	-	0	0	0	0	0	0.51

DTW = Depth To Water
 DTP = Depth To Product
 PT = Product Thickness

PROJECT: CHEVRON CASTRO VALLEY
 JOB NUMBER: 20-3231
 DATE: DECEMBER 1986

		WELL 1	WELL 2	WELL 3	WELL 4	WELL 5	WELL 6	WELL 7	WELL 8	WELL 9	RW 1
DATE	ELEV. (ft.)	96.55	98.43	98.98	86.65	101.42	89.06	84.74	101.60	82.14	-
01-08-87	DTW	29.25	24.08	18.28	18.68	-	20.86	14.03	6.85	16.11	28.68
	DTP	TRACE	-	-	-	-	TRACE	-	-	-	28.42
	PT	-	0	0	0	-	-	0	0	0	0.26

DTW = Depth To Water
 DTP = Depth To Product
 PT = Product Thickness

To

Mr Kazami
RWQCB

From

R.S. Stolz
Chevron USA, Inc
TIP Coordinator

Our File

Your File

Subject

Chevron SST#5607
Recovery Operation Update
5269 Crow Canyon Rd.
Castro Valley, CA

Date

2/2/87

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Dear Mr Kazami:

Enclosed is the 3rd & 4th quarter update report on the recovery operation at the referenced site. If you have any questions, please call Bob Stolz at (415) 838-5302

Signed

Robert Stolz

An immediate reply will help finalize this matter.

Reply

Date

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[Handwritten signature]

FEB 04 1987

QUALITY CONTROL BOARD

Signed

Printed in U.S.A.

GO-144-C (OS-7-75)

Originator - Retain yellow copy. Forward white and pink (with carbon attached). Addressee - Please return white copy with your reply.

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