ALCC HAZMAT Str AUS 19 PH 2: 16



August 15, 1994

Chevron U.S.A. Products Company 2410 Camino Ramon San Ramon, CA 94583 P.O. Box 5004 San Ramon, CA 94583-0804

Marketing Department Phone 510 842 9500

Ms. Jennifer Eberle Alameda County Health Care Services Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577

Re: Former Gulf Service Station #0006 460 Grand Avenue, Oakland, CA

Dear Ms. Eberle:

Enclosed is the quarterly Ground Water Sampling report dated July 25, 1994, prepared by our consultant Sierra Environmental Services for the above referenced site. As indicated in the report, ground water samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in ground water monitor wells C-2 and C-3 at concentrations of 2.8 and 5.6 ppb, respectively. Depth to ground water was measured at approximately 5.1 to 5.6 feet below grade and the direction of flow is to the south.

Chevron will continue to monitor and sample this site quarterly. I will contact you by telephone during the next week to discuss the results of this sampling event and pending future work for this site. If you have any questions or comments, please do not hesitate to call me at (510) 842-8134.

Miller

Sincerely,

CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller

Site Assessment and Remediation Engineer

Enclosure

CC:

Mr. Kevin Graves, RWQCB - Bay Area Mr. Jon Robbins - CHVPKV/V1156

Ms. B.C. Owen

Mr. John C. Gibson Adams, Gibson & MacPhee 22 Battery Street, 10th Floor San Francisco, CA 94111

Mr. Robert Falashi 3080 Frye Street Oakland, CA 94602

File: GULF6 QM1

Environmental Services

SIERRA

July 25, 1994

Mark Miller Chevron USA Products Company P.O. Box 5004 San Ramon, CA 94583

Re:

Former Gulf Service Station #0006

460 Grand Avenue Oakland, California SES Project #1-382-04

Dear Mr. Miller:

This report presents the results of the quarterly ground water sampling at former Gulf Service Station #0006, located at 460 Grand Avenue in Oakland, California. Three wells, C-1, C-2 and C-3 were sampled (Figure 1).

On June 22, 1994, SES personnel visited the site. Water level measurements were collected in all site wells and all wells were checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were not present in any of the site wells. Water level data are shown in Table 1 and ground water elevation contours are included on Figure 1.

The ground water samples were collected on June 22, 1994 in accordance with SES Standard Operating Procedure - Ground Water Sampling (attached). The field water sampling forms for this event are included. All analyses were performed by Superior Precision Analytical, Inc. of Martinez, California. Analytic results for ground water are presented in Table 1. The chain of custody document and laboratory analytic reports are attached. SES is not responsible for laboratory omissions or errors.

Thank you for allowing us to provide services to Chevron. Please call if you have any questions.

Sincerely,

Sierra Environmental Services

Argy Mena Staff Geologist

Chris J. Bramer

Professional Engineer #C48846

AJM/CJB/lo 38204QM.JI.4

cc: Sheldon Nelson, CRTC

Attachments

Figure Table

SES Standard Operating Procedure Field Water Sampling Forms

Chain of Custody Document and Laboratory Analytic Reports

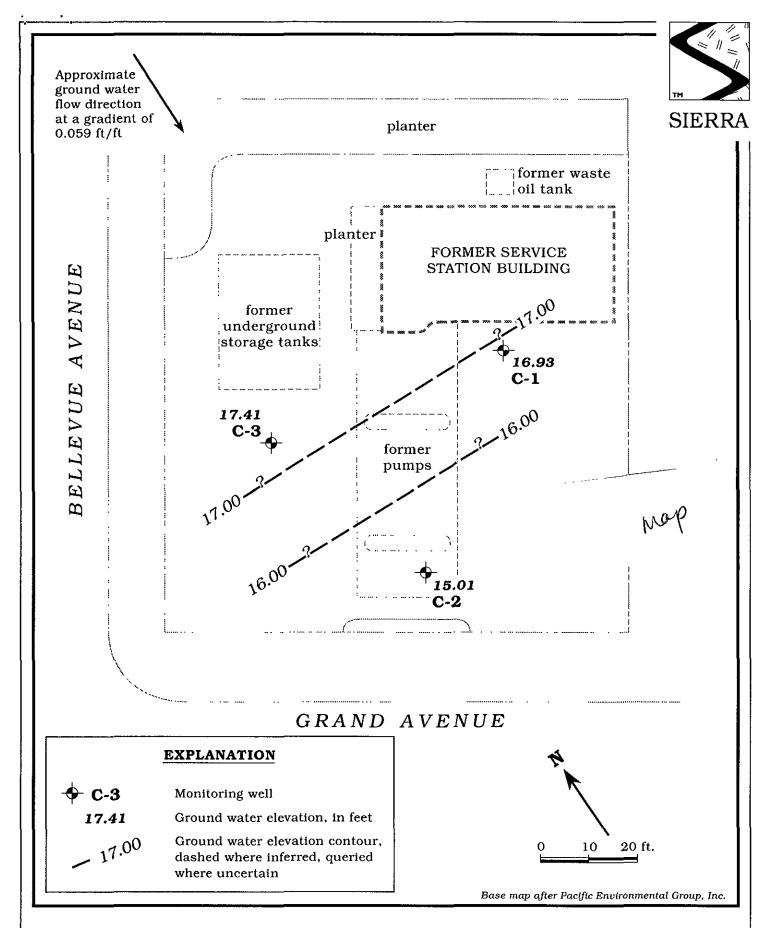


Figure 1. Monitoring Well Locations and Ground Water Elevation Contour Map - June 22, 1994 - Former Gulf Service Station #0006, 460 Grand Avenue, Oakland, California



Table 1. Water Level Data and Ground Water Analytic Results - Former Gulf Service Station #0006, 460 Grand Avenue, Oakland, California

Well ID/ TOC (ft)	Date	DTW (ft)	GWE (msl)	Product Thickness* (ft)	Analytic Method	TPPH(G) <	В	T ppb	E	X >
C-1/	12/16/92	5.68	16.80	0	8015/8020 ^{2,3,4}	<50	<0.5	<0.3	<0.3	<0.4
22.48 ¹	6/22/94	5.55	16.93	0	8015/8020	< 50	< 0.5	< 0.5	< 0.5	< 0.5
C-2/	12/16/92	7.49	13.00	0	8015/8020 ^{2,3,5}	640	63	83	37	90
20.49 ¹	6/22/94	5.48	15.01	0	8015/8020	200	2.8	4.5 /	1.5 —	15
C-3/	12/16/92	5.17	17.34	0	8015/8020 ^{2,3,6}	<50	<0.4	<0.3	<0.3	<0.4
22.51 ¹	6/22/94	5.10	17.41	0	8015/8020	140	5.6		4.2	4.4
Trîp Blank TB-LB	6/22/94				8015/8020	<50	<0.5	<0.5	<0.5	<0.5

data



Table 1. Water Level Data and Ground Water Analytic Results - Former Gulf Service Station #0006, 460 Grand Avenue, Oakland, California (continued)

EXPLANATION:

DTW = Depth to water

TOC = Top of casing elevation

GWE = Ground water elevation

TPPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

ppb = Parts per billion

--- = Not analyzed/not applicable

ANALYTIC METHODS:

8015 = EPA Method 8015/5030 for TPPH(G)

8020 = EPA Method 8020 for BTEX

NOTES:

Water level data and analytic results prior to June 22, 1994 were compiled from the subsurface investigation report prepared for Chevron by Pacific Environmental Group, January 15, 1993.

NOTES: (continued)

Analytic Methods prior to 1994 are assumed to be 8015/8020.

- * Product thickness was measured with an MMC flexi-dip interface probe on and after June 22, 1994.
- ¹ TOC elevation is actually top of box elevation.
- ² TPH(D) was also analyzed but not detected at detection limits of 50 ppb.
- Motor oil was also analyzed but not detected at detection limits of 200 ppb.
- ⁴ Cadmium, chromium, lead, nickel and zinc were also analyzed but not detected at detection limits of 0.005, 0.01, 0.05, 0.02, and 0.01 ppm, respectively.
- ⁵ Cadmium, chromium, lead, nickel and zinc were also analyzed. Chromium, Nickel and zinc were detected at 0.05, 0.08 and 0.08 ppm, respectively. Other metals not detected.
- ⁶ Cadmium, chromium, lead, nickel and zinc were also analyzed. Chromium, lead, nickel and zinc were detected at 0.19, 0.07, 0.36 and 0.38 ppm, respectively. Cadmium was not detected at detection limits of 0.005 ppm.

38204T.WLG



SES STANDARD OPERATING PROCEDURE GROUND WATER SAMPLING

The following describes sampling procedures used by SES field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is checked for the presence of free-phase hydrocarbons using an MMC flexi-dip interface probe. Product thickness (measured to the nearest 0.01 foot) is noted on the sampling form. Water level measurements are also made using either a water level meter or the interface probe. The water level measurements are also noted on the sampling form.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed ±0.5°F, 0.1 or 5%, respectively).

The purge water is taken to Chevron's Richmond Refinery for disposal.

Ground water samples are collected from the wells with Chevron designated disposable bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Prepreserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4°C) for transport under chain of custody to the laboratory.

The chain of custody form includes the project number, analysis requested, sample ID, date analysis and the SES field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.

A trip blank accompanies each sampling set, or 5% trip blanks are included for sets of greater than 20 samples. The trip blank is analyzed for some or all of the same compounds as the ground water samples.



WATER SAMPLING DATA

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				-			ندکمتا وی ۲	ng = 0.826 gal/ft g = 1.47 gal/ft
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ontainer T	pe Codes ,	: 1 = 40 ml 3 = Clear gl: 5 = Other	clear VOA	/Teflon sept ined cap (spec	a; 2 * L ulystic); 4	Brown glass/i * Polycthylen : G = Other	lesson lined cap e/polyethylene ca	(specify size) op (specify size)



WATER SAMPLING DATA

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Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

Sierra Environmental Attn: ED MORALES Project 1-382-04 Reported 07/05/94

TOTAL PETROLEUM HYDROCARBONS

Lab #	Sample Identification	Sampled	Analyzed Matrix
30604- 1	TB-LB	06/22/94 /	06/28/94 Water
30604- 2	C-1 .	06/22/94	06/28/94 Water
30604-3	C-3	06/22/94	06/28/94 Water
30604- 4	C-2	06/22/94	06/28/94 Water

RESULTS OF ANALYSIS

Laboratory Number: 30604-1 30604-2 30604-3 30604-4

			4.1	<	
Gasoline: Benzene: Toluene: Ethyl Benzene: Total Xylenes:	ND<50 ND<0.5 ND<0.5 ND<0.5 ND<0.5	ND<50 ND<0.5 ND<0.5 ND<0.5 ND<0.5	140 / 5.6 3 / 4.2 / 4.4 /	200 / 2.8 / 4.5 / 1.5 /	
Concentration:	ug/L	ug/L	ug/L	ug/L	

CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 2 of 2 QA/QC INFORMATION SET: 30604

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: Benzene: Toluene: Ethyl Benzene:	120/128 118/122 123/128 110/116 121/126	- 6 % 3 % % 5 %	70-130 70-130 70-130 70-130
Total Xylenes:	121/126	4 %	70-130

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Certified Laboratories