



GETTLER-RYAN INC.

ENVIRONMENTAL
PROTECTION

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TRANSMITTAL

TO: Mr. Barney Chan
Alameda County Environmental
Health Services
1131 Harbor Bay Parkway
Alameda, California 94502-6577

DATE: August 3, 1998
G-R #: 6338.80

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Chevron/RMC Lonestar Facility
CPS# 206142
333 - 23rd Avenue
Oakland, California

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DATED	DESCRIPTION
1	July 27, 1998	Groundwater Monitoring & Sampling Report Semi-Annual 1998 Sampling Event

COMMENTS:

At the request of Chevron Products Company, we are providing you a copy of the above referenced report. The referenced site is monitored and sampled on a semi-annual basis, scheduled in June and December. If you have questions please contact Mr. R.J. (Bob) Cochran, Chevron Project Manager, at (925) 842-9655, or myself at (925) 551-7555.

Enclosure

cc: Mr. Greg Gurss, Gettler-Ryan Inc., Rancho Cordova, CA
Ms. Bette Owen, Chevron Products Company, P.O. Box 6004, San Ramon, CA 94583 (w/o attachments)

agency/6338.ltr



GETTLER - RYAN INC.

July 27, 1998

Job #6338.80

Mr. Robert Cochran
Chevron Products Company
P.O. Box 6004
San Ramon, CA 94583

Re: Semi-Annual 1998 Groundwater Monitoring & Sampling Report
Chevron/RMC Lonestar Facility CPS #206142
333 - 23rd Avenue
Oakland, California

Dear Mr. Cochran:

This report documents the semi-annual monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) Inc. (G-R). On June 21, 1998, field personnel monitored eight wells (MW-1, MW-5, MW-7 through MW-11, and MW-14) and sampled four wells (MW-1, MW-8, MW-11 and MW-14) at the above mentioned site.

Static groundwater levels were measured and all wells were checked for the presence of separate-phase hydrocarbons. Separate-phase hydrocarbons were not present in any of the site wells. Static water level data and groundwater elevations are presented in Table 1. Dissolved oxygen concentrations are summarized in Table 3. A Potentiometric Map is included as Figure 1.

Groundwater samples were collected from the monitoring wells as specified by G-R Standard Operating Procedure - Groundwater Sampling (attached). The field data sheets for this event are also attached. The samples were analyzed by Sequoia Analytical. Analytical results are presented in Tables 1 and 2. The chain of custody document and laboratory analytical reports are enclosed.

Thank you for allowing Gettler-Ryan Inc. to provide environmental services to Chevron. Please call if you have any questions or comments regarding this report.

Sincerely,

Deanna L. Harding

Deanna L. Harding
Project Coordinator

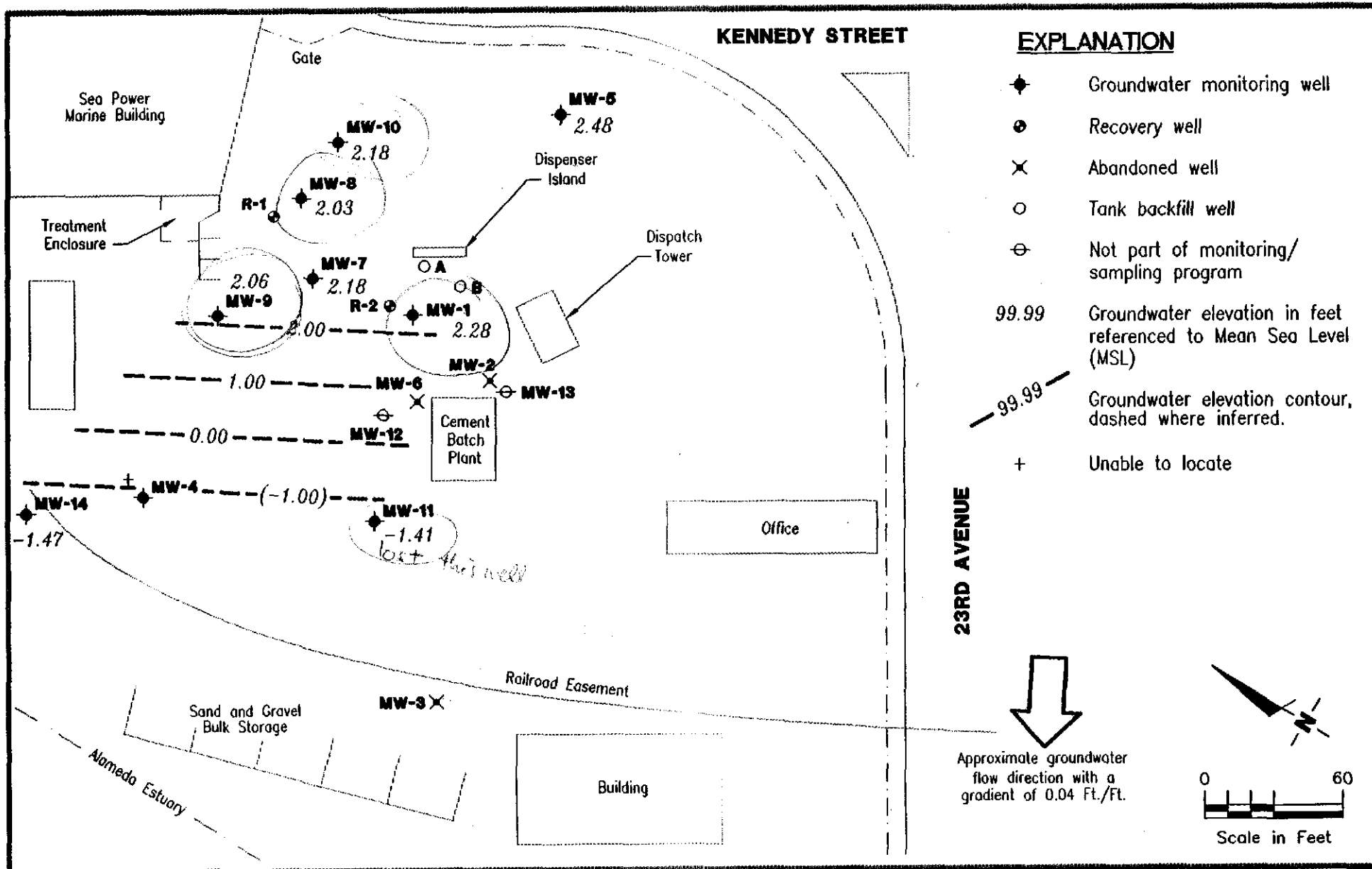
Barbara Sieminski

Barbara Sieminski
Project Geologist, R.G. No. 6676



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- Figure 1: Potentiometric Map
- Table 1: Water Level Data and Groundwater Analytical Results
- Table 2: Field Measurements & Analytical Results
- Table 3: Dissolved Oxygen Readings
- Attachments: Standard Operating Procedure - Groundwater Sampling
Field Data Sheets
Chain of Custody Document and Laboratory Analytical Reports



Gettler - Ryan Inc.

6747 Sierra Ct., Suite J (925) 551-7555
Dublin, CA 94568

POTENTIOMETRIC MAP

Chevron/RMC Lonestar Facility CPS #206142
333 23rd Avenue
Oakland, California

FIGURE

1

JOB NUMBER
6338

REVIEWED BY

DATE
June 21, 1998

REVISED DATE

Table 1. Water Level Data & Groundwater Analytical Results -Chevron/RMC Lonestar Facility CPS #206142, 333 - 23rd Avenue, Oakland, California

Well ID/ TOC	Date	Depth to Water (ft)	GWE◇ (msl)	Product Thickness (ft)	TPH- Gasoline <----- ppb	Benzene	Toluene	Ethyl- benzene	Xylenes	TPH- Diesel◇	MTBE >-----
MW-1											
4.70*	12/21/90	9.77	-3.41	2.07	---	---	---	---	---	---	---
	12/18/93	8.45	-3.73	0.03	---	---	---	---	---	---	---
	03/29/94	9.00	-3.94	0.45	---	---	---	---	---	---	---
	06/09/94	---	---	---	---	---	---	---	---	---	---
	10/04/94	8.71	-3.98	0.04	---	---	---	---	---	---	---
	12/20/94	8.38	-3.14	0.67	---	---	---	---	---	---	---
	03/28/95	7.79	-2.69	0.50	---	---	---	---	---	---	---
	06/30/95	---	---	---	---	---	---	---	---	---	---
	09/24/95	7.79	-2.69	0.50	---	---	---	---	---	---	---
	12/29/95	Well inaccessible		---	---	---	---	---	---	---	---
◇	03/24/96	7.68	-2.97	0.01	1,400 ⁶	<0.5	<0.5	<0.5	<0.5	59,000	---
	06/16/96	7.86	-3.16	---	<500	<5.0	<5.0	<5.0	<5.0	99,000	---
	12/08/96	8.38	-3.68	0.00 ¹¹	280 ¹⁰	<0.5	<0.5	<0.5	<0.5	6,700/5,100	<5.0
10.16**	06/30/97	8.65	1.51	0.00	200 ¹²	<0.50	<0.50	<0.50	<0.50	¹³ 950/600 ^{13,14}	<2.5
◇◇	10/16/97	6.36	3.80	---	---	---	---	---	---	---	---
	12/28/97 ¹⁶	7.50	2.66	0.00	<50	<0.50	<0.50	<0.50	<0.50	4,700 ¹³	<2.5
	06/21/98	7.88	2.28	0.00	<50	<0.50	<0.50	<0.50	<0.50	1,300 ¹³	<2.5
MW-2	06/15/89	---	---	---	<200	<0.5	<0.5	<0.5	<0.5	---	---
	12/92	Well abandoned		---	---	---	---	---	---	---	---
MW-4	05/28/87	---	---	---	---	<0.5	<0.5	<0.5	<0.2	<5.0	---
	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	<0.2	---
	12/21/90	7.31	---	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/19/93	6.64	---	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	06/16/93	8.01	---	---	210	32	27	2.8	19	<50	---
	12/18/93	7.35	---	---	79	0.5	1.2	0.5	1.1	100	---
	03/29/94	8.05	---	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/09/94	8.14	---	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	10/04/94	7.31	---	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	12/20/94	7.03	---	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	6.83	---	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/30/95	7.84	---	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	09/24/95	7.67	---	---	<50	<0.5	<0.5	<0.5	<0.5	110	---

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC	Date	Depth to Water (ft)	GWE◇ (msl)	Product Thickness (ft)	TPH- Gasoline <-----	Benzene	Toluene	Ethyl- benzene ppb	Xylenes	TPH- Diesel◇	MTBE ----->
MW-4 (cont)	12/29/95	Well not located		---	---	---	---	---	---	---	---
	03/24/96	7.41	---	---	<50	<0.5	<0.5	<0.5	<0.5	95	---
	06/16/96	Well not located		---	---	---	---	---	---	---	---
	12/08/96	Well not located		---	---	---	---	---	---	---	---
MW-5 5.43*	05/28/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<5.0	---
	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
	12/21/90	9.11	-3.68	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/16/93	9.12	-3.69	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	12/18/93	8.72	-3.29	---	<50	<0.5	<0.5	<0.5	<0.5	690	---
	03/29/94	9.00	-3.57	---	---	---	---	---	---	---	---
	06/09/94	9.36	-3.93	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	10/04/94	---	---	---	---	---	---	---	---	---	---
	12/20/94	8.10	-2.67	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	8.21	-2.78	---	---	---	---	---	---	---	---
	06/30/95	8.78	-3.35	---	<50	<0.5	<0.5	<0.5	<0.5	900	---
	09/24/95	8.40	-2.97	---	---	---	---	---	---	---	---
	12/29/95	8.39	-2.96	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/24/96	---	---	---	---	---	---	---	---	---	---
11.11**	06/16/96	8.58	-3.15	---	<50	<0.5	<0.5	<0.5	<50	---	---
	12/08/96	Discontinued		---	---	---	---	---	---	---	---
	12/28/97	8.37	2.74	---	---	---	---	---	---	---	---
	06/21/98	8.63	2.48	---	---	---	---	---	---	---	---
MW-7 4.51*	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
	12/21/90	7.90	-3.38	0.01	---	---	---	---	---	---	---
	06/16/93	8.45	-3.94	---	<50	<0.5	0.9	<0.5	<0.5	<50	---
	12/18/93	8.01	-3.50	---	<50	<0.5	<0.5	<0.5	<0.5	240	---
	03/29/94	8.60	-4.09	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/09/94	8.61	-4.10	---	<50	<0.5	<0.5	<0.5	<0.5	130 ²	---
	10/04/94	7.82	-3.31	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	12/20/94	7.70	-3.19	---	<50	<0.5	<0.5	<0.5	<0.5	140	---
	03/28/95	7.67	-3.16	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC	Date	Depth to Water (ft)	GWE◇ (msl)	Product Thickness (ft)	TPH-	Benzene	Toluene	Ethyl- benzene	Xylenes	TPH-	MTBE
					Gasoline					Diesel◇	
					-----ppb----->						
MW-7	06/30/95	8.33	-3.82	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
(cont)	09/24/95	8.16	-3.65	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	12/29/95	7.51	-3.00	---	<50	<0.5	<0.5	<0.5	<0.5	230 ⁴	---
◇	03/24/96	7.69	-3.17	0.01	<50	<0.5	<0.5	<0.5	<0.5	81	---
	06/16/96	10.37	-5.86	---	<50	<0.5	<0.5	<0.5	<0.5	190	---
10.15**	12/08/96	Discontinued	---	---	---	---	---	---	---	---	---
◇◇	10/16/97	7.99	2.16	---	---	---	---	---	---	---	---
	12/28/97	7.77	2.38	---	---	---	---	---	---	---	---
	06/21/98	7.97	2.18	---	---	---	---	---	---	---	---
MW-8	12/21/90	8.53	-3.59	0.02	---	---	---	---	---	---	---
4.93*	12/18/93	---	---	---	---	---	---	---	---	---	---
	03/29/94	8.38	-3.46	---	---	---	---	---	---	---	---
	06/09/94	---	---	---	---	---	---	---	---	---	---
	12/20/94	7.58	-2.66	---	<2,500	120	100	<25	100	50,000	---
	03/28/95	7.08	-2.16	---	---	---	---	---	---	---	---
	06/30/95	8.09	-3.17	---	<50	<0.5	<0.5	<0.5	<0.5	14,000	---
	09/24/95	8.45	-3.53	---	---	---	---	---	---	---	---
	12/29/95	7.47	-2.55	---	520	<2.0	<2.0	<2.0	<2.0	25,000	---
	03/24/96	---	---	---	---	---	---	---	---	---	---
	06/16/96	7.99	-3.07	---	59 ⁹	<0.5	<0.5	<0.5	<0.5	9,400	---
	12/08/96	7.67	-2.74	0.00 ¹¹	580 ¹⁰	<0.5	<0.5	<0.5	<0.5	16,000/9,300	<5.0
10.09**	06/30/97	11.65	-1.56	0.00	1,700 ¹²	<5.0	<5.0	<5.0	<5.0	¹³ 5,300/ ^{13,15} 3,000	<25
◇◇	10/16/97	7.80	2.29	---	---	---	---	---	---	---	---
	12/28/97 ¹⁶	7.53	2.56	0.00	<50	<0.50	<0.50	<0.50	<0.50	2,700 ¹⁷	<2.5
	06/21/98	8.06	2.03	0.00	57 ⁶	<0.50	0.52	<0.50	0.55	3,500 ¹³	<2.5
MW-9	05/28/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<50	---
	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
	12/21/90	7.86	---	Sheen	<50	<0.5	<0.5	<0.5	1.0	230	---
4.42*	06/16/93	8.34	-3.92	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	12/18/93	7.91	-3.49	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC	Date	Depth to Water (ft)	GWE◇ (msl)	Product Thickness (ft)	TPH-	Benzene	Toluene	Ethyl- benzene <i>ppb</i>	Xylenes	TPH- Diesel◆	MTBE
					Gasoline <----->						
MW-9 (cont)	03/29/94	7.85	-3.43	---	---	---	---	---	---	---	---
	06/09/94	8.69	-4.27	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	10/04/94	---	---	---	---	---	---	---	---	---	---
	12/20/94	7.60	-3.18	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	7.58	-3.16	---	---	---	---	---	---	---	---
	06/30/95	8.34	-3.92	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	09/24/95	8.21	-3.79	---	---	---	---	---	---	---	---
	12/29/95	7.48	-3.06	---	<50	<0.5	<0.5	<0.5	<0.5	600	---
	◇ 03/24/96	---	---	---	---	---	---	---	---	---	---
	06/16/96	8.25	-3.83	---	<50	<0.5	<0.5	<0.5	<0.5	810	---
	10.13**	12/08/96	Discontinued	---	---	---	---	---	---	---	---
	◆◆	10/16/97	8.52	1.61	---	---	---	---	---	---	---
		12/28/97	7.58	2.55	---	---	---	---	---	---	---
	06/21/98	8.07	2.06	---	---	---	---	---	---	---	
MW-10 5.24*	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
	12/21/90	8.92	-3.68	---	<50	<0.5	<0.5	<0.5	<0.5	80	---
	06/16/93	8.97	-3.73	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	12/18/93	7.87	-2.63	---	51 ¹	<0.5	<0.5	<0.5	<0.5	12,000	---
	03/29/94	9.20	-3.96	---	---	---	---	---	---	---	---
	06/09/94	9.31	-4.07	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	10/04/94	---	---	---	---	---	---	---	---	---	---
	12/20/94	8.30	-3.06	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	8.26	-3.02	---	---	---	---	---	---	---	---
	06/30/95	8.95	-3.71	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	09/24/95	8.87	-3.63	---	---	---	---	---	---	---	---
	12/29/95	8.03	-2.79	---	<50	<0.5	<0.5	<0.5	<0.5	1,800 ^f	---
	◇ 03/24/96	---	---	---	---	---	---	---	---	---	---
06/16/96	8.77	-3.53	---	<50	<0.5	<0.5	<0.5	<0.5	300	---	
10.91**	12/08/96	Discontinued	---	---	---	---	---	---	---	---	
◆◆	10/16/97	8.60	2.31	---	---	---	---	---	---	---	
	12/28/97	8.32	2.59	---	---	---	---	---	---	---	
	06/21/98	8.73	2.18	---	---	---	---	---	---	---	

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC	Date	Depth to Water (ft)	GWE◇ (msl)	Product Thickness (ft)	TPH- Gasoline <-----	Benzene	Toluene	Ethyl- benzene ppb	Xylenes	TPH- Diesel◆	MTBE >-----
MW-11	08/21/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<0.1	---
	06/21/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
	12/21/90	8.59	---	Sheen	<50	<0.5	<0.5	<0.5	<0.5	<50	---
4.37*	03/19/93	7.57	-3.20	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	06/16/93	8.84	-4.47	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	12/18/93	8.26	-3.89	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/29/94	9.07	-4.70	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/09/94	9.14	-4.77	---	<50	<0.5	<0.5	<0.5	<0.5	150 ²	---
	10/04/94	7.94	-3.57	---	<50	<0.5	1.0	<0.5	<0.5	<50	---
	12/20/94	7.68	-3.31	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	6.90	-2.53	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/30/95	8.81	-4.44	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	09/24/95	8.80	-4.43	---	<50	<0.5	<0.5	<0.5	<0.5	110	---
	12/29/95	8.22	-3.85	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/24/96	8.46	-4.09	---	<50	<0.5	<0.5	<0.5	<0.5	80	---
	06/16/96	8.74	-4.37	---	<50	<0.5	<0.5	<0.5	<0.5	86 ^B	---
	12/08/96	7.75	-3.38	0.00 ¹¹	<50	<0.5	<0.5	<0.5	<0.5	<50	<5.0
6.71**	06/30/97	8.63	-1.92	0.00	<50	<0.50	<0.50	<0.50	<0.50	¹³ 71/<50	<2.5
	10/16/97	Well inaccessible	---	---	---	---	---	---	---	---	---
◆◆	12/28/97	7.65	-0.94	0.00	<50	<0.50	<0.50	<0.50	<0.50	82 ¹⁷	<2.5
	06/21/98	8.12	-1.41	0.00	<50	<0.50	<0.50	<0.50	<0.50	89 ¹⁷	<2.5
MW-12	08/21/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<0.1	---
	12/18/93	---	---	---	---	---	---	---	---	---	---
	03/29/94	---	---	---	---	---	---	---	---	---	---
	06/09/94 ³	Well inaccessible	---	---	---	---	---	---	---	---	---
MW-13	08/21/87	---	---	---	---	<0.5	<0.5	<0.5	<2.0	<0.1	---
	06/15/89	---	---	---	<100	<0.2	<2.0	<2.0	<2.0	---	---
4.73*	03/19/93	7.62	-2.89	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	06/16/93	8.56	-3.83	---	<50	<0.5	<0.5	<0.5	<1.5	<50	---
	12/18/93	8.11	-3.38	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/29/94	8.65	-3.92	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID/ TOC	Date	Depth to Water (ft)	GWE◇ (msl)	Product Thickness (ft)	TPH-	Benzene	Toluene	Ethyl-	Xylenes	TPH-	MTBE
					Gasoline	-----ppb-----				Diesel◇	
MW-13 (cont)	06/09/94	8.60	-3.87	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	10/04/94	8.31	-3.58	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	12/20/94	7.92	-3.19	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	03/28/95	7.78	-3.05	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/30/95	---	---	---	---	---	---	---	---	---	---
	09/24/95	8.34	-3.61	---	<50	<0.5	<0.5	<0.5	<0.5	180	---
	12/29/95	Well not located	---	---	---	---	---	---	---	---	---
	03/24/96 ⁷	7.74	-3.01	---	<50	<0.5	<0.5	<0.5	<0.5	<50	---
	06/16/96	8.07	-3.34	---	<50	<0.5	<0.5	<0.5	<0.5	57	---
	12/08/96	Discontinued	---	---	---	---	---	---	---	---	---
MW-14 5.56**	06/30/97	7.48	-1.92	0.00	<50	<0.50	<0.50	<0.50	<0.50	¹³ 86/<50	<2.5
	10/16/97	7.42	-1.86	---	---	---	---	---	---	---	---
	12/28/97	7.02	-1.46	0.00	<50	<0.50	<0.50	<0.50	<0.50	97 ¹⁷	<2.5
	06/21/98	7.03	-1.47	0.00	<50	<0.50	<0.50	<0.50	<0.50	65 ¹⁷	<2.5
TB	03/19/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---
	06/16/93	---	---	---	<50	<0.5	<0.5	<0.5	<1.5	---	---
	12/18/93	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	03/29/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
FB	06/09/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	12/20/94	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
TB	03/28/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	06/30/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	09/24/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	12/29/95	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	03/24/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	06/16/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	---
	12/08/96	---	---	---	<50	<0.5	<0.5	<0.5	<0.5	---	<5.0
	06/30/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	---	<2.5
TB-LB	12/28/97	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	---	<2.5
	06/21/98	---	---	---	<50	<0.50	<0.50	<0.50	<0.50	---	<2.5

Table 1. Water Level Data & Groundwater Analytical Results - Chevron/RMC Lonestar Facility CPS# 206142, 333 - 23rd Avenue, Oakland, California
(continued)

EXPLANATION:

TOC = Top of Casing
(ft) = Feet
GWE = Groundwater Elevation
msl = Measurement in feet referenced to mean sea level
TPH-Gasoline = Total Petroleum Hydrocarbons as Gasoline
TPH-Diesel = Total Extractable Petroleum Hydrocarbons as Diesel
MTBE = Methyl tertiary-butyl ether
ppb = Parts per billion
— = Not Analyzed/Not Applicable/or (Data) Not Available

ANALYTICAL METHODS:

TPH-Gasoline by EPA Method 8015
BTEX & MTBE by EPA Method 8020
TPH-Diesel - Extraction by EPA Method 3510
TPH-Diesel silica-gel clean up by EPA (Modified) 3630

NOTES:

Water level elevation data and laboratory analytical results prior to December 8, 1996, were compiled from Quarterly Groundwater Monitoring Reports prepared for Chevron by Geraghty & Miller, Inc.

- * Elevations surveyed on 09/26/93 by Field Designs relative to City of Oakland Benchmark #3457 and corrected to Mean Sea Level (msl). (Benchmark datum is 2.998 feet off of msl.)
- ** Site surveyed by Virgil Chavez Land Surveying on 07/03/97. Top of casing elevation measured using the top of curb on the northerly side of 23rd Avenue, using the northeasterly top of rail (of railroad tracks running through site) as reference line. (Benchmark Elevation = 17.91 feet, msl).
- ◇ If separate-phase hydrocarbons are present, the Groundwater Elevation is corrected for the presence of separate-phase hydrocarbons and is calculated as follows: $[(TOC-DTW) + (Product\ Thickness \times 0.8)]$. 0.8 is the assumed specific gravity of free-phase hydrocarbons.
- ◆ Analytical results are reported as follows: TPH as Diesel\TPH as Diesel w/silica-gel cleanup.
- ❖ ORC in well installed by Geraghty & Miller, Inc., in early 1996.
- ❖❖ ORC installed and/or replaced by Gettler-Ryan Inc.

NOTES (continued):

- ¹ Laboratory reports that the chromatogram does not match typical gasoline pattern.
- ² Laboratory reports that the chromatogram does not match typical diesel pattern; lighter hydrocarbons present.
- ³ MW-12 inaccessible due to the accumulation of silt, sand and gravel in the well casing.
- ⁴ Laboratory report indicates unidentified hydrocarbons >C16.
- ⁵ Laboratory report indicates diesel and unidentified hydrocarbons >C16.
- ⁶ Laboratory report indicates unidentified hydrocarbons >C8.
- ⁷ MW-13 also analyzed for Total Dissolved Solids (TDS) by USEPA Method 160.1. Laboratory reported a concentration of 1,600 ppb.
- ⁸ Laboratory report indicates unidentified hydrocarbons >C18.
- ⁹ Laboratory report indicates unidentified hydrocarbons >C9.
- ¹⁰ Laboratory report indicates the hydrocarbons in the gasoline range do not match the gasoline standard pattern.
Sheen previously reported in error.
- ¹¹ Laboratory report indicates unidentified hydrocarbons C10-C12.
- ¹² Laboratory report indicates weathered diesel C9-C24.
- ¹³ Additional silica gel cleanup performed on sample. First result was 600¹³ ppb; Second result reported in table.
- ¹⁴ Additional silica gel cleanup performed on sample. First result was 3,100¹³ ppb; Second result reported in table.
- ¹⁵ No purge sample. ORC present in well.
- ¹⁶ Laboratory report indicates unidentified hydrocarbons C9-C24.
- ¹⁷

Table 2. Field Parameters/Analytical Results - Chevron\RMC Lonestar Facility CPS#206142, 333 - 23rd Avenue, Oakland, California

Well ID	Date	Oxidation Reduction Potential (mV)	Dissolved Oxygen	Nitrate	mg/L			
					Sulfate	Ferrous Iron	Phosphate	Ammonia
MW-1 ❖ ❖❖	11/09/95	---	0.90	---	---	---	---	---
	06/16/96	---	1.34	>5.0	---	---	2.0	>10
	12/08/96*	---	1.39	13	14	2.6	---	---
	06/30/97*	-16.5	1.00	<1.0	10	5.6	---	---
	10/16/97	---	0.51	---	---	---	---	---
	12/28/97** 06/21/98	22.9 ---	2.30 0.54	7.6 5.4	7.3 12	1.7 5.3	---	---
MW-4	11/09/95	---	0.37	0.2	---	---	0.00	0.01
	06/16/96	Well not located	---	---	---	---	---	---
	12/08/96	Well not located	---	---	---	---	---	---
MW-5	11/09/95	---	0.85	0.1	---	---	1.5	0.1
	06/16/96	---	0.78	---	---	---	---	---
	12/28/97	---	5.24	---	---	---	---	---
	06/21/98	---	2.30	---	---	---	---	---
MW-7 ❖ ❖❖	11/09/95	---	0.42	---	---	---	---	---
	06/16/96	---	OR	>5.0	---	---	4.0	>10
	10/16/97	---	0.73	---	---	---	---	---
	12/28/97	---	1.10	---	---	---	---	---
	06/21/98	---	0.58	---	---	---	---	---
MW-8 ❖❖	11/09/95	---	0.95	---	---	---	---	---
	06/16/96	---	0.29	0.00	---	---	0.6	0.6
	12/08/96*	-35	0.51	<0.10	3.0	6.1	---	---
	06/30/97*	-50.2	9.50	<1.0	17	0.22	---	---
	10/16/97	---	1.84	---	---	---	---	---
	12/28/97** 06/21/98	41.6 ---	3.08 2.80	<5.0 <1.0	5.3 11	0.25 0.66	---	---
MW-9 ❖ ❖❖	11/09/95	---	0.58	---	---	---	---	---
	06/16/96	---	14.66	>5.0	---	---	>10	1.0
	10/16/97	---	3.49	---	---	---	---	---
	12/28/97	---	6.95	---	---	---	---	---
	06/21/98	---	1.67	---	---	---	---	---

Table 2. Field Parameters/Analytical Results - Chevron\RMC Lonestar Facility CPS#206142, 333 - 23rd Avenue, Oakland, California (continued)

Well ID	Date	Oxidation Reduction Potential (mV)	Dissolved Oxygen	mg/L				
				Nitrate	Sulfate	Ferrous Iron	Phosphate	Ammonia
MW-10	11/09/95	---	1.49	---	---	---	---	---
❖	06/16/96	---	3.30	1.0	---	---	6.0	> 10
❖❖	10/16/97	---	8.06	---	---	---	---	---
	12/28/97	---	> 19.99	---	---	---	---	---
	06/21/98	---	18.57	---	---	---	---	---
MW-11	11/09/95	---	0.52	0.2	---	---	5.0	0.1
	06/16/96	---	0.25	---	---	---	---	---
	12/08/96*	165	0.31	340	99	<0.010	---	---
	06/30/97*	-25.0	2.99	350	140	0.015	---	---
	10/16/97	Inaccessible	---	---	---	---	---	---
❖❖	12/28/97*	21.5	2.00	240	130	0.93	---	---
	06/21/98	---	0.50	190	190	0.022	---	---
MW-13	11/09/95	Well not located	---	---	---	---	---	---
	06/16/96*	---	0.52	0.1	---	---	0.4	0.2
MW-14	06/30/97*	-31.2	4.56	<1.0	41	0.29	---	---
	10/16/97	---	0.85	---	---	---	---	---
	12/28/97*	133	2.75	10	35	0.028	---	---
	06/21/98	---	1.00	28	44	0.15	---	---
R-2	11/09/95	---	0.44	0.6	---	---	0.00	0.00
A	11/09/95	---	0.42	1	---	---	0.00	4

EXPLANATIONS:

mV = Millivolts
 mg/L = Miligrams per liter
 --- = Not Measured/Not Analyzed
 OR = Over-range of instrument

NOTES:

Data prior to December 8, 1996, was provided by Geraghty & Miller, Inc.
 * Measurement after purging. See actual field sheets for complete readings/measurements.
 ** No purge measurement/sample.
 ❖ ORC installed by Geraghty & Miller, Inc., in early 1996.
 ❖❖ ORC installed and/or replaced by Gettler-Ryan Inc.

Table 3. Dissolved Oxygen Readings - Chevron/RMC Lonestar Facility CPS #206142, 333 - 23rd Avenue, Oakland, California

Well ID	Date	Depth to Water (ft)	Dissolved Oxygen (mg/L)
MW-1	11/09/95	—	0.90
	❖ 06/16/96	7.86	1.34
	12/08/96	8.38	1.39
	06/30/97	8.65	1.00
	❖❖ 10/16/97	6.36	0.51
	12/28/97	7.50	2.30
	06/21/98	7.88	0.54
MW-4	11/09/95	—	0.37
MW-5	11/09/95	—	0.85
	06/16/96	8.58	0.78
	12/28/97	8.37	5.24
	06/21/98	8.63	2.30
MW-7	11/09/95	—	0.42
	❖ 06/16/96	10.37	OR
	❖❖ 10/16/97	7.99	0.73
	12/28/97	7.77	1.10
	06/21/98	7.97	0.58
MW-8	11/09/95	—	0.95
	❖ 06/16/96	7.99	0.29
	12/08/96	7.67	0.51
	06/30/97	11.65	9.50
	❖❖ 10/16/97	7.80	1.84
	12/28/97	7.53	3.08
	06/21/98	8.06	2.80
MW-9	11/09/95	—	0.58
	❖ 06/16/96	8.25	14.66
	❖❖ 10/16/97	8.52	3.49
	12/28/97	7.58	6.95
	06/21/98	8.07	1.67
MW-10	11/09/95	—	1.49
	❖ 06/16/96	8.77	3.30
	❖❖ 10/16/97	8.60	8.06
	12/28/97	8.32	> 19.99
	06/21/98	8.73	18.57
MW-11	11/09/95	—	0.52
	06/16/96	8.74	0.25
	12/08/96	7.75	0.31
	06/30/97	8.63	2.99
	❖❖ 10/16/97	Inaccessible	—
	12/28/97	7.65	2.00
	06/21/98	8.12	0.50
MW-13	06/16/96	8.07	0.52
MW-14	06/30/97	7.48	4.56
	10/16/97	7.42	0.85
	12/28/97	7.02	2.75
	06/21/98	7.03	1.00

Table 3. Dissolved Oxygen Readings - Chevron/RMC Lonestar Facility CPS #206142, 333 - 23rd Avenue, Oakland, California (continued)

NOTES:

(ft) = Feet

mg/L = Milligrams per liter

- ❖ ORC installed by Geraghty & Miller, Inc., in early 1996.
- ❖❖ ORC installed and/or replaced by Gettler-Ryan Inc.

EXPLANATIONS:

-- = Not measured/ Not analyzed

6338-3.dor



STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan Inc. field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. Prior to sample collection, the type of analysis to be performed is determined. Loss prevention of volatile compounds is controlled and sample preservation for subsequent analysis is maintained.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using a MMC flexi-dip interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, static water level measurements are collected with the interface probe and are also recorded in the field notes.

After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging. Purging continues until these parameters stabilize.

Groundwater samples are collected using Chevron-designated disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

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

As requested by Chevron Products Company, the purge water and decontamination water generated during sampling activities is transported by IWM to McKittrick Waste Management located in McKittrick, California.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # RMC Lonestar #206142
 Address: 333 23rd Avenue
 City: Oakland, CA

Job#: 6338.80
 Date: 6-21-90
 Sampler: F. Cline

Well ID: MW-1
 Well Diameter: 4" in.
 Total Depth: 18' ft.
 Depth to Water: 7.88 ft.

Well Condition: okay

Hydrocarbon Thickness:	<u>✓</u>	Amount Bailed (product/water):	<u>✓</u>
Volume Factor (VF)	2" = 0.17 3" = 0.38 4" = 0.66 6" = 1.50 12" = 5.80		

10.12 X VF 0.66 = 6.7 X 3 (case volume) = Estimated Purge Volume: 200 (gal.)

Purge Equipment: Stack
 Disposable Bailer
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 13:12
 Sampling Time: 1320
 Purging Flow Rate: 1.7 gpm.
 Did well de-water? _____

Weather Conditions: Partly Cloudy
 Water Color: Clear
 Odor: None
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
1316	6.8	7.29	1713	16.9	0.54		1025
1320	13.6	7.07	1486	16.6	0.85		1000
1324	20.4	7.12	1484	16.7	1.30		1050
1326	21.0	7.10	1685	16.6	1.25		1000

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>
<u>↓</u>	<u>2 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH-Diesel w/silicagel</u>
<u>↓</u>	<u>2 x 50ml</u>	<u>Y</u>	<u>HCL/None</u>	<u>SEQUOIA</u>	<u>ferrous iron/nitrate/sulfate</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # RMC Lonestar #206142

Job#: 6338.80

Address: 333 23rd Avenue

Date: 6-21-98

City: Oakland, CA

Sampler: F. Cline

Well ID: AW-5
4" / 11
Well Diameter: _____ in.
Total Depth: _____ ft.
Depth to Water: 8163 ft.

Well Condition: okay Missing lid

Hydrocarbon Thickness: _____ in. Amount Bailed (product/water): _____ (gal.)

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: Disposable Bailer
Bailer
Stack
Suction
Grundfos
Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
Grab Sample
Other: _____

Starting Time: _____
Sampling Time: _____
Purging Flow Rate: _____ gpm.
Did well de-water? _____

Weather Conditions: Partly Cloudy
Water Color: _____ Odor: _____
Sediment Description: _____
If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1145</u>	_____	_____	_____	_____	<u>2.30</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>
	<u>2 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH Diesel w/silicagel</u>
				<u>SEQUOIA</u>	<u>ferrous-iron/nitrate/sulfate</u>

COMMENTS: Not Sampled - DTW & D.O. only

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # BMC Lonestar #206142
 Address: 333 23rd Avenue
 City: Oakland, CA

Job#: 6338.80
 Date: 6/21/98
 Sampler: F. Cline

Well ID: MW-7
 Well Diameter: 4" in.
 Total Depth: _____ ft.
 Depth to Water: 7.97 ft.

Well Condition: okay
 Hydrocarbon Thickness: _____ in. Amount Bailed (product/water): _____ (gal.)

Volume	2" = 0.17	3" = 0.38	4" = 0.66
Factor (VF)	6" = 1.50	12" = 5.80	

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: _____
 Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: _____
 Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: _____
 Sampling Time: _____
 Purging Flow Rate: _____ gpm.
 Did well de-water? _____

Weather Conditions: _____
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:30</u>					<u>0.58</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>
	<u>2 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH-Diesel w/silicogel</u>
				<u>SEQUOIA</u>	<u>ferrous iron/nitrate/sulfate</u>

COMMENTS: Not Sampled - DTW & D.O only

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # RMC Lonestar #206142
 Address: 333 23rd Avenue
 City: Oakland, CA

Job#: 6338.80
 Date: 6-21-98
 Sampler: F. Cline

Well ID: MW-8
 Well Diameter: 9" in.
 Total Depth: 1817 ft.
 Depth to Water: 8106 ft.

Well Condition: okay

Hydrocarbon Thickness: ✓ in. Amount Bailed ✓ (gal.)
 Volume Factor (VF):
 2" = 0.17 3" = 0.38 4" = 0.66
 6" = 1.50 12" = 5.80

$10.64 \times VF_{0.66} = 7.0 \times 3 \text{ (case volume)} = \text{Estimated Purge Volume: } 21 \text{ (gal.)}$

Purge Equipment: Stack Bailer
 Disposable Bailer
 Suction Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 12:42
 Sampling Time: 12:56
 Purging Flow Rate: 1.8 gpm.
 Did well de-water? NO

Weather Conditions: Partly Cloudy
 Water Color: Brown Odor: None
 Sediment Description: Silty
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
12:46	7.2	8.50	2350	19.10	2.80		1150
12:50	14.9	8.26	2380	19.12	2.05		1100
12:54	21.6	8.20	2340	19.12	2.15		1050
12:56	22.6	8.22	2350	19.12	2.08		1100

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>
<u>MW-8</u>	<u>2 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH-Diesel w/silicagel</u>
<u>MW-6</u>				<u>SEQUOIA</u>	<u>ferrous iron/nitrate/sulfate</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # BMC Lonestar #206142
 Address: 333 23rd Avenue
 City: Oakland, CA

Job#: 6338.80
 Date: 6.21.98
 Sampler: F. Cline

Well ID: MW-9
 Well Diameter: _____ in.
 Total Depth: _____ ft.
 Depth to Water: 8107 ft.

Well Condition: okay
 Hydrocarbon Thickness: 0 in.
 Amount Bailed (product/water): 0 (gal.)

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: _____
 Disposable Bailer
 Bailer
 Stack
 Suction
 Grundfos
 Other: _____

Sampling Equipment: _____
 Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: _____
 Sampling Time: _____
 Purging Flow Rate: _____ gpm.
 Did well de-water? _____

Weather Conditions: _____
 Water Color: _____ Odor: _____
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1135</u>					<u>1.07</u>		

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH Gas/BTEX/MTBE</u>
	<u>2 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH Diesel w/silicagel</u>
				<u>SEQUOIA</u>	<u>ferrous iron/nitrate/sulfate</u>

COMMENTS: Not Sampled - DTW & D.O. only.

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # RMC Lonestar #206142
 Address: 333 23rd Avenue
 City: Oakland, CA

Job#: 6338.80
 Date: 6-21-98
 Sampler: F. Cline

Well ID: MW-20 Well Condition: okay
 Well Diameter: 4" in. Hydrocarbon Thickness: 0 in. Amount Bailed (product/water): 0 (gal.)
 Total Depth: _____ ft.
 Depth to Water: 8.73 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

_____ X VF _____ = _____ X 3 (case volume) = Estimated Purge Volume: _____ (gal.)

Purge Equipment: _____ Disposable Bailer Bailer Stack Suction Grundfos Other: _____
 Sampling Equipment: _____ Disposable Bailer Bailer Pressure Bailer Grab Sample Other: _____

Starting Time: _____ Weather Conditions: _____
 Sampling Time: _____ Water Color: _____ Odor: _____
 Purging Flow Rate: _____ gpm. Sediment Description: _____
 Did well de-water? _____ If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>11:40</u>					<u>18.57</u>		
					<u>18.57</u>		
	<u>W/L</u>						

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>
	<u>2 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH Diesel w/oilcoagel</u>
				<u>SEQUOIA</u>	<u>Ferrous Iron/nitrate/sulfate</u>

COMMENTS: Not Sampled - DTW & D.O. only

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # RMC Lonestar #206142

Job#: 6338.80

Address: 333 23rd Avenue

Date: 6-21-98

City: Oakland, CA

Sampler: F. Cline

Well ID: MW-11

Well Condition: okay

Well Diameter: 2" in.

Hydrocarbon Thickness: e in. Amount Bailed (product/water): e (gal.)

Total Depth: 2014 ft.

Depth to Water: 8.12 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

12.28 X VF 0.17 = 2.1 X 3 (case volume) = Estimated Purge Volume: 6.3 (gal.)

Purge Equipment: Stack
 Disposable Bailer
 Bailer
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
Bailer
Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 12:27
 Sampling Time: 1235
 Purging Flow Rate: 1.1 gpm.
 Did well de-water? MC

Weather Conditions: Partly cloudy
 Water Color: Brown Odor: None
 Sediment Description: slight silt
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>12:29</u>	<u>2.2</u>	<u>7.24</u>	<u>2970</u>	<u>18.11</u>	<u>0.50</u>		<u>92</u>
<u>1231</u>	<u>4.4</u>	<u>7.25</u>	<u>3060</u>	<u>18.10</u>	<u>0.40</u>		<u>40</u>
<u>1233</u>	<u>6.6</u>	<u>7.24</u>	<u>3060</u>	<u>18.10</u>	<u>0.48</u>		<u>92</u>
<u>1235</u>	<u>7.0</u>	<u>7.25</u>	<u>3050</u>	<u>18.11</u>	<u>0.45</u>		<u>40</u>

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW 11</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>
<u>1</u>	<u>1 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH-Diesel w/silicagel</u>
<u>1</u>	<u>20500ml</u>	<u>NY</u>	<u>HCL/Na</u>	<u>SEQUOIA</u>	<u>ferrous iron/nitrate/sulfate</u>

COMMENTS: _____

WELL MONITORING/SAMPLING FIELD DATA SHEET

Chevron Facility # BMC Lonestar #206142
 Address: 333 23rd Avenue
 City: Oakland, CA

Job #: 6338.80
 Date: 6-21-98
 Sampler: E. Cline

Well ID: MW-14
 Well Diameter: 2" in.
 Total Depth: 19.5 ft.
 Depth to Water: 7.03 ft.

Well Condition: okay Bof Gen

Hydrocarbon Thickness:	<u>0</u> in.	Amount Bailed (product/water):	<u>0</u> (gal.)
Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

12.47 X VF 0.17 = 2.1 X 3 (case volume) = Estimated Purge Volume: 6.4 (gal.)

Purge Equipment: Stack
 Disposable Bailer
 Suction
 Grundfos
 Other: _____

Sampling Equipment: Disposable Bailer
 Bailer
 Pressure Bailer
 Grab Sample
 Other: _____

Starting Time: 1203
 Sampling Time: 1211
 Purging Flow Rate: 1.1 gpm.
 Did well de-water? _____

Weather Conditions: clear warming
 Water Color: clear Odor: None
 Sediment Description: _____
 If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity μ mhos/cm	Temperature $^{\circ}$ C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
<u>1205</u>	<u>2.2</u>	<u>7.27</u>	<u>1152</u>	<u>19.5</u>	<u>1.00</u>		<u>200</u>
<u>1207</u>	<u>4.4</u>	<u>7.29</u>	<u>1208</u>	<u>19.8</u>	<u>0.89</u>		<u>250</u>
<u>1209</u>	<u>6.6</u>	<u>7.30</u>	<u>1200</u>	<u>19.5</u>	<u>0.90</u>		<u>200</u>
<u>1211</u>	<u>9.0</u>	<u>7.28</u>	<u>1203</u>	<u>19.6</u>	<u>0.88</u>		<u>200</u>

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW14</u>	<u>3 x 40m/VOA</u>	<u>Y</u>	<u>HCL</u>	<u>SEQUOIA</u>	<u>TPH-Gas/BTEX/MTBE</u>
	<u>2 x Liter</u>	<u>Y</u>	<u>NONE</u>	<u>SEQUOIA</u>	<u>TPH-Diesel w/silicagel</u>
				<u>SEQUOIA</u>	<u>ferrous iron/nitrate/sulfate</u>

COMMENTS: _____

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

CHEVRON
Chevron Facility Number Lonestar Facility CPS #206142
Facility Address 333 - 23rd Avenue, Oakland, CA
Consultant Project Number 6338.85
Consultant Name Gettler-Ryan
Address 6747 Sierra Ct, Ste J, Dublin 94568
Project Contact (Name) Deanna Harding
(Phone) 551-7555 (Fax Number) 551-7888

Chevron Contact (Name) Mr. Robert Cochran
(Phone) (510) 842-9655
Laboratory Name Sequoia
Laboratory Service Order # 9024596 Service Code: Z202790
Samples Collected by (Name) Frank Cline
Collection Date 6/21/98
Signature [Signature]

Analyses To Be Performed GROUP E67

DO NOT BILL
TB-LB ANALYSIS

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed										Remarks						
								TPH Gas + BTEX w/MTBE (8015)	TPH Diesel (8015)	Oil and Grease (8520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd, Cr, Pb, Zn, Ni (ICAP or AA)	Nitrate & Sulfate	Ferrous Iron							
TB-1.B	1	2	W	TB	-	HCL	Y	X																
MW-11	2	6		G	1230	HCL, NaCl		X	X															
MW-8	3	6			1230			X	X															
MW-1	4	6			1320			X	X															
MW-14	5	6	W	G	121	HCL, NaCl	Y	X	X															

Relinquished By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>6-22-98</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>G-R Inc.</u>	Date/Time <u>6/22/98</u>	Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 6 Days 10 Days <u>As Contracted</u>
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>GR</u>	Date/Time <u>6/22/98</u>	Received By (Signature) <u>[Signature]</u>	Organization <u>SEQUOIA</u>	Date/Time <u>6/22/98</u>	
Relinquished By (Signature) <u>[Signature]</u>	Organization <u>SEQUOIA</u>	Date/Time <u>6-22-98</u>	Received For Laboratory By (Signature) <u>[Signature]</u>		Date/Time <u>6/22/98 17:25</u>	



Sequoia Analytical

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Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 206142, 6338.85 Sample Descript: TB-LB Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806E67-01	Sampled: 06/21/98 Received: 06/22/98 Analyzed: 07/02/98 Reported: 07/10/98
Attention: Deanna Harding		

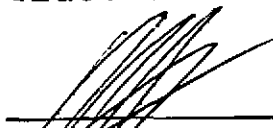
QC Batch Number: GC070298802002A
Instrument ID: HP-2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	110

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271



 Mike Gregory
 Project Manager



**Sequoia
Analytical**

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Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 206142, 6338.85 Sample Descript: MW-1 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806E67-04	Sampled: 06/21/98 Received: 06/22/98 Extracted: 06/26/98 Analyzed: 06/29/98 Reported: 07/10/98
Attention: Deanna Harding		

QC Batch Number: GC0626980HBPEXB
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	1300 W-diesel
Surrogates	Control Limits %	% Recovery
n-Pentacosane (C25)	50 150	90

Results quantitated against a diesel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory
Project Manager



**Sequoia
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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 206142, 6338.85
Sample Descript: MW-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9806E67-04

Sampled: 06/21/98
Received: 06/22/98

Analyzed: 07/02/98
Reported: 07/10/98

QC Batch Number: GC070298802002A
Instrument ID: HP-2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	113

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271

Mike Gregory
Project Manager



**Sequoia
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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 206142, 6338.85
Sample Descript: MW-8
Matrix: LIQUID
Analysis Method: EPA 8015 Mod
Lab Number: 9806E67-03

Sampled: 06/21/98
Received: 06/22/98
Extracted: 06/26/98
Analyzed: 06/30/98
Reported: 07/10/98


QC Batch Number: GC0626980HBPEXB
Instrument ID: GCHP5A

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	200 C9-C24	3500 W-diesel
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 152 Q

Results quantitated against a diesel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager



**Sequoia
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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Client Proj. ID: Chevron 206142, 6338.85
Sample Descript: MW-8
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9806E67-03

Sampled: 06/21/98
Received: 06/22/98
Analyzed: 07/09/98
Reported: 07/10/98

Attention: Deanna Harding

QC Batch Number: GC070998802002A
Instrument ID: HP-2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	57
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	0.52
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	0.55
Chromatogram Pattern: Unidentified HC		>C8
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	116

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271


Mike Gregory
Project Manager



**Sequoia
Analytical**

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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Attention: Deanna Harding

Client Proj. ID: Chevron 206142, 6338.85

Sample Descript: MW-11

Matrix: LIQUID

Analysis Method: EPA 8015 Mod

Lab Number: 9806E67-02

Sampled: 06/21/98

Received: 06/22/98

Extracted: 06/26/98

Analyzed: 06/29/98

Reported: 07/10/98

QC Batch Number: GC0626980HBPEXB

Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	89 Unid.-HC
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 77

Results quantitated against a diesel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager

Page:

3



**Sequoia
Analytical**

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FAX (916) 921-0100
FAX (707) 792-0342

Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568	Client Proj. ID: Chevron 206142, 6338.85 Sample Descript: MW-11 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806E67-02	Sampled: 06/21/98 Received: 06/22/98 Analyzed: 07/02/98 Reported: 07/10/98
Attention: Deanna Harding		

QC Batch Number: GC070298802002A
Instrument ID: HP-2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	117

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271


Mike Gregory
Project Manager



**Sequoia
Analytical**

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Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Deanna Harding	Client Proj. ID: Chevron 206142, 6338.85 Sample Descript: MW-14 Matrix: LIQUID Analysis Method: EPA 8015 Mod Lab Number: 9806E67-05	Sampled: 06/21/98 Received: 06/22/98 Extracted: 06/26/98 Analyzed: 06/29/98 Reported: 07/10/98
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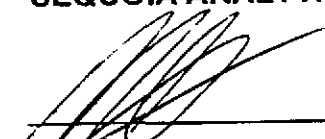
QC Batch Number: GC0626980HBPEXB
Instrument ID: GCHP5B

Total Extractable Petroleum Hydrocarbons (TEPH)

Analyte	Detection Limit ug/L	Sample Results ug/L
TEPH as Diesel Chromatogram Pattern:	50 C9-C24	65 Unid.-HC
Surrogates n-Pentacosane (C25)	Control Limits % 50 150	% Recovery 90

Results quantitated against a diesel standard.
Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210



Mike Gregory
Project Manager



**Sequoia
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Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Deanna Harding	Client Proj. ID: Chevron 206142, 6338.85 Sample Descript: MW-14 Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9806E67-05	Sampled: 06/21/98 Received: 06/22/98 Analyzed: 07/02/98 Reported: 07/10/98
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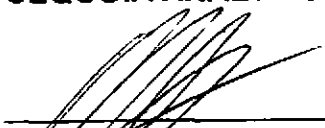
QC Batch Number: GC070298802002A
Instrument ID: HP-2

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Methyl t-Butyl Ether	2.5	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		
Surrogates	Control Limits %	% Recovery
Trifluorotoluene	70 130	100

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1271



Mike Gregory
Project Manager



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Gettler Ryan/Geostrategies
6747 Sierra Court Suite J
Dublin, CA 94568

Client Proj. ID: Chevron 206142, 6338.85

Lab Proj. ID: 9806E67

Sampled: 06/21/98
Received: 06/22/98
Analyzed: see below

Attention: Deanna Harding

Reported: 07/10/98

LABORATORY ANALYSIS

Analyte	Units	Date Analyzed	Detection Limit	Sample Results
Lab No: 9806E67-02 Sample Desc : LIQUID,MW-11				
Ferrous Iron	mg/L	06/24/98	0.010	0.022
Nitrate as Nitrate	mg/L	06/23/98	1.0	190
Sulfate	mg/L	06/23/98	1.0	190
Lab No: 9806E67-03 Sample Desc : LIQUID,MW-8				
Ferrous Iron	mg/L	06/24/98	0.010	0.66
Nitrate as Nitrate	mg/L	06/23/98	1.0	N.D.
Sulfate	mg/L	06/23/98	1.0	11
Lab No: 9806E67-04 Sample Desc : LIQUID,MW-1				
Ferrous Iron	mg/L	06/24/98	0.010	5.3
Nitrate as Nitrate	mg/L	06/23/98	1.0	5.4
Sulfate	mg/L	06/23/98	1.0	12
Lab No: 9806E67-05 Sample Desc : LIQUID,MW-14				
Ferrous Iron	mg/L	06/24/98	0.010	0.15
Nitrate as Nitrate	mg/L	06/23/98	1.0	28
Sulfate	mg/L	06/23/98	1.0	44

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210


Mike Gregory
Project Manager



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Gettler Ryan/Geostrategies 6747 Sierra Court Suite J Dublin, CA 94568 Attention: Deanna Harding	Client Proj. ID: Chevron 206142, 6338.85 Lab Proj. ID: 9806E67	Received: 06/22/98 Reported: 07/10/98
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LABORATORY NARRATIVE

In order to properly interpret this report, it must be reproduced in its entirety. This report contains a total of 17 pages including the laboratory narrative, sample results, quality control, and related documents as required (cover page, COC, raw data, etc.).

SEQUOIA ANALYTICAL

Mike Gregory
Project Manager



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Gettler Ryan/Geostrategies
6747 Sierra Court, Suite J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 206142. 6338.85

QC Sample Group: 9806E67-02-05

Reported: Jul 10, 1998

QUALITY CONTROL DATA REPORT

Matrix: Liquid
Method: EPA 8015A
Analyst: A. Porter

ANALYTE Diesel

QC Batch #: GC0626980HBPEXB

LCS ID: BLK062698BS/BSD

Date Prepared: 6/26/98
Date Analyzed: 6/27/98
Instrument I.D.#: GCHP5B

Conc. Spiked, ug/L: 1000

Blank Spike, ug/L: 660
% Recovery: 66

Blank
Spike Duplicate, ug/L: 730
% Recovery: 73

Relative % Difference: 10

% Recovery
Control Limits: 50-150

RPD Control Limits: 0-50

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

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Gettler Ryan/Geostrategies
6747 Sierra Court, Suite J
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Attention: Deanna Harding

Client Project ID: Chevron 206142. 6338.85

QC Sample Group: 9806E67-02-05

Reported: Jul 10, 1998

QUALITY CONTROL DATA REPORT

Matrix: Liquid
Method: EPA 300.0
Analyst: G. Fish

ANALYTE	Fluoride	Chloride	Nitrite	Bromide	Nitrate	Phosphate	Sulfate
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QC Batch #: IN0623983000ACA

Sample No.:	9806E29-1						
Date Prepared:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Date Analyzed:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Instrument I.D.#:	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1
Sample Conc., mg/L:	N.D.	56	N.D.	N.D.	150	6.2	67
Conc. Spiked, mg/L:	100	100	100	100	100	100	100
Matrix Spike, mg/L:	110	160	98	95	260	99	160
% Recovery:	110	104	98	95	110	93	93
Matrix Spike Duplicate, mg/L:	110	160	98	95	260	100	170
% Recovery:	110	104	98	95	110	94	103
Relative % Difference:	0.0	0.0	0.0	0.0	0.0	1.1	10

RPD Control Limits:

LCS Batch#: IN0623983000ACA

Date Prepared:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Date Analyzed:	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98	6/23/98
Instrument I.D.#:	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1	INAC1
Conc. Spiked, mg/L:	5	5	5	5	5	5	5
LCS Recovery, mg/L:	5.1	4.5	4.8	4.7	4.7	5.0	4.9
LCS % Recovery:	102	90	96	94	94	100	98

Percent Recovery Control Limits:

MS/MSD	75-125	75-125	75-125	75-125	75-125	75-125	75-125
LCS	90-110	90-110	90-110	90-110	90-110	90-110	90-110

Quality Assurance Statement: All standard operating procedures and quality control requirements have been met.

Please Note:

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Project Manager



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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 206142, 6338.85
Matrix: Liquid

Work Order #: 9806E67 -01, 02, 04, 05

Reported: Jul 13, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC070298802002A	GC070298802002A	GC070298802002A	GC070298802002A	GC070298802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb	D. Newcomb
MS/MSD #:	8062172	8062172	8062172	8062172	8062172
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/2/98	7/2/98	7/2/98	7/2/98	7/2/98
Analyzed Date:	7/2/98	7/2/98	7/2/98	7/2/98	7/2/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	360 µg/L
Result:	17	18	18	55	340
MS % Recovery:	85	90	90	92	94
Dup. Result:	16	17	18	54	340
MSD % Recov.:	80	85	90	90	94
RPD:	6.1	5.7	0.0	1.8	0.0
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS070298	LCS070298	LCS070298	LCS070298	LCS070298
Prepared Date:	7/2/98	7/2/98	7/2/98	7/2/98	7/2/98
Analyzed Date:	7/2/98	7/2/98	7/2/98	7/2/98	7/2/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	360 µg/L
LCS Result:	18	19	19	60	290
LCS % Recov.:	90	95	95	100	81

MS/MSD	60-140	60-140	60-140	60-140	
LCS	70-130	70-130	70-130	70-130	60-140
Control Limits					

SEQUOIA ANALYTICAL
Elap #1271

Mike Gregory
Project Manager

Please Note:

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** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

9806E67.GET <1>



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Gettler Ryan/Geostrategies
6747 Sierra Court, Ste J
Dublin, CA 94568
Attention: Deanna Harding

Client Project ID: Chevron 206142, 6338.85
Matrix: Liquid

Work Order #: 9806E67-03

Reported: Jul 13, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes	Gas
QC Batch#:	GC070998802002A	GC070998802002A	GC070998802002A	GC070998802002A	GC070998802002A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015M
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	EPA 5030

Analyst:	C. Westwater	C. Westwater	C. Westwater	C. Westwater	C. Westwater
MS/MSD #:	8062523	8062523	8062523	8062523	8062523
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	N.D.
Prepared Date:	7/9/98	7/9/98	7/9/98	7/9/98	7/9/98
Analyzed Date:	7/9/98	7/9/98	7/9/98	7/9/98	7/9/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	350 µg/L
Result:	18	19	20	60	340
MS % Recovery:	90	95	100	100	97
Dup. Result:	15	16	17	51	350
MSD % Recov.:	75	80	85	85	100
RPD:	18.2	17.1	16.2	16.2	2.9
RPD Limit:	0-20	0-20	0-20	0-20	0-50

LCS #:	LCS070998	LCS070998	LCS070998	LCS070998	LCS070998
Prepared Date:	7/9/98	7/9/98	7/9/98	7/9/98	7/9/98
Analyzed Date:	7/9/98	7/9/98	7/9/98	7/9/98	7/9/98
Instrument I.D.#:	HP2	HP2	HP2	HP2	HP2
Conc. Spiked:	20 µg/L	20 µg/L	20 µg/L	60 µg/L	350 µg/L
LCS Result:	17	18	18	58	320
LCS % Recov.:	85	90	90	97	91

MS/MSD	60-140	60-140	60-140	60-140	
LCS	70-130	70-130	70-130	70-130	60-140
Control Limits					

SEQUOIA ANALYTICAL
Elap #1271

Mike Gregory
Project Manager

Please Note:

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** MS= Matrix Spike, MSD= MS Duplicate, RPD=Relative % Difference

9806E67.GET <2>



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6747 Sierra Court, Ste J
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Attention: Deanna Harding

Client Project ID: Chevron 206142, 6338.85
Matrix: Liquid

Work Order #: 9806E67-02-05

Reported: Jul 13, 1998

QUALITY CONTROL DATA REPORT

Analyte:	Beryllium	Cadmium	Chromium	Nickel
QC Batch#:	ME0624986010MDA	ME0624986010MDA	ME0624986010MDA	ME0624986010MDA
Analy. Method:	EPA 6010	EPA 6010	EPA 6010	EPA 6010
Prep. Method:	EPA 3010	EPA 3010	EPA 3010	EPA 3010

Analyst:	C. Caoile	C. Caoile	C. Caoile	C. Caoile
MS/MSD #:	9806E8201	9806E8201	9806E8201	9806E8201
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	6/24/98	6/24/98	6/24/98	6/24/98
Analyzed Date:	6/24/98	6/24/98	6/24/98	6/24/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
Result:	1.0	1.0	1.0	1.0
MS % Recovery:	100	100	100	100
Dup. Result:	1.0	1.0	1.0	1.0
MSD % Recov.:	100	100	100	100
RPD:	0.0	0.0	0.0	0.0
RPD Limit:	0-20	0-20	0-20	0-20

LCS #:	BLK062498	BLK062498	BLK062498	BLK062498
Prepared Date:	6/24/98	6/24/98	6/24/98	6/24/98
Analyzed Date:	6/24/98	6/24/98	6/24/98	6/24/98
Instrument I.D.#:	MTJA5	MTJA5	MTJA5	MTJA5
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L
LCS Result:	1.1	1.1	1.1	1.1
LCS % Recov.:	110	110	110	110

MS/MSD	80-120	80-120	80-120	80-120
LCS	80-120	80-120	80-120	80-120
Control Limits				

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SEQUOIA ANALYTICAL

Mike Gregory
Project Manager

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9806E67.GET <3>