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

Marketing Department

91 SEP 10 AM 11:54

September 5, 1991

Mr. Dennis Byrne
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Chevron Service Station #9-4587
609 Oak Street, Oakland

Dear Mr. Byrne:

Enclosed we are forwarding the Site Update Report dated August 2, 1991, prepared by our consultant GeoStrategies, Inc. for the above referenced site. As indicated in the report, groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline and BTEX. Benzene was detected in monitor wells C-2, C-4, C-5, CR-1 and tank pit backfill well A at concentrations of 1700, 2.3, 120, 9300 and 38000 ppb, respectively. Separate phase hydrocarbons were observed in monitor well C-1 and tank pit backfill wells B and C at measured thicknesses of 0.2, 1.0 and .02 feet, respectively. Approximately 16 gallons of separate phase hydrocarbons were removed during this quarter. Purging of the phase separated hydrocarbons will continue until a dedicated recovery system can be installed.

I am hereby requesting an extension of the submittal date for the groundwater remediation system installation work plan. This extension is being requested for several reasons. It has been recently brought to my attention that there is a high probability that the underground storage tanks and associated piping at this site will be removed. Should this be the case, I will recommend holding off on installing a remediation system until the tanks and piping are completely removed and any impacted soils adjacent to and beneath can be examined and samples collected for analysis. It is quite probable that the source of the groundwater contamination lies within these soils. This is supported by the existence of phase separated hydrocarbons and the elevated concentrations of dissolved hydrocarbons found in these areas. My approach would be to perform a source remediation approach by employing onsite excavation and aeration We would appreciate your review and concurrence of this proposal. I expect to have more information regarding the disposition of the tank system within the next two (2) months.

Chevron will continue to examine all monitor wells for the presence of separate phase hydrocarbons on a monthly basis and perform quarterly chemical analysis. Monitor wells which exhibit separate phase hydrocarbons are bailed during this inspection. Plume migration is surmised to be slow based on the relatively flat gradient and the low permeable geology that exists beneath the site.

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

Very truly yours,
CHEVRON U.S.A. INC.

Nancy Vukelich
Environmental Engineer

Enclosure

cc: Mr. Rich Hiett, RWQCB
Mr. S.A. Willer
File (9-4587Q1)

Mr. Ken Betts
770 Wesley Way
Oakland, CA 94610

GeoStrategies Inc.
2140 WEST WINTON AVENUE
HAYWARD, CALIFORNIA 94545
(415) 352-4800

August 2, 1991

Chevron U.S.A.
2410 Camino Ramon
San Ramon, California 94583

Attn: Nancy Vukelich

Re: SITE UPDATE
Chevron Service Station No. 4587
609 Oak Street
Oakland, California

Ms. Vukelich:

This Site Update has been prepared by GeoStrategies Inc. (GSI) and presents the results of the 1991 third quarter ground-water sampling performed by Gettler-Ryan Inc. (G-R) for the above-referenced site (Plate 1). The contents of this document are being furnished at the direction of Chevron U.S.A.

Ground-water sampling was performed by G-R on July 17, 1991. Purge water was collected in 55-gallon drums and stored onsite. Purge water was disposed of at an appropriate treatment and disposal facility determined by Chevron U.S.A.

The certified analytical report and Chain-of-Custody documentation are attached. Data have been summarized in Table 1.

719101-11

If you have any questions, please call.

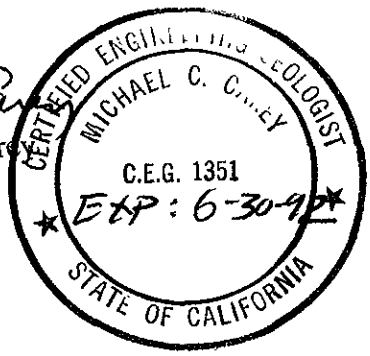
GeoStrategies Inc. by,

Noreen Moyle

Noreen Moyle
Environmental Scientist

Michael Carey

Michael C. Carey
C.E.G. 1351



NM/MCC/mlg

Table 1. Field Monitoring and Ground-water Analysis Data

Plate 1. Site Plan/Potentiometric Map

Attachments: Analytical Laboratory Report and Chain-of-Custody

QC Review: JK

TABLE 1

FIELD MONITORING AND GROUND-WATER ANALYSIS DATA
609 Oak Street
San Francisco

WELL NUMBER	SAMPLE DATE	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	WELL ELEV. (FT)	STATIC WATER ELEV.(FT)	PRODUCT THICKNESS	DEPTH TO WATER (FT)
A	06-Dec-89	44000	20000	66	1600	2220	----	----	Film	11.01
A	30-Oct-90	31000	23000	110	1100	160	----	----	Sheen	11.20
A	14-Jan-91	12000	30000	540	1400	560	----	----	----	11.25
A	03-Apr-91	59000	33000	2400	2200	3100	----	----	----	9.82
A	17-Jul-91	52000	38000	380	1300	500	----	----	----	10.93
B	06-Dec-89	Floating product		----	----	----	----	----	0.15	11.07
B	30-Oct-90	Floating product		----	----	----	----	----	0.01	11.19
B	14-Jan-91	Floating product		----	----	----	----	----	0.01	11.40
B	03-Apr-91	Floating product		----	----	----	----	----	1.00	9.55
B	17-Jul-91	Floating product		----	----	----	----	----	0.03	10.84
C	06-Dec-89	Floating product		----	----	----	----	----	0.15	10.94
C	30-Oct-90	Floating product		----	----	----	----	----	0.03	10.84
C	14-Jan-91	Floating product		----	----	----	----	----	0.11	11.01
C	03-Apr-91	Floating product		----	----	----	----	----	0.02	9.19
C	17-Jul-91	Floating product		----	----	----	----	----	0.03	10.53
C-1	06-Dec-89	Floating product		----	----	----	16.07	5.49	0.2	10.74
C-1	30-Oct-90	Floating product		----	----	----	16.07	5.30	0.02	10.79
C-1	14-Jan-91	Floating product		----	----	----	16.07	4.70	0.02	11.39
C-1	03-Apr-91	Floating product		----	----	----	16.07	6.66	0.02	9.43
C-1	17-Jul-91	Floating product		----	----	----	16.07	5.64	0.04	10.46
C-2	06-Dec-89	16000	250	1200	550	1400	16.84	5.96	----	10.88
C-2	30-Oct-90	28000	37000	1900	1200	4300	16.84	5.68	----	11.16
C-2	14-Jan-91	24000	3300	1200	1100	4100	16.84	5.73	----	11.11
C-2	03-Apr-91	12000	1100	840	650	1800	16.84	7.31	----	9.53

TABLE 1

FIELD MONITORING AND GROUND-WATER ANALYSIS DATA
609 Oak Street
San Francisco

WELL NUMBER	SAMPLE DATE	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	WELL ELEV. (FT)	STATIC WATER ELEV.(FT)	PRODUCT THICKNESS	DEPTH TO WATER (FT)
C-2	17-Jul-91	13000	1700	560	650	1700	16.84	6.16	----	10.68
C-3	06-Dec-89	<500.	<0.5	<0.5	<0.5	0.74	16.48	6.23	----	10.25
C-3	30-Oct-90	410	4	4	2	9	16.48	6.04	----	10.44
C-3	14-Jan-91	80	<0.5	<0.5	<0.5	1	16.48	6.14	----	10.34
C-3	03-Apr-91	53	<0.5	<0.5	<0.5	2	16.48	7.47	----	9.01
C-3	17-Jul-91	<50	5.9	<0.5	<0.5	<0.5	16.48	6.48	----	10.00
C-4	30-Oct-90	<50	<0.5	<0.5	<0.5	<0.5	16.53	4.97	----	11.56
C-4	14-Jan-91	<50	<0.5	<0.5	<0.5	<0.5	16.53	5.09	----	11.44
C-4	03-Apr-91	150	3	<0.5	12	9	16.53	6.53	----	10.00
C-4	17-Jul-91	290	2.3	0.4	52	0.4	16.53	5.37	----	11.16
C-5	30-Oct-90	<50	<0.8	<0.5	<0.5	0.5	14.70	4.73	----	9.97
C-5	14-Jan-91	54	<0.5	<0.5	<0.5	<0.5	14.70	4.83	----	9.87
C-5	03-Apr-91	1800	330	200	52	170	14.70	5.98	----	9.72
C-5	17-Jul-91	170	120	5.3	12	20	14.70	5.07	----	9.63
C-6	30-Oct-90	<50	<0.5	<0.5	<0.5	<0.5	13.87	4.44	----	9.43
C-6	14-Jan-91	<50	<0.5	<0.5	<0.5	<0.5	13.87	4.46	----	9.41
C-6	03-Apr-91	<50	<0.5	<0.5	<0.5	<0.5	13.87	5.21	----	8.66
C-6	17-Jul-91	<50	<0.5	<0.5	<0.5	<0.5	13.87	4.62	----	9.25
C-7	07-Feb-91	<50	<0.5	0.8	<0.5	<0.5	15.78	5.90	----	9.88
C-7	03-Apr-91	<50	<0.5	<0.5	<0.5	<0.5	15.78	6.74	----	9.04
C-7	17-Jul-91	<50	<0.5	<0.5	<0.5	<0.5	15.78	5.92	----	9.86
CR-1	30-Oct-90	9600	7100	65	610	190	----	----	----	10.51
CR-1	14-Jan-91	1500	3200	52	190	77	----	----	----	10.29

TABLE 1

FIELD MONITORING AND GROUND-WATER ANALYSIS DATA
609 Oak Street
San Francisco

WELL NUMBER	SAMPLE DATE	TPH-G (PPB)	BENZENE (PPB)	TOLUENE (PPB)	ETHYLBENZENE (PPB)	XYLENES (PPB)	WELL ELEV. (FT)	STATIC WATER ELEV.(FT)	PRODUCT THICKNESS	DEPTH TO WATER (FT)
CR-1	03-Apr-91	Not sampled	--	----	----	----	----	----	----	----
CR-1	17-Jul-91	15000	9300	220	680	530	----	----	----	10.19
CD-2	17-Jul-91	14000	1700	640	720	1900	----	----	----	----
TB	17-Jul-91	<50	<0.5	<0.5	<0.5	<0.5	----	----	----	----

Current Regional Water Quality Control Board Maximum Contaminant Levels
Benzene 1. ppb Xylenes 1750. ppb Ethylbenzene 680. ppb

Current DHS Action Levels Toluene 100.0 ppb

TPH-G = Total Petroleum Hydrocarbons calculated as Gasoline
PPB = Parts Per Billion CD = Duplicate Sample TB = Trip Blank
NOTE: 1. DHS Action levels and MCL's are subject to change pending State of California review.
2. All data shown as <X are reported as ND (none detected).

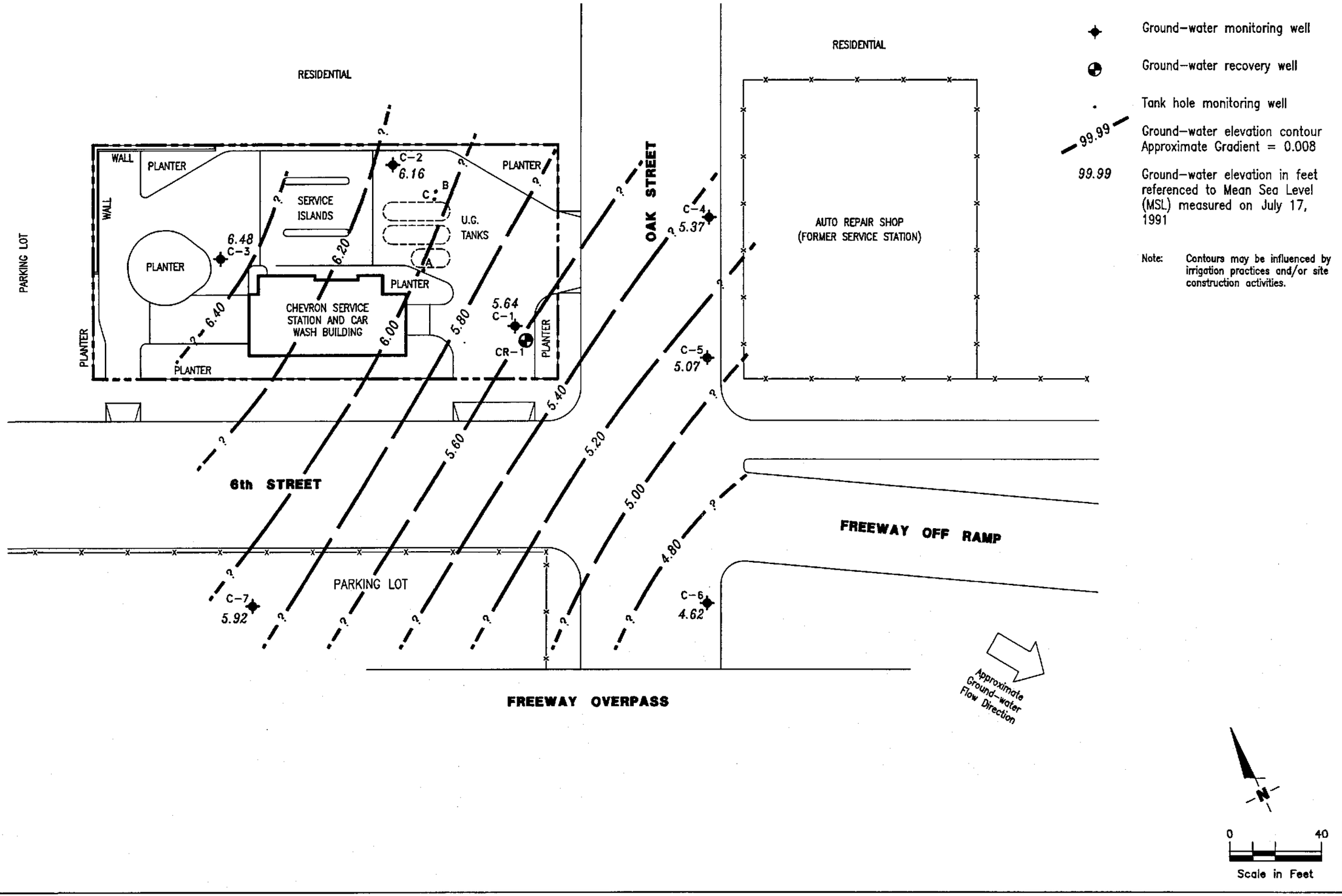


PLATE 1

SITE PLAN/POTENTIOMETRIC MAP
Chevron Service Station #4587
609 Oak Street
Oakland, California

GeoStrategies Inc.

JOB NUMBER 719101-11
REVIEWED BY DHP
DATE 7/91
REVISED DATE

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I • SAN FRANCISCO, CA 94124 • PHONE (415) 647-2081 DOHS #1332

GETTLER-RYAN INC.
GENERAL CONTRACTORS

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 12101
CLIENT: Chevron USA Inc.
CLIENT JOB NO.: 3191.01

DATE RECEIVED: 07/19/91
DATE REPORTED: 07/26/91

Lab Number	Customer Sample Identification	Date Sampled	Date Analyzed
12101- 1	C-2	07/17/91	07/24/91
12101- 2	C-3	07/17/91	07/24/91
12101- 3	C-4	07/17/91	07/24/91
12101- 4	C-5	07/17/91	07/24/91
12101- 5	C-6	07/17/91	07/24/91
12101- 6	C-7	07/17/91	07/24/91
12101- 7	A	07/17/91	07/24/91
12101- 8	CD-2	07/17/91	07/24/91
12101- 9	TRIP	07/17/91	07/24/91
12101-10	CR-1	07/17/91	07/24/91

Laboratory Number:	12101 1	12101 2	12101 3	12101 4	12101 5
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	13000	ND<50	290	170	ND<50
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	1700	5.9	2.3	120	ND<0.5
TOLUENE:	560	ND<0.5	0.4	5.3	ND<0.5
ETHYL BENZENE:	650	ND<0.5	52	12	ND<0.5
XYLENES:	1700	ND<0.5	0.4	20	ND<0.5

Laboratory Number:	12101 6	12101 7	12101 8	12101 9	12101 10
ANALYTE LIST	Amounts/Quantitation Limits (ug/L)				
OIL AND GREASE:	NA	NA	NA	NA	NA
TPH/GASOLINE RANGE:	ND<50	52000	14000	ND<50	15000
TPH/DIESEL RANGE:	NA	NA	NA	NA	NA
BENZENE:	ND<0.5	38000	1700	ND<0.5	9300
TOLUENE:	ND<0.5	380	640	ND<0.5	220
ETHYL BENZENE:	ND<0.5	1300	720	ND<0.5	680
XYLENES:	ND<0.5	500	1900	ND<0.5	530

SUPERIOR ANALYTICAL LABORATORY, INC.
1555 BURKE, UNIT I · SAN FRANCISCO, CA 94124 · PHONE (415) 647-2081 DOHS #1332

CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

QA/QC INFORMATION
SET: 12101

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

OIL AND GREASE ANALYSIS By Standard Methods Method 503E:
Minimum Detection Limit in Water: 5000ug/L

Modified EPA-SW846 Method 8015 for Extractable Hydrocarbons:
Minimum Quantitation Limit for Diesel in Water: 50ug/l
Standard Reference: NA

EPA-SW846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons:
Minimum Quantitation Limit for Gasoline in Water: 50ug/l
Standard Reference: 07/23/91

SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/l
Standard Reference: 06/13/91

ANALYTE	REFERENCE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Oil & Grease	NA	NA	NA	NA	NA
Diesel	NA	NA	NA	NA	NA
Gasoline	07/23/91	200ng	92/89	3.0	59-121
Benzene	06/13/91	200ng	99/113	12.8	70-125
Toluene	06/13/91	200ng	97/96	1.0	74-116
Ethyl Benzene	06/13/91	200ng	101/99	2.5	75-120
Total Xylene	06/13/91	600ng	102/100	2.6	75-119

Richard Srna, Ph.D.
Cecilia G. Joaquin (for)
Laboratory Director

Chain-of-Custody-Record

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

Chevron Facility Number: 4587
Facility Address: 609 OAK ST /6TH
Consultant Project Number: 3191.01
Consultant Name: GETTLER-RYAN INC
Address: 2150 W. WINTON AVE HAYWARD
Project Contact (Name): TOM PAULSON
(Phone) (415) 783-7500 (Fax Number)

Chevron Contact (Name): NANCY VUKELICH
(Phone)
Laboratory Name: SUPERIOR LAB
Laboratory Release Number: 2746840
Samples Collected by (Name): GUADALUPE SANCHEZ
Collection Date: 7-17-91
Signature: Guadalupe Sanchez

Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Chlorinated HC (8010)	Non Chlorinated HC (8020)	Total Lead (AA)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	Remarks
C-2	2	W		0940	HCl	Yes	✓							
C-3				1145			✓							
C-4				0955			✓							
C-5				0920			✓							
C-6				0852			✓							
C-7				0839			✓							
CR-1				1052			✓							
A				1100			✓							
CD-2				—			✓							
trip	1			—			✓							

Analyses To Be Performed

Please initial:
Samples Stored in Ice. Yes
Appropriate containers. Yes
Samples preserved. Yes
VOA's without headspace. Yes
Comments:

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Guadalupe Sanchez	Gettler-Ryan	7-17-91 14:30	Kelvig #1	C/K	7-17-91 14:30
Kelvig #1	C/K	7-18-91 10:00		C/K	7-18-91 10:00
	C/K	7-18-91 14:00	Received For Laboratory By (Signature)		7-18-91 1405

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