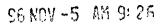
EMVIRONMENTAL PROTECTION





October 30, 1996

Ms. Juliet Shin Alameda County Health Care Services Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 Chevron USA. Products Company

6001 Bollinger Canyon Road Building L San Ramon, CA 94583 P.O Box 5004 San Ramon, CA 94583-0804

Marketing —Northwest Region Phone 510 842 9500

Re:

Former Chevron Service Station #9-0191 900 Otis Drive, Alameda, California

Dear Ms. Shin:

Enclosed is the Second and Third Quarter Groundwater Monitoring reports for 1996, prepared by our consultant Gettler-Ryan Inc., for the above noted site. I apologize for the delay in submittal of the second quarter report and future reports will be submitted in a timely manner. Groundwater samples were analyzed for TPH-g, BTEX and MtBE constituents.

Benzene constituents have been below method detection limits in all of the monitoring wells in each of the quarters. TPH-g and MtBE constituents have only been observed in monitoring well MW-3 in the two quarters, with maximum concentrations of 160ppm and 16ppb respectively. Groundwater depth in the second quarter varied from 2.66 to 5.29 feet below grade with a direction of flow to the northwest. In the third quarter the depth to the groundwater varied from 3.08 to 5.21 feet below grade with a direction of flow to the northwest.

It appears that the site has not been impacted by Chevron's past operations, however we will continue to monitor the site quarterly, until we have one full year of sampling results. The results will then be reviewed, and if they are similar as now, closer will be requested.

If you have any questions, call me at (510) 842-9136.

Sincerely,

CHEVRON PRODUCTS COMPANY

Philip R. Briggs

Site Assessment and Remediation Project Manager

Enclosure

October 30, 1996 Ms. Juliet Shin Former Chevron Service Station # 9-0191 Page 2

cc. Ms. Bette Owen, Chevron

Harsch Investment Corp. dba South Shore Center 235 W. MacArthur Boulevard, #63 Oakland, CA 94611

Mr. Phil Eyring Eyring Reality Inc. 500 Ygnacio Valley Road, # 225 Walnut Creek, CA 94596

Mr Kevin Graves, RWQCB-S.F. Bay 2101 Webster Street, Suite 500 Oakland, CA 94612



October 7, 1996 Job #6324.80

Mr. Phillip Briggs Chevron USA Products Company P.O. Box 5004 San Ramon, CA 94583

Re:

Third Quarter Groundwater Monitoring & Sampling Report

Former Chevron Service Station #9-0191

900 Otis Drive Alameda, California

Dear Mr. Briggs:

This report documents the quarterly groundwater sampling event performed by Gettler-Ryan Inc. (G-R). On September 3, 1996, field personnel were on-site to monitor and sample six wells (MW-2 through MW-7) at the Former Chevron Service Station #9-0191 located at 900 Otis Drive in Alameda, California.

Static groundwater levels were measured on September 3, 1996. 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. 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 Table 1. The chain of custody document and laboratory analytical reports are attached.

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

Sincerely.

Project Coordinator

Senior Geologist, R.G. No. 5523

DLH/PLS/dlh 6324.QML

Figure 1:

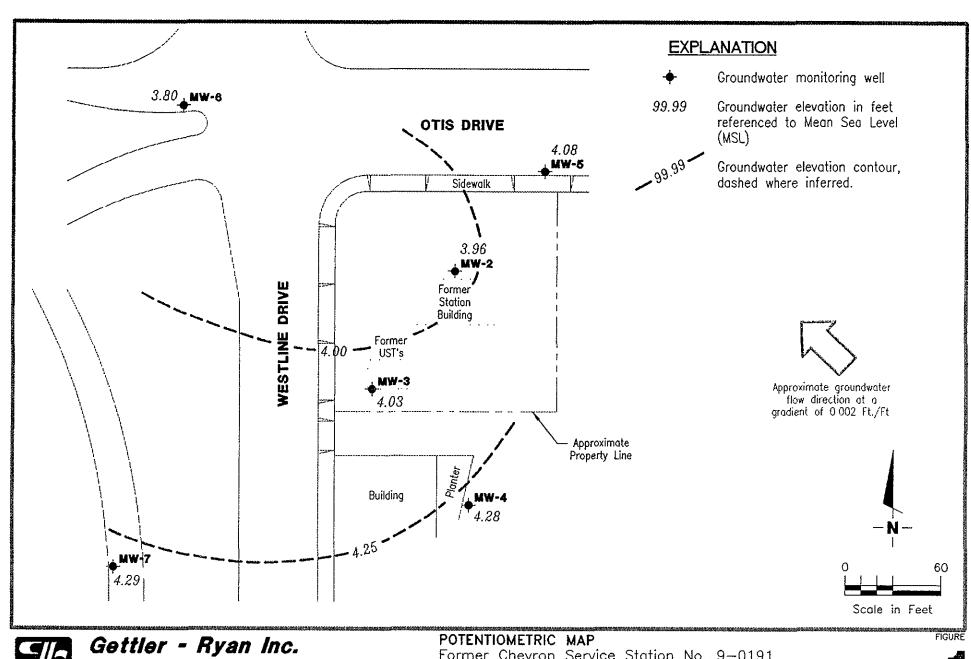
Potentiometric Map

Table 1: Attachments:

Water Level Data and Groundwater Analytical Results Standard Operating Procedure - Groundwater Sampling

Field Data Sheets

Chain of Custody Document and Laboratory Analytical Reports





REVIEWED BY

6747 Sierra Ct., Suite J Dublin, CA 94568

(510) 551-7555

Former Chevron Service Station No. 9-0191 900 Otis Drive Alameda, California

September 3, 1996

REVISED DATE



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0191, 900 Otis Drive, Alameda, California

Well ID/	_	DTW	GWE	Product Thickness*	TPH(G)	В	T	E	x	MTBE
roc (ft)	Date	(ft)	(msl)	(ft)		<		ррb		>
√IW-2/										
9.17	2/8/96	2.75	6.42		94	ND	ND	ND	ND	_
	6/27/96	4.99	4.18	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	9/3/96	5.21	3.96	ŏ	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
717. 0.1										
/W-3/	0.10.10.6				440	•				
7.11	2/8/96	1.36	5.75	-	460	26	ND	5.8	ND	
	6/27/96	3.22	3.89	0	130¹	< 0.50	< 0.50	< 0.50	0.51	16
	9/3/96	3.08	4.03	0	160 ²	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
√W-4/										
7.78	2/8/96	1.32	6.46		ND	ND	ND	ND	ND	
	6/28/96	2.99	4.79	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	9/3/96	3.50	4.28	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
/W-5/					•					
1.37	2/8/96	0.75	6.62		ND	ND	ND	ND	ND	_
,	6/27/96	2.66	4.71	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	9/3/96	3.29	4.08	Ŏ	< 50	<0.50	< 0.50	< 0.50	< 0.50	<2.5
AW-6/										
1.30	2/8/96	2.10	5.20		MD	MD		MD	ND	
.30	6/27/96	2.10			ND	ND	ND	ND	ND	
		3.98	3.32	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	9/3/96	3.50	3.80	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
/W-7/										
1.58	2/8/96	3.24	6.34		ND	ND	ND	ND	ND	
	6/27/96	5.07	4.51	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
	9/3/96	5.29	4.29	0	<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
rip Blank	6/27/96				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5
-	9/3/96				<50	< 0.50	< 0.50	< 0.50	< 0.50	<2.5



Table 1. Water Level Data and Groundwater Analytical Results - Former Chevron Service Station #9-0191, 900 Otis Drive, Alameda, California (continued)

EXPLANATION:

TOC = Top of casing elevation

(ft) = feet

DTW = Depth to water

GWE = Groundwater elevation

msl = Measurements referenced relative to mean sea level

TPH(G) = Total Purgeable Petroleum Hydrocarbons as Gasoline

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl-tertiary-butyl-ether

ppb = Parts per billion

ND = Not-Detected

--- = Not analyzed/Not applicable

ANALYTICAL METHODS:

EPA Method 8015/5030 for TPH(G) EPA Method 8020 for BTEX & MTBE

NOTES:

Water level elevation data and laboratory analytical results prior to June 27, 1996, were compiled from Quarterly Monitoring Reports prepared for Chevron by Pacific Environmental Group.

- Product thickness was measured on and after June 27, 1996, with a MMC Flexi-Dip interface probe.
- Laboratory report indicates unidentified hydrocarbons C6-C12.
- Laboratory report indicates unidentified hydrocarbons < C8.</p>

6324.TQM



STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

Gettler-Ryan 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.

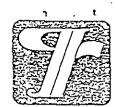
After water levels are collected and prior to sampling, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, suction, Grundfos), or polyvinyl chloride bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging.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

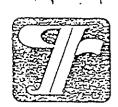
A laboratory supplied trip blank accompanies each sampling set. For sampling sets greater than 20 samples, 5% trip blanks are included. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

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



SAMPLER	FICHIC			· DATE	<u> </u>	3-96
ADDRESS	900 CTIPS	Di	ive	JOB#		324.85
ÇITY	A .	61-	<u> </u>	SS#		-0191
Well ID	MNW-2		Well Condition	Ota	Ч	
Well Location Descri	ption .				_/	
Well Diameter	211 in		Hydrocarbon Thickn	ness G	-	
Total Depth	15 ft		Volume	2" = 0.17	6" = 1.	.50 12° = 5.80
Depth to Liquid	5,21 ft		Factor	3" = 0.38	•	12 2 3.80
# of casing 3 X Volume	9.79	×	(VF) O1)7 x(V	4* = 0.66 /F <u>)</u> / ₁ 7 #8	stimated	ダ 心 gal.
Purge Equipment	Saction		_Sampling Equipmen	t Bailer	'purge Volume	
Did well dewater	<u>Ne</u>		If yes, Time	. Volume		
Starting Time /	030		Purging Flow Rate		1	gpm.
Time 032 034 036 034	pH (e.C.) (e.C.) (e.C.) (e.C.) (e.C.)	1	Conductivity 1900 1993 1990 1990	Temperatu 21.6" 21.6 21.5	re ,	Volume Z J G 7
Weather Conditions Water Color:	Clar) <u>.</u>	cocl			-
Sediment Description			hen	Odor:	Mcn	
	U	08	RATORY INFORMAT	ION		
Sample ID		Refrig				zicylenA
MW-2	Bryon1 ViA	7	Her	5150		Good POTY ANTE
Comments		<u>.</u>				·
<u> </u>					· · · · · · · · · · · · · · · · · · ·	
	»·			•		

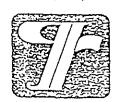
(N)



ADDRESS	SAMPLER /	E, C/I,ic			DATE	J.	-3-96	
Well ID MW−3 Well Condition C/C y Well Location Description 211 in Hydrocarbon Thickness 4 Total Depth 14 ft Volume 2° = 0.17 6° = 1.50 12° = 5.80 Depth to Liquid 3.08 ft Feeter 3° = 0.38 (VF) 4° = 0.66 10.92 get 3° = 0.38 (VF) 4° = 0.66 10.92 get 3° = 0.38 (VF) 4° = 0.66 10.92 get 3° = 0.38 (VF) 4° = 0.66 10.92 get 3° = 0.38 (VF) 4° = 0.66 10.92 get 3° = 0.38 (VF) 4° = 0.66 10.92 get 3° = 0.38 (VF) 4° = 0.66 10.92 get 10.92 get Purge Equipment Sampling Equipment 8° = 1.50 get 9° Starting Time 16′ yes, Time Volume 10 Starting Time 10° yes 10° yes 10° yes Sampling Time 10° yes 20° yes 20° yes 20° yes 10° yes 10° yes 20° yes 20° yes	ADDRESS .	900 CTIPS A	Invie		JOB#	63	24.85	
Well Location Description Well Diameter 2 // in Hydrocarbon Thickness Control Depth Hydrocarbon Thickness Hydrocarbon Type Hydrocarbon Thickness Hydrocarbon Thickness Hydrocarbon Thickness Hydrocarbon Thickness Hydrocarbon Thickness Hydrocarbon Thicknes Hydrocarbon Thickness Hydrocarbon Thickness	CITY	Alamida 1	71+		SS#	9-	0191	
Well Location Description Well Diameter 2 // ft Hydrocarbon Thickness Image: Control of the con	Well ID	MNW-3	Well Co	ndition	Clar.	•		
Total Depth	Well Location Descrip	otion :					·,	
Depth to Liquid 3.08 ft Factor Facto	Well Diameter	211 in	Hydroca	arbon Thickne	ss G			
Depth to Liquid 3.08 ft Factor 3° = 0.38 (VF) 4° = 0.66 (VF) 4° = 0.	Total Depth	14 tt	Vol	uma	2" = 0.17	6° = 1.5°	0 12" = 5.6	80
# of casing 3 / Volume Volume	Depth to Liquid	3,08 ft	Fa	ctor				
Volume Purge Equipment Saction Sampling Equipment Saction Sampling Equipment Saction Sampling Equipment Saction Sampling Equipment Saction Starting Time Starting Time Time ICHY CONS SOCIOUS ICHY CONS SOCIOUS CONS Water Conditions Water Color: Sediment Description LABORATORY INFORMATION Sample ID Container Reling Preservative Type Lab Analysis Analysis MAW - 3 Reling Preservative Type Lab Analysis	3,	10.92						
Purge Equipment Sattles Sampling Equipment Balley Volume Did well dewater NC If yes, Time Volume Volume Starting Time Sampling Time Purging Flow Rate I gpm. Time I(144) Con 8 55/C 21/C 2 ICHO IONS Value Volume Volume Volume Volume Volume Volume I(144) Con 8 55/C 21/C 2 IONS IONS IONS IONS IONS IONS IONS Value Volume Volume Volume Volume IONS IONS		10110	x <u>0117</u>	x(VF	1) /13 #8		5,6 g	al.
Starting Time 10,42 Purging Flow Rate 1 gpm. Sampling Time Time pH Conductivity Temperature Volume 1,49 S5/C 21,6. 2 1046 Gr 50 3370 22.2 9 1048 Jr 50 3380 22.1 7 Weather Conditions Cloudy Cool Water Color: Clear Odor: Mr - Sediment Description LABORATORY INFORMATION Sample ID Container Reling Preservative Type Lab Analysis MW - 3 3240M1 Vit 1 Here S150 Gr.2 PS112 Miles		Saction	Samplir	Ig Equipment	Baile	Volume		
Starting Time 10,142 Purging Flow Rate 1 gpm. Sampling Time Time pH Conductivity Temperature Volume 11,144 Cr. 58 55/C 21,16. 2 1046 Cr. 50 33,70 22.2 4 1048 33,70 22.1 6 1048 33,70 22.1 7 Weather Conditions Cloudy Cool Water Color: Cloudy Cool Sediment Description Nicre LABORATORY INFORMATION Sample ID Container Relig Preservative Type Lab Analysis MAW - 3 3240M Vift y Her Sign Gray BIVE Mill	Did well dewater	M _C	If yes,	Гіте <u> </u>	Volume			
Time pH Conductivity Temperature Volume 1(144) 1(144) Color 55/C 21/6. 2 1(146) Color 33/C 22.1 6 1048 337C 22.1 7 Westher Conditions Cloudy Cool Water Color: Clrav Odor: Mr Sediment Description Name LABORATORY INFORMATION Sample ID Container Relig Preservativo Type Lab Analysis MW-3 3240M Vith Y HCL SEQ Goz C122 Min	Starting Time	10:42	Purging	Flow Rate			· · · · · · · · · · · · · · · · · · ·	m.
1/14	Sampling Time						•	
Weather Conditions Water Color: Sediment Description LABORATORY INFORMATION Sample ID Container Reling Preservative Type Lab Analysis MAW-3 3240M Vit 4 HU Siza Gaz BIRZ Mil	16.44 1646 1048	C. D. S C. S. C. C. S. C. C. S. C. S	_55/ _337 _330	C	2116. 22.2 22.1.		Volume 2 Y 6	
Water Color: Clear Odor: Mr Sediment Description Mcnc LABORATORY INFORMATION Sample ID Container Releig Preservative Type Lab Analysis MMV-3 3x40ml Virt Y Hac Siso Grag MIXL MIT	Weather Conditions	Clandy	· C.O.O.	~ /				
Sediment Description LABORATORY INFORMATION Sample ID Container Reling Preservative Type Lab Analysis MMV-3 3240M) VIA Y HTC SIEW Graz KIVE MIT	Water Color:				Odor:	nh_	_	
Sample ID Container Reling Preservative Type Lab Analysis MAW - 3 34900 Vint Y Had S130 Graz 18122 MIT		•	Vone					
Sample ID Container Reling Preservative Type Lab Analysis MMU-3 3240M) VIA Y HOL SIEG GOOD GOOD MILE MILE		1.0	BUBATUBA	/ INIEORNACTIO				
MAW-3 BYJOMI VIN Y HEL SIEW GOODEN	Samole ID						A l ata	
Comments				reservative Type			Gaz BIX2 A	1775
Comments								
Comments								
	Comments							



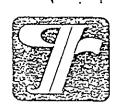
SAMPLER	Fichic		DATE	8-3-96
ADDRESS	900 CTIPS ,	Virie	JOB #	6324.85
CITY	•	CH	 SS#	9-0191
Well ID	MNW-4	Well Condition	cts	4
Well Location Descrip	ption .			
Well Diameter	211 in	Hydrocarbon Th	nickness /	
Total Depth	ft	Volume	2" ≈ 0.17 €	5° = 1.50 12° = 5.80
Depth to Liquid	3,50 ft	Factor	3" = 0.38	, , 2 3.50
# of casing SX Volume	12.50	(VF) × <u>0</u> ,17	4" = 0.66 x(VF) 2./2 #Esti	imated <u>C. Y</u> gal.
Purge Equipment	Saction	Sampling Equip	ment Bailes	/olume
Did well dewater	<u>nic</u>	If yes, Time	. Volume	
Starting Time /	0:14	Purging Flow R	ate /,/	gpm.
Sampling Time	1623			•
Time 10:16 10:18 10:26 10:23	pH 6.100 6.58 6.58	Conductivity 2360 2360 2350	Temperature 22-C 22-(Volume 2-2 4,4
Weather Conditions	Clan	Is cool		
Water Color:	Char	7	Odor:	Mon
Sediment Description		More		
	ĹA	BORATORY INFORI	MATION	
Sample 10 MW-4		elrig Preservativ		Analysis Gos BTX2 NOTBE
/ WIN/	3 yyun Virt	1 Hac	5150	Gas 137/2 1011 St
Comments				



SAMPLER	1 Clic		***************************************	DATE	\$-3-94
ADDRESS .	900 CTIPS	\mathcal{D}_{i}	ve	JOB#	6324.85
CITY	Alami du	CH		SS#	9-0191
Well ID	MNW-5		Well Condition	Cka.	1
Well Location Descrip	otion '				
Well Diameter	211 in		Hydrocarbon Thickne	ss C	
Total Depth	16 ft	ſ	Volume	2" = 0.17	6" = 1.50
Depth to Liquid	3.29 ft		Factor	3" = 0.38	·
# of casing 3x Volume	12.7.1	× g	(VF) 0:17 x(VF	4" = 0.66 <u>- リ2:と #</u> Es	timated 6,5 gal.
Purge Equipment	Saction		Sampling Equipment	Bailer	¹ purge Volume
Did well dewater	NL		If yes, Time	_ · Volume	
Starting Time Sampling Time	9:54 1007		Purging Flow Rate		,/ gpm.
Time 1001 1003 1005 1007	0.76 0.77 6.77 6.76 G.76	- - -	Conductivity 10 48 1000 198 1000	Temperatur 23.6 22.8 22-9 23.0	e Volume 7.2 9.4 6.1 7.6
Weather Conditions	_ Cloud.	-	cocl		
Water Color: Sediment Description	_ Clear	lon		Odor:	Nou
	L	ABOF	RATORY INFORMATION	ON	
Sample 10		Refrig	Preservative Type		Analysis
MW-5	3240ml ViA	4	Ith	5150	Guz RTX2 NDT9
Comments			·		'



SAMPLER/	LIC/IIC		DATE	8-3-96
ADDRESS	900 CTIPS	Drive	JO8 #	9-3-94 0324.85
CITY	<u>Alamida</u>	C/+	_ SS#	9-0191
Well ID	MNW- G	Well Condition	ot	6/
Well Location Descrip				
Well Diameter	211 in	Hydrocarbon Thi	ickness 🕮	
Total Depth		Volume	2" = 0.17	6° = 1.50 12° = 5.80
Depth to Liquid	324	Factor	3° = 0.38	. 12 - 3.33
# of casing $3x$.	13.50	(VF)	4" = 0.66	,
Volume	. /5:50	× 0.17	x(VF) 2-3 #Es	timated Gold gal.
Purge Equipment	Saction	Sampling Equipn	nent_Bailer	Volume
Did well dewater	MC	If yes, Time	Volume	
Starting Time	942	Purging Flow Ra	te ,	/, Z gpm.
Sampling Time	950			•
Time 9:44	G147	Conductivity 5337	Temperature	e Volume
946 948 950 ·	(0.46 (.45	7850 7330 7320	23.0 23.0 ·	<u>4,8</u> 7,2
			23.6	8.0
Weather Conditions		landy cool		
Water Color:	Char	/	Odor:	1/a
Sediment Description		Nou		
	L	ABORATORY INFORM	IATION	
Sample ID	Container	Refrig Preservative		Analysis
MW-6	3xyoml vir	Y HEL	5150	Good RIVE NOTER
Cana				
Comments				
*	417			



				DATE	<i></i> p_	- 3-94	
ADDRESS .	900 CTIPS	\mathcal{D}_{i}	ie	JOB#	63	24.85	
CITY	Alami du	C1+	-	SS#		0191	
Well ID	MNW-7		Well Condition	draj			
Well Location Descrip	ition .	•				· · · · · · · · · · · · · · · · · · ·	
Well Diameter	211 in		Hydrocarbon Thickne	ss			
Total Depth	<i>1</i> 41 ft	_	Volume	2" = 0.17	6" = 1.5	0 12" =	5.80
Depth to Liquid	5.29 ft	_	Factor	3" = 0.38		•	
# of casing $\vec{3}$	8.71		(VF)	4" = 0.66			
Volume	•	_ X	0.)7 x(VF) <i>],</i>	_ stimated _ purge	<i>u</i> , 5	gal.
Purge Equipment '	Saction	<u> </u>	Sampling Equipment	Bailer	Maluma		
Did well dewater	MC	.	If yes, Time	Volume			
Starting Time	9:31	<u> </u>	Purging Flow Rate		1.5	····	gpm.
Sampling Time	9:37					-	
Time 9:32	рН _(с. 83		Conductivity 1250	Temperatur	·e	Valume /i5	
cj 33	<u> </u>	<u> </u>	1956	21.7		3.0	
934	6.65	. .	1386	21.6		4.5	
	4.45	<u>.</u> .	1380	21.6		5,0	
Weather Conditions	c la-	e dy	cool		<u>-</u>		
Water Color:	Clear	/-		Odor:	111.~		
Sediment Description			1/0~				
		A B O I	20700V INCODA 6 710				
Sample IQ	Container		RATORY INFORMATIO				
MW-7	Parlow) Vist	Relrig Y	Preservative Type	515 Q		Analysis Gove 13772	11113
				7. 0		14.11.5 16.00	
					1		
Comments		•			1		

CHUIL OF CUSIONY. 9-0191 Chevron Facility Number_____ Chevron Contact (Hame) ... Facility Address 900 Otis Drive . Alameda (Phone)_ Cheyron U.S.A. Inc. G324.85 Consultant Project Number____ Laboratory Name__ P.O. BOX 5004 2097700 Consultant Nome Gettler-Ryan Laboratory Release Number ___ San Ramon, CA 94583 Address 6747 Sierra Ct, Ste J, Dublin 94568 FI Cline Samples Collected by (Name)_ FAX (415)842-9591 Project Contact (Home) Deanna Harding 510 (Phone) 551-7555 (Fox Number) 551-7888 9-3-96 Collection Date___ Signature_ A = Air C = Charcool Analyses, To Be Performed DO NOT BILL Containers Purgedble Halocarbons (8010) Purgeable Aromatica (8020) TB-LB ANALYSIS Purgocbio Organica (8240) Oil and Gream (5520) Number of TPH Diosed (8015) u 1 1 000 Remarks 13-4B 01 W 1B ML 4 02 937 MW7 Mw. E 03 950 WW-5 1007 04 MW-4 1023 05 06 J-WM 1039 MW-3 1051 Recolyed By (Signature) Relinquished By (Signatury) Date/Time Organization Turn Around Time (Circle Choice) Organization 9-4-961 24 Hrs. Date/Ilmo 365 48 Hrs. Relinquiched By (Signature) Organization Received By (Signature) Organization 52Q 6 Day∎ 10 Doys Realeved For Laboratory By (Signature) Organization Se Contracted



680 Chesapeake Drive 404 N. Wiget Lane 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063 Walnut Creek, CA 94598 (415) 364-9600 (510) 988-9600 (916) 921-9600 FAX (415) 364-9233 FAX (510) 988-9673 FAX (916) 921-0100

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

Client Proj. ID: Chevron 9-0191, Alameda Sample Descript: TB-LB

Sampled: 09/03/96 Received: 09/04/96

Matrix: LIQUID Analysis Method: 8015Mod/8020 Analyzed: 09/13/96

Lab Number: 9609096-01 Attention: Deanna Harding

Reported: 09/18/96

QC Batch Number: GC091396BTEX03A

Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 93

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

SEQUOIA ANALYTICAL - ELAP #1210

Mike Gregory Project Manager



680 Chesapeake Drive 404 N Wiget Lane 819 Striker Avenue, Suite 8

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6747 Sierra Court Suite G Dublin, CA 94568

Attention: Deanna Harding

Gettler Ryan/Geostrategies Client Proj. ID: Chevron 9-0191, Alameda Sampled: 09/03/96

Sample Descript: MW-7

Matrix: LIQUID Analysis Method: 8015Mod/8020 Lab Number: 9609096-02

Received: 09/04/96 Analyzed: 09/13/96 Reported: 09/18/96

QC Batch Number: GC091396BTEX03A

Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Triftuorotoluene	Control Limits % 130	% Recovery 95

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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6747 Sierra Court Suite G

Gettler Ryan/Geostrategies Client Proj. ID: Chevron 9-0191, Alameda Sampled: 09/03/96

Dublin, CA 94568

Sample Descript: MW-6 Matrix: LIQUID

Received: 09/04/96

Analysis Method: 8015Mod/8020 Attention: Deanna Harding Lab Number: 9609096-03

Analyzed: 09/13/96 Reported: 09/18/96

QC Batch Number: GC091396BTEX21A

Instrument ID: GCHP21

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 90

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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Dublin, CA 94568 6747 Sierra Court Suite G

Gettler Ryan/Geostrategies Client Proj. ID: Chevron 9-0191, Alameda Sampled: 09/03/96 Sample Descript: MW-5

Matrix: LIQUID

Received: 09/04/96

Analysis Method: 8015Mod/8020 Attention: Deanna Harding Lab Number: 9609096-04

Analyzed: 09/13/96 Reported: 09/18/96

QC Batch Number: GC091396BTEX03A

Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 130	% Recovery 90

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 G Dublin, CA 94568

Client Proj. ID: Chevron 9-0191, Alameda Sampled: 09/03/96 Client Proj. ID: Sample Descript: MW-4

Matrix: LIQUID Analysis Method: 8015Mod/8020 Received: 09/04/96

Attention: Deanna Harding Lab Number: 9609096-05

Analyzed: 09/13/96 Reported: 09/18/96

QC Batch Number: GC091396BTEX03A

Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 0.50 0.50	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 93

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 G
Dublin CA 94568

Gettler Ryan/Geostrategies Client Proj. ID: Chevron 9-0191, Alameda Sampled: 09/03/96 Sample Descript: MW-2

Dublin, CA 94568

Matrix: LIQUID

Received: 09/04/96

Attention: Deanna Harding

Analysis Method: 8015Mod/8020 Lab Number: 9609096-06

Analyzed: 09/13/96 Reported: 09/18/96

QC Batch Number: GC091396BTEX03A

Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:	50 2.5 0.50 0.50 . 0.50 . 0.50	N.D. N.D. N.D. N.D. N.D. N.D.
Surrogates Trifluorotoluene	Control Limits % 70 130	% Recovery 94

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

SEQUOIA ANALYTICAL -ELAP #1210

Mike Gregory Project Manager

Page:

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680 Chesapeake Drive 404 N Wiget Lane 819 Striker Avenue, Suite 8

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Gettler Ryan/Geostrategies 6747 Sierra Court Suite G

Client Proj. ID: Chevron 9-0191, Alameda Sample Descript: MW-3

Sampled: 09/03/96

Dublin, CA 94568

Matrix: LIQUID

Received: 09/04/96

Attention: Deanna Harding

Analysis Method: 8015Mod/8020 Lab Number: 9609096-07 Reported: 09/18/96

Analyzed: 09/16/96

QC Batch Number: GC091696BTEX20A

Instrument ID: GCHP20

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX and MTBE

Analyte	Detection Limit ug/L		Sample Results ug/L
TPPH as Gas Methyl t-Butyl Ether Benzene Toluene Ethyl Benzene Xylenes (Total) Chromatogram Pattern:			160 N.D. N.D. N.D. N.D. N.D.
Unidentified HC	•••••	•••••	<c8< th=""></c8<>
Surrogates Trifluorotoluene	Control Limits % 70	, 130	6 Recovery 115

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

SEQUOIA ANALYTICAL -ELAP #1210

Mike Gredory Project Manager

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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Client Project ID:

<u>Parting of Garries of a levilled from the commentation of the later of the later of the levilled of the later of the late</u> Chevron 9-0191, Alameda

Matrix:

Liquid

Dublin, CA 94568 Attention: Deanna Harding

Work Order #:

9609096

-01, -02, -04-06

Reported:

Sep 18, 1996 ari liburbah karende liben menganggan markan kendengen benten dikan dibah manin yeng babah yari paga

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
			Benzene		
QC Batch#:	GC091396BTEX03A	GC091396BTEX03A	GC091396BTEX03A	GC091396BTEX03A	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	D. Jirsa	D. Jirsa	D. Jirsa	D. Jirsa	
MS/MSD #:	9609152-03	9609152-03	9609152-03	9609152-03	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	9/13/96	9/13/96	9/13/96	9/13/96	
Analyzed Date:	9/13/96	9/13/96	9/13/96	9/13/96	
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L	
Result:	9.7	9.4	9.2	29	
MS % Recovery:	97	94	92	97	
Dup. Result:	9.8	9.4	9.2	29	
MSD % Recov.:		94	92	97	
RPD:	1.0	0.0	0.0	0.0	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	BLK091396	BLK091396	BLK091396	BLK091396	
Prepared Date:	9/13/96	9/13/96	9/13/96	9/13/96	
Analyzed Date:	9/13/96	9/13/96	9/13/96	9/13/96	
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3	
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L	
LCS Result:	9.1	8.6	8.2	26	
LCS % Recov.:	91	86	82	87	
MS/MSD	60.140	60 140	60.140	20.140	
•	60-140	60-140	60-140	60-140	
LCS Control Limits	70-130	70-130	70-130	70-130	

Mike Gregory Project Manager

SEQUOIA ANALYTICAL

Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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



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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Transferration - Mark Markett Color (1995) - 10 and 1985 a market (1995) Client Project ID: Chevron 9-0191, Alameda

Matrix:

Liquid

Attention: Deanna Harding

Dublin, CA 94568

Work Order #:

9609096 -03

Reported:

Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
OC Batab#	COROLOGOPTEVOLA	00001000DTEV014	Benzene	000000000000000000000000000000000000000	
	GC091396BTEX21A	GC091396BTEX21A	GC091396BTEX21A	GC091396BTEX21A	
Analy. Method:		EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	G. Fish	G. Fish	G. Fish	G. Fish	
MS/MSD #:	9609152-02	9609152-02	9609152-02	9609152-02	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	9/13/96	9/13/96	9/13/96	9/13/96	
Analyzed Date:	9/13/96	9/13/96	9/13/96	9/13/96	
nstrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L	
Result:	9.5	9.2	9.0	27	
MS % Recovery:	95	92	90	90	
Dup. Result:	10	9.5	9.1	27	
MSD % Recov.:	100	95	91	90	
RPD:	5.1	3.2	1.1	0.0	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	BLK091396	BLK091396	BLK091396	BLK091396	
Prepared Date:	9/13/96	9/13/96	9/13/96	9/13/96	
Analyzed Date:	9/13/96	9/13/96	9/13/96	9/13/96	
Instrument I.D.#:	GCHP21	GCHP21	GCHP21	GCHP21	
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L	
LCS Result:	10	9.7	9.5	29	
LCS % Recov.:	100	97	95	97	
MS/MSD	60-140	60-140	60-140	60-140	
LCS Control Limits	70-130	70-130	70-130	70-130	

ANALYTICAL

Mike Gregory Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Client Project ID: Chevron 9-0191, Alameda

Matrix:

Liquid

Dublin, CA 94568

Attention: Deanna Harding Work Order #: 9609096

-07 Reported:

Sep 18, 1996

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl	Xylenes	
			Benzene		
QC Batch#:	GC091696BTEX20A	GC091696BTEX20A	GC091696BTEX20A	GC091696BTEX20A	
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030	
Analyst:	G. Fish	G. Fish	G. Fish	G. Fish	
MS/MSD #:	9609096-04	9609096-04	9609096-04	9609096-04	
Sample Conc.:	N.D.	N.D.	N.D.	N.D.	
Prepared Date:	9/16/96	9/16/96	9/16/96	9/16/96	
Analyzed Date:		9/16/96	9/16/96	9/16/96	
strument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20	
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L	
Result:	10	8.4	8.1	25	
MS % Recovery:	100	84	81	83	
Dup. Result:	10	8.3	8,2	25	
MSD % Recov.:	100	83	82	83	
RPD:	0.0	1,2	1.2	0.0	
RPD Limit:	0-25	0-25	0-25	0-25	

LCS #:	BLK091696	BLK091696	BLK091696	BLK091696	
Prepared Date:	9/16/96	9/16/96	9/16/96	9/16/96	
Analyzed Date:	9/16/96	9/16/96	9/16/96	9/16/96	
Instrument I.D.#:	GCHP20	GCHP20	GCHP20	GCHP20	
Conc. Spiked:	10 ug/L	10 ug/L	10 ug/L	30 ug/L	
LCS Result:	10	8.2	7.9	24	
LCS % Recov.:	100	82	79	80	
MS/MSD	60.140	CO 110	CO 140		
	60-140	60-140	60-140	60-140	
LCS Control Limits	70-130	70-130	70-130 	70-130	

SEQUOIA ANALYTICAL

Mike Gregory Project Manager Please Note:

The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

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