

541/464

3164 Gold Camp Drive Suite 200 Rancho Cordova, CA 95670-6021 U.S.A. 916/638-2085

FAX: 916/638-8385

November 20, 2001

Mr. Barney Chan Alameda County Health Care Service, Department of Environmental Health 1153 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 NOV 2 7 2001

Subject:

Interim Corrective Action Plan and Enhanced Groundwater Recovery Results

Second and Third Quarter 2001, Chevron Service Station No. 9-1851

451 Hegenberger Road Oakland, California

Delta Project No. DG91-851

Dear Mr. Chan:

Delta Environmental Consultants, Inc. (Delta) has been authorized by Chevron Products Company (Chevron) to conduct periodic groundwater over-purge events at the above site. The over-purge events were conducted as part of *Delta's Interim Corrective Action Plan*, dated August 1, 2000. The location of the site is shown on Figure 1 and the site features are illustrated on Figure 2.

This report presents the results of the groundwater over-purge events conducted on May 3 June 6 and August 30, 2001, which included groundwater elevation measurements and sample collection for chemical analysis of dissolved petroleum hydrocarbon constituents. Field work was conducted at the site in accordance with field methods and procedures presented in Enclosure A.

Groundwater Elevation Measurements

Groundwater elevations were measured in monitoring wells MW-1 through MW-7. In addition, the wells were checked for the presence of separate-phase hydrocarbons before and after each overpurge event. Groundwater elevations, and separate-phase hydrocarbon thickness are presented in Table 1. Measurements recorded on August 30, 2001 were used to construct the before and after over-purge groundwater elevation contour maps shown on Figures 3 and 4, respectively.

Groundwater Sampling and Analytical Results

Groundwater samples were collected from monitoring wells MW-4 and MW-7 before and after each over-purge event. The groundwater samples were submitted to California-certified laboratory for analyses of benzene, toluene, ethylbenzene and total xylenes (BTEX), methyl tertiary butyl ether (MTBE), and total purgeable hydrocarbons (TPH) as gasoline using EPA Method 8260B. Cumulative analytical results are compiled in Table 1, and copies of laboratory analytical reports with chain—of-custody documentation for the second and third quarter sampling events are included in Enclosure B.

Mr. Barney Chan Alameda County Health Care Services November 20, 2001 Page 2

Volume of TPH as Gasoline Removed

Approximately 1,108 gallons of groundwater was over-purged from monitoring wells MW-4 and MW-7 during the second and third quarter 2001. Based on average concentrations of TPH as gasoline reported in groundwater samples collected from MW-4 and MW-7 during each event, it is estimated that approximately 0.000551 gallon of TPH as gasoline was removed from soil and groundwater in the vicinity of the underground storage tank basin. Cumulative volumes of groundwater and TPH as gasoline removed from the site during the over-purge events are compiled in Table 2.

If you have questions or comments regarding this report, please contact me at (916) 536-2623. OK

Sincerely,

DELTA ENVIRONMENTAL CONSULTANTS, INC.

Benjamin I. Heningburg

Project Manager

Steven W. Meeks, P.E.

California Registered Civil Engineer No. C057461

BIH (Lrp005.1851) Enclosures

cc: Tom Bauhs – Chevron Product Company

Jim Brownell - Delta Environmental Consultants, Inc.



TABLE 1
GROUNDWATER ANALYTICAL RESULTS

Chevron Service Station No. 9-1851 451 Hegenberger Road Oakland, California

Sample ID	Date	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW-4-853	05/03/01	<2.5	<2.5	<2.5	<2.5	491	2,020/4,270 ^a
MW-4-1505	05/03/01	<2.5	<2.5	<2.5	<2.5	370	3,330/4,250 ^a
MW-7-830	05/03/01	< 0.5	< 0.5	< 0.5	< 0.5	191	1070/1190°
MW-7-1505	05/03/01	0.619	< 0.5	1.65	0.961	201	472/647ª
						× 319	
MW-4-745	06/11/01	<5.0	<5.0	<5.0	<5.0	520	4,000/3,700 ^a
MW-4-1500	06/11/01	<5.0	<5.0	<5.0	<5.0 W		5,900/3,500 ^a
MW-7-730	06/11/01	<5.0	<5.0	<5.0	<5.0	130	730/690°
MW-7-1510	06/11/01	<5.0	<5.0	< 5.0	<5.0	130	590/560 ^a
						K= 528	
MW-4-825	08/30/01	<1.0	<1.0	<1.0	<1.0	720	3,000
MW-4-1510	08/30/01	<1.0	<1.0	<1.0	<1.0	590	2,600
MW-7-815	08/30/01	<1.0	<1.0	<1.0	<1.0	140	400
MW-7-1520	08/30/01	<1.0	<1.0	<1.0	<1.0	J 330	97
						x = 445	•

$$\frac{200}{1108}(319) + \frac{508}{108}(259) + \frac{400}{108}(495)$$

$$+ 118 + 160 = 337$$

[&]quot; = EPA Method by 8260

TABLE 2

CUMULATIVE VOLUME OF GROUNDWATER AND TPH AS GASOLINE REMOVED

Chevron Service Station No. 9-1851 451 Hegenberger Road Oakland, California

	-7.216
4	K9 15419
ī	16
3	-4249

Date	Extracted Groundwater Per Event (gallons)	Cumulative Extracted Groundwater Volume (gallons)	Extracted TPHg Volume Per Event* (gallons)	Cumulative Extracted TPHg Volume (gallons)
5/3/2001	200.	200	0.000086	0.000086
6/6/2001	508 .	708	0.000222	0.000308
8/30/2001	400	1,108	0.000243	0.000551

eg,000551 = (1,1×10) \$ (1.36) [cme]

#

:368:pp

* VTPH = Vgw [TPH] pgw/pTPH

Where:

VTPH = Volume of TPH as gasoline in gallons

Vgw = Volume of groundwater in Million Gallons

[TPH] = Average TPH as gasoline concentrations in mg/l

pgw = density of groundwater = 8.34 lbs/gal.

oTPH = density of TPH as gasoline = 6.1 lbs/gal.

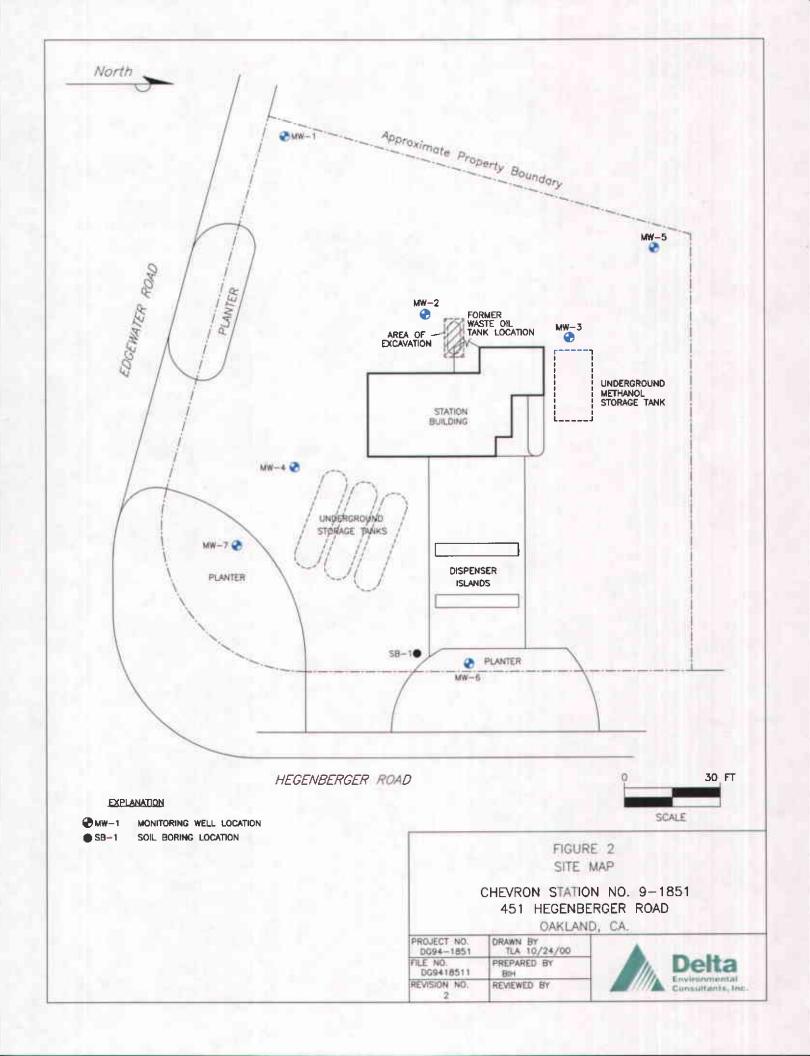
(10 gre) (mg/e) 83 155/gal

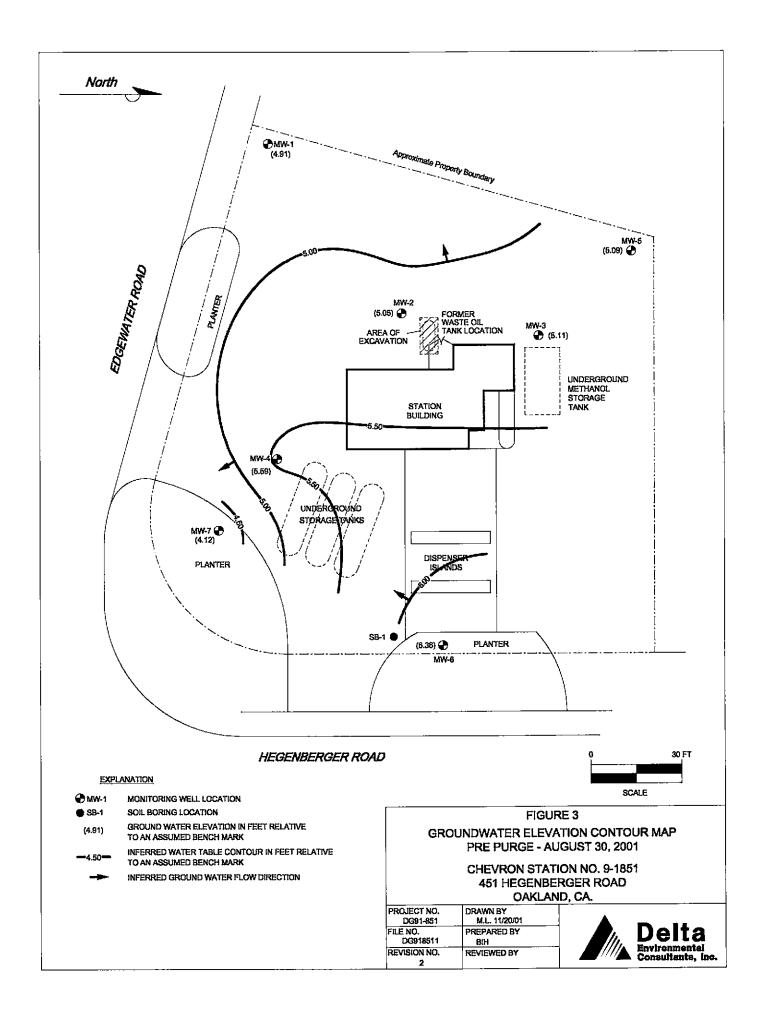
(10 gre) (mg/e) 6.1 165/gal

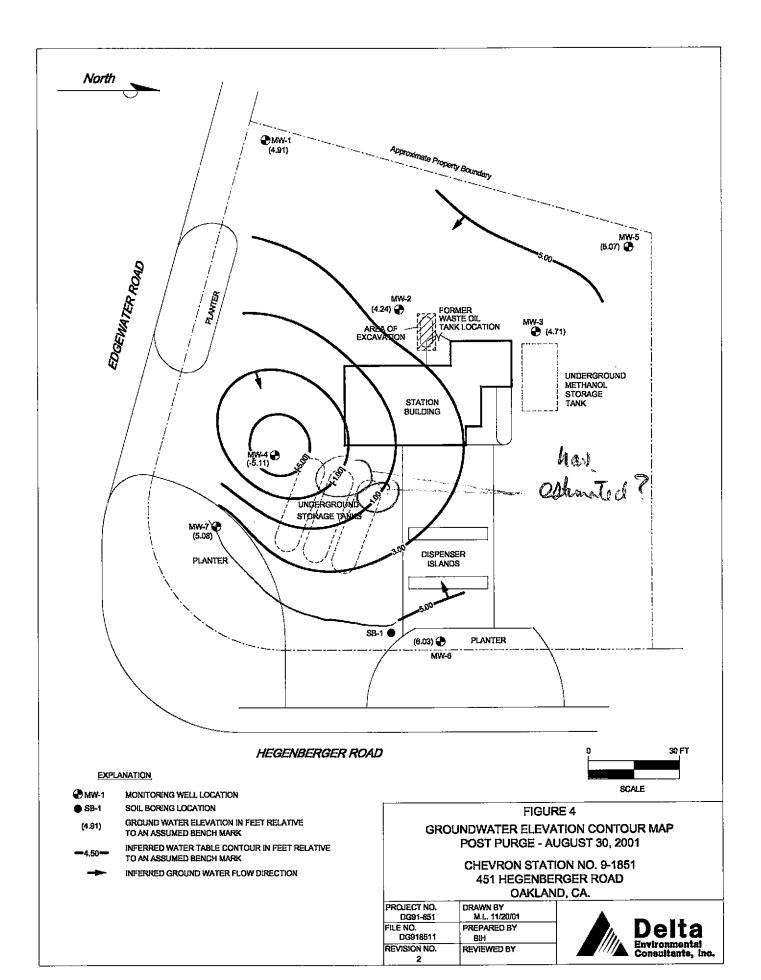
ireciprocal

ireciprocal

108 × 3.8 × .37 × 103 × 1 × .16 ~ 000 gal







FIELD METHODS AND PROCEDURES

The following describes field procedures that were completed by Delta personnel in the performance of the tasks involved with this project.

1.0 GROUNDWATER DEPTH ASSESSMENT

Depth to groundwater was measured to the nearest 0.01 foot using an electronic hand held water level indicator. The tip of the probe was examined to assess whether liquid-phase petroleum hydrocarbons or hydrocarbon sheen was present. The depth to groundwater was measured from a marked reference point at the top of each well riser. Each reference point has been surveyed relative to a mean sea level or temporary benchmark for correlation of groundwater levels at the site.

2.0 MONITORING WELL PURGING AND SAMPLING

Groundwater was purged from the wells by connecting a manifold vacuum hose, slip-cap and drop tube assembly to the wellhead. Once the assembly was connected, approximately 15 inches of mercury vacuum was applied to the wellhead for enhanced fluid recovery. After the water levels within the wells were allowed to stabilize, a sample was collected with a dedicated, clean, disposable plastic bailer. Samples were sealed in air tight vials, packed on ice, and transported to a California-certified laboratory to be analyzed within the EPA-specified holding time for requested analyses.

Each sample container submitted for analysis had a label affixed to identify the job number, sample date, time of sample collection, and a sample number unique to that sample. This information, in addition to a description of the sample, field measurements made, sampling methodology, names of on-site personnel, and any other pertinent field observations, were recorded on sampling information sheets.

A chain-of-custody form was used to record possession of the sample from the time of collection to its arrival at the laboratory. When the samples were shipped, the person in custody of them relinquished the samples by signing the chain-of-custody form and noting the time. The sample control officer at the laboratory verified sample integrity and confirmed that it was collected in the proper container, preserved correctly, and that there was an adequate volume for analysis. The laboratory then assigns each sample with a unique identification number that will designate a given sample until it is properly destroyed.

ENCLOSURE B

Copies of Certified Laboratory Analytical Reports



ANALYTICAL RESULTS

Prepared for:

Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004 San Ramon CA 94583-0904

Prepared by:

Lancaster Laboratories 2425 New Holland Pike Lancaster, PA 17605-2425

SAMPLE GROUP

The sample group for this submittal is 776789. Samples arrived at the laboratory on Saturday, September 01, 2001. The PO# for this group is 99011184 and the release number is BAUHS.

Client Description	Lancaster Labs Number
MW-4 Grab Water Sample	3680160
MW-7 Grab Water Sample	3680161
MW-4 Grab Water Sample	3680162
MW-7 Grab Water Sample	3680163

1 COPY TO

Delta Environmental

Attn: Mr. Ben Heningburg

Questions? Contact your Client Services Representative Teresa M. Lis at (717) 656-2300.

Respectfully Submitted,

Victoria M. Martell Chemist



Lancaster Laboratories Sample No. WW 3680160

Collected: 08/30/2001 08:25 by BB Account Number: 10900

Submitted: 09/01/2001 10:00 Reported: 09/11/2001 at 15:33

Discard: 10/12/2001 MW-4 Grab Water Sample Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004 San Ramon CA 94583-0904

Facility# 9-1851

CHEVRON: 451 Hegenberger Rd - Oakland, CA

4MMWW

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
01728	TPH-GRO N. California (waters)	n.a.	0.72	0.020	mg/l	1
	The reported concentration of Ta	PH-GRO does no	t include MTBE o	r other		
	gasoline constituents eluting p	rior to the C6	(n-hexane) TPH-	GRO range		
	start time.					
	Site-specific MS/MSD samples we:	re not submitt	ed for the proje	ct. A LCS/LCSD		
	was performed to demonstrate pro	ecision and ac	curacy at a batc	h level.		
02300	UST-Unleaded Waters by 8260B					
02010	Methyl t-butyl ether	1634-04-4	3,000.	25.	ug/l	25
05401	Benzene	71-43-2	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	1.	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	1.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	1.	ug/l	1

State of California Lab Certification No. 2116

CAT			Analysis				
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor	
01728	TPH-GRO N. California	N. CALIF. LUFT	1	09/06/2001 13:30	John B. Kiser	1	
	(waters)	Gasoline Method					
02300	UST-Unleaded Waters by	SW-846 8260B	1	09/05/2001 22:16	Susan A. McMahon-Luu	1	
	8260B						
02300	UST-Unleaded Waters by	SW-846 8260B	1	09/06/2001 07:41	Kenneth L. Boley	25	
	8260B						
01146	GC VOA Water Prep	SW-846 5030B	1	09/06/2001 13:30	John B. Kiser	n.a.	
01163	GC/MS VOA Water Prep	SW-846 5030B	1	09/05/2001 22:16	Susan A. McMahon-Luu	n.a.	



Lancaster Laboratories Sample No. WW 3680161

Collected:08/30/2001 08:15

by BB

Account Number: 10900

Submitted: 09/01/2001 10:00

Reported: 09/11/2001 at 15:33

Discard: 10/12/2001 MW-7 Grab Water Sample Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004 San Ramon CA 94583-0904

Facility# 9-1851

CHEVRON: 451 Hegenberger Rd - Oakland, CA

LLL77

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Units	Dilution Factor
01728	TPH-GRO N. California (waters) The reported concentration of T gasoline constituents eluting p start time. Site-specific MS/MSD samples we was performed to demonstrate pr	rior to the C6	(n-hexane) TPH-G ed for the projec	RO range	mg/l	1
02300	UST-Unleaded Waters by 8260B					
02010	Methyl t-butyl ether	1634-04-4	400.	5.	ug/l	5
05401	Benzene	71-43-2	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	1.	ug/1	1
05415	Ethylbenzene	100-41-4	N.D.	1.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	1.	ug/l	1

State of California Lab Certification No. 2116

	<u> </u>	O112 0					
Analysis							
Analysis Name	Method	Trial#	Date and Time	Analyst	Facto1		
TPH-GRO N. California	N. CALIF. LUFT	1	09/06/2001 14:02	John B. Kiser	1		
(waters) UST-Unleaded Waters by	Gasoline Method SW-846 8260B	1	09/05/2001 22:41	Susan A. McMahon-Luu	1		
8260B UST-Unleaded Waters by	SW-846 8260B	1	09/06/2001 08:05	Kenneth L. Boley	5		
GC VOA Water Prep	SW-846 5030B SW-846 5030B	1 1	09/06/20 01 14:02 09/05/20 01 22:41	John B. Kiser Susan A. McMahon-Luu	n.a.		
	(waters) UST-Unleaded Waters by 8260B UST-Unleaded Waters by 8260B	Analysis Name Method TPH-GRO N. California N. CALIF. LUFT (waters) Gasoline Method UST-Unleaded Waters by SW-846 8260B 8260B UST-Unleaded Waters by SW-846 8260B 8260B GC VOA Water Prep SW-846 5030B	Analysis Name Method Trial# TPH-GRO N. California N. CALIF. LUFT 1 (waters) Gasoline Method UST-Unleaded Waters by SW-846 8260B 1 8260B UST-Unleaded Waters by SW-846 8260B 1 8260B GC VOA Water Prep SW-846 5030B 1	Analysis Name Method Trial* Date and Time TPH-GRO N. California N. CALIF. LUFT 1 09/06/2001 14:02 (waters) Gasoline Method UST-Unleaded Waters by SW-846 8260B 1 09/05/2001 22:41 8260B UST-Unleaded Waters by SW-846 8260B 1 09/06/2001 08:05 8260B GC VOA Water Prep SW-846 5030B 1 09/06/2001 14:02	Analysis Name Method Trial Date and Time Analyst TPH-GRO N. California N. CALIF. LUFT 1 09/06/2001 14:02 John B. Kiser (waters) Gasoline Method UST-Unleaded Waters by SW-846 8260B 1 09/05/2001 22:41 Susan A. McMahon-Luu 8260B UST-Unleaded Waters by SW-846 8260B 1 09/06/2001 08:05 Kenneth L. Boley 8260B GC VOA Water Prep SW-846 5030B 1 09/06/2001 14:02 John B. Kiser		





Lancaster Laboratories Sample No. WW 3680162

Collected: 08/30/2001 15:10 by BB Account Number: 10900

Submitted: 09/01/2001 10:00 Reported: 09/11/2001 at 15:33

Discard: 10/12/2001 MW-4 Grab Water Sample Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004 San Ramon CA 94583-0904

Facility# 9-1851

CHEVRON: 451 Hegenberger Rd - Oakland, CA

4BHHL

				As Received		
CAT			As Received	Method		Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
01728	TPH-GRO N. California (waters)	n.a.	0.59	0.020	mg/l	1
	The reported concentration of TE	PH-GRO does not	include MTBE or	other		
	gasoline constituents eluting pr	cior to the C6	(n-hexane) TPH-G	RO range		
	start time.					
	Site-specific MS/MSD samples wer					
	was performed to demonstrate pre	ecision and acc	uracy at a batch	level.		
02300	UST-Unleaded Waters by 8260B					
02010	Methyl t-butyl ether	1634-04-4	2,600.	25.	ug/l	25
05401	Benzene	71-43-2	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	1.	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	1.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	1.	ug/l	1

State of California Lab Certification No. 2116

CAT			_	Analysis		Diluti
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO N. California	N. CALIF. LUFT	1	09/06/2001 14:34	John B. Kiser	1
02300	(waters) UST-Unleaded Waters by	Gasoline Method SW-846 8260B	1	09/05/2001 23:06	Susan A. McMahon-Luu	1
02300	8260B UST-Unleaded Waters by	SW-846 8260B	1	09/06/2001 08:29	Kenneth L. Boley	25
01146	8260B GC VOA Water Prep GC/MS VOA Water Prep	SW-846 5030B SW-846 5030B	1	09/06/2001 14:34 09/05/2001 23: 06	John B. Kiser Susan A. McMahon-Luu	n.a. n.a.





Lancaster Laboratories Sample No. WW 3680163

Collected: 08/30/2001 15:20 by BB Account Number: 10900

Submitted: 09/01/2001 10:00 Reported: 09/11/2001 at 15:33

Discard: 10/12/2001 MW-7 Grab Water Sample Chevron Products Company 6001 Bollinger Canyon Road Building L PO Box 6004 San Ramon CA 94583-0904

Facility# 9-1851

CHEVRON: 451 Hegenberger Rd - Oakland, CA

7FACI

CAT		_	As Received	As Received Method	**	Dilution
No.	Analysis Name	CAS Number	Result	Detection Limit	Units	Factor
01728	TPH-GRO N. California (waters)	n.a.	0.097	0.020	mg/l	1
	The reported concentration of The	PH-GRO does not	: include MTBE or	other		
	gasoline constituents eluting pr start time.	rior to the C6	(n-hexane) TPH-G	RO range		
	Site-specific MS/MSD samples were was performed to demonstrate pro					
02300	UST-Unleaded Waters by 8260B					
02010	Methyl t-butyl ether	1634-04-4	330.	5.	ug/l	5
05401	Benzene	71-43-2	N.D.	1.	ug/l	1
05407	Toluene	108-88-3	N.D.	1.	ug/l	1
05415	Ethylbenzene	100-41-4	N.D.	1.	ug/l	1
06310	Xylene (Total)	1330-20-7	N.D.	1 -	ug/l	1

State of California Lab Certification No. 2116

CAT				Analysis		Diluti
No.	Analysis Name	Method	Trial#	Date and Time	Analyst	Factor
01728	TPH-GRO N. California	N. CALIF. LUFT	1	09/06/2001 15:06	John B. Kiser	1
	(waters)	Gasoline Method				_
02300	UST-Unleaded Waters by	SW-846 8260B	1	09/05/2001 23:30	Susan A. McMahon-Luu	1
	8260B					_
02300	UST-Unleaded Waters by	SW-846 8260B	1	09/06/2001 08:54	Kenneth L. Boley	5
	8260B					
01146	GC VOA Water Prep	SW-846 5030B	1	09/06/2001 15:06	John B. Kiser	n.a.
01163	GC/MS VOA Water Prep	SW-846 5030B	1	09/05/2001 23:30	Susan A. McMahon-Luu	n.a.

Chevron Western Region Analysis Request/Chain of Custody



Acct. #: 10900 Sample #: 3680160 - 63

SCR#:		

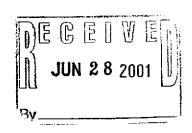
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Consultant/Office: DEITH ENVIRONMENT	1 consul	TANTS, I	inci		Ma	atrix		_	<u>, </u>		Pres	erva	ition	Co	des					Preserv	ative Co	doe
Consultant Prj. Mgr.: Ben Heningburg		•		_				-		<u> </u>	-			 -		2				H = HCI	T = Thic	sulfate
Consultant Phone #: 916-536-2633	Fax #: _916	- 638-5	389	2				ត								S Seco B				N = HNO3 S = H2SO4	B = Na(O = Oth	
Service Order#:				_	렱	DES		ğ.	DRO		13.	İ				ł - I						
Site Address: 451 Hegenberger Rd, Ont	land State:	californ	ja	_	Po	O NPDES					ο <u>ί</u> 80					ontu				□J value report * Specify specify		
Sampler: Brett Bardsley	·								GRO 🔀	enate	Wethar	MTBE	□×o	1						limits/report	ing lists t	elow.
Chevron PM: Tom Bauhs				9			ᆈ.	<u>+</u> [ق		8		ation	Δ Π	742		MTBE						
Facility # 9-1851				Composite		<u>.</u>		Nur 1208	115 MC	± EX	18015	onfirms	1 6x [ead 7420 □ 7421 □								
Sample Identification	Date Collected	Time Collected	Grab	Com	Soil	Water	ö	l otal Number of Containers BTEX 8021 □ + MTBE □	TPH 8015 MOD	8260 BTEX + Oxygenates	Ethanol 8015 Methanol 8015	8260 Confirmation MTBE	NWTPH Gx□	Lead 7	TPH Az	BTEX/						
MW-4	8/30/01	725	X	Ī	7	X	-	4	X							X				H		
μω - ⁷	8/30/01	815	X			X	1	4	×							X				<u>л</u> Н		
mw-4	\$130/01	1510	X			X		+	X			_				X	-		-	H		
mw-7	8/30/01	1520	X			×		<u> </u>	X							×		\dashv		H		
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June 25, 2001

Ben Heningburg
Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: Chevron 9-1851 / S106176



Enclosed are the results of analyses for samples received by the laboratory on 06/11/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew

Client Services Representative

CA ELAP Certificate Number 1624





3164 Gold Camp Drive Ste. 200

Rancho Cordova CA, 95670

Project: Chevron 9-1851

Project Number: DG91-851

Project Manager: Ben Heningburg

Reported:

06/25/01 16:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4 (7:45)	S106176-01	Water	06/11/01 07:45	06/11/01 15:30
MW-7 (7:30)	\$106176-02	Water	06/11/01 07:30	06/11/01 15:30
MW-4 (15:00)	S106176-03	Water	06/11/01 15:00	06/11/01 15:30
MW-7 (15:10)	\$106176-04	Water	06/11/01 15:10	06/11/01 15:30





Project: Chevron 9-1851

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: DG91-851
Project Manager: Ben Heningburg

Reported:

06/25/01 16:42

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Seguoia Analytical - Sacramento

	Seq	иота Апа	nyncai	- Sacia	Michito				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (7:45) (S106176-01) Water	Sampled: 06/11/01 (7:45 Rece	ived: 06/	11/01 15:3	0			<u> </u>	
Purgeable Hydrocarbons	520	500	ug/l	10	1060142	06/18/01	06/18/01	DHS LUFT	
Benzene	ND	5.0	и	**	97	H	r	я	zR-05
Toluene	ND	5.0	н	10	w	**	*	π	zR-05
Ethylbenzene	ND	5.0	н	19	W	11)†	7	zR-05
Xylenes (total)	ND	5.0	n	H .	π	H	н		zR-05
Surrogate: a,a,a-Trifluorotoluene		92.9 %	60	-140	,,	"	"	"	
MW-4 (7:45) (S106176-01RE1) Wa	ater Sampled: 06/11	/01 07:45	Received	: 06/11/01	15:30				
Methyl tert-butyl ether	4000	250	ug/l	100	1060142	06/18/01	06/18/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		96.1 %	60-	-140	Ħ	n	re	"	
MW-7 (7:30) (S106176-02) Water	Sampled: 06/11/01	07:30 Rece	eived: 06/	11/01 15:3	0				
Purgeable Hydrocarbons	130	50	ug/l	1	1060142	06/18/01	06/18/01	DHS LUFT	zP-03
Benzene	ND	0.50	¥	rt	19	Ħ	I)	н	
Toluene	ND	0.50	n	**	"	B	H	H	
Ethylbenzene	ND	0.50	ţr.	**	"	n	H		
Xylenes (total)	ND _	0.50		π	н	H	**	<u>"</u>	
Surrogate: a,a,a-Trifluorotoluene		99.6 %	60	-140	n	"	"	"	
MW-7 (7:30) (S106176-02RE1) W	ater Sampled: 06/11	1/01 07:30	Received	: 06/11/01	15:30				<u></u>
Methyl tert-butyl ether	730	25	ug/l	10	1060142	06/18/01	06/18/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		94.0 %	60	-140	"	"	,,	"	
MW-4 (15:00) (S106176-03) Water	r Sampled: 06/11/01	15:00 Re	ceived: 0	6/11/01 15:	:30				
Purgeable Hydrocarbons	ND	500	ug/l	10	1060143	06/18/01	06/18/01	DHS LUFT	zR-0
Benzene	ND	5.0	n	**	*	н	**	*	zR-0:
Toluene	ND	5.0	н	n	*	91	н	Ħ	zR-0:
Ethylbenzene	ND	5.0	п	н	n	#	Ħ	39	zR-0:
Xylenes (total)	ND	5.0	n	n					zR-0:
Surrogate: a,a,a-Trifluorotoluene		105 %	60	-140	"	"	"	"	





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: Chevron 9-1851

Project Number: DG91-851
Project Manager: Ben Heningburg

Reported: 06/25/01 16:42

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT

Sequoia Analytical - Sacramento

	Dec	lania trui	any encur						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (15:00) (S106176-03RE1) Water	Sampled: 06/	11/01 15:00	Receive	d: 06/11/01	1 15:30				
Methyl tert-butyl ether	5900	250	ug/l	100	1060143	06/18/01	06/18/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		102 %	60-	-140	"	"	"	"	
MW-7 (15:10) (S106176-04) Water San	mpled: 06/11/0	1 15:10 Rec	ceived: 06	6/11/01 15:	30				
Purgeable Hydrocarbons	130	50	ug/l	1	1060143	06/18/01	06/18/01	DHS LUFT	zP-03
Benzene	ND	0.50	н	17	**	п	**	ıı	
Toluene	ND	0.50	H	Ħ	#	н	10	н	
Ethylbenzene	ND	0.50	11	#	π	11	19	и	
Xylenes (total)	ND	0.50	BP	17	Ħ			n	
Surrogate: a,a,a-Trifluorotoluene	,	115 %	60-	-140	r,	rr	"	п	
MW-7 (15:10) (S106176-04RE1) Water	Sampled: 06/	11/01 15:10	Receive	d: 06/11/0	1 15:30				
Methyl tert-butyl ether	590	25	ug/l	10	1060143	06/18/01	06/18/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		106 %	60-	-140	"	"	rr	**	





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: Chevron 9-1851

Project Number: DG91-851

Project Manager: Ben Heningburg

Reported:

06/25/01 16:42

MTBE Confirmation by EPA Method 8260A

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 (7:45) (S106176-01) Water	Sampled: 06/11/01	07:45 Recei	ived: 06/	11/01 15:3	0				
Methyl tert-butyl ether	3700	100	ug/l	50	1060192	06/22/01	06/22/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		112 %	60-	140	11	n	rr	"	
MW-7 (7:30) (S106176-02) Water	Sampled: 06/11/01	07:30 Recei	ived: 06/	11/01 15:3	0				
Methyl tert-butyl ether	690	20	ug/l	10	1060192	06/22/01	06/22/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		112 %	60-	140	"	"	u	"	
MW-4 (15:00) (S106176-03) Water	Sampled: 06/11/01	15:00 Rec	eived: 06	6/11/01 15:	30				
Methyl tert-butyl ether	3500	200	ug/l	100	1060192	06/22/01	06/22/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		113 %	60-	140	"	"	"	"	
MW-7 (15:10) (S106176-04) Water	Sampled: 06/11/01	15:10 Rec	eived: 06	5/11/01 15:	30				
Methyl tert-butyl ether	560	20	ug/l	10	1060192	06/22/01	06/22/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		122 %	60-	140	"	"	"	"	



3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: Chevron 9-1851

Project Number: DG91-851
Project Manager: Ben Heningburg

Reported: 06/25/01 16:42

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060142 - EPA 5030B (P/T)										
Blank (1060142-BLK1)				Prepared	& Analyze	d: 06/18/	01			
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene	ND	0.50	н							
Toluene Toluene	ND	0.50	н							
Ethylbenzene	ND	0.50	н							
Xylenes (total)	ND	0.50	n							
Methyl tert-butyl ether	ND	2.5	79							
Surrogate: a,a,a-Trifluorotoluene	10.4		rr	10.0		104	60-140			
LCS (1060142-BS1)				Prepared	& Analyze	ed: 06/18/	01			
Вепzепе	9.13	0.50	ug/l	10.0		91.3	70-130			
Foluene	9.74	0.50	77	10.0		97.4	70-130			
Ethylbenzene	10.4	0.50	**	10.0		104	70-130			
Xylenes (total)	31.4	0.50	n	30.0		105	70-130			
Methyl tert-butyl ether	8.32	2.5	I+	10.0		83.2	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.9		**	10.0		109	60-140			
Matrix Spike (1060142-MS1)	Soi	ırce: S10602	5-02	Prepared	& Analyzo	ed: 06/18/	01			
Benzene	8.63	0.50	ug/l	10.0	ND	86.3	60-140			
Toluene	9.26	0.50	*	10.0	ND	92.6	60-140			
Ethylbenzene	9.96	0.50	*	0.01	ND	99.6	60-140			
Xylenes (total)	29.8	0.50	**	30.0	ND	99.3	60-140			
Methyl tert-butyl ether	8.86	2.5	"	10.0	ND	88.6	60-140			
Surrogate: a,a,a-Trifluorotoluene	10.9		"	10.0		109	60-140			
Matrix Spike Dup (1060142-MSD1)	Soi	ırce: S10602	5-02	Prepared	& Analyz	ed: 06/18/	01			
Benzene	8.54	0.50	ug/l	10.0	ND	85.4	60-140	1.05	25	
l'oluene	9.06	0.50	11	10.0	ND	90.6	60-140	2.18	25	
Ethylbenzene	9.64	0.50	**	10.0	ND	96.4	60-140	3.27	25	
Xylenes (total)	28.2	0.50	**	30.0	ND	94.0	60-140	5.52	25	
Methyl tert-butyl ether	9.67	2.5	,	10.0	ND	96.7	60-140	8.74	25	
Surrogate: a,a,a-Trifluorotoluene	10.6		"	10.0		106	60-140			





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: Chevron 9-1851

Project Number: DG91-851
Project Manager: Ben Heningburg

Reported: 06/25/01 16:42

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

		quoia / tiil		- Sacia						
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
		2								
Batch 1060143 - EPA 5030B (P/T)		-				1 06/10/	0.1			
Blank (1060143-BLK1)				Prepared	& Analyzo	ed: 06/18/	01			~~~
Purgeable Hydrocarbons	ND	50	ug/l							
Benzene —	ND	0.50								
Toluene	ND	0.50	**				1			
Ethylbenzene	ND	0.50								
Xylenes (total)	ND	0.50	19							
Methyl tert-butyl ether	ND	2.5								
Surrogate: a,a,a-Trifluorotoluene	10.0		"	10.0		100	60-140			
LCS (1060143-BS1)				Prepared	& Analyze	ed: 06/18/	01			
Benzene	8.71	0.50	ug/l	10.0		87.1	70-130			
Toluene	9.78	0.50		10.0		97.8	70-130			
Ethylbenzene	9.38	0.50	•	10.0		93.8	70-130			
Xylenes (total)	30.1	0.50	••	30.0		100	70-130			
Methyl tert-butyl ether	9.96	2.5	11	10.0		99.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	11.1		"	10.0		111	60-140			
Matrix Spike (1060143-MS1)	Soi	arce: S10618	6-01	Prepared	& Analyza	ed: 06/18/	01			
Benzene	8.64	0.50	ug/l	10.0	ND	86.4	60-140			
Toluene	9.57	0.50	"	10.0	ND	95.7	60-140			
Ethylbenzene	9.16	0.50	**	10.0	ND	91.6	60-140			
Xylenes (total)	29.2	0.50	17	30.0	ND	97.3	60-140			
Methyl tert-butyl ether	13.8	2.5	11	10.0	ND	138	60-140			
Surrogate: a,a,a-Trifluorotoluene	10.3		74	10.0		103	60-140			
Matrix Spike Dup (1060143-MSD1)	Son	urce: S10618	6-01	Prepared	& Analyze	ed: 06/18/	01			
Benzene	8.34	0.50	ug/l	10.0	ND	83.4	60-140	3.53	25	
Toluene	9.45	0.50	#1	10.0	ND	94.5	60-140	1.26	25	
Ethylbenzene	9.11	0.50	11	10.0	ND	91.1	60-140	0.547	25	
Xylenes (total)	29.1	0.50	••	30.0	ND	97.0	60-140	0.343	25	
Methyl tert-butyl ether	12.3	2.5	11	10.0	ND	123	60-140	11.5	25	
Surrogate: a,a,a-Trifluorotoluene	10.4		"	10.0		104	60-140		*	
- · ·										







3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: Chevron 9-1851

Project Number: DG91-851
Project Manager: Ben Heningburg

Reported:

06/25/01 16:42

MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060192 - EPA 5030B [P/T]			-			,				
Blank (1060192-BLK1)		- •		Prepared	& Analyze	ed: 06/22/	01	- ,-,,		
Methyl tert-butyl ether	ND	2.0	ug/l							
Surrogate: 1,2-DCA-d4	54.2		11	50.0		108	60-140			
LCS (1060192-BS1)				Prepared	& Analyze	ed: 06/22/	01			
Methyl tert-butyl ether	49.8	2.0	ug/l	50.0		99.6	70-130			
Surrogate: 1,2-DCA-d4	57.7		"	50.0		115	60-140			
Matrix Spike (1060192-MS1)	Sou	arce: S10620	1-13	Prepared	& Analyzo	ed: 06/22/	01			
Methyl tert-butyl ether	50.4	2.0	ug/l	50.0	ND	101	60-140			
Surrogate: 1,2-DCA-d4	56.4		H	50.0		113	60-140			
Matrix Spike Dup (1060192-MSDI)	Sou	rce: S10620	1-13	Prepared .	& Analyze	ed: 06/22/	01			
Methyl tert-butyl ether	49.5	2.0	ug/l	50.0	ND	99.0	60-140	1.80	25	
Surrogate: 1,2-DCA-d4	55.4		"	50.0		111	60-140			





3164 Gold Camp Drive Ste. 200

Rancho Cordova CA, 95670

Project: Chevron 9-1851

Project Number: DG91-851

Project Manager: Ben Heningburg

Reported:

06/25/01 16:42

Notes and Definitions

zP-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12

zR-05 The reporting limit(s) for this sample have been raised due to high levels of non-target interferents.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

<u>Chain-of-Custody-Record</u> Fax copy of Lab Report and COC to Chevron Contact:

No Cherron Contact (Nome) Thomas Banhs Chevron Foollity Number 9-1851 Foolity Address 451 Hegenberger Road, Oakland, california (Phone)____ Chevron U.S.A. Inc. Consultant Project Number 05-91-851 Laboratory Name Sequeia P.O. BOX 5004 Consultant Home Deita Environmental Consultants, FAC. Laboratory Release Number_ San Ramon, CA 94583 Address 3164 Fold Camp Drive Suite 200/ Ranche Cordore Samples Collected by (Name) Bratt Bardste 4 FAX (415)842-9591 Project Contact (Name) Ben Heningburg Collection Date 6/11/01
Signature Brew Barrolow (Phone) 916 - 536-2623 (Fax Number) 416-638-8 385 * Please confirm At Charcodi Analyses To Be Performed MTBE by 8260 BTEX + TPH CAS (8020 + 8015) | | | | **|** | | Oil and Greate (5520) 900 Remarks D SIDOTTIO 745 MW . 4 ねい 1 w MW-7 730 ريا 🛭 D 1500 MW-7 \$w 1510 Date/Time -11-01 1206 Received By (Signature) Organization Relinquished By (Signature) Organization Date/Time 6-11-01 1200 Turn Around Time (Circle Cholos) Breti Bardely Section Detta BAU. 24 Hrs. Dote/Time Gillorati Organization 48 Hrs. Relinquished By (Signature) Received By (Signoture) Date/Time Organization Secretoje! 1530 Recleved For Laboratory By (Stangture) Date/Time Organization Date/Time Relinquished By (Signature) As Contracted



November 1, 2000



RE: Chevron 9-1851/S010348

Dear Ben Heningburg

Enclosed are the results of analyses for sample(s) received by the laboratory on October 19, 2000. If you have any questions concerning this report, please feel free to contact me.

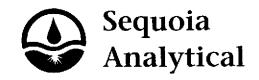
Sincerely,

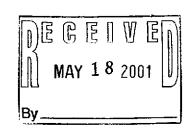
Sanda RHansa) Sandra R. Hanson

Client Services Representative

CA ELAP Certificate Number 1624







May 15, 2001

Ben Heningburg
Delta Environmental Consultants(Rancho Cordova
3164 Gold Camp Drive Ste. 200
Rancho Cordova, CA 95670
RE: Chevron 9-1851 / S105094

Enclosed are the results of analyses for samples received by the laboratory on 05/04/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew

Client Services Representative

CA ELAP Certificate Number 1624





3164 Gold Camp Drive Ste. 200

Rancho Cordova CA, 95670

Project: Chevron 9-1851

Project Number: DG91-851

Project Manager: Ben Heningburg

Reported: 05/15/01 12:59

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4 853	S105094-01	Water	05/03/01 00:00	05/04/01 16:30
MW-7 1519	S105094-02	Water	05/03/01 00:00	05/04/01 16:30
MW-4 1505	S105094-03	Water	05/03/01 00:00	05/04/01 16:30
MW-7 830	S105094-04	Water	05/03/01 00:00	05/04/01 16:30





Project: Chevron 9-1851

3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project Number: DG91-851
Project Manager: Ben Heningburg

Reported: 05/15/01 12:59

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequeia Analytical - Secrementa

	Sequo	ia Ana	lytical	- Sacra	mento		<u> </u>		
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 853 (S105094-01) Water	Sampled: 05/03/01 00:00	Receive	d: 05/04	/01 16:30					
Purgeable Hydrocarbons	491	250	ug/l	5	1050149	05/09/01	05/10/01	DHS LUFT	
Benzene	ND	2.50	**	*1	n	ıı	b	н	
Toluene	ND	2.50	**	H	19	n	н	н	
Ethylbenzene	ND	2.50	+1	*1	19	11	н	н	
Xylenes (total)	ND	2.50	Ħ	**	14	11	н	rı	
Surrogate: a,a,a-Trifluorotoluene		79.3 %	60-	140	"	"	"	n	
MW-7 1519 (S105094-02) Water	Sampled: 05/03/01 00:00) Receiv	ed: 05/0	4/01 16:30					
Purgeable Hydrocarbons	201	50.0	ug/l	1	1050149	05/09/01	05/10/01	DHS LUFT	
Benzene	0.619	0.500	"	11	*	**	н	ti	
Toluene	ND	0.500	n	H	10	w	19	н	
Ethylbenzene	1.65	0.500	n	н	н	**	н	н	
Xylenes (total)	0.961	0.500	н	н	**	**	n	п	
Surrogate: a,a,a-Trifluorotoluene		74.2 %	60-	140	и	л	"	n	
MW-4 1505 (S105094-03) Water	Sampled: 05/03/01 00:00	Receiv	ed: 05/0	4/01 16:30					
Purgeable Hydrocarbons	370	250	ug/l	5	1050149	05/09/01	05/10/01	DHS LUFT	
Benzene	ND	2.50	#	Ø	**	**	n	u	
Toluene	ND	2.50	**	ш	71	**	"	II	
Ethylbenzene	ND	2.50	**	II .	**	*1		п	
Xylenes (total)	ND	2.50	**	U	ŧt.	Ħ		n	
Surrogate: a,a,a-Trifluorotoluene		84.4 %	60-	140	н	H	"	"	
MW-7 830 (S105094-04) Water	Sampled: 05/03/01 00:00	Receive	d: 05/04	/01 16:30					
Purgeable Hydrocarbons	191	50.0	ug/l	J	1050149	05/09/01	05/10/01	DHS LUFT	
Benzene	ND	0.500	11	19	п	n	**	n	
Toluene	ND	0.500	н	.,	n	u	**	н	
Ethylbenzene	ND	0.500	н	17	fi .	н	**	19	
Xylenes (total)	ND	0.500	н	H	п	U	11	II	

80.1 %

Surrogate: a,a,a-Trifluorotoluene

60-140





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: Chevron 9-1851

Project Number: DG91-851 Project Manager: Ben Heningburg Reported: 05/15/01 12:59

MTBE by DHS LUFT

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note:
MW-4 853 (S105094-01) Water	Sampled: 05/03/01 00:00	Receive	d: 05/04	/01 16:30					
Methyl tert-butyl ether	2020	50.0	ug/l	20	1050177	05/11/01	05/11/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		66.8 %	60-	140	"	"	"	<i>u</i>	
MW-7 1519 (S105094-02) Water	Sampled: 05/03/01 00:0	0 Receiv	ed: 05/0	4/01 16:30					
Methyl tert-butyl ether	472	50.0	ug/l	20	1050177	05/11/01	05/11/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		62.0 %	60-	140	"	π	"	n	
MW-4 1505 (S105094-03) Water	Sampled: 05/03/01 00:0	0 Receiv	ed: 05/0	4/01 16:30					
Methyl tert-butyl ether	3330	50.0	ug/l	20	1050177	05/11/01	05/11/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		96.3 %	60-	140	"	rr	"	n	
MW-7 830 (S105094-04) Water	Sampled: 05/03/01 00:00	Receive	d: 05/04	/01 16:30					
Methyl tert-butyl ether	1070	50.0	ug/l	20	1050177	05/11/01	05/11/01	DHS LUFT	
Surrogate: a,a,a-Trifluorotoluene		99.6 %	60-	140	"	"	77	"	





3164 Gold Camp Drive Ste. 200 Rancho Cordova CA, 95670 Project: Chevron 9-1851

Project Number: DG91-851
Project Manager: Ben Heningburg

Reported:

05/15/01 12:59

MTBE Confirmation by EPA Method 8260A Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4 853 (S105094-01) Water	Sampled: 05/03/01 00:00	Receive	d: 05/04	/01 16:30					·
Methyl tert-butyl ether	4270	50.0	ug/l	25	1050154	05/11/01	05/11/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		103 %	60-	140	ır	"	n	,,	
MW-7 1519 (S105094-02) Water	Sampled: 05/03/01 00:0	0 Receiv	ed: 05/0	4/01 16:30					
Methyl tert-butyl ether	647	10.0	ug/l	5	1050154	05/11/01	05/11/01	EPA 8260A	
Surrogate: 1,2-DCA-d4		107 %	60-	140	н	"	#	"	
MW-4 1505 (S105094-03) Water	Sampled: 05/03/01 00:0	0 Receiv	ed: 05/0	4/01 16:30					
Methyl tert-butyl ether	4250	50.0	ug/l	25	1050154	05/11/01	05/11/01	EPA 8260A	·
Surrogate: 1,2-DCA-d4		110 %	60-	140	н	"	"	"	
MW-7 830 (S105094-04) Water	Sampled: 05/03/01 00:00	Receive	d: 05/04	/01 16:30					
Methyl tert-butyl ether	1190	20.0	ug/l	10	1050154	05/11/01	05/11/01	EPA 8260A	_
Surrogate: 1,2-DCA-d4		112 %	60-	140	11	"	"	"	





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Project Number: DG91-851
Project Manager: Ben Heningburg

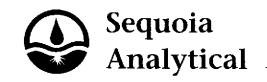
Reported: 05/15/01 12:59

Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1050149 - EPA 5030B (P/T)									·	·
Blank (1050149-BLK1)				Prepared	& Analyze	ed: 05/09/	01			
Purgeable Hydrocarbons	ND	50.0	ug/l					·-	·	
Benzene	ND	0.500	17							
Toluene	ND	0.500	19							
Ethylbenzene	ND	0,500	19							
Xylenes (total)	ND	0.500	10							
Surrogate: a,a,a-Trifluorotoluene	9.57		"	10.0		95.7	60-140			
LCS (1050149-BS1)				Prepared	& Analyze	ed: 05/09/	01			
Benzene	8.24	0.500	ug/I	10.0		82.4	70-130			
Toluene	9.01	0.500	"	10.0		90.1	70-130			
Ethylbenzene	9.54	0.500)t	10.0		95.4	70-130			
Xylenes (total)	29.4	0.500	It	30.0		98.0	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.29		"	10.0		92.9	60-140			
Matrix Spike (1050149-MS1)	Soi	ırce: S10511	6-03	Prepared:	05/09/01	Analyzed	l: 05/10/01			
Benzene	8.30	0.500	ug/l	10.0	ND	83.0	60-140			
Toluene	9.01	0.500	"	10.0	ND	90.1	60-140			
Ethylbenzene	9.42	0.500	n	10.0	ND	94.2	60-140			
Xylenes (total)	29.5	0.500	n	30.0	ND	98.3	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.01			10.0		90.1	60-140			
Matrix Spike Dup (1050149-MSD1)	Sou	ırce: S10511	6-03	Prepared:	05/09/01	Analyzed	1: 05/10/01			
Benzene	8.23	0.500	ug/l	10.0	ND	82.3	60-140	0.847	25	
Toluene	8.95	0.500	H	10.0	ND	89.5	60-140	0.668	25	
Ethylbenzene	9.24	0.500	п	10.0	ND	92.4	60-140	1.93	25	
Xylenes (total)	28.8	0.500	P	30.0	ND	96.0	60-140	2.40	25	
Surrogate: a,a,a-Trifluorotoluene	8.73		rr	10.0		87.3	60-140			







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MTBE by DHS LUFT - Quality Control

Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1050177 - EPA 5030B (P/T)										
Blank (1050177-BLK1)				Prepared	& Analyze	ed: 05/11/	01			
Methyl tert-butyl ether	ND	2.50	ug/l							
Surrogate: a,a,a-Trifluorotoluene	10.0		"	10.0		100	60-140			
LCS (1050177-BS1)				Prepared of	& Analyze	ed: 05/11/	01			
Methyl tert-butyl ether	8.63	2.50	пб/ј	10.0		86.3	70-130			
Surrogate: a,a,a-Trifluorotoluene	9.80	74.4.1.	"	10.0		98.0	60-140			
Matrix Spike (1050177-MS1)	Sou	rce: S105120	D-07	Prepared	& Analyze	ed: 05/11/0	01			
Methyl tert-butyl ether	8.22	2.50	ug/l	10.0	ND	82.2	60-140			
Surrogate: a,a,a-Trifluorotoluene	9.27		n	10.0		92.7	60-140			
Matrix Spike Dup (1050177-MSD1)	Sou	rce: S105120)-07	Prepared a	& Analyze	ed: 05/11/0	01			
Methyl tert-butyl ether	7.69	2.50	ug/l	10.0	ND	76.9	60-140	6.66	25	
Surrogate: a,a,a-Trifluorotoluene	9.44		"	10.0		94.4	60-140			





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MTBE Confirmation by EPA Method 8260A - Quality Control Sequoia Analytical - Sacramento

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Analyce	Kesun	Limit	Umis	LEVEL	Result	76REC	Limis	- KrD	Linu	Notes
Batch 1050154 - EPA 5030B [P/T]										
Blank (1050154-BLK1)				Prepared	& Analyze	d: 05/11/	01			
Methyl tert-butyl ether	ND	2.00	ug/l							
Surrogate: 1,2-DCA-d4	54.0		п	50.0		108	60-140		·	
LCS (1050154-BS1)				Prepared	& Analyze	d: 05/11/	01			
Methyl tert-butyl ether	50.1	2.00	ug/l	50.0		100	70-130			
Surrogate: 1,2-DCA-d4	55.6	-	"	50.0		111	60-140			
Matrix Spike (1050154-MS1)	Sou	ırce: S105120	0-08	Prepared	& Analyze	:d: 05/11/	01			
Methyl tert-butyl ether	49.5	2.00	ug/l	50.0	ND	99.0	60-140			
Surrogate: 1,2-DCA-d4	55.9		н	50.0		112	60-140			
Matrix Spike Dup (1050154-MSD1)	Sou	ırce: S10512	0-08	Prepared	& Analyze	ed: 05/11/	01			•
Methyl tert-butyl ether	50.4	2.00	ug/l	50.0	ND	101	60-140	1.80	25	
Surrogate: 1,2-DCA-d4	54.8		"	50.0		110	60-140			





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Reported:

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Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

Not Reported

dry

Sample results reported on a dry weight basis

RPD

Relative Percent Difference

Chain-of-Custody-Record ப ies .. copy of Lab Report and COC to Chevron Contact: 🗆 No Tom Bauhs Chevron Facility Number Chevron 91-851 Chevron Contact (Name) ____ Foolity Addrese 451 Hegen being of Road, conkland, CA (Phone)____ Laboratory Name Sequencia Consultant Project Number 05 91-851 Chevron U.S.A. Inc. Consultant Name DelTa Environmental P.O. BOX 5004 Address 3164 Fold camp Dr. Suite 200, Rancho Cordova San Ramon, CA 94583 Collection Date 5/3/01
Signature Britis Barrolelum Project Contact (Name) BEN Haningburg FAX (415)842-9591 (Phone) 916-936-2623 (Fax Number) MEBE by 8260 Analyses To Be Performed * Air Charcool MIBE (8260) Extractable Organia (8270) Purgeable Organica (8240) Container BTEX + TPH GAS (8020 + 8015) Sample Number Oil and Grades (5520) TPH Disset (8015) 111 Number of 900 Remarks 853 S MW-4 1515 ς 4 D MW-7 1909 X D S 4 MW-4 X 830 0 MW-7 Turn Around Time (Circle Choice) Date/Time 5-4-0/ /5/0 Organization Received by (Signature) Date/Time 6-4-01 Organization Relinquished By (Signature) 24 Hrs. SEGUOA Delta Env Relinquished By (Signature) 48 Hrs. Received By (Dignoture) Organization 5 Doys Dote/Time 5-4-01 Organization Sexuora Lonica Greaten 10 Daye of h Hard Sed WOL Recleved For Laboratory By (Signature) A Contracted Date/11me Date/11me Reilingulehed By (Signoture) Organization