Q. Soil desposition? # 5544 Copy of City of Oakland's Inspection 5544

TRANSMITTAL

TO: Mr. Larry Seto

Alameda County Health Care Services 1153 Harbor Bay Pkwy, Suite 250 Alameda, California 94502-6577 DATE:

May 23, 2001

PROJ. #:

DG26145C.4C02

SUBJECT: Report (Tank Renurals)

Former Chevron Facility No.

20-6145

800 Center Street Oakland, California

FROM:

Hagop Kevork Civil Engineer Gettler-Ryan Inc. 6747 Sierra Court, Suite J Dublin, California 94568

WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION				
1	May 21, 2001	Report of Soil Sampling During UST Removal				
THEOR ARE	FRANSMITTED as checked belo					

[] For review and comment	[] Approved as submitted	[] Resubmit _ copies for approva
[X] As requested	[] Approved as noted	[] Submit _ copies for distributio
[] For approval	[] Return for corrections	[] Return corrected prints

[X] For Your Files

COMMENTS:

At the request of Chevron Products Company, we are sending one copy of the referenced report for your files. If you have any questions, please call me at (925) 551-7555, ext. 172.

cc: Mr. Thomas Bauhs, Chevron Products Company



3164 Gold Camp Drive Suite 200 Rancho Cordova, CA 95670-6021 U.S.A. 916/638-2085 FAX: 916/638-8385

May 21, 2001

Mr. Thomas Bauhs Chevron Products Company P.O. Box 6004 San Ramon, California 94583

Subject:

Compliance Soil Sampling During Removal of Underground Storage Tanks at Former Chevron (Signal Oil) Service Station No. 20-6145, 800 Center Street, Oakland, California.

Dear Mr. Bauhs:

At the request of Chevron Products Company (Chevron), Delta Environmental Consultants Inc. Network Associate Gettler-Ryan Inc. (GR) conducted a soil investigation during removal of underground storage tanks (USTs) at Former Chevron Service Station #20-6145. The purpose was to evaluate whether the soil near the former gasoline and waste oil USTs has been impacted by hydrocarbons. The scope of work included: observing removal of the former USTs; collecting and analyzing soil samples from the UST pit excavations; and preparing a report documenting the work.

SITE DESCRIPTION

The subject site was a former service station located at 800 Center Street in Oakland, California. A Site Vicinity Map is included as Figure 1. Aboveground facilities have been previously demolished and removed from the site. Seven groundwater monitoring wells (located at and in the vicinity of the site) are monitored and sampled quarterly. Pertinent site features and the existing monitoring wells are shown on Figure 2.

SUMMARY OF ENVIRONMENTAL WORK

The information discussed below was obtained from files provided by Chevron. Three subsurface investigations have been performed at the subject site. In 1989, Subsurface Consultants Inc. drilled five soil borings (1 through 5) to depths between 4.5 and 26 feet below ground surface (bgs). Temporary wells were installed in two of these borings. Borings 1 through 4 were installed in the vicinity of the former USTs, the dispenser island, and sumps along the eastern property boundary. Concentrations up to 14,000 parts per million (ppm) of Total Petroleum Hydrocarbons as diesel (TPHd), up to 31,000 ppm of Total Petroleum Hydrocarbons as gasoline (TPHg) and up to 500 ppm of benzene were detected in soil collected from depths up to 15 feet bgs. One sample from 3.5 feet bgs in boring 5, situated near the hydraulic hoist, contained 16,000 ppm oil and grease. Grab groundwater samples were collected from borings 1 and 3. TPHd was not detected in either sample. The sample from boring 3 contained benzene (340 parts per billion, or ppb).

DG26145C.4C02

UST Removal and Compliance Soil Sampling

Former Chevron Service Station # 20 – 6145 800 Center Street Oakland, California

Groundwater Technology Inc. drilled three soil borings (SB-1 through SB-3) to 12 feet bgs and installed four groundwater monitoring wells (MW-1 through MW-4) to 15 feet bgs in 1995. Concentrations of TPHg (up to 14,000 ppm) and benzene (up to 120 ppm) were detected in soil samples collected at 5 and 10 feet bgs in borings SB-1, SB-2 and MW-1. TPHg or benzene was not detected in soil samples from borings SB-3 or MW-2 through MW-4 (except for 0.24 ppm of benzene in the sample from boring MW-3 at 10 feet bgs).

Pacific Environmental Group advanced 5 soil vapor points (SV-1 through SV-5) to depths up to 12 feet bgs in 1997. Petroleum hydrocarbons were detected in soil samples collected from all borings at concentrations up to 8,000 ppm of TPHg and 52 ppm of benzene. Soil vapor samples from these borings contained up to 50,000 micrograms per liter (µg/l) of TPHg and 65 µg/l of benzene. The highest soil vapor concentrations were encountered in soil between 6 and 10 feet bgs.

In 1999, Chevron contracted GR to remove the dispenser island, sumps, hydraulic hoist, building foundations, trash enclosure, yard lights and asphalt remaining at the site. This work was initiated in September 1999. At that time, GR encountered one 1,000 gallon UST in the area of the former fuel UST pit along the western property boundary, adjacent to Center Street. One 550 gallon waste oil UST was encountered in front of the existing station building situated along the eastern property boundary. One buried 55 gallon steel drum, apparently used as some sort of UST, was encountered in the vicinity of the hydraulic hoist inside the station building. At that time, work at the site was discontinued while negotiations between Chevron and the property owner were initiated on UST ownership. The USTs were not removed, and compliance samples were not collected. Locations of the USTs are shown on Figure 2. [Also on that date, well MW-5 contained TPHg (3,000 ppb), benzene (20 ppb), and diesel-range hydrocarbons (1,390 ppb)]

Quarterly monitoring since, October 1995, confirm that hydrocarbons are present in the groundwater. Depth to water fluctuates from approximately 5 to 10 feet below ground surface. Groundwater generally flows from northeast to southwest.

FIELD WORK

Sampling was performed in accordance with the GR Field Methods and Procedures (attached), and the Site Safety Plan. All soil samples collected during this investigation were delivered under chain-of-custody to Sequoia Analytical in Walnut Creek, California (ELAP #1271). Soil sample locations are shown on Figure 2. Analytical methods and results are summarized in Table 1. Copies of the laboratory analytical reports and chain-of-custody record are attached. Mr. Stephen W. Craford of the City of Oakland Fire Services Agency (COFSA) and Mr. Terrell A. Sadler, the property owner, were present at the site to observe former UST removal and sample collection. UST removal activities were performed by the property owner's contractor W.A.Craig, Inc. of Dixon, California. A copy of UST closure certification is attached.

UST Removal and Compliance Soil Sampling Former Chevron Service Station # 20 - 6145 800 Center Street Oakland, California

Gasoline and Waste Oil UST Removal and Soil Sampling

On April 12, 2001, one 1,000-gallon gasoline UST, one 550-gallon waste oil UST, the former hydraulic hoist, and one 55 gallon empty steel drum (encountered in the vicinity of the hydraulic hoist) were removed from the site by the contractor. Prior to UST removal, approximately 250 gallons of waste oil were pumped from the waste oil UST and transported by Clearwater Environmental Management, Inc. of Union City, California to their facility for proper disposal. A copy of Clearwater's Bill of Lading # 38264 is attached. The tanks were made of single-wall steel. Upon removal, the USTs were visually inspected for evidence of failure. Holes were not observed in the gasoline tank. One hole (approximately 0.75 inch in diameter) was observed in the waste oil tank. The USTs were removed from the site and transported by the contractor to SimsMetal USA Corporation of Sacramento, California. A copy of the SimsMetal weight ticket for the tanks is attached.

Limits of the former gasoline and waste oil UST pits are shown on Figure 2. Native soil in the vicinity of the former gasoline and waste oil USTs consisted primarily of clayey silt. Groundwater was not encountered in the excavations.

Soil was retrieved from the base of each UST pit with a backhoe. Soil samples were collected from the backhoe bucket as described in the attached Field Methods and Procedures. Reconnaissance field screening of the soil samples was not performed. Backfill material removed from the UST pits during excavation was left at the site pending further excavation work at the site.

Two soil samples, labeled A-1 and A-2, were collected from beneath the former gasoline UST at depths of approximately 8.5 feet below ground surface (bgs). One soil sample, labeled WOT, was collected from beneath the former waste oil UST at a depth of approximately 8.0 feet bgs. All soil samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg), Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX), and Methyl tert-butyl ether (MTBE). In addition, soil sample WOT was also analyzed for Total Petroleum Hydrocarbons as diesel (TPHd), Oil and Grease (O&G), Volatile Organic Compounds (VOCs), Semi-Volatile Organics (SVOs), and the metals cadmium, chromium, lead, nickel, and zinc.

Soil samples A-1 and A-2 from the gasoline UST pit showed concentrations of TPHg at 630 ppm and 32 ppm, and benzene at 10 ppm and 0.11 ppm, respectively. MTBE (by method 8020) was detected in sample A-2 at 0.38 ppm. The soil sample WOT from the former waste oil UST pit showed concentrations of TPHg, benzene and MTBE (by method 8020) at 10 ppm, 0.0092 ppm and 0.058 ppm, respectively. MTBE confirmation analysis by method 8260 was not performed. VOCs and SVOs were all non-detectable. TPHd and O&G were detected at 3.2 ppm (reported as Unidentified Hydrocarbons C9-C40) and 110 ppm, respectively. Total lead was not detected. Analytical results are summarized in Table 1.

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UST Removal and Compliance Soil Sampling

Former Chevron Service Station # 20 - 6145 800 Center Street Oakland, California

The service station operation at the subject site was closed in 1973, prior to the use of MTBE in gasoline. Confirmation analysis by EPA Method 8260 for groundwater samples from existing monitoring wells have shown no detectable concentrations of MTBE. Based on these analyses and the site history, it is unlikely that MTBE is present at the subject site.

If you should have any questions please call us in Dublin at (925) 551-7555.

Sincerely,

Gettler-Ryan Inc.

Hagop Kevork Civil Engineer P.E. C55734

Senior Geologist

Attachments:

R.G. 5577

Table 1. Analytical Results

Figure 1. Vicinity Map

Figure 2. Site Plan/Sample Location Map

GR Field Methods and Procedures Clearwater Bill of Lading # 38264

Hazardous Waste Tank Closure Certification

SimsMetal USA Corporation's weight ticket # TQS202

Laboratory Analytical Reports and Chain-of-Custody Records

DG26145C.4C02

Table 1. Soil Chemical Analytical Data

Former Chevron (Signal Oil) Service Station # 20-6145

800 Center Street Oakland, California

Sample ID	Sample Date	Sample Depth (feet)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)	Lead (ppm)	TPHd (ppm)	O&G (ppm)	VOCs (ppm)	SVOs (ppm)
Gasoline US	ST Pit												
A-1	4/12/01	8.5	<u>_630</u> 5	10	4.4	15	48	<5.0	NR	NR	NR	NR	NR
A-2	4/12/01	8.5	32 ¹	0.11	0.04	0.37	0.98	0.38	NR	NR	NR	NR	NR
Waste Oil L	JST Pit												
WOT	4/12/01	8	10 ¹	0.0092	0.040	0.058	0.24	0.058	<1.0 ³	3.2 ²	110	ND	ND

Explanation:

TPHg = Total Petroleum Hydrocarbons as gasoline

TPHd = Total Petroleum Hydrocarbons as diesel

BTEX = Benzene, toluene, ethylbenzene, and xylenes

MTBE = Methyl tert-butyl ether

O&G = Oil and Grease

VOCs = Volatile organic compounds

SVOs = Semi-volatile organics

ND = None of the constituent compounds were detected

NR = Analysis not requested

ppm = Parts per million

Analytical Methods

TPHg/Benzene/MTBE = EPA Methods 5030/8015 Mod.

TPHd = EPA Methods 3550/8015 Mod.

O&G = Standard Method 5520E&F

VOCs = EPA Method 8010B

SVOs = EPA Method 8270C

metals = EPA 6000/7000 Series Methods

Analytical Laboratory

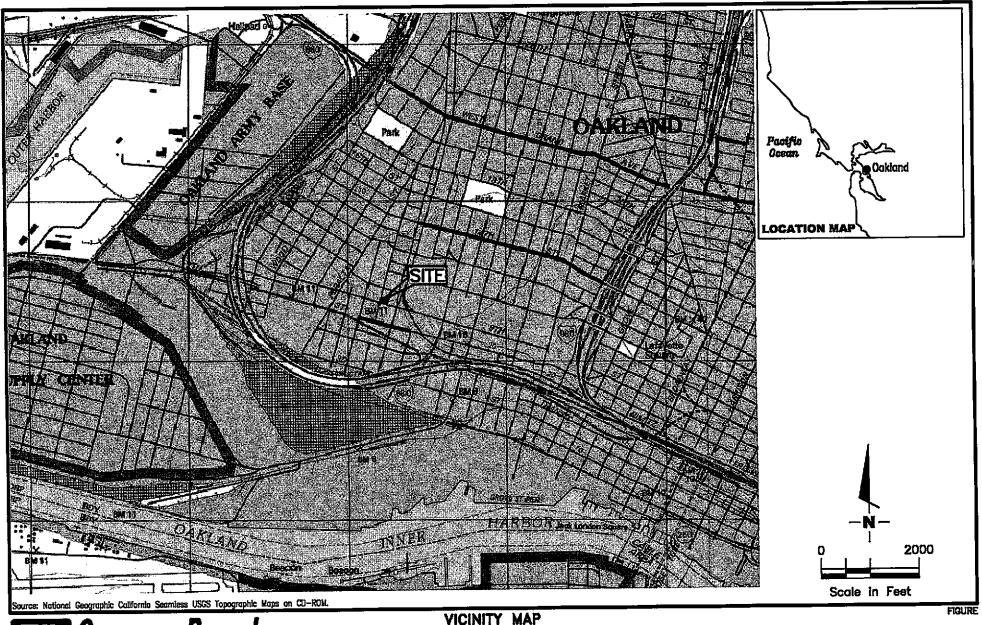
Sequoia Analytical (ELAP #1271)

Notes

¹ Laboratory report indicates gasoline C6-C12.

² Laboratory report indicates unidentified hydrocarbons C9-C40.

³ Also analyzed for cadmium (<0.50 ppm), chromium (60 ppm), nickel (52 ppm), and zinc (38 ppm).



GETTLER - RYAN INC.
6747 Sierro Ct., Suite J
Dublin, CA 94568 (925) 551-7555

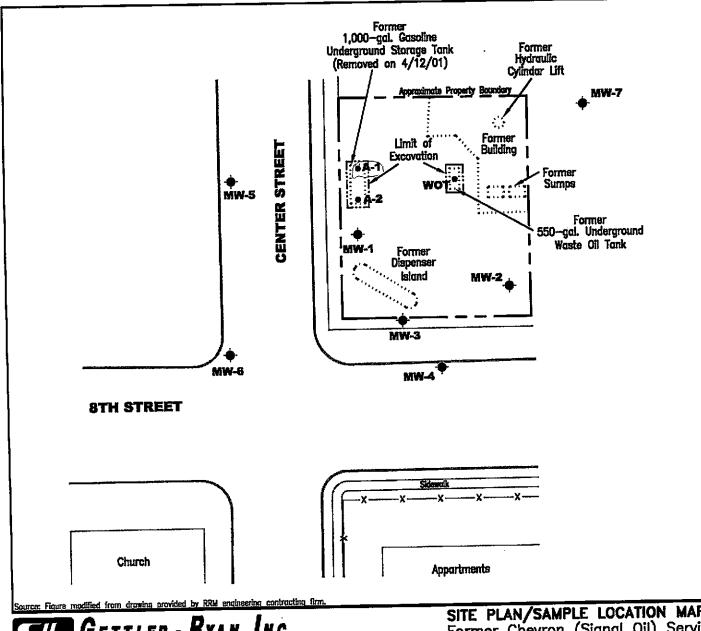
Former Chevron (Signal Oil) Service Station No. 20-6145 800 Center Street Oakland, California

REVISED DATE

PROJECT NUMBER
DG26145C.4C02

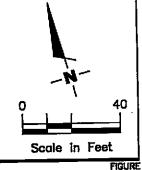
DATE 5/01

REVIEWED BY



EXPLANATION

- Groundwater monitoring well
- Soil sample location





SITE PLAN/SAMPLE LOCATION MAP
Former Chevron (Signal Oil) Service Station No 20-6145

800 Center Street Oakland, California

DATE 5 /O1 REVISED DATE

PROJECT NUMBER
DG26145C.4C01

<u>5/01</u>

REVIEWED BY

GETTLER-RYAN INC.

FIELD METHODS AND PROCEDURES

Site Safety Plan

Field work performed by Gettler-Ryan Inc. (GR) is conducted in accordance with GR's Health and Safety Plan and the Site Safety Plan. GR personnel and subcontractors who perform work at the site are briefed on the contents of these plans prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

Collection of Samples

Soil samples are collected from the wall or base of the excavation with a hand-driven sampling device fitted with a 2-inch-diameter, clean brass tube or stainless steel liner. If safety considerations preclude collection of the samples with the drive sampler, the excavating equipment is used to bring soil from the pit wall to the surface, where a sample tube is filled by driving it into the soil in the excavator's bucket. After removal from the sampling device, sample tubes are covered on both ends with teflon sheeting, capped, labeled, and place in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory.

If it is necessary to collect a sample of groundwater standing in the UST pit, the sample is collected by lowering a new, clean teflon bailer into the pit from a safe position along the pit wall. Once filled and retrieved, the groundwater in the bailer is carefully decanted into the appropriate containers supplied by the analytical laboratory. If required, preservative is added to the sample bottles by the laboratory prior to delivery. The samples are then labeled and place in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory.

Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from soil samples. This test procedure involves placing a small amount of the soil to be screened in a sealable plastic bag. The bag is warmed in the sun to allow organic compounds in the soil sample to volatilize. The PID probe is inserted through the wall of the bag and into the headspace inside, and the meter reading is recorded in the field notes. An alternative method involves placing a plastic cap over the end of the sample tube. The PID probe is placed through a hole in the plastic cap, and vapors with the covered tube measured. Head-space screening is performed and results recorded as reconnaissance data only. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

Storing and Sampling of Soil Stockpiles

Excavated material is stockpiled on and covered with plastic sheeting. Stockpile samples are collected and analyzed for disposal classification on the basis of one composite sample per 100 cubic yards of soil. Stockpile samples are composed of four discrete soil samples, each collected from an arbitrary location on the stockpile. The four discrete samples are then composited in the laboratory prior to analysis. Each discrete stockpile sample is collected by removing the upper 12 to 18 inches of soil, and them driving the stainless steel or brass sample tube into the stockpiled material with a mallet or drive sampler. The sample tubes are then covered on both ends with teflon sheeting, capped, labeled, and placed in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Stockpiled soils are covered with plastic sheeting after completion of sampling.

JOB 3976

10-1



(C 8020 - 8050 CLEARWATER / PUT ON OUR ACCOUNT

ENVIRONMENTAL MANAGEMENT, INC.

P.O. Box 2407

UNION CITY, CA 94587-2407

(800) 499-3676 FAX (510) 476-1786

CAR 000 007 013

WE ACCEPT VISA & MASTERCARD

Bill of Lading

38264 Invoice#

4-12.01 Date 75.4 **BILLING INFORMATION** JOB SITE PO# CASH CHECK ERRELL SADIER 3976 ADDRESS CUSTOMER EPA ID # ADDRESS Center St. PROFILE# DAKLAND CA DIXON CUSTOMER ID NO: PHONE NO. (707) 693 PHONE NO. 1 QUANTITY AMOUNT MANIFEST NUMBER UNITS PRICE PRODUCT PROPER WASTE CODE SHIPPING DESCRIPTION Used Oil, Non-RCRA Hazardous Waste, Liquid 221 Used Automotive Antifreeze, Non-RCRA Hazardous Waste, Liquid 134 Oily Water Non RCRA Hazardous 99643945 223 G Waste Liquid Non RCRA Hazardous Waste Solid Oil Contaminated Debris / Soil Waste Combustible Liquid nos 3 UN 1993, PG III Non Hazardous Waste Liquid Non Hazardous Waste Solid Transportation Charges HR Washout Charges Drained Used Oil Filters **Empty Drums** Additional Labor Pressure Washer Other TOTAL DISPOSAL/RECYCLING FACILITY: Collection Station เกิดเบองเลเ Alveres (commonatem) Del Activitics Waste Transment Site 5002 Archer Street, Ahaso, CA 56822 Hay 58 West, Melforch, CA 1850 S. 260 Street, Vernos, CA V. DAYS CAT 050 033 681; 80023 CAD 980 636 591; B3261 CAL 000 181 743, 95002 (323) 258-5050 (516) 797-8511 (806) 762-7366 Onya Environmental Survices Communical Filter Recycling Scaport Environmental 33210 Western Ave: Union City, CA 1125 Hensley Street, Richmond, CA. 878 Sepport Blvd. Redwood City, CA (S10) 467-9277, 94887 CAT 080 022 148, 94081 CAD 000 032 058 94063 (610) 233-8001 (415) 364-8154 Everyroon Cit 8880 Smith Ave. Nevert CA 2000 N Atemeda Bivd; Compion, CA CAT 000 013 352; 90221 CAD 500 587 418; 94566 13101 671-3700 16101 795-4400

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CA 94556-0488

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SACRAMENTO 914-444-3980 CA 95814-0415

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Gettler Ryan, Inc. - Rancho Cordova

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported:

26-Apr-01 14:18

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
A-1	W104296-01	Soil	12-Apr-01 15:00	12-Apr-01 18:20
A-2	W104296-02	Soil	12-Apr-01 15:10	12-Apr-01 18:20
WOT	W104296-03	Soil	12-Apr-01 15:25	12-Apr-01 18:20

Sequoia Analytical - Walnut Creek

Dimple Sharma For Charlie Westwater, Project Manager

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter **Reported**: 26-Apr-01 14:18

Total Purgeable Hydrocarbons (C6-C12), BTEX and MTBE by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
A-1 (W104296-01) Soil Samp	led: 12-Apr-01 15:00	Received: 12-	Apr-01	18:20	-			<u> </u>	
Purgeable Hydrocarbons	630	100	mg/kg	2000	1D17003	16-Apr-01	18-Apr-01	EPA 8015/8020	P-01
Benzene	10	0.50	п .	19	n	11	H	и	
Toluene	4.4	0.50	Ħ	**	n	**	P	п	
Ethylbenzene	15	0.50	н	19	ıı	**	**	II	
Xylenes (total)	48	0.50	II	11	II .	11	n	ii .	
Methyl tert-butyl ether	ND	5.0	rr	n	II .	11	**	11	
Surrogate: a,a,a-Trifluorotoluen	e	123 %	40-	140	п	"	"	"	
A-2 (W104296-02) Soil Samp	led: 12-Apr-01 15:10	Received: 12-	Apr-01 1	8:20					
Purgeable Hydrocarbons	32	5.0	mg/kg	100	1D17003	16-Apr-01	19-Apr-01	EPA 8015/8020	P-01
Benzene	0.11	0.025	н	**	"	**	11	11	
Toluene	0.24	0.025	Ħ	11	II .	17	17	II	
Ethylbenzene	0.37	0.025	**	11	11	11	**	11	
Xylenes (total)	0.98	0.025	n	11	II .	**	**	11	
Methyl tert-butyl ether	0.38	0.25	ft	"	n	**	**	11	
Surrogate: a,a,a-Trifluorotoluen	e	108 %	40-	140	"	"	"	"	
WOT (W104296-03) Soil Sam	npled: 12-Apr-01 15:2	5 Received: 1	2-Apr-0	1 18:20					
Purgeable Hydrocarbons	10	5.0	mg/kg	100	1D17003	16-Apr-01	23-Apr-01	EPA 8015/8020	P-01
Benzene	0.0092	0.0050	**	20	II	н	20-Apr-01	*1	
Toluene	0.040	0.0050	**	н	II .	n	11	"	
Ethylbenzene	0.058	0.0050	**	н	п	н	11	**	
Xylenes (total)	0.24	0.0050	**	"	II .	tt	11	•	
Methyl tert-butyl ether	0.058	0.050	**	**	II .	н	11	**	
Surrogate: a,a,a-Trifluorotoluen	e	83.3 %	40-	140	"	"	"	,,	



Gettler Ryan, Inc. - Rancho Cordova

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

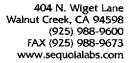
Reported:

26-Apr-01 14:18

Diesel Hydrocarbons (C9-C24) by DHS LUFT Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WOT (W104296-03) Soil Samp	oled: 12-Apr-01 15:25	Received: 1	2-Apr-0	1 18:20					
Diesel Range Hydrocarbons	3.2	1.0	mg/kg	1	1D18006	18-Apr-01	21-Apr-01	DHS LUFT	D-02
Surrogate: n-Pentacosane		141 %	50-	150	"	"	"	n	

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3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

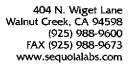
Project Manager: Steve Carter

Reported: 26-Apr-01 14:18

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WOT (W104296-03) Soil	Sampled: 12-Apr-01 15:25	Received: 1	l2-Apr-0	1 18:20					
Cadmium	ND	0.50	mg/kg	1	1D23015	23-Apr-01	25-Apr-01	EPA 6010A	
Chromium	60	0.50	п	н	11	H	25-Apr-01	п	
Lead	ND	1.0	и	"	11	#	25-Apr-01	п	
Nickel	52	1.0	п	"	#1	H	25-Apr-01	II .	
Zinc	38	1.0	u	"	Ħ	tt	11	п	





3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter **Reported**: 26-Apr-01 14:18

Volatile Organic Compounds by EPA Method 8010B

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WOT (W104296-03) Soil	Sampled: 12-Apr-01 15:25	Received: 1	2-Apr-0	1 18:20					
Chloromethane	ND	0.050	mg/kg	100	1D24008	24-Apr-01	24-Apr-01	EPA 8010B	•
Vinyl chloride	ND	0.050	er	"	**	**	ti	tt.	
Bromomethane	ND	0.050	••	11	**	"	"	11	
Chloroethane	ND	0.050	••	11	77	**	ч	**	
Trichlorofluoromethane	ND	0.025	**	п	**	11	н	ır	
1,1-Dichloroethene	ND	0.025	**	п	**	n	н	n.	
Methylene chloride	ND	0.25	**	II	11	11	Ħ		
trans-1,2-Dichloroethene	ND	0.025	77	п	11	n	Ц	II .	
1,1-Dichloroethane	ND	0.025	**	11	н	II.	II	II .	
cis-1,2-Dichloroethene	ND	0.025	71	п	n	11	ш	II.	
Chloroform	ND	0.025	11	п	19	n	ti	tt	
1,1,1-Trichloroethane	ND	0.025	71	11	n	II.	ų	If	
Carbon tetrachloride	ND	0.025	11	II	11	II .	II	n	
1,2-Dichloroethane	ND	0.025	н	11	U	n	11	u	
Trichloroethene	ND	0.025	n	II	11	п	п	п	
1,2-Dichloropropane	ND	0.025	n	II	11	II .	11	п	
Bromodichloromethane	ND	0.025	п	н	II	II	n .	II .	
cis-1,3-Dichloropropene	ND	0.025	n n	п	li	IJ	П	и	
trans-1,3-Dichloropropene	ND	0.025	n.	ч	11	u ·	u	u	
1,1,2-Trichloroethane	ND	0.025	u u	Ħ		ii		u u	
Tetrachloroethene	ND	0.025	u	tt.	"	IJ	ш	u	
Dibromochloromethane	ND	0.025		tt	"	II .	li .	IF	
1,2-Dibromoethane	ND	0.025	ш	**	u	li .	ш	u	
Chlorobenzene	ND	0.025	n n		n n	п	п	u	
Bromoform	ND	0.025	n n		н	п	11	ıı .	
1,1,2,2-Tetrachloroethane	ND	0.025	**	**	**	II	u	**	
1,3-Dichlorobenzene	ND	0.025	11	**	Ħ	п	n	п	
1,4-Dichlorobenzene	ND	0.025	"	n	**	п	н	н	
1,2-Dichlorobenzene	ND	0.025	**	D	**	п	Ħ	11	
Surrogate: 1-Chloro-2-fluo	robenzene	69.0 %	50-	150	"	"	"	"	
Surrogate: 4-Bromofluorob	enzene	93.0 %	50-	-150	"	"	"	n	



3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter Reported: 26-Apr-01 14:18

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

r			-						
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WOT (W104296-03) Soil	Sampled: 12-Apr-01 15:25	Received: 1	.2-Apr-0	1 18:20					
Acenaphthene	ND	0.10	mg/kg	1	1D19004	19-Apr-01	24-Apr-01	EPA 8270C	
Acenaphthylene	ND	0.10	п	II .	**	н	71	п	
Anthracene	ND	0.10	11	II	**	**	11	II	
Aniline	ND	0.10	a	u	н	**	п	п	
Benzoic acid	ND	0.50	н	II .	11	*	11	и	
Benzo (a) anthracene	ND	0.10	н	H	If	**	II	II	
Benzo (b) fluoranthene	ND	0.25	**	"	**	**	II	п	
Benzo (k) fluoranthene	ND	0.25	**	*	17	"	IJ	и	
Benzo (ghi) perylene	ND	0.10	**	"	**	**	II	п	
Benzo[a]pyrene	ND	0.10	**	**	"	"	п	11	
Benzyl alcohol	ND	0.10	77	**	**	11	II .	п	
Bis(2-chloroethoxy)methane		0.20	19	11	11	Ħ	II .	п	
Bis(2-chloroethyl)ether	ND	0.10	Ħ	11	11	"	Ц	п	
Bis(2-chloroisopropyl)ether	ND	0.10	υ	h	n	**	II	н	
Bis(2-ethylhexyl)phthalate	ND	0.50	Ħ	н	II .	PT	II .	п	
4-Bromophenyl phenyl ether	ND	0.20	**	"	II .	11		u	
Butyl benzyl phthalate	ND	0.50	**	"	и	11	п	lt.	
4-Chloroaniline	ND	0.50	**	Ħ	II .	11	н	It	
2-Chloronaphthalene	ND	0.10	".	11	ц	II .	(t	**	
4-Chloro-3-methylphenol	ND	0.10	11	п	n	II	**	**	
2-Chlorophenol	ND	0.10	n n	п	H	II	17	**	
4-Chlorophenyl phenyl ether	ND	0.20		п	**	п	**	**	
Chrysene	ND	0.10	· ·	н	**	II	•	11	
Dibenz (a,h) anthracene	ND	0.10	п	п	11	u	"	11	
Dibenzofuran	ND	0.10	"	11	н	п	*1	11	
Di-n-butyl phthalate	ND	0.50	**	"	**	**	11	It	
1,2-Dichlorobenzene	ND	0.10		**	"	"	11	Ħ	
1,3-Dichlorobenzene	ND	0.10	**	**	"	**	Ħ	H	
1,4-Dichlorobenzene	ND	0.20	**	"	**	**	,	"	
3,3'-Dichlorobenzidine	ND	0.50	**	n	11	**	q	n	
2,4-Dichlorophenol	ND	0.10	"	**	11	**	H	••	
Diethyl phthalate	ND	0.50	n n	**	II .	**	**	**	
2,4-Dimethylphenol	ND	0.20	#7	IŤ	11	11	**	••	
Dimethyl phthalate	ND	0.10	**	**	U	II	"	**	
4,6-Dinitro-2-methylphenol	ND	0.50	**	,,	u	**	*	**	
2,4-Dinitrophenol	ND	0.50	**	#	11		**	**	
2,4-Dinitrotoluene	ND	0.20	11	11	ш	"	11	11	
2,6-Dinitrotoluene	ND	0.20	n	11	ır	11	11	11	

Sequoia Analytical - Walnut Creek



3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

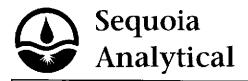
Project Number: Chevron # 206145 Project Manager: Steve Carter **Reported:** 26-Apr-01 14:18

Semivolatile Organic Compounds by EPA Method 8270C

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	·Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WOT (W104296-03) Soil	Sampled: 12-Apr-01 15:25	Received: 1	12-Apr-01	18:20					
Di-n-octyl phthalate	ND	0.20	mg/kg	1	1D19004	19-Apr-01	24-Арг-01	EPA 8270C	
Fluoranthene	ND	0.10	· ·	1)	II	11	11	11	
Fluorene	ND	0.10	II	11	II	11	ŧi	II	
Hexachlorobenzene	ND	0.20	11	11	11	H	11	II .	
Hexachlorobutadiene	ND	0.20	н	II	ш	U	1)	п	
Hexachlorocyclopentadiene	ND	0.20	tt	н	u	II .	II .	п	
Hexachloroethane	ND	0.20	**	II	II .	II .	n	II.	
Indeno (1,2,3-cd) pyrene	ND	0.10	**	n	u	μ		п	
Isophorone	ND	0.20	17	п	II	n	11	II	
2-Methylnaphthalene	ND	0.20	**	D	II .	II .	п	IJ	
2-Methylphenol	ND	0.10	**	п	11	11	11	u	
4-Methylphenol	ND	0.10	et.	II	u	11	II .	п	
Naphthalene	ND	0.10	**	п	10	IJ	IJ	п	
2-Nitroaniline	ND	0.50	**	II	II .	п	11	n	
3-Nitroaniline	ND	0.50	**	п	"	D	n	II	
4-Nitroaniline	ND	0.50	**	11	II	п	11	n	
Nitrobenzene	ND	0.20	**	II	II .	n n	11	11	
2-Nitrophenol	ND	0.10	**	IJ	u	n	ji .	11	
N-Nitrosodimethylamine	ND	0.10	**	п	II .	II .	n	u u	
4-Nitrophenol	ND	0.50	**	11	ч	n n	II .	II .	
N-Nitrosodiphenylamine	ND	0.20	**	п	It	п	п	п	
N-Nitrosodi-n-propylamine	ND	0.10	tt	11	u	U	ш	11	
Pentachlorophenol	ND	0.50	n	II	**	п	II .	II .	
Phenanthrene	ND	0.10	II.	II	"	II	II	п	
Phenol	ND	0.10	II .	**	**	a	ii.	п	
Pyrene	ND	0.20	п	ır	"	II .	n n	II.	
1,2,4-Trichlorobenzene	ND	0.20	и	н	*	н	п	II .	
2,4,5-Trichlorophenol	ND	0.10	п	Ħ	**	II .	II	п	
2,4,6-Trichlorophenol	ND	0.10	п	**	"	u	u	п	
Surrogate: 2-Fluorophenol		54.0 %	25-1.	21	"	п	"	II .	
Surrogate: Phenol-d6		52.6 %	24-1	13	"	u	"	11	
Surrogate: Nitrobenzene-d5		59.5 %	23-I.	20	"	"	"	H	
Surrogate: 2-Fluorobipheny	l	58.9 %	30-1		"	ff.	"	"	
Surrogate: 2,4,6-Tribromop		62.8 %	19-1.		"	tr .	"	n	
Surrogate: p-Terphenyl-d14		80.8 %	18-1.		"	u	"	и	

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Gettler Ryan, Inc. - Rancho Cordova

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter **Reported:** 26-Apr-01 14:18

Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Walnut Creek

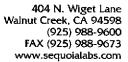
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
WOT (W104296-03) Soil	Sampled: 12-Apr-01 15:25	Received:	12-Арг-0	1 18:20					
TRPH	110	50	mg/kg	1	1D23001	23-Apr-01	24-Apr-01	SM 5520E/F	

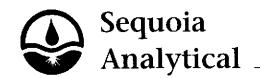
3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter **Reported:** 26-Apr-01 14:18

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D17003 - EPA 5030B MeOH										
Blank (1D17003-BLK1)				Prepared	& Analyz	ed: 16-Ap:	г-01			
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	**							
Foluene Foluene	ND	0.0050	•							
Ethylbenzene	ND	0.0050	**							
Xylenes (total)	ND	0.0050	**							
Methyl tert-butyl ether	ND	0.050	**							
Surrogate: a,a,a-Trifluorotoluene	0.692		n .	0.600		115	40-140			
LCS (1D17003-BS1)				Prepared	& Analyz	ed: 16- A p	r-01			
Benzene	0.632	0.0050	mg/kg	0.800		79.0	50-150			
Foluene	0.734	0.0050	п	0.800		91.8	50-150			
Ethylbenzene	0.774	0.0050	II.	0.800		96.7	50-150			
Xylenes (total)	2.38	0.0050	II.	2.40		99.2	50-150			
Surrogate: a,a,a-Trifluorotoluene	0.692		n n	0.600		115	40-140			
Matrix Spike (1D17003-MS1)	So	urce: W1042	92-01	Prepared:	16-Apr-0	1 Analyze	d: 26-Apr	-01		
Benzene	0.794	0.0050	mg/kg	0,800	ND	99.3	50-150			
Coluene	0.862	0.0050	п	0.800	ND	108	50-150	-		
Ethylbenzene	0.898	0.0050	n.	0.800	ND	112	50-150			
Kylenes (total)	2.80	0.0050	п	2.40	ND	117	50-150			
Surrogate: a, a, a-Trifluorotoluene	0.520		"	0.600		86.7	40-140			
Matrix Spike Dup (1D17003-MSD1)	So	urce: W1042	92-01	Prepared:	16-Apr-0	1 Analyze	d: 26 -Ap r	-01		
Benzene	0.780	0.0050	mg/kg	0.800	ND	97.5	50-150	1.78	20	
Toluene	0.840	0.0050	11	0.800	ND	105	50-150	2.59	20	
Ethylbenzene	0.886	0.0050	11	0.800	ND	111	50-150	1.35	20	
Kylenes (total)	2.70	0.0050	**	2.40	ND	112	50-150	3.64	20	
Surrogate: a, a, a-Trifluorotoluene	0.520		#	0.600		86,7	40-140	· ·	·	





3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter **Reported**: 26-Apr-01 14:18

Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D18006 - EPA 3550A										
Blank (1D18006-BLK1)				Prepared:						
Diesel Range Hydrocarbons	ND	1.0	mg/kg							
Surrogate: n-Pentacosane	1.07		11	1.11		96.4	50- 150			
LCS (1D18006-BS1)				Prepared:	18-Apr-0	1 Analyze	d: 19 -A pr	-01		
Diesel Range Hydrocarbons	15.8	1.0	mg/kg	15.0		105	60-140			
Surrogate: n-Pentacosane	1.31		н	1.11		118	50-150			
LCS Dup (1D18006-BSD1)				Prepared:	18-Apr-0	1 Analyze	:d: 19- A pr	-01		
Diesel Range Hydrocarbons	15.3	1.0	mg/kg	15.0		102	60-140	3.22	40	
Surrogate: n-Pentacosane	1.16		11	1,11		105	50-150			
Matrix Spike (1D18006-MS1)	So	ource: W1042	35-01	Prepared:	18-Apr-0	1 Analyze	ed: 19-Apr	-01		
Diesel Range Hydrocarbons	5.92	1.0	mg/kg	15.0	ND	39.5	50-150			Q-01
Surrogate: n-Pentacosane	0.667		"	1.11		60.1	50-150			
Matrix Spike Dup (1D18006-MSD1)	Source: W104235-01			Prepared:	18-Apr-0	l Analyze	d: 19-Apr	-01		
Diesel Range Hydrocarbons	30.8	1.0	mg/kg	15.0	ND	205	50-150	136	50	Q-01
Surrogate: n-Pentacosane	2.64		н	1.11		238	50-150			S-01

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter **Reported:** 26-Apr-01 14:18

Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Walnut Creek

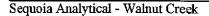
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D23015 - EPA 3050B					•					
Blank (1D23015-BLK1)	-			Prepared:	23-Apr-0	1 Analyze	:d: 25-Apr	-01		
Cadmium	ND	0.50	mg/kg							
Chromium	ND	0.50	11							
ead	ND	1.0	71							
Vickel	ND	1.0	II .							
Cinc	ND	1.0	п							
.CS (1D23015-BS1)				Prepared:	23-Apr-0	1 Analyze	d: 25-Apr	-01		
Cadmium	54.1	0.50	mg/kg	50.0		108	80-120			
Chromium	53.0	0.50		50.0		106	80-120			
æad	54.1	1.0	н	50.0		108	80-120			
Vickel	53.5	1.0	H	50.0		107	80-120			
Cine	56.5	1.0	**	50.0		113	80-120			
LCS Dup (1D23015-BSD1)				Prepared:	23-Apr-0	I Analyze	d: 25-Apr	-01		
Cadmium	51.2	0.50	mg/kg	50.0		102	80-120	5.51	20	
Chromium	51.8	0.50	TI	50.0		104	80-120	2.29	20	
ead	52.5	1.0	**	50.0		105	80-120	3.00	20	
Nickel	52.1	1.0	**	50.0		104	80-120	2.65	20	
Zine	55.8	1.0	**	50.0		112	80-120	1.25	20	
Matrix Spike (1D23015-MS1)	So	urce: W1042	92-01	Prepared:	: 23-Apr-0	1 Analyze	d: 25-Apr	-01		
Cadmium	53.5	0.50	mg/kg	50.0	ND	107	80-120			
Chromium	65.5	0.50	п	50.0	15	101	80-120			
ead	64.1	1.0	п	50.0	5.9	116	80-120			
Nickel	68,4	1.0	n	50.0	17	103	80-120			
Zine	109	1.0	u	50.0	56	106	80-120			
Matrix Spike Dup (1D23015-MSD1)	Sc	urce: W1042	92-01	Prepared	: 23-A pr-0	l Analyze	ed: 25 -A pr	-01		
Cadmium	56,6	0.50	mg/kg	50.0	ND	113	80-120	5.63	20	
Chromium	64.2	0.50	Ħ	50.0	15	98.4	80-120	2.00	20	
ead	58.6	1.0	**	50.0	5.9	105	80-120	8.96	20	
Nickel	66.9	1.0	n	50.0	17	99.8	80-120	2.22	20	
Zine	104	1.0	77	50.0	56	96.0	80-120	4.69	20	

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter Reported: 26-Apr-01 14:18

Volatile Organic Compounds by EPA Method 8010B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D24008 - EPA 5030B [MeOH]										
Blank (1D24008-BLK1)				Prepared	& Analyze	ed: 24-Ap	r-01			
Chloromethane	ND	0,050	mg/kg	•						
Vinyl chloride	ND	0,050	**							
Bromomethane	ND	0.050	**							
Chloroethane	ND	0.050	••							
Trichlorofluoromethane	ND	0.025	17							
1,1-Dichloroethene	ND	0.025	17							
Methylene chloride	ND	0.25	11							
rans-1,2-Dichloroethene	ND	0.025	41							
1,1-Dichloroethane	ND	0.025	н							
cis-1,2-Dichloroethene	ND	0.025	н							
Chloroform	ND	0.025	**							
,1,1-Trichloroethane	ND	0.025	**							
Carbon tetrachloride	ND	0.025	#							
,2-Dichloroethane	ND	0.025	"							
[richloroethene	ND	0.025	11							
,2-Dichloropropane	ND	0.025	н							
Bromodichloromethane	ND	0.025	n							
sis-1,3-Dichloropropene	ND	0.025	п							
rans-1,3-Dichloropropene	ND	0.025	II .							
1,1,2-Trichloroethane	ND	0.025	II.							
Tetrachloroethene	ND	0.025	п							
Dibromochloromethane	ND	0.025	ш							
1,2-Dibromoethane	ND	0.025	н							
Chlorobenzene	ND	0.025	н							
Bromoform	ND	0.025	et							
1,1,2,2-Tetrachloroethane	ND	0.025	77							
,3-Dichlorobenzene	ND	0.025	**							
1,4-Dichlorobenzene	ND	0.025	**							
,2-Dichlorobenzene	ND	0.025	17							
Surrogate: 1-Chloro-2-fluorobenzene	0.447		"	0.500		89.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.569		"	0.500		114	50-150			





3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported: 26-Apr-01 14:18

Volatile Organic Compounds by EPA Method 8010B - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D24008 - EPA 5030B [MeOH]										
LCS (1D24008-BS1)				Prepared	& Analyz	ed: 24-Ap	r-01			
1,1-Dichloroethene	0.933	0.025	mg/kg	1.00		93.3	65-135			
Trichloroethene	0.945	0.025	н	1.00		94.5	70-130			
Chlorobenzene	0.892	0.025	н	1.00		89.2	70-130			
Surrogate: 1-Chloro-2-fluorobenzene	0.516		"	0.500		103	50-150			
Surrogate: 4-Bromofluorobenzene	0.628		"	0.500		126	50-150			
Matrix Spike (1D24008-MS1)	So	urce: W1042	96-03	Prepared	& Analyz	ed: 24 -A p	r -01			
1,1-Dichloroethene	0.980	0.025	mg/kg	1.00	ND	98.0	60-140			
Trichloroethene	1.02	0.025	19	1.00	ND	102	60-140			
Chlorobenzene	0.936	0.025	н	1.00	ND	93.6	60-140			
Surrogate: 1-Chloro-2-fluorobenzene	0.442		"	0.500		88.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.482		"	0.500		96.4	50-150			
Matrix Spike Dup (1D24008-MSD1)	Sc	ource: W1042	96-03	Prepared	& Analyz	ed: 24-Ap	r-01			
1,1-Dichloroethene	0.943	0.025	mg/kg	1.00	ND	94.3	60-140	3.85	25	··
Trichloroethene	1.03	0.025	11	1.00	ND	103	60-140	0.976	25	
Chlorobenzene	0.916	0.025		1.00	ND	91.6	60-140	2.16	25	
Surrogate: 1-Chloro-2-fluorobenzene	0,402		rr .	0.500		80.4	50-150			
Surrogate: 4-Bromofluorobenzene	0.486		n	0.500		97.2	50-150			

Batch 1D19004 - EPA 3550A Sonication

Gettler Ryan, Inc. - Rancho Cordova

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported: 26-Apr-01 14:18

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

	Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Blank (1D19004-BLK1)				Prepared: 19-Apr-01 Analyzed: 23-Apr-01
Acenaphthene	ND	0.10	mg/kg	
Acenaphthylene	ND	0.10	11	
Anthracene	ND	0.10	н	
Aniline	ND	0.10	11	
Benzoic acid	ND	0.50	li .	
Benzo (a) anthracene	ND	0.10	п	
Benzo (b) fluoranthene	ND	0.25	п	
Benzo (k) fluoranthene	ND	0.25	H	
Benzo (ghi) perylene	ND	0.10	ti	
Benzo[a]pyrene	ND	0.10	**	
Benzyl alcohol	ND	0.10	**	•
Bis(2-chloroethoxy)methane	ND	0.20	**	
Bis(2-chloroethyl)ether	ND	0.10	11	
Bis(2-chloroisopropyl)ether	ND	0.10	Ħ	
Bis(2-ethylhexyl)phthalate	ND	0.50	**	
4-Bromophenyl phenyl ether	ND	0.20	**	
Butyl benzyl phthalate	ND	0.50	н .	
4-Chloroaniline	ND	0.50	11	
2-Chloronaphthalene	ND	0.10	II.	
4-Chloro-3-methylphenol	ND	0.10	II.	
2-Chlorophenol	ND	0.10	п	
4-Chlorophenyl phenyl ether	ND	0.20	ш	
Chrysene	ND	0.10	**	
Dibenz (a,h) anthracene	ND	0.10	**	
Dibenzofuran	ND	0.10	**	
Di-n-butyl phthalate	ND	0.50	"	
1,2-Dichlorobenzene	ND	0.10	. "	

ND

ND

ND

ND

ND

ND

ND

0.10

0.20

0.50

0.10

0.50

0.20

0.10

Sequoia Analytical - Walnut Creek

1,3-Dichlorobenzene

1,4-Dichlorobenzene

2,4-Dichlorophenol

2,4-Dimethylphenol

Dimethyl phthalate

Diethyl phthalate

3,3'-Dichlorobenzidine



3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported: 26-Apr-01 14:18

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D19004 - EPA 3550A Sonicatio	n									
Blank (1D19004-BLK1)				Prepared:	19 -A pr-0	1 Analyze	d: 23-Apr	-01		
4,6-Dinitro-2-methylphenol	ND	0.50	mg/kg							
2,4-Dinitrophenol	ND	0.50	н							
2,4-Dinitrotoluene	ЙD	0.20	**							
2,6-Dinitrotoluene	ND	0.20	11							
Di-n-octyl phthalate	ND	0.20	**							
Fluoranthene	ND	0.10	**							
Fluorene	ND	0.10	п							
Hexachlorobenzene	ND	0.20	n							
Hexachlorobutadiene	ND	0.20	u							
Hexachlorocyclopentadiene	ND	0.20	**							
Hexachloroethane	ND	0.20	**							
indeno (1,2,3-cd) pyrene	ND	0.10	Ħ							
sophorone	ND	0.20	**							
2-Methylnaphthalene	ND	0.20	"							
2-Methylphenol	ND	0.10	п							
1-Methylphenol	ND	0.10	п							
Naphthalene	ND	0.10	*1							
2-Nitroaniline	ND	0.50	11							
3-Nitroaniline	ND	0.50	**							
4-Nitroaniline	ND	0.50	**							
Nitrobenzene	ND	0.20	n							
2-Nitrophenol	ND	0.10	II .							
N-Nitrosodimethylamine	ND	0.10	u							
4-Nitrophenol	ND	0.50	**							
N-Nitrosodiphenylamine	ND	0.20	11							
N-Nitrosodi-n-propylamine	ND	0.10	**							
Pentachlorophenol	ND	0.50	*							
Phenanthrene	ND	0.10	H							
Phenol	ND	0.10	п							
Pyrene	ND	0.20	п							
1,2,4-Trichlorobenzene	ND	0.20	Ħ							
2,4,5-Trichlorophenol	ND	0.10	"			•				
2,4,6-Trichlorophenol	ND	0.10	Ħ							
Surrogate: 2-Fluorophenol	2.51		,,	5.00		50.2	25-121	· ·		

Sequoia Analytical - Walnut Creek



3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported: 26-Apr-01 14:18

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D19004 - EPA 3550A Son	ication									
Blank (1D19004-BLK1)				Prepared:	19-Apr-01	Analyze	d: 23-Apr-	-01		
Surrogate: Phenol-d6	2.45		mg/kg	5.00		49.0	24-113			
Surrogate: Nitrobenzene-d5	1.67		"	3.33		50.2	23-120			
Surrogate: 2-Fluorobiphenyl	1.81		"	3.33		54.4	30-115			
Surrogate: 2,4,6-Tribromophenol	2.66		#	5.00		53.2	19-122			
Surrogate: p-Terphenyl-d14	1.78	•	n	3.33		53.5	18-137			
LCS (1D19004-BS1)				Prepared:	19 -Apr -01.	Analyze	d: 23 -Apr -	-01		
Acenaphthene	2.14	0.10	mg/kg	3.33		64.3	31-137			
4-Chloro-3-methylphenol	3.29	0.10	п	5.00		65.8	26-103			
2-Chlorophenol	3.00	0.10	н	5.00		60.0	25-102			
1,4-Dichlorobenzene	1.93	0.20	**	3.33		58.0	28-104			
2,4-Dinitrotoluene	2.07	0.20	**	3,33		62.2	28-89			
4-Nitrophenol	2.69	0.50	n	5.00		53.8	11-114			
N-Nitrosodi-n-propylamine	2.31	0.10	**	3.33		69.4	41-126			
Pentachiorophenol	3.36	0.50	"	5.00		67.2	17-109			
Phenol	2.88	0.10	II	5.00		57.6	26-90			
Pyrene	2.14	0.20	п	3.33		64.3	35-142			
1,2,4-Trichlorobenzene	2.13	0.20	u	3.33		64.0	38-107			
Surrogate: 2-Fluorophenol	3.23		"	5.00		64.6	25-121			
Surrogate: Phenol-d6	3.20		"	5,00		64.0	24-113			
Surrogate: Nitrobenzene-d5	2.31		"	3.33		69.4	23-120			
Surrogate: 2-Fluorobiphenyl	2.28		"	3.33		68.5	30-115			
Surrogate: 2,4,6-Tribromophenol	3.47		"	5.00		69.4	19-122			
Surrogate: p-Terphenyl-d14	2.16		"	3.33		64.9	18-137			
LCS Dup (1D19004-BSD1)				Prepared	: 19-Apr-01	Analyze	ed: 23-Apr	-01		
Acenaphthene	2.23	0.10	mg/kg	3.33		67.0	31-137	4.12	40	
4-Chloro-3-methylphenol	3.34	0.10	u	5.00		66.8	26-103	1.51	40	
2-Chlorophenol	3.27	0.10	ц	5.00		65.4	25-102	8.61	40	
1,4-Dichlorobenzene	2.11	0.20	**	3.33		63.4	28-104	8.91	40	
2,4-Dinitrotoluene	2.22	0.20	79	3.33		66.7	28-89	6.99	40	
4-Nitrophenol	3.24	0.50	11	5.00		64.8	11-114	18.5	40	
N-Nitrosodi-n-propylamine	2.37	0.10	71	3.33		71.2	41-126	2.56	40	
Pentachlorophenol	3.74	0.50	er	5.00		74.8	17-109	10.7	40	
Phenol	3.08	0.10	**	5.00		61.6	26-90	6.71	40	
Pyrene	2.31	0.20	п	3.33		69.4	35-142	7.64	40	

Sequoia Analytical - Walnut Creek

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145 Project Manager: Steve Carter Reported: 26-Apr-01 14:18

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D19004 - EPA 3550A Sonication	on									
LCS Dup (1D19004-BSD1)	-			Prepared:	19-Apr-0	1 Analyze	:d: 23 -A pr-	-01		
1,2,4-Trichlorobenzene	2.28	0.20	mg/kg	3.33		68.5	38-107	6.80	40	
Surrogate: 2-Fluorophenol	3.57		н.	5.00		71.4	25-121			
Surrogate: Phenol-d6	3.40		"	5.00		68.0	24-113			
Surrogate: Nitrobenzene-d5	2.46		"	3.33		73.9	23-120			
Surrogate: 2-Fluorobiphenyl	2.37		11	3.33		71.2	30-115			
Surrogate: 2,4,6-Tribromophenol	3.61		**	5.00		72.2	19-122			
Surrogate: p-Terphenyl-dl 4	2.32		"	3.33		69.7	18-137			
Matrix Spike (1D19004-MS1)	So	urce: W1044	07-01	Prepared	19- Apr- 0	1 Analyze	ed: 24 - Apr	-01		
Acenaphthene	1.81	0.10	mg/kg	3.33	ND	54.4	31-137			
4-Chloro-3-methylphenol	2.72	0.10	17	5.00	ND	54.4	26-103			
2-Chlorophenol	2.19	0.10	H	5.00	ND	43.8	25-102			
1,4-Dichlorobenzene	1.39	0.20	**	3.33	ND	41.7	28-104			
2,4-Dinitrotoluene	1.74	0.20	**	3.33	ND	52.3	28-89			
4-Nitrophenol	2.24	0.50	n	5.00	ND	44.8	11-114			
N-Nitrosodi-n-propylamine	1.92	0.10	н	3.33	ND	57.7	41-126			
Pentachlorophenol	2.31	0.50	н	5.00	ND	46.2	17-109			
Phenol	2.13	0.10	••	5.00	ND	42.6	26-90		•	
Pyrene	2.70	0,20	77	3.33	ND	81.1	35-142			
1,2,4-Trichlorobenzene	1.59	0.20	70	3.33	ND	47.7	38-107			
Surrogate: 2-Fluorophenol	2.13		,,	5.00		42.6	25-121			
Surrogate: 2-r woropnenoi Surrogate: Phenol-d6	2.29		n	5.00		45.8	24-113			
Surrogate: Nitrobenzene-d5	1.72		"	3.33		51.7	23-120			
Surrogate: 2-Fluorobiphenyl	1.86		"	3.33		55.9	30-115			
Surrogate: 2,4,6-Tribromophenol	2.75		"	5.00		55.0	19-122			
Surrogate: p-Terphenyl-dl4	2.73		"	3.33		82.0	18-137			
Matrix Spike Dup (1D19004-MSD1)	S	ource: W1044	407-01	Prepared	: 19- A pr-0)1 Analyz	ed: 24 -A pr	-01		
Acenaphthene	1.64	0.10	mg/kg	3.33	ND	49.2	31-137	9.86	40	
4-Chloro-3-methylphenol	2.50	0.10	"	5.00	ND	50.0	26-103	8.43	40	
2-Chlorophenol	1.97	0.10	n	5.00	ND	39.4	25-102	10.6	40	
1,4-Dichlorobenzene	1.25	0.20	п	3.33	ND	37.5	28-104	10.6	40	
2,4-Dinitrotoluene	1.51	0.20	n	3.33	ND	45.3	28-89	14.2	40	
4-Nitrophenol	1.83	0,50	n	5.00	ND	36.6	11-114	20.1	40	
N-Nitrosodi-n-propylamine	1.74	0.10		3,33	ND	52.3	41-126	9.84	40	

Sequoia Analytical - Walnut Creek



Gettler Ryan, Inc. - Rancho Cordova

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported: 26-Apr-01 14:18

Semivolatile Organic Compounds by EPA Method 8270C - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D19004 - EPA 3550A Sonica	tion									
Matrix Spike Dup (1D19004-MSD1)	So	urce: W1044	07-01	Prepared:	: 19-Apr-0	l Analyze	d: 24-Apr	-01		
Phenol	1.97	0.10	mg/kg	5.00	ND	39.4	26-90	7.80	40	
Pyrene	2.43	0.20	II .	3.33	ND	73.0	35-142	10.5	40	
1,2,4-Trichlorobenzene	1.42	0.20	п	3.33	ND	42.6	38-107	11.3	40	
Surrogate: 2-Fluorophenol	1.93		"	5.00		38.6	25-121			
Surrogate: Phenol-d6	2.11		"	5.00		42.2	24-113			
Surrogate: Nitrobenzene-d5	1.55		"	3.33		46.5	23-120			
Surrogate: 2-Fluorobiphenyl	1.70		"	3.33		51.1	30-115			
Surrogate: 2,4,6-Tribromophenol	2.46		n	5.00		49.2	19-122			
Surrogate: p-Terphenyl-dl4	2.49		"	3.33		7 4.8	18-137			

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Gettler Ryan, Inc. - Rancho Cordova

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670 Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported: 26-Apr-01 14:18

Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1D23001 - EPA 3550A Sonicate							····			
Blank (1D23001-BLK1)				Prepared	23-Apr-0	1 Analyze	d: 24-Apr	-01		
TRPH	ND	50	mg/kg							
LCS (1D23001-BS1)				Prepared	: 23-Apr-0	1 Analyze	:d: 24 -A pr	-01		
TRPH	4710	50	mg/kg	5000		94.2	70-130			
LCS Dup (1D23001-BSD1)				Prepared	: 23-Apr-0	1 Analyze	:d: 24-Apr	-01		
TRPH	4760	50	mg/kg	5000	-	95.2	70-130	1.06	30	
Matrix Spike (1D23001-MS1)	So	urce: W1042	23-07	Prepared	: 23-Apr- 0	l Analyze	ed: 24-Apr	-01		
TRPH	6490	50	mg/kg	5000	2700	75.8	60-140			
Matrix Spike Dup (1D23001-MSD1)	So	urce: W1042	23-07	Prepared	: 23-Apr-0	1 Analyze	ed: 24 -A pr	- 01		
TRPH	6380	50	mg/kg	5000	2700	73.6	60-140	1.71	30	



Gettler Ryan, Inc. - Rancho Cordova

3140 Gold Camp Drive #170 Rancho Cordova CA, 95670

Project: Chevron

Project Number: Chevron # 206145

Project Manager: Steve Carter

Reported: 26-Арт-01 14:18

Notes and Definitions

Chromatogram Pattern: Unidentified Hydrocarbons C9-C40. D-02

Chromatogram Pattern: Gasoline C6-C12 P-01

The spike recovery for this QC sample is outside of established control limits. Review of associated batch QC indicates the Q-01

recovery for this analyte does not represent an out-of-control condition for the batch.

The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or S-01

matrix interferences.

Analyte DETECTED DET

Analyte NOT DETECTED at or above the reporting limit ND

Not Reported NR

Sample results reported on a dry weight basis dry

RPD Relative Percent Difference

Sequoia Analytical - Walnut Creek