RO-2437

GETTLER-RYAN INC.

1364 North McDowell Blvd. Suite B2 Petaluma, CA 94954-1116 Phone (707) 789-3251, Fax (707) 789-3218

TIRANSMIITTAIL

TO: FROM:	Tom Bauhs Chevron Products P.O. Box 6004 San Ramon, Calif		DATE: PROJECT NO. SUBJECT:	July 3, 2001 DG20208C.4C01 Report F. Chevron SS #21-0208 6006 International Blvd.
	Clyde Galantine			Oakland, California
	ENDING YOU:	<u> </u>	· · · · · · · · · · · · · · · · · · ·	
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1	July 2, 2001	UST Summary Repo	ort and Work Plan f	or Subsurface Investigation
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UST REMOVAL REPORT AND WORK PLAN FOR SUBSURFACE INVESTIGATION

at

Former Chevron Service Station No. 21-0208 6006 International Boulevard Oakland, California

Report No. DG20208C.4C01

Prepared for:

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

Prepared by:

Gettler-Ryan, Inc. 1364 N. McDowell Blvd., Suite B2 Petaluma, California 94954

Clyde J. Galantine

Senior Geologist

Stephen J. Carter Senior Geologist No. 5577

R.G. 5577

July 2, 2001

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UST REMOVAL REPORT AND WORK PLAN FOR SUBSURFACE INVESTIGATION

at

Former Chevron Service Station No. 21-0208 6006 International Boulevard Oakland, California

Report No. DG20208C.4C01

INTRODUCTION

At the request of Chevron Products Company (Chevron) Gettler-Ryan Inc. (GR), has prepeared this report documenting the removal of one underground storage tank (UST) and related product piping at the above site. The scope of work included: observing the removal of the former gasoline underground storage tank (UST) and associated product piping; collecting and analyzing soil samples from the UST excavation, product piping trench, and soil stockpile; collecting one groundwater sample from the UST excavation; coordinating evacuation of groundwater from the UST excavation; and preparing this report.

Also included is a Work Plan to define the extent of petroleum hydrocarbons in the soil and groundwater beneath the subject site. The proposed work includes: Updating the site safe ty plan; obtaining the required drilling permit; advancing up to 16 soil borings using direct-push technology; collecting and submitting soil and grab groundwater samples from the borings for chemical annalysis; and preparing a report documenting the field activities and analytical results associated with these activities.

The scope of work proposed in this Report and Work Plan is intended to comply with the State of California Water Resources Control Board's Leaking Underground Fuel Tanks (LUFT) Manual, 1994, the Regional Water Quality Control Board's (RWQCB) Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sistes, and Alameda County Health Care Services Agency (ACHCSA) guidelines.

SITE DESCRIPTION

The subject site is a former Chevron service station situated on the northern corner of the intersection of International Boulevard (formerly 14th Street) and 61st Avenue in Otakland, California (Figure 1). The site is currently used as a bus storage and repair facility. The site is bounded to the west by International Boulevard, to the north by a business building, to the soouth by 61st Avenue, and to the east by single family residences. Properties in the immediate site vicinity

are used for commercial purposes that include hair stylists, auto repair, and restaurants. Residential housing is located to the east of the subject site. Current site facilities consist of two trailers and a building. Locations of the pertinent on- and off-site features are shown on the Site Plan (Figure 2).

PREVIOUS ENVIRONMENTAL WORK

A geotechnical investigation was performed on the subject site and two adjacent residential properties to the east of the site by Subsurface Consultants, Inc. (SCI) in January 2001. This work was performed in preparation for site redevelopment as a housing development. A geophysical survey was performed in the area around the subject site. The survey detected three magnetic anomalies that appeared to be related to the former service station dispenser island and building. An UST was discovered beneath the sidewalk immediately south of the former dispenser island. A vault box with a pipe and cap found in the sidewalk was determined to be a fill pipe for the UST.

Five soil borings were advanced by SCI on January 25, 2001. Groundwater was initially encountered in the borings at depths ranging from 8 to 13 feet below ground surface (bgs). The groundwater stabilized to depths ranging from 6 to 8 feet bgs. Soil boring B-4 was located approximately 5 feet southwest of the south end of the former dispenser island and B-5 was located approximately 10 feet

northeast of the north end of the former dispenser island.

Soil and groundwater samples were collected from borings B-4 and B-5 for chemical testing after organic vapor meter samples indicated the presence of volatile organic compounds. A soil sample collected from B-4 at 0.5 feet bgs contained 93 parts per million (ppm) of total lead. A soil sample collected from B-4 at 9.5 feet bgs contained 340 ppm of Total Petroleum Hydrocarbons as gasoline (TPHg), 0.19 ppm of benzene, 110 ppm of Total Petroleum Hydrocarbons as diesel (TPHd), and 14 ppm of Total Petroleum Hydrocarbons as oil (TPHo). A soil sample collected from B-5 at 1.0 feet bgs contained 3.2 ppm of total lead. A soil sample collected from B-5 at 10.5 feet bgs contained 1,300 ppm of TPHg, 310 ppm of TPHd, 6 ppm of TPHo, and was reported as not detected for benzene. Grab groundwater samples were also collected from borings B-4 and B-5. The groundwater sample from boring B-4 contained 3,600 parts per billion (ppb) of TPHg, 22 ppb of benzene, 3,600 ppb of TPHd, and was reported as not detected for TPHo. The groundwater sample from boring B-5 contained 4,200 ppb of TPHg, 5.7 ppb of benzene, 1,300 ppb of TPHd, and 260 ppb of TPHo. A copy of the analytical data and site map from the SCI report are included in Appendix A.

FIELD ACTIVITIES

UST removal activities were performed by GR. Compliance sampling was performed by GR personnel in accordance with the GR Field Methods and Procedures (Appendix C). UST and product piping removal, and related soil sampling were observed by Mr. Keith Matthews of OFSA.

One 1,000-gallon single-wall steel gasoline UST and associated product lines were removed on June 20, 2001. Prior to UST removal, the contents of the UST were removed and the UST was triple-rinsed by Ecology Control Industries (ECI) of Richmond, California. Approximately 900 gallons of water and rinsate were removed from the UST by ECI. Upon removal, the UST and product piping

duralal st

were visually inspected for evidence of failure and were found to be in good condition with no holes, cracks, or signs of leaks. The UST and product piping were transported by ECI to their Richmond, California facility for disposal.

Native soil encountered during site activities consisted of clay. The upper 3 to 6 feet of material exposed in the UST excavation appeared to be imported material containing wood and construction debris. Groundwater was encountered at approximately 7 feet bgs. A total of four soil samples, one composite soil stockpile sample, and one grab groundwater sample were collected and transported to Sequoia Analytical (Sequoia), in Petaluma, California (ELAP #2374), for chemical analyses. Analytical methods and results are summarized in Tables 1 and 2. Sample locations are shown on Figure 2. Copies of the certified analytical reports are in Appendix B.

UST Excavation Sampling

Upon removal of the gasoline UST, soil samples CX-1-9 and CX-2-9 were collected as directed by the OFSA from the bottom of the excavation at 9 feet bgs. The samples were analyzed for Total Petroleum Hydrocarbons as gasoline (TPHg) by EPA Method 8015 (Modified) benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl t-butyl ether (MtBE) by EPA Method 8020, and total lead by EPA Method 6010.

Sample CX-1-9 and CX-2-9 were reported as none detected (ND) for all analytes.

Product Piping Trench Sampling

Soil samples CT-1-2.5 and CT-2-2.5 were collected from the bottom of the product piping trench at a depth of 2.5 feet bgs. The soil samples were analyzed for TPHg, BTEX, MtBE, and total lead. Sample CT-1-2.5 contained 560 ppm of TPHg, and 6.8 ppm of total lead. This sample was reported as ND for all other analytes. Sample CT-2-2.5 contained 860 ppm of TPHg. This sample was reported as ND for all other analytes. The laboratory noted that the chromatogram pattern in both samples more closely resembled a heavier fuel.

Groundwater Sampling

Upon removal of the UST on June 20, 2001, the UST excavation was cleaned out to a depth of approximately 8.5 feet bgs. Groundwater filled the excavation to approximately 7 feet bgs. On June 22, 2001, ECI removed approximately 1,300 gallons of groundwater from the excavation. Groundwater was then allowed to re-enter the excavation. Groundwater sample CH-1 was then collected from the excavation using a clean disposable bailer. This purging and sampling procedure was requested by OFSA.

Groundwater sample CH-1 was analyzed for TPHg, BTEX, MtBE, and total lead. The sample contained 830 ppb of TPHg, 0.94 ppb of benzene, and 2,000 ppb of total lead. The sample was reported as ND for all other analytes.

Was water sample Pe-filtered?

Soil Stockpile Sampling

Approximately 30 cubic yards of soil generated during UST and product piping removal activities was stockpiled at the site pending disposal profiling. Composite soil stockpile sample UWS-1 Comp was collected from the stockpile and analyzed for TPHg, BTEX, MtBE, total lead, and soluble threshold limiting concentration (STLC) lead.

WASTE DISPOSAL

Upon receipt of stockpile analytical data, soil disposal acceptance will be arranged at an appropriate disposal facility. A total of approximately 2,200 gallons of water were removed from the UST and UST excavation and transported by ECI to Romic in Redwood City, California. Disposal manifests for the UST and piping destruction and disposal of the soil and water will be transmitted in a future report.

SUMMARY

A total of four soil samples were collected beneath the former gasoline UST and product lines. Petroleum hydrocarbons were only detected in the two samples collected beneath the product piping. A groundwater sample collected from the UST excavation also contained petroleum hydrocarbons and total lead.

PROPOSED SCOPE OF WORK

To further define the extent of petroleum hydrocarbons beneath the site, GR proposes to advance a total of 16 soil borings at the locations shown on Figure 3. The purpose of this proposed scope of work is to delineate the extent of impacted soil and groundwater beneath the subject site. This work will be implemented immediately upon regulatory approval. Once the impacted soil has been delineated, it will be excavated and removed from the site for proper disposal. Excavation will be performed prior to August 5, 2001, when redevelopment of the property is scheduled to begin.

Borings will be advanced approximately 2 feet into first encountered groundwater, which we expect to encounter at approximately 6 feet bgs. Soil samples will be collected from approximately 2.5 feet and 5.5 feet bgs in each boring. In addition to defining the extent of hydrocarbon impact, the analytical data from these samples will be used to profile the soil for acceptance at a disposal facility. GR Field Methods and Procedures are included in Appendix C. To perform this proposed scope of work, GR proposes the following specific tasks:

Task 1. Pre-field Activities

Update the site safety plan and obtain a drilling permit from Alameda County Public Works Department. Underground Service Alert (USA) will be notified a minimum of 48 hours prior to initiating work. A subsurface utility locator will also inspect the proposed soil boring locations for the presence of subsurface utilities.

Task 2. Soil Boring Advancement

Advance sixteen soil borings to a depth of approximately 8 feet bgs at the location shown on Figure 3. A California licensed driller will perform all drilling activities. The borings will be hand cleared to 2.5 feet bgs by the driller prior to drilling. We expect groundwater will be encountered at approximately 6 feet bgs. A GR geologist will monitor the drilling activities, but because of the shallow proposed depths of the borings and the area being explored will be excavated, the borings will not be logged. The borings will be drilled using a truck-mounted GeoProbe rig equipped with 1.5-inch diameter direct push rods.

Soil samples for chemical analysis will be obtained from each boring at 2.5 and 5.5 feet bgs. Grab groundwater samples will be collected from six of the borings to assess the extent of groundwater impact beneath the site. Each sample will be submitted for chemical analysis as described in Task 4. Soil and grab groundwater samples will be collected as described in Appendix C.

Soil samples from each sampled interval will be screened in the field for the presence of volatile organic compounds using a photoionization detector (PID). These data will be collected for reconnaissance purposes only, and will not be used as verification of the presence or absence of petroleum hydrocarbons. Field screening procedures are described in Appendix C.

Due to the nature of the GeoProbe drilling, no drill cuttings will be generated. Rinsate water will be stored at the site in properly labeled drums pending disposal as described below in Task 5. Upon completion of the boring project, each boring will be filled to the surface with neat cement.

Task 3. Laboratory Analyses.

Soil and groundwater samples will be submitted for chemical analysis by a California state-certified Hazardous Material Testing Laboratory. Soil and groundwater samples from the soil borings will be analyzed for TPHg, BTEX, and MtBE by DHS LUFT method, and total lead by EPA 6000 Series Methods. MtBE will be confirmed by EPA Method 8260. Selected soil samples will also be analyzed for bulk density, water content, soil porosity permeability, pH and particle size for use in a Risk-Based Corrective Action analysis, if required at a later date.

Task 4. Report Preparation.

Following receipt and analysis of all data, a report will be prepared which summarizes this investigation. This report will be submitted to Chevron for their use and distribution.

PROJECT STAFF

Mr. Stephen J. Carter, a Registered Geologist in the State of California (No. 5577), will provide technical oversight and review of the work, and will supervise implementation of the field and office operations. GR employs a staff of geologists, engineers, and technicians who will assist with the project.

SCHEDULE

Implementation of the proposed scope of work will commence immediately upon receipt of work plan approval from ACHSCA. Redevelopment of the site is scheduled to begin August 5. It is Chevron's intent to perform the scope of work described above and excavate the impacted soil to the extent feasible prior to onset of redevelopment activities.

TABLE 1. SOIL ANALYTICAL DATA

Former Chevron Station #21-0208 6006 International Boulevard Oakland, California

Sample ID	Sample Depth (feet)	Sample Date	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)	MTBE (ppm)	Lead (ppm)
UST Pit									
CX-1-9	9	6/20/01	<1.000	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.050	<7.5
CX-2-9	9	6/20/01	<1.000	<0.0050	<0.0050	< 0.0050	<0.0050	< 0.050	<7.5
Piping Trend	hes								
CT-1-2.5	2.5	6/20/01	560 ¹	<0.250	< 0.250	2.4	1.4	<2.500	6.8
CT-2-2.5	2.5	6/20/01	860¹	< 0.250	< 0.250	1.1	3.8	<2.500	<6.8
Stockpile									
CS-1		6/20/01	1.3	< 0.0050	< 0.0050	< 0.0050	<0.0050	< 0.050	170

Explanation:

TPHg = Total Petroleum Hydrocarbons as gasoline

BTEX = Benzene, toluene, ethylbenzene, xylenes

MTBE = Methyl tert-butyl ether

ppm = parts per million

---- = not applicable

Analytical Methods

TPHg = EPA Method 8015M

BTEX, MTBE = EPA Method 8020M

Lead = EPA Method 6010B

Analytical Laboratory

Sequoia Analytical (ELAP 2374)

¹ Laboratory notes a hydrocarbon pattern is present in the requested fuel quantitation range but it does not resemble the pattern of the requested fuel. The pattern more closely resembles that of a heavier fuel.

TABLE 2. GROUNDWATER ANALYTICAL DATA

Former Chevron Station #21-0208 6006 International Boulevard Oakland, California

	Sample							· · · · · · · · · · · · · · · · · · ·	
Sample ID	Depth (feet)	Sample Date	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethylbenzene (ppb)	Xylenes (ppb)	MTBE (ppb)	Lead (ppb)
UST Pit CH-1	8.5	6/22/01	830	0.94	<0.50	1.5	3.5	<2.5	2,000

Explanation:

TPHg = Total Petroleum Hydrocarbons as gasoline BTEX = Benzene, toluene, ethylbenzene, xylenes

MTBE = Methyl tert-butyl ether

ppb = parts per billion

Analytical Methods

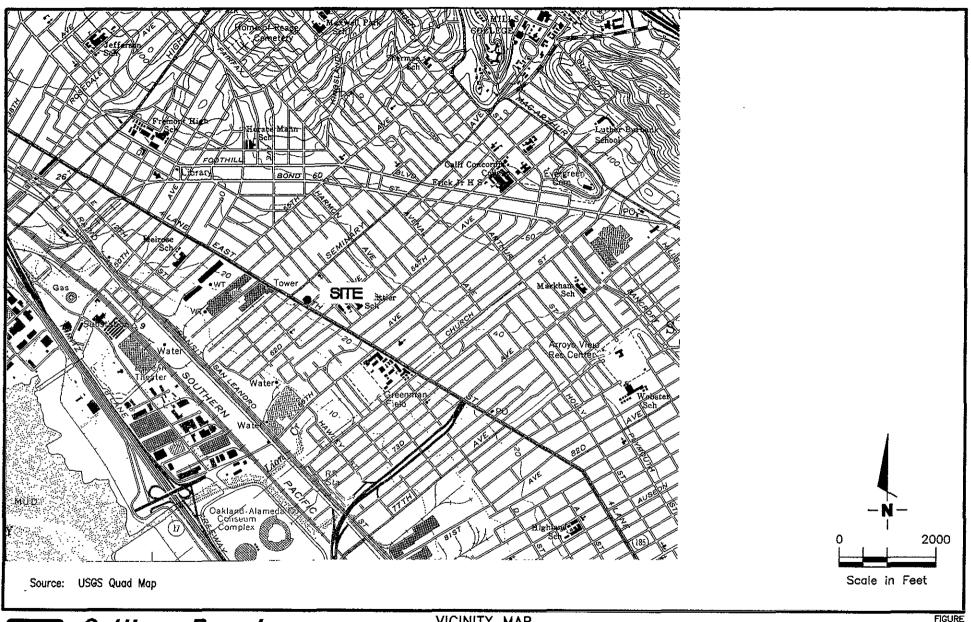
TPHg = EPA Method 8015M

BTEX, MTBE = EPA Method 8020M

Lead = EPA Method 6010B

Analytical Laboratory

Sequoia Analytical (ELAP 2374)



Gettler - Ryan Inc.

Suite B2 (707) 789-3255 1364 North McDowell Boulevard Petaluma, CA 94954

VICINITY MAP

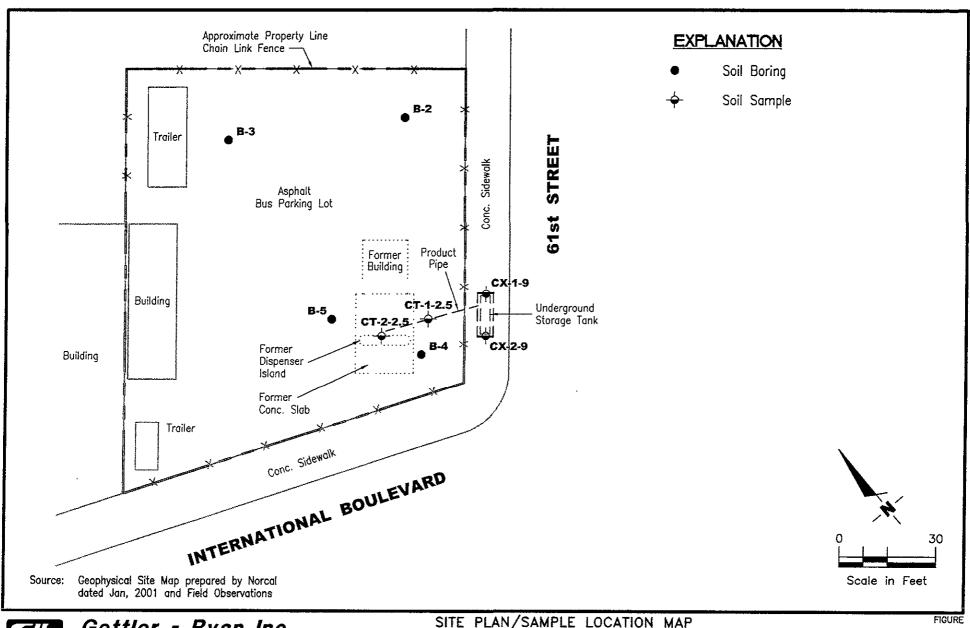
Former Chevron Service Station #21-0208 6006 International Blvd. Oakland, California

JOB NUMBER REVIEWED BY

DG20208C.4C01 FILE NAME: E:\Enviro\Chevron\A01-210208.dwg | Layout Tab: Vic Map REVISED DATE

6/01

DATE





JOB NUMBER

Gettler - Ryan Inc.

1364 North McDowell Boulevard Suite 82 Petaluma, CA 94954 (707) 789-3255

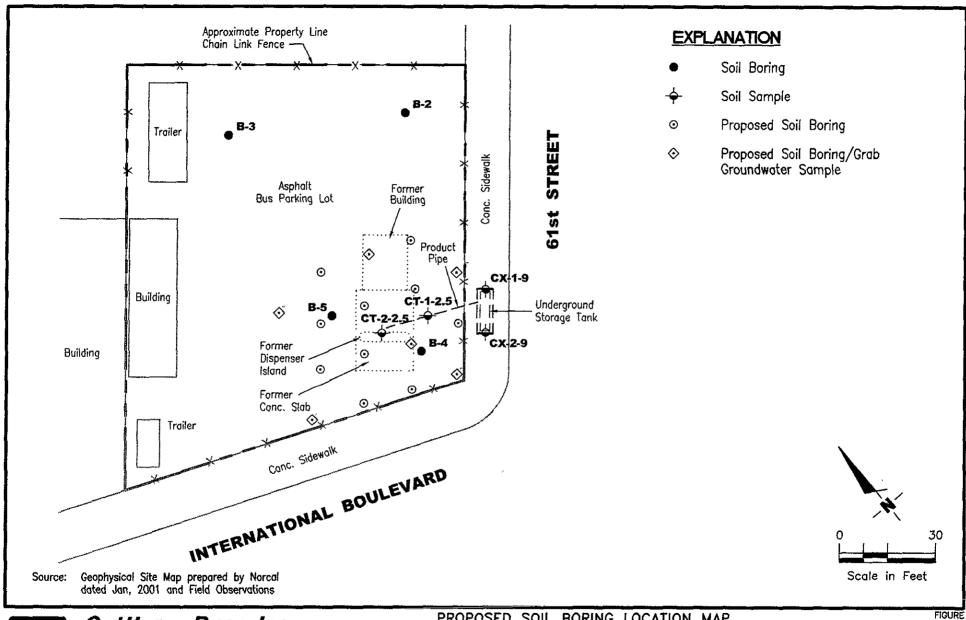
REVIEWED BY

SITE PLAN/SAMPLE LOCATION MAP
Former Chevron Service Station #21-0208 6006 International Blvd. Oakland, California

DATE REVISED DATE 6/01

DG20208C.4C01

FILE NAME: E:\Enviro\Chevron\A01-210208.dwg | Layout Tab: Site Plan





Gettler - Ryan Inc.

1364 North McDowell Boulevard Suite B2 Petaluma, CA 94954 (707) 789-3255 PROPOSED SOIL BORING LOCATION MAP Former Chevron Service Station #21-0208 6006 International Blvd. Oakland, California

3

JOB NUMBER DG20208C.4C01

REVIEWED BY

DATE 6/01

REVISED DATE

APPENDIX A

Excerpts from Subsurface Consultants Inc. February 21, 2001 Report

GEOTECHNICAL INVESTIGATION INTERNATIONAL BOULEVARD FAMILY HOUSING DEVELOPMENT OAKLAND, CALIFORNIA SCI 790.008

Prepared for:

Mr. James Cole Resources for Community Development 2131 University Avenue, Suite 224 Berkeley, California 94704

By:

SCI Subsurface Consultants, Inc.

Steven M. Wu, P.E.

Civil Engineer 58317 (expires 6/30/02)

Robin N. Bartlett, P.E., G.E.

Geotechnical Engineer 2457 (expires 12/31/02)

February 21, 2001

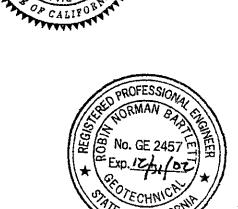


Table 1: Results of Analyses International Boulevard Family Housing Oakland, California

Soil Samples	Units	TPHd *	TPHo *	TPHg	Benzene	Toluene	Ethyl benzene	Xylenes	Lead
B4@0.5'	mg/kg			•••	***	-	***		93
B4@9.5'	mg/kg	110	14	340	0.19	<0.1	1.3	0.45	
B5@1.0'	mg/kg		-	-			***		3,2
B5@10.5'	mg/kg	310	6	1,300	<0.2	<0.2	2.6	2.6	-

Grab Groundwater Samples	Units	TPHd *	TPHo *	ТРНд	Benzene	Toluene	Ethyl benzene	Xylenes	Lead
B-4	ug/l	3,600	<250	3,600	22	1.8	49	2,9	
B-5	ug/l	1,300	260	4,200	5.7	1.7	7	5.4	_

Notes:

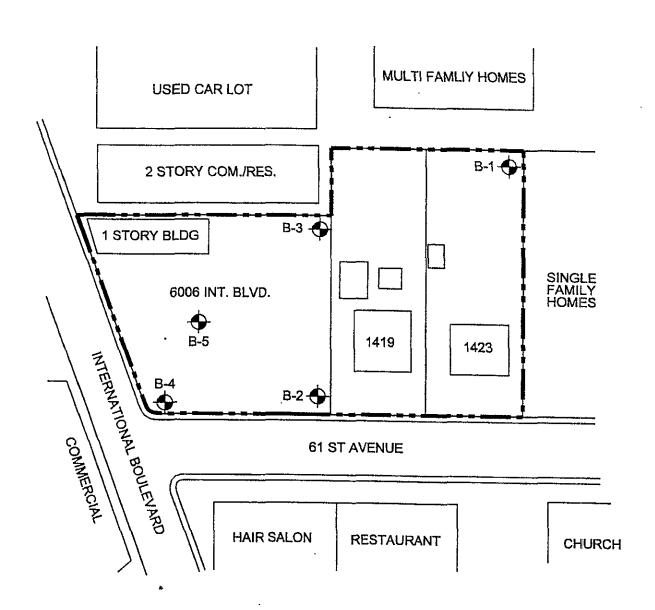
Soil samples collected on January 25, 2001 Detected concentrations shown in bold TPHd: Total Petroleum Hydrocarbons as diesel TPHo: Total Petroleum Hydrocarbons as motor oil TPHg: Total Petroleum Hydrocarbons as gasoline

*: Using silica gel cleanup

mg/kg: milligrams per kilogram ug/l: micrograms per liter

-: Sample not analyzed

<: Not detected at or above the laboratory reporting limit



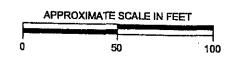
LEGEND:



APPROXIMATE LOCATION OF TEST BORING

NOTE:

THIS SITE MAP IS ADAPTED FROM A DRAWING TITLED "SITE AND ADJOINING PROPERTY MAP, 6006 INT. BLVD./ 1419 AND 1423 61ST AVE." BY CLAYTON GROUP SERVICES, DRAWING NO. 70-01319.00, DATED 8/4/00.





SITE MAP

INTERNATIONAL BOULEVARD FAMILY HOUSING PROJECT OAKLAND, CALIFORNIA



Subsurface Consultants, Inc. Geotechnical & Environmental Engineers CFY

LOS NUMBER

790.008

DATE
2/2/01

FILE NUMBER:

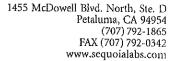
A790.008.02

2

PLATE

APPENDIX B

Chemical Analytical Data and Chain-of-Custody Forms





June 25, 2001

Steve Carter Gettler-Ryan Rancho Cordova 3164 Gold Camp Drive #240 Rancho Cordova, CA 95670 RE: Chevron / P106404

Enclosed are the results of analyses for samples received by the laboratory on 06/20/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Cari Client Services Representative

CA ELAP Certificate Number 2374

Hygleclari

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd.,

Project Manager: Steve Carter

Reported: 06/25/01 12:23

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CX-1-9	P106404-01	Soil	06/20/01 12:55	06/20/01 16:35
CX-2-9	P106404-02	Soil	06/20/01 13:00	06/20/01 16:35
CT-1-2.5	P106404-03	Soil	06/20/01 00:00	06/20/01 16:35
CT-2-2.5	P106404-04	Soil	06/20/01 00:00	06/20/01 16:35

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd.,

Project Manager: Steve Carter

Reported: 06/25/01 12:23

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CX-1-9 (P106404-01) Soil	Sampled: 06/20/01 12:55	Received: 06	/20/01 16	:35					····
Gasoline	ND	1.0	mg/kg	1	1060529	06/21/01	06/21/01	EPA 8015M/8020M	
Benzene	ND	0.0050	29	п	11	II.	н	10 13(4) 00/20(4)	
Toluene	ND	0.0050		11	te .	H	19	21	
Ethylbenzene	ND	0.0050	11	**	ıı	**	ц	u	
Xylenes (total)	ND	0.0050	17	IJ	11	п	11	п	
Methyl tert-butyl ether	ND	0.050	u	19	n	11	"	u	
Surrogate: a,a,a-Trifluoroto	luene	102%	65-	135	"	"	"	"	
Surrogate: 4-Bromofluorobe	enzene	93.0%	65-	135	n	"	"	n	
CX-2-9 (P106404-02) Soil	Sampled: 06/20/01 13:00	Received: 06	/20/01 16	:35					
Gasoline	ND	1.0	mg/kg	1	1060529	06/21/01	06/21/01	EPA 8015M/8020M	
Benzene	ND	0.0050	Ħ	II .	п	u	11	1102001	
Toluene	ND	0.0050	H	**	rt .	**	II	u	
Ethylbenzene	ND	0.0050	n	n	U	п	11	11	
Xylenes (total)	ND	0.0050	Ħ	11	Ħ	"	17	10	
Methyl tert-butyl ether	ND ND	0.050	n .	(r	(f	u	17	п	
Surrogate: a,a,a-Trifluoroto	luene	97.2%	65-	135	a	,,	"	57	
Surrogate: 4-Bromofluorobe	enzene	99.7%	65-	135	"	"	"	"	
CT-1-2.5 (P106404-03) Soil	Sampled: 06/20/01 00:00	Received: 0	6/20/01 1	6:35					
Gasoline	560	50	mg/kg	50	1060551	06/21/01	06/21/01	EPA 8015M/8020M	HC-14
Benzene	ND	0.25	11	ų	II .	II	II	II	
Toluene	ND	0.25	н	п	"	11	H	rt	
Ethylbenzene	2.4	0.25	Ir	11	11	tr.	п	II	
Xylenes (total)	1.4	0.25	**	II .	U	n	u	nt .	QR-04
Methyl tert-butyl ether	ND_	2.5		19	tt	tı	IJ	n	Qx.01
Surrogate: a,a,a-Trifluoroto	luene	73 7 %	65-	135	"	"	,,	"	
Surrogate: 4-Bromofluorobe	nzene	125%	65-	135	#	"	"	"	

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd.,

Project Manager: Steve Carter

Reported: 06/25/01 12:23

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CT-2-2.5 (P106404-04) Soil	Sampled: 06/20/01 00:00	Received: 0	6/20/01 1	6:35		····			·
Gasoline	860	50	mg/kg	50	1060551	06/21/01	06/21/01	EPA 8015M/8020M	HC-14
Benzene	ND	0.25	11	Ħ	IJ	11	IF	n a	
Toluene	ND	0.25	**	D	H	"	n	II .	
Ethylbenzene	1.1	0.25	II .	tt	u	w	TÎ	"	
Xylenes (total)	3.8	0.25	*	11	H	n	n n	п	QR-04
Methyl tert-butyl ether	ND	2.5	II.	**	**	II .	**	**	Q1C-04
Surrogate: a,a,a-Trifluorotoli	iene	79.3 %	65-	135	ı	"	"	"	
Surrogate: 4-Bromofluoroben	zene	121%	65-	135	H	H	"	"	

Project: Chevron

Project Number Former 21-0208/6006 International Blvd.,

Project Manager: Steve Carter

Reported: 06/25/01 12:23

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CX-1-9 (P106404-01) Soil	Sampled: 06/20/01 12:55	Received: 06	/20/01 1	6:35					
Lead	ND	7.5	mg/kg	1	1060527	06/20/01	06/21/01	EPA 6010B	·····
CX-2-9 (P106404-02) Soil	Sampled: 06/20/01 13:00	Received: 06	/20/01 10	6:35					
Lead	ND	7.5	mg/kg	1	1060527	06/20/01	06/21/01	EPA 6010B	
CT-1-2.5 (P106404-03) Soi	Sampled: 06/20/01 00:00	Received: 0	6/20/01	16:35					
Lead	6.8	6.8	mg/kg	1	1060527	06/20/01	06/21/01	EPA 6010B	
CT-2-2.5 (P106404-04) Soil	l Sampled: 06/20/01 00:00	Received: 0	6/20/01	16:35					
Lead	ND	6.8	mg/kg	ı	1060527	06/20/01	06/21/01	EPA 6010B	· · · · · · · · · · · · · · · · · · ·

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd.,

Project Manager: Steve Carter

Reported: 06/25/01 12:23

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060529 - EPA 5030, soils							Ziiiiio	10.0	- Linut	110163
Blank (1060529-BLK1)				Prepared	& Analyze	:d: 06/21/	01	· · · · · · · · · · · · · · · · · · ·		
Gasoline	ND	1.0	mg/kg							· · · · · · · · · · · · · · · · · · ·
Benzene	ND	0.0050	"							
Toluene .	ND	0.0050	п							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	a							
Methyl tert-butyl ether	ND	0.050	11							
Surrogate: a,a,a-Trifluorotoluene	0.596		п	0 600		99 3	65-135			
Surrogate. 4-Bromofluorobenzene	0.602		"	0.600		100	65-135			
LCS (1060529-BS1)		_		Prepared	& Analyze	:d: 06/21/	01			
Gasoline	5.00	1.0	mg/kg	5.50		90.9	65-135			
Benzene	0.0801	0.0050	"	0.0640		125	65-135			
Toluene	0.399	0.0050	п	0.386		103	65-135			
Ethylbenzene	0.0923	0.0050	Ħ	0.0920		100	65-135			
Xylenes (total)	0.506	0 0050	II .	0.462		110	65-135			
Methyl tert-butyl ether	0.139	0.050		0.104		134	65-135			
Surrogate: a,a,a-Trifluorotoluene	0.605		"	0.600		101	65-135		·	
Surrogate: 4-Bromofluorobenzene	0.623		,,	0.600		104	65-135			
Matrix Spike (1060529-MS1)	Sou	rce: P10636	7-08	Prepared	& Analyze	d: 06/21/	01			
Gasoline	4.04	1.0	mg/kg	5.50	5 2	NR	65-135			QM-0
Benzene	0 0782	0.0050	н	0.0640	ИD	122	65-135			ź v
Toluene	0.392	0.0050	II .	0.386	ND	102	65-135			
Ethylbenzene	0.0883	0.0050	u	0.0920	0.0058	89.7	65-135			
Xylenes (total)	0.481	0.0050	12	0.462	0.0085	102	65-135			
Methyl tert-butyl ether	0.136	0.050		0.104	ND	131	65-135			
Surrogate: a,a,a-Trifluorotoluene	0.621		"	0.600		104	65-135			
Surrogate: 4-Bromofluorobenzene	0.550		"	0.600		91.7	65-135			
							32 100			

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd., Project Manager: Steve Carter

Reported: 06/25/01 12:23

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060529 - EPA 5030, soils										·
Matrix Spike Dup (1060529-MSDI)	So	urce: P10636	57-08	Prepared	& Analyze	d: 06/21/	01			
Gasoline	7.22	1.0	mg/kg	5.50	5.2	36.7	65-135	56.5	20	QM-07,QR-0
Benzene	0.0777	0.0050	ii	0.0640	ND	121	65-135	0.641	20	7
Toluene	0,382	0.0050	11	0.386	ND	99.0	65-135	2.58	20	
Ethylbenzene	0.0945	0.0050	**	0.0920	0.0058	96.4	65-135	6.78	20	
Xylenes (total)	0.462	0.0050	n	0.462	0.0085	98.2	65-135	4.03	20	
Methyl tert-butyl ether	0.136	0.050	IJ	0.104	ND	131	65-135	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	0.599		"	0.600		99.8	65-135	·		
Surrogate: 4-Bromofluorobenzene	0.663		"	0 600		110	65-135			
Batch 1060551 - EPA 5030, soils Med)H									
Blank (1060551-BLK1)				Prepared	& Analyze	d: 06/21/	01			
Gasoline	ND	50	mg/kg			···				
Benzene	ND	0.25	n							
Toluene	ND	0.25	**							
Ethylbenzene	ND	0.25	п							
Xylenes (total)	ND	025	n							
Methyl tert-butyl ether	ND	2.5	u							
Surrogate: a,a,a-Trifluorotoluene	29.9		"	30 0		99 7	65-135			
Surrogate: 4-Bromofluorobenzene	29.0		"	30.0		96.7	65-135			
LCS (1060551-BS1)		_		Prepared	& Analyze	d: 06/21/	01			
Gasoline	268	50	mg/kg	275		97.5	65-135			
Benzene	3.39	0.25	u u	3.20		106	65-135			
Toluene	20.7	0.25	"	19.3		107	65-135			
Ethylbenzene	4.60	0.25	n n	4.60		100	65-135			
Xylenes (total)	25, l	0.25	71	23.1		109	65-135			
Methyl tert-butyl ether	6.85	2.5	u	5.20		132	65-135			
Surrogate a,a,a-Trifluorotoluene	315		"	30.0		105	65-135			
Surrogate: 4-Bromofluorobenzene	31.6		"	30.0		105	65-135			

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd., Project Manager: Steve Carter

Reported: 06/25/01 12:23

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Linut	Notes
Batch 1060551 - EPA 5030, soils MeOF	[
Matrix Spike (1060551-MS1)	Sou	urce: P10636	7-04	Prepared	& Analyze	ed: 06/21/	01			
Gasoline	381	50	mg/kg	275	130	91.3	65-135			<u>-</u>
Benzene	4.13	0.25	12	3.20	ND	129	65-135			
Toluene	19.5	0.25	ti	19.3	ND	101	65-135			
Ethylbenzene	4.54	0.25	U	4.60	ND	97.3	65-135			
Xylenes (total)	23.1	0.25	D	23.1	ND	99.3	65-135			
Methyl tert-butyl ether	6.31	2.5	71	5.20	ND	121	65-135			
Surrogate. a,a,a-Trıfluorotoluene	28.8		"	30.0	* •	96.0	65-135			
Surrogate: 4-Bromofluorobenzene	32.8		"	30 0		109	65-135			
Matrix Spike Dup (1060551-MSD1)	Sou	ırce: P10636	7-04	Prepared	& Analyze	ed: 06/21/	01			
Gasoline	389	50	mg/kg	275	130	94.2	65-135	2.08	20	
Benzene	4.09	0.25	**	3.20	ND	128	65-135	0.973	20	
Toluene	19.6	0.25	n	19.3	ND	102	65-135	0.512	20	
Ethylbenzene	4.60	0.25	n	4.60	ND	98.6	65-135	1.31	20	
Xylenes (total)	23.9	0.25	11	23 1	ND	103	65-135	3 40	20	
Methyl tert-butyl ether	6.22	2 5	u u	5 20	ND	120	65-135	1.44	20	
Surrogate: a,a,u-Trifluorotoluene	29 5		"	30 0		98.3	65-135			
Surrogate: 4-Bromofluorobenzene	33 0		"	30.0		110	65-135			

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd.,
Project Manager: Steve Carter

Reported: 06/25/01 12:23

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	RPD	RPD Limit	Notes
Batch 1060527 - EPA 3050B			51110			741450	- January	AQ D	Chille	140003
BAICH 1000327 - E.I. A. 3030B						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
Blank (1060527-BLK1)				Prepared:	06/20/01	Analyzed	1; 06/21/01			
Lead	ND	7.5	mg/kg							
LCS (1060527-BS1)				Prepared:	06/20/01	Analyzed	1: 06/21/01			
Lead	43.2	7.5	mg/kg	50.0		86.4	80-120			
Matrix Spike (1060527-MS1)	Sou	rce: P10640	04-01	Prepared:	06/20/01	Analyzed	l: 06/21/01			
Lead	37.4	6.9	mg/kg	46.3	ND	71.3	75-125	·		QM-(
Matrix Spike Dup (1060527-MSD1)	Sou	rce: P10640)4-01	Prepared:	06/20/01	Analyzec	l: 06/21/01			
Lead	33.8	6.6	mg/kg	43.9	ND	67.0	75-125	10.1	35	QM-(

	Gettler-Ryan Rancho Cordova	Project:	Chevron	
Ì	3164 Gold Camp Drive #240	Project Number:	Former 21-0208/6006 International Blvd.,	Reported:
١	Rancho Cordova CA, 95670	Project Manager:	Steve Carter	06/25/01 12:23

Notes and Definitions

HC-14	A hydrocarbon pattern is present in the requested fuel quantitation range but it does not resemble the pattern of the requested fuel. The pattern more closely resembles that of a heavier fuel.
QM-07	The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QR-04	The results between the primary and confirmation columns varied by greater than 40% RPD. The results may still be useful for their intended purpose.
QR-07	The RPD was outside control limits. The results may still be useful for their intended purpose.
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

Fax copy of Lab Report and COC to Chevron Contact: □ No Chain-of-Custody-Record Chevron Facility Number Former 21-0208 Chevron Contact (Name) (510) 4517-1622 Mabile Facility Address 6006 International BINI (Phone). DG220208C. 4001 Chevron U.S.A. Inc. Secution Laboratory Name_ Consultant Project Number P.O. BOX 5004 Gettler-Ryan 95670 Laboratory Release Number Consultant Name_ Address 3140 Gold Camp Dr. Site 170, Rancho Cordo San Ramon, CA 94583 Myde Balantine Samples Collected by (Name) FAX (415)842-9591 Project Contact (Name) Stave Carter Collection Date_ (Phone (916)631-130 Fax Number) (916)631-1317 Signature. Analyses To Be Performed **Air** Chareool Purgeable Halocarbons (8010) Purgeable Aromatics (8020) Containera Extractable Organica (8270) Purgeable Organics (8240) BTEX + TPH GAS (8020 + 8015) I] **≺**o Oil and Grease (5520) 1 1 1 TPH Diesel (8015) ဖွင့ ရေပရ Number Remorks 106404 12/24 0) Tony Quialvo 1:00 T-1-2,5 757 769-32**\$**8 7-2-2 COOLER CUSTOE Jan . TOOLER CUSTODY SEALS IN THE D CLEM TON COOLER TEMPE-COOLER TEMPERATURE Turn Around Time (Circle Choice) Organization Date/Time Reimquished By (Signature) Organizațion Date/Time Received By (Signature) 6/20/01 4:3St 6-20-01 1680 24 Hrs. Orgánization Date/Time Received By (Signature) Relinquished By (Signature) Date/Time Organization 5 Days 10 Days Date/lime Recieved For Laboratory By (Signature) Date/Time As Contracted Relinquished By (Signature) Organization





June 26, 2001

Steve Carter Gettler-Ryan Rancho Cordova 3164 Gold Camp Drive #240 Rancho Cordova, CA 95670 RE Chevron / P106403

Enclosed are the results of analyses for samples received by the laboratory on 06/20/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Cari

Client Services Representative

CA ELAP Certificate Number 2374

Project. Chevron

Project Number: Former 21-0208/6006 International Blvd. (

Project Manager: Steve Carter

Reported: 06/26/01 13:52

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CS-I Comp	P106403-01	Soil	06/20/01 14:50	06/20/01 16:35

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd. (

Reported: 06/26/01 13:52

Project Manager: Steve Carter

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CS-1 Comp (P106403-01) Soil	Sampled: 06/20/01 14:50	Received	: 06/20/01	16:35					·
Gasoline	1.3	1.0	mg/kg	1	1060529	06/21/01	06/21/01	EPA 8015M/8020M	HC-14
Benzene	ND	0.0050	"	ır	11	II.	"	11	
Toluene	ND	0.0050	u	11	n	II	ū	U	
Ethylbenzene	ND	0.0050	IJ	10	19	**	n	п	
Xylenes (total)	ND	0.0050	11	11	ц	п	11	**	
Methyl tert-butyl ether	ND	0.050	íi .	n	n	"	u	п	
Surrogate: a,a,a-Trifluorotoluen	e	105 %	65-13	35	H	"	п	n n	
Surrogate: 4-Bromofluorobenzen	ie	96.0%	65-13	35	#	#	n	u .	

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd. (

Project Manager: Steve Carter

Reported: 06/26/01 13:52

Total Metals by EPA 6000/7000 Series Methods Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CS-1 Comp (P106403-01) Soil	Sampled: 06/20/01 14:50	Received	l: 06/20/01	16:35				···	
Lead	170	7.5	mg/kg	1	1060536	06/21/01	06/21/01	EPA 6010B	

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd. (

Project Manager: Steve Carter

Reported: 06/26/01 13:52

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC	222	RPD	
	Позиц	Lanc	Ollics	revet	Result	70REC	Limits	RPD	Limit	Notes
Batch 1060529 - EPA 5030, soils										
Blank (1060529-BLK1)				Prepared	& Analyze	ed: 06/21/	01			
Gasoline	ND	1.0	mg/kg							
Benzene	ND	0.0050	11							
Toluene	ND	0.0050	н							
Ethylbenzene	ND	0.0050	U							
Xylenes (total)	ND	0.0050	11							
Methyl tert-butyl ether	ND	0.050	u							
Surrogate: a,a,a-Trifluorotoluene	0.596	·-	"	0.600		99.3	65-135	··		
Surrogate: 4-Bromofluorobenzene	0.602		#	0.600		100	65-135			
Blank (1060529-BLK2)				Prepared	& Analyze	ed: 06/22/	01			
Gasoline	ND	1.0	mg/kg							
Benzene	ND	0.0050	11							
Toluene	ND	0.0050	U							
Ethylbenzene	ND	0.0050	11							
Xylenes (total)	ND	0 0050	rt							
Methyl tert-butyl ether	ND	0.050	u							
Surrogate. a,a,a-Trıfluorotoluene	0.611		"	0.600	· · · · · · · · · · · · · · · · · · ·	102	65-135			
Surrogate: 4-Bromofluorobenzene	0.599		#	0.600		99.8	65-135			
LCS (1060529-BS1)				Prepared	& Analyze	ed: 06/21/	01			
Gasoline	5.00	1.0	mg/kg	5 50		90.9	65-135			
Benzene	0.0801	0.0050	11	0.0640		125	65-135			
Toluene	0.399	0.0050	œ	0.386		103	65-135			
Ethylbenzene	0.0923	0.0050	n	0.0920		100	65-135			
Xylenes (total)	0.506	0.0050	#	0.462		110	65-135			
Methyl tert-butyl ether	0 139	0.050	a	0.104		134	65-135			
Surrogate. a,a,a-T>ıfluorotoluene	0.605		"	0 600		101	65-135			
Surrogate: 4-Bromofluorobenzene	0.623		"	0.600		104	65-135			

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd. (
Project Manager: Steve Carter

Reported: 06/26/01 13:52

Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060529 - EPA 5030, soils										
LCS (1060529-BS2)				Prepared of	& Analyze	d: 06/22/	01			
Gasoline	4.90	1.0	mg/kg	5.50		89.1	65-135			
Benzene	0.0760	0.0050	u	0.0640		119	65-135			
Toluene	0.377	0.0050	11	0.386		97.7	65-135			
Ethylbenzene	0.0876	0.0050	n	0.0920		95.2	65-135			
Xylenes (total)	0.480	0.0050	D	0.462		104	65-135			
Methyl tert-butyl ether	0.130	0.050	11	0.104		125	65-135			
Surrogate: a,a,a-Trifluorotoluene	0.606		#	0 600		101	65-135			
Surrogate: 4-Bromofluorobenzene	0 631		#	0.600		105	65-135			
Matrix Spike (1060529-MS1)	Sou	ırce: P10636	67-08	Prepared of	& Analyze	ed: 06/21/	01			
Gasoline	4.04	1.0	mg/kg	5.50	5.2	NR	65-135	····		OM-07
Benzene	0.0782	0.0050	ıı .	0.0640	ND	122	65-135			2
Toluene	0.392	0.0050	19	0.386	ND	102	65-135			
Ethylbenzene	0.0883	0.0050	n	0.0920	0.0058	89.7	65-135			
Xylenes (total)	0.481	0.0050	п	0.462	0.0085	102	65-135			
Methyl tert-butyl ether	0.136	0.050	II	0.104	ND	131	65-135			
Surrogate: a,a,a-Trifluorotoluene	0.621		"	0.600		104	65-135			····
Surrogate: 4-Bromofluorobenzene	0.550		"	0.600		91.7	65-135			
Matrix Spike Dup (1060529-MSD1)	Sou	ırce: P10636	67-08	Prepared	& Analyza	d: 06/21/	01			
Gasoline	7.22	1.0	mg/kg	5.50	5.2	36.7	65-135	56.5	20	QM-07,QR-0
Benzene	0.0777	0.0050	11	0.0640	ND	121	65-135	0.641	20	7
Toluene	0.382	0.0050	n	0.386	ND	99.0	65-135	2.58	20	
Ethylbenzene	0.0945	0.0050	n n	0.0920	0.0058	96.4	65-135	6 78	20	
Xylenes (total)	0.462	0.0050	**	0.462	0.0085	98.2	65-135	4.03	20	
Methyl tert-butyl ether	0.136	0.050	п	0.104	ND	131	65-135	0.00	20	
Surrogate: a,a,a-Trifluorotoluene	0.599		"	0 600		99.8	65-135			·
Surrogate: 4-Bromofluorobenzene	0.663		#	0 600		110	65-135			

Project: Chevron

Project Number: Former 21-0208/6006 International Blvd. (
Project Manager: Steve Carter

Reported: 06/26/01 13:52

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes					
Batch 1060536 - EPA 3050B															
Blank (1060536-BLK1)	Prepared & Analyzed: 06/21/01														
Lead	ND	7.5	mg/kg				-1/-		***						
LCS (1060536-BS1)	Prepared & Analyzed: 06/21/01														
Lead	42.8	7.5	mg/kg	50.0		85.6	80-120								
Matrix Spike (1060536-MS1)	Sou	ırce: P1064(3-01	Prepared	& Analyz	ed: 06/21/	01								
Lead	327	7.5	mg/kg	50.0	170	314	75-125			QM-07					
Matrix Spike Dup (1060536-MSD1)	Sou	ırce: P1064(3-01	Prepared	& Analyz	ed: 06/21/									
Lead	153	7.5	mg/kg	50.0	170	NR	75-125	72.5	35	QM-07,QR-0					

Gettler-Ryan Rancho Cordova
Project: Chevron

3164 Gold Camp Drive #240
Project Number: Former 21-0208/6006 International Blvd. (
Rancho Cordova CA, 95670
Project Manager: Steve Carter 06/26/01 13:52

Notes and Definitions

HC-14 A hydrocarbon pattern is present in the requested fuel quantitation range but it does not resemble the pattern of the requested fuel. The pattern more closely resembles that of a heavier fuel. QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS The RPD was outside control limits. The results may still be useful for their intended purpose. QR-07 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 Fax copy of Lab Report and COC to Chevron Contact: □ No Tony Quialus Chevron Facility Number Former, 21-0208 Chevron Contact (Name) ... Facility Address 6006 Internationa (RIVO, Oakland CA (Phone)_ Chevron U.S.A. Inc. Consultant Project Number 05 20
Consultant Name Coffee Pan DC 20208C.401 Laboratory Name P.O. BOX 5004 Address 3140 Gold Camp Dr. Sute 1 to, Rancho Corchola Laboratory Release Number. San Ramon, CA 94583 Samples Collected by (Name)..... FAX (415)842-9591 Project Contact (Name) Store Carter Collection Date ... (Phone) (16) 631-1309 Fax Number) (916) 631-1317 Slanature Analyses To Be Performed Containers Purgeable Halocarbons (8010) Purgeable Aromatics (8020) Extractable Organics (8270) I I <∪ Oil and Grease (5520) 2 F 1 ဖွပ္ 🗅 Ramarka Como 12:<u>50</u> COOLER CUSTODY SEALS INTACT 🗆 NOT INTACT [] COOLER TEMPERATURE Relinquished By (Signature) Date/Time Received By (Signature) Organization Date/Time Turn Around Time (Circle Choice) Organization 6/20/01 4:35 15-20-0, 1835 24 Hrs. 48 Hrs. Relinguished By (Signature) Date Time Received By (Signature) Organization Date/Time Organization 5 Day# Date/Time Relinquished By (Signature) Date/Ilme Recieved For Laboratory By (Signature) Organization As Contracted



June 27, 2001

Steve Carter Gettler-Ryan Rancho Cordova 3164 Gold Camp Drive #240 Rancho Cordova, CA 95670 RE: Chevron / P106453

Enclosed are the results of analyses for samples received by the laboratory on 06/22/01. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Angelee Cari

Client Services Representative

CA ELAP Certificate Number 2374

Angelee Cari

Project: Chevron

Project Number: Fmr 21-0208/6006 International Blvd, Oa

Project Manager: Steve Carter

Reported: 06/27/01 15:38

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
CH-1	P106453-01	Water	06/22/01 09:00	06/22/01 14:40

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Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M Sequoia Analytical - Petaluma

Analyte	Result	Reporting cult Limit Units Dilution Batch		Batch	Prepared	Analyzed	Method	Notes	
CH-1 (P106453-01) Water	Sampled: 06/22/01 09:00	Received: 06	/22/01 14:			·			
Gasoline	830	50	ug/l	1	1060624	06/25/01	06/25/01	EPA 8015M/8020M	
Benzene	0.94	0.50	11	Ð	(t	u	н	11	
Toluene	ND	0.50	11	12	u	п	**	H	
Ethylbenzene	1.5	0.50	It	**	II	17	tt	Ħ	
Xylenes (total)	3.5	0.50	п	tt	н		œ	u	
Methyl tert-butyl ether	ND	2.5	IJ	a	11	11	11	II.	
Surrogate: a,a,a-Trifluorotoi	uene	90.0 %	65-1	<i>35</i>	n	"	"	n	
Surrogate: 4-Bromofluorobe	nzene	104 %	65-1	35	"	"	"	ø	

Gettler-Ryan Rancho Cordova

Project: Chevron

3164 Gold Camp Drive #240 Rancho Cordova CA, 95670 Project Number: Fmr 21-0208/6006 International Blvd, Oa

Project Manager: Steve Carter

Reported: 06/27/01 15:38

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
CH-1 (P106453-01) Water	Sampled: 06/22/01 09:00	Received: 06	5/22/01	14:40					
Lead	2000	75	ug/l	1	1060629	06/22/01	06/25/01	EPA 6010B	

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Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

L	ъ. т.	Reporting		Spike	Source		%REC		RFD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1060624 - EPA 5030, waters							·			
Blank (1060624-BLK1)				Prepared	& Analyz	ed: 06/25/	01			
Gasoline	ND	50	ug/l							
Benzene	ИD	0.50	IF							
Toluene	ND	0.50	IF							
Ethylbenzene	ND	0 50	ut.							
Xylenes (total)	ND	0.50	u							
Methyl tert-butyl ether	ND	2.5	#							
Surrogate: a,a,a-Trifluorotoluene	321		п	300		107	65-135	to to to to to		7711-
Surrogate: 4-Bromofluorobenzene	274		"	300		91.3	65-135			
LCS (1060624-BS1)				Prepared	& Analyz	ed: 06/25/	01			
Gasoline	2130	50	ug/l	2750		77.5	65-135			
Benzene	35.2	0.50	11	32.0		110	65-135			
Toluene	173	0.50	14	193		89.6	65-135			
Ethylbenzene	45.6	0.50	(*	46.0		99.1	65-135			
Xylenes (total)	225	0.50	"	231		97.4	65-135			
Methyl tert-butyl ether	63.1	2.5	"	52.0		121	65-135			
Surrogate: a,a,a-Trifluorotoluene	350		p	300		117	65-135			
Surrogate: 4-Bromofluorobenzene	295		"	300		98.3	65-135			
Matrix Spike (1060624-MS1)	Sou	ırce: P10646	1-01	Prepared	& Analyz	ed: 06/25/	01			
Gasoline	2640	50	ug/l	2750	2100	19.6	65-135			QM-
Benzene	35.4	0.50	tr	32.0	ND	111	65-135			•
Toluene	162	0.50	D	193	8.9	79.3	65-135			
Ethylbenzene	50.4	0.50	If	46.0	11	85.7	65-135			
Xylenes (total)	223	0.50	II	231	26	85.3	65-135			
Methyl tert-butyl ether	123	2.5	II	52.0	48	144	65-135			QM-
Surrogate: a,a,a-Trifluorotoluene	329		"	300		110	65-135			
Surrogate: 4-Bromofluorobenzene	300		"	300		100	65-135			

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Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1060624 - EPA 5030, waters									**************************************	
trix Spike Dup (1060624-MSD1) Source: P106461-01 Prepared & Analyzed: 06/25/01 2610 50 ug/l 2750 2100 18.5 65-135 1.14 20										
Gasoline	2610	50	ug/l	2750	2100	18.5	65-135	1.14	20	OM-0
Benzene	34.4	0.50	*1	32.0	ND	108	65-135	2.87	20	`
Toluene	162	0.50	II.	193	8.9	79.3	65-135	0.00	20	
Ethylbenzene	50.2	0.50	II.	46.0	11	85.2	65-135	0.398	20	
Xylenes (total)	222	0.50	11	231	26	84.8	65-135	0.449	20	
Methyl tert-butyl ether	123	2.5	*1	52.0	48	144	65-135	0.00	20	QM-0'
Surrogate: a,a,a-Trifluorotoluene	334		"	300		111	65-135	·		
Surrogate. 4-Bromofluorobenzene	303		"	300		101	65-135			

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

Analyte	Result	Reporting Limit	77-:	Spike	Source	AADEG	%REC		RPD	
Milityte	Kesuk	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 1060629 - EPA 3010A										
Blank (1060629-BLK1)				Prepared:	06/22/01	Analyzed	i: 06/25/01			
Lead	ND	75	ug/l							
LCS (1060629-BS1)				Prepared:	06/22/01	Analyzeo	i: 06/25/01			
Lead	644	75	ug/l	625		103	80-120			
Matrix Spike (1060629-MS1)	Sou	ırce: P10645	3-01	Prepared:	06/22/01	Analyzed	l: 06/25/01			
Lead	2300	75	ug/l	625	2000	48 0	75-125			QM-0
Matrix Spike Dup (1060629-MSD1)	Sou	ırce: P10645	3-01	Prepared:	06/22/01	Analyzeo	l: 06/25/01			
Lead	3260	75	ug/l	625	2000	202	75-125	34.5	20	QM-07,QR-

Gettler-Ryan Rancho Cordova Project: Chevron

3164 Gold Camp Drive #240 Project Number: Fmr 21-0208/6006 International Blvd, Oa Reported:
Rancho Cordova CA, 95670 Project Manager: Steve Carter 06/27/01 15:38

Notes and Definitions

QM-07 The spike recovery was outside control limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

QR-07 The RPD was outside control limits. The results may still be useful for their intended purpose.

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

Fax copy	v of l	_ab	Repo	ort d	ınd	COC to	Chev	vron	Cor	ntac	t: Ľ	l No	3	است بریند	, , , , , , , , , , , , , , , , , , ,	Cł	nair	-0	<u>f-C</u>	ust	ody-Record
Chevron U.S. P.O. BOX 5 San Ramon, C/ FAX (415)842	.A. Inc. 5004 A 94583	Chevron Focility Number Former 21-0208 Chevron Focility Number Former 21-0208 Chevron Contact (Name) 510 517-162 (Phone) 510 517-162 (Phone) 510 517-162 Consultant Project Number DESCOZOSCA 4CO (Consultant Name Cettle: Ryaca (495670) Consultant Name Cettle: Ryaca (495670) Address 3140 Collected by (Name) Clydla Gallery Release Number Collected by (Name) Clydla Gallery Release Number Collected by (Name) Clydla Gallery Release Number Collected by (Name) Clydla Gallery Release To Re Performed														entine					
Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soii A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Im∙	Sample Preservation	Iced (Yes or No)	8020 + 8015/74775		Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)		anica		9					Remorks
CH-1		5	W		9.00		<u>Y</u>	X		ł	53.					X					Fax Date, to Tony Qualu: 925) 842-1250 of Clyde Galantine (101) 789-3218
			NI TO	N		COOFER L		OOL			N	OT I	TACT		°C						
Relinquiehed By (Signature) Organization Date		Date/Time 27/01/14: Date/Time	HOC Refe	Received By (Signature) Received By (Signature) Received For Laboratory By (Signature)				/ /	Organization			Date/Time			Turn Around Time (Circle Choice) 24 Hrs. 48 Hrs. 5- Daye 10 Daye As Contracted						

APPENDIX C

GR Field Methods and Procedures

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 of these plans contents 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 Soil Samples

Exploratory soil borings are drilled by a California-licensed well driller. A GR geologist is present to observe the drilling, collect soil samples for description, physical testing, and chemical analysis, and prepare a log of the exploratory soil boring. Soil samples are collected from the exploratory soil boring with a split-barrel sampler or other appropriate sampling device fitted with clean brass or stainless steel liners. The sampling device is driven approximately 18 inches with a 140-pound hammer falling 30 inches. The number of blows required to advance the sampler each successive 6 inches is recorded on the boring log. The encountered soil is described using the Unified Soil Classification System (ASTM 2488-84) and the Munsell Soil Color Chart.

After removal from the sampling device, soil samples for chemical analysis are covered on both ends with teflon sheeting or aluminum foil, 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. Samples are selected for chemical analysis based on:

- a. depth relative to underground storage tanks and existing ground surface
- b. depth relative to known or suspected groundwater
- c. presence or absence of contaminant migration pathways
- d. presence or absence of discoloration or staining
- e. presence or absence of obvious gasoline hydrocarbon odors
- f. presence or absence of organic vapors detected by headspace analysis

Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves removing some soil from one of the sample tubes not retained for chemical analysis and immediately covering the end of the tube with a plastic cap. The PID probe is inserted into the headspace inside the tube through a hole in the plastic cap. Head-space screening results are recorded on the boring log. Head-space screening procedures are performed and results recorded as reconnaissance data. GR does not consider field screening techniques to be verification of the presence or absence of hydrocarbons.

Stockpile Sampling

Stockpile samples consist of four individual sample liners collected from each 100 cubic yards (yd³) of stockpiled soil material. Four arbitrary points on the stockpiled material are chosen, and discrete soil sample is collected at each of these points. Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and then driving the stainless steel or brass tube into the stockpiled material with a wooden mallet or hand driven soil sampling device. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, capped, labeled, placed in the

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.

Construction of Monitoring Wells

Monitoring wells are constructed in the exploratory borings with Schedule 40 polyvinyl Chloride (PVC) casing. All joints are thread-joined; no glues, cements, or solvents are used in well construction. The screened interval is constructed of machine-slotted PVC well screen which generally extends from the total well depth to a point above the groundwater. An appropriately-sized sorted sand is placed in the annular space adjacent to the entire screened interval. A bentonite transition seal is placed in the annular space above the sand, and the remaining annular space is sealed with neat cement or cement grout.

Wellheads are protected with water-resistant traffic rated vault boxes placed flush with the ground surface. The top of the well casing is sealed with a locking cap. A lock is placed on the well cap to prevent vandalism and unintentional introduction of materials into the well.

Storing and Sampling of Drill Cuttings

Drill cuttings are stockpiled on plastic sheeting or stored in drums depending on site conditions and regulatory requirements. Stockpile samples are collected and analyzed on the basis of one composite sample per 50 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 3 to 6 inches of soil, and then driving the stainless or brass sample tube into the stockpiled material with a hand, mallet, or drive sampler. The sample tubes are then covered on both ends with teflon sheeting or aluminum foil, 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.

Wellhead Survey

The top of the newly-installed well casing is surveyed by a California-licensed Land Surveyor to mean sea level (MSL).

Well Development

The purpose of well development is to improve hydraulic communication between the well and surrounding aquifer. Prior to development, each well is monitored for the presence of separate-phase hydrocarbons and the depth-to-water is recorded. Wells are then developed by alternately surging the well with the bailer, then purging the well with a pump to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

Groundwater Monitoring and Sampling

Decontamination Procedures

All physical parameter measuring and sampling equipment are decontaminated prior to sample collection using Alconox or equivalent detergent followed by steam cleaning with deionized water. During field sampling, equipment placed in a well are decontaminated before purging or sampling the next well by cleaning with Alconox or equivalent detergent followed by steam cleaning with deionized water.

Water-Level Measurements

Prior to sampling each well, the static water level is measured using an electric sounder and/or calibrated portable oilwater interface probe. Both static water-level and separate-phase product thickness are measured to the nearest ± 0.01 foot. The presence of separate-phase product is confirmed using a clean, acrylic or polyvinylchloride (PVC) bailer, measured to the nearest ± 0.01 foot with a decimal scale tape. The monofilament line used to lower the bailer is replaced between borings with new line to preclude the possibility of cross-contamination. Field observations (e.g. product color, turbidity, water color, odors, etc.) are noted. Water-levels are measured in wells with known or suspected lowest dissolved chemical concentrations to the highest dissolved concentrations.

Sample Collection and Labeling

A temporary PVC screen is installed in the boring to facilitate a grab groundwater sample collection. Samples of groundwater are collected from the surface of the water in each well or boring using the teflon bailer or a pump. The water samples are then gently poured into laboratory-cleaned containers and sealed with teflon-lined caps, and inspected for air bubbles to check for headspace. The samples are then labeled by an adhesive label, noted in permanent ink, and promptly placed in an ice storage. A Chain-of-Custody Record is initiated and updated throughout handling of the samples, and accompanies the samples to the laboratory certified by the State of California for analyses requested.