Stacie H. Frerichs
Team Lead
Marketing Business Unit

Chevron Environmental Management Company
6001 Bollinger Canyon Road
San Ramon, CA 94583
Tel (925) 842-9655
Fax (925) 842-8370

March 31, 2011
(date)

Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Re: Chevron Facility #_9-2029_____

Address: 890 West MacArthur Boulevard, Oakland, California_____

I have reviewed the attached report titled *Additional Investigation Report* and dated March 31, 2011.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga-Rovers & Associates, upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

SH Frerichs

Stacie H. Frerichs
Project Manager

Enclosure: Report

CONESTOGA-ROVERS
& ASSOCIATES

10969 Trade Center Drive
Rancho Cordova, California 95670
Telephone: (916) 889-8900 Fax: (916) 889-8999
www.CRAworld.com

March 31, 2011 Reference No. 611974

Mr. Mark Detterman, P.G., C.E.G.
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: Additional Investigation Report
Former Chevron Service Station 9-2029
890 West MacArthur Boulevard
Oakland, California
LOP Case #RO0002438

Dear Mr. Detterman:

Conestoga-Rovers & Associates (CRA) has prepared this *Additional Investigation Report* on behalf of Chevron Environmental Management Company (Chevron) presenting the results of the recent investigation at the site referenced above. To further evaluate the extent of petroleum hydrocarbons in groundwater downgradient (southwest) of well MW-7, additional exploratory boring SB-10 was drilled. The work was performed in general accordance with the August 25, 2009 *Work Plan for Additional Subsurface Investigation* (work plan) and the follow-up e-mail from CRA to Alameda County Environmental Health (ACEH) on February 25, 2010. Please note that the drilling of two borings was originally proposed; however, one of the borings (east side of Market Street) could not safely be advanced due to the presence of numerous underground utility lines in the area. Presented below are the site description and background, the details and results of the investigation, and our conclusions and recommendations.

SITE DESCRIPTION AND BACKGROUND

The site is located on the northeast corner of the intersection of West MacArthur Boulevard and Market Street (Figure 1), and is currently a fenced vacant lot. A Chevron service station operated at the site from approximately 1956 until 2004. Based on historical aerial photographs, the site was occupied by a service station as early as 1946. Prior to 1970, station facilities consisted of a station building with two hydraulic hoists, three dispenser islands, and two 5,000-gallon and one 3,000-gallon gasoline underground storage tanks (USTs). A used-oil UST was located adjacent to the northeast corner of the building. The product lines reportedly were replaced in 1970, and the 3,000-gallon UST reportedly was replaced with a 10,000-gallon fiberglass UST sometime before 1978. In 1982, the two 5,000-gallon and the 10,000-gallon USTs were replaced with three 10,000-gallon fiberglass USTs. In 1984, the station was reconstructed

into the most recent configuration with a kiosk and five dispenser islands. The product dispensers were replaced and the USTs upgraded in 1997. The used-oil UST was removed sometime between 1984 and 1997; however, no information regarding the removal is available. In 2005, the station was demolished and the majority of the site was over-excavated to remove impacted soil. The site has since remained vacant. The former station facilities and the approximate final excavation limits are shown on Figure 2.

The site is bounded by West MacArthur Boulevard to the south, Market Street to the west, a residential structure occupied by a business and a residential property to the north, and a motel to the east. Land use in the vicinity of the site is mixed commercial and residential. What appears to be a former service station based on the existing building layout (overhead canopy and two dispenser islands) is present on the southwest corner of the intersection. This facility is currently occupied by an auto detail business, and does not appear to be an open release case; no other information is known.

Environmental work has been ongoing since 1981. Prior to the current investigation, work has included the installation of monitoring wells MW-1 through MW-8, the drilling of borings B-1 through B-10 and SB-1 through SB-9, and confirmation sampling during UST removal and over-excavation activities. Wells MW-1 through MW-4 were destroyed in 2006 due to proposed site redevelopment. A summary of the environmental work is included as Attachment A. The approximate well and boring locations are shown on Figure 2.

Offsite wells MW-5 through MW-8 were installed in 2008 to replace MW-1 through MW-4. Elevated concentrations of petroleum hydrocarbons have been detected in MW-5, MW-6, and MW-7. Petroleum hydrocarbons generally have not been detected in MW-8. The groundwater flow direction is consistently to the southwest (see rose diagram on Figure 2). The extent of impacted groundwater is well-defined by MW-8 and borings SB-1 through SB-9 drilled in 2006, with the exception of the area downgradient of MW-7. Therefore, additional investigation to evaluate this data gap was proposed in the August 25, 2009 work plan. The use of low-flow technology to collect groundwater samples was proposed to minimize the chance of false positive detections due to the presence of sediment in the samples.

INVESTIGATION ACTIVITIES

Boring SB-10 was drilled offsite across Market Street to further evaluate the extent of petroleum hydrocarbons in groundwater downgradient of MW-7. The approximate boring location is shown on Figure 2. Please note that the boring location changed from that originally proposed due to the presence of utility lines. The details of the investigation are presented in the

following sections. Fieldwork was performed on January 4, 2011 by CRA Staff Geologist Nate Allen under the supervision of James Kiernan, P.E.

Drilling Activities

Prior to drilling, CRA obtained Permit No. 2010-0999 from Alameda County Public Works Agency for the boring; permits from the City of Oakland were also required to block off parking spaces. Copies of the permits are included as Attachment B. Drilling activities were performed by PeneCore Drilling (C-57 License #906899) of Woodland, California, under the supervision of CRA.

The upper 5 feet of the boring was first cleared for underground utilities using a hand-auger. Following utility clearance, the boring was advanced to the total depth of 20 feet below grade (fbg) using truck-mounted direct-push equipment.

Soil samples were obtained continuously from the boring for logging and observation purposes. Below 5 fbg, the soil samples were collected using a macro-core sampler containing a 5-foot acetate liner hydraulically driven into undisturbed soil at the bottom of the borehole at each interval. The soil encountered in the boring was logged in accordance with American Society for Testing and Materials (ASTM) D-2488 protocols, and consisted of clay to approximately 6.5 fbg, followed by interbedded layers of silt, silty sand, and silty gravel to the bottom of the boring. A copy of the boring log is included in Attachment B. Soil samples were screened in the field for the presence of organic vapors using a photo-ionization detector (PID) and visually observed for any evidence of petroleum hydrocarbon impact. The PID measurements are also presented on the boring log. Groundwater was encountered in the boring at approximately 15 fbg within a layer of silty gravel with sand. CRA's standard field procedures are included as Attachment C.

Soil Sampling and Laboratory Analysis

As no evidence of hydrocarbon impact or elevated PID measurements were observed, soil samples were collected from the boring at approximate 5-foot intervals (5, 9.5, 14.5, and 19.5 fbg) and retained for laboratory analysis. The sample at 5 fbg was collected using the hand-auger; the samples below 5 fbg were collected by cutting a section from the acetate liner. The soil samples were capped with Teflon tape and plastic end caps, labeled, placed in an ice-chilled cooler, and transported under chain-of-custody to Lancaster Laboratories, Inc. (Lancaster) in Lancaster, Pennsylvania, for analysis. The soil samples were analyzed for the following constituents:

- Total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015B.
- Benzene, toluene, ethylbenzene, xylenes (BTEX) and methyl tertiary butyl ether (MTBE) by EPA Method 8260B.

Groundwater Sampling and Laboratory Analysis

A groundwater sample was also collected from the boring using low-flow technology. The drill rods were first removed and temporary slotted PVC casing was placed in the borehole to allow for the infiltration of groundwater. After the water level had stabilized, clean, unused sample tubing connected to a low-flow peristaltic pump was lowered into the casing so that the bottom of the tubing was at the approximate mid-point of the water column. Groundwater was then purged at a low flow rate and monitored in real-time for temperature, pH, and conductivity using a multi-meter and flow-through cell. Purging continued until the groundwater parameters had stabilized (within 10 percent). At that point, the flow-through cell was disconnected and the groundwater sample collected. The groundwater sample was collected in the appropriate laboratory-supplied containers, placed in an ice-chilled cooler, and transported under chain-of-custody to Lancaster for analysis. The groundwater sample was analyzed for the same constituents as the soil samples.

Investigation-Derived Waste

Soil cuttings and decontamination rinsate generated during drilling activities were temporarily stored onsite in a 55-gallon drum, and sampled for disposal purposes. Once profiled, the drum will be removed from the site and transported to an appropriately-permitted facility for disposal.

SOIL SAMPLE ANALYTICAL RESULTS

No TPHg, BTEX, or MTBE were detected in the soil samples, with the exception of benzene (0.0006 milligrams per kilogram [mg/kg]) and toluene (0.002 mg/kg) in the sample collected at 19.5 fbg. The soil sample analytical results are presented in Table 1. A copy of the laboratory report and chain-of-custody documentation is included as Attachment D.

GROUNDWATER SAMPLE ANALYTICAL RESULTS

No TPHg or BTEX were detected in the groundwater sample; MTBE was detected at 4 micrograms per liter (µg/L). The groundwater sample analytical results are presented in Table 2. A copy of the laboratory report and chain-of-custody documentation is included as Attachment D.

CONCLUSIONS AND RECOMMENDATIONS

Offsite exploratory boring SB-10 was advanced during this investigation to further evaluate the downgradient extent of petroleum hydrocarbons in groundwater. Petroleum hydrocarbons were not detected in the soil samples collected from the boring with the exception of trace concentrations of benzene and toluene in the deepest sample (19.5 fbg) which was collected below the groundwater table. Petroleum hydrocarbons were not detected in the groundwater sample collected from the boring with the exception of a low concentration of MTBE (4 µg/L). Based on the analytical results, the downgradient extent of hydrocarbons in groundwater has been adequately defined.

CRA concludes that no further investigation is warranted, and recommends continued groundwater monitoring to evaluate possible declining trends and the potential for low-risk case closure.

We appreciate your assistance on this project. If you have any questions or need any additional information, please contact Mr. James Kiernan at (916) 889-8917.

Sincerely,

CONESTOGA-ROVERS & ASSOCIATES

Christopher J. Benedict

James P. Kiernan, P.E.

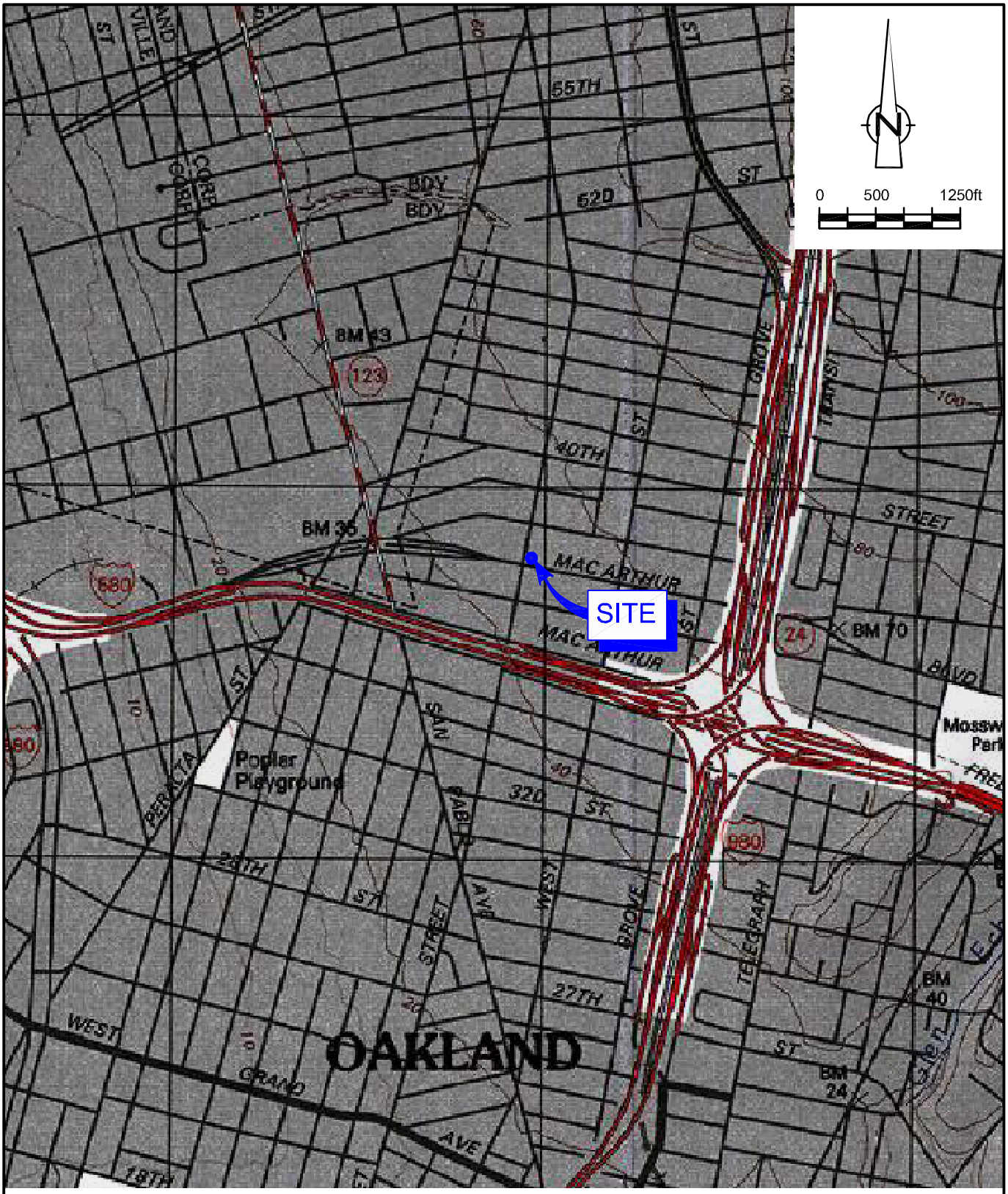
REGISTERED PROFESSIONAL ENGINEER
JAMES P. KIERNAN
No. 68498
Exp. 9/30/11
CIVIL
STATE OF CALIFORNIA

CB/kw/12
Encl.

Figure 1	Vicinity Map
Figure 2	Site Plan
Table 1	Soil Sample Analytical Results
Table 2	Groundwater Sample Analytical Results
Attachment A	Summary of Environmental Investigation and Remediation
Attachment B	Drilling Permits and Boring Log
Attachment C	Standard Field Procedures
Attachment D	Laboratory Analytical Reports

cc: Ms. Stacie Frerichs, Chevron (***electronic copy***)
Mr. Stephen O'Kane, Westmac, LLC

FIGURES



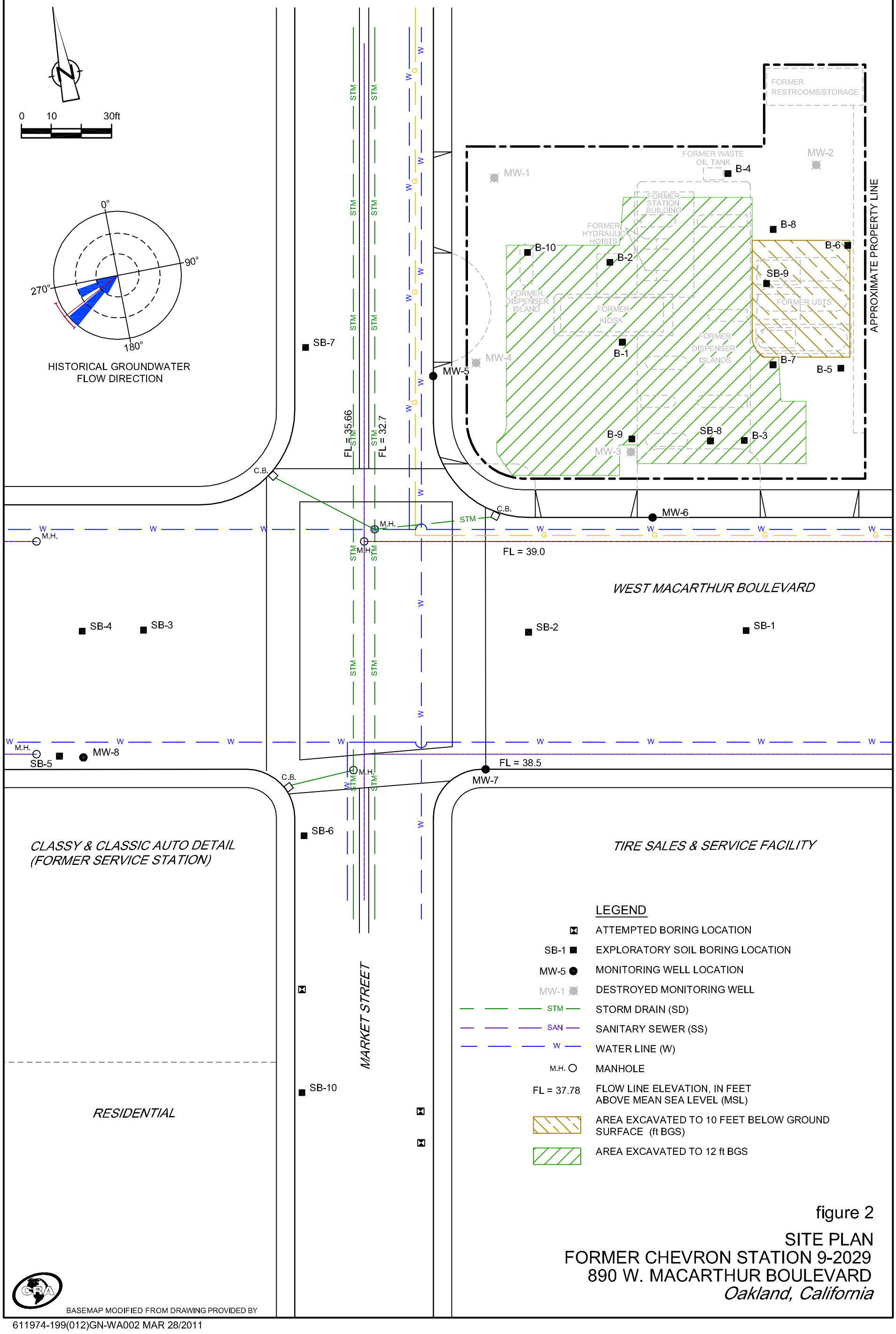
SOURCE: TOPO! MAPS.

figure 1

VICINITY MAP
CHEVRON SERVICE STATION 9-2029
890 WEST MACARTHUR BOULEVARD
Oakland, California

611974-199(012)GN-WA001 FEB 10/2011

HISTORICAL GROUNDWATER
FLOW DIRECTION



LEGEND

- ATTEMPTED BORING LOCATION
- SB-1 ■ EXPLORATORY SOIL BORING LOCATION
- MW-5 ● MONITORING WELL LOCATION
- MW-1 DESTROYED MONITORING WELL
- STM — STORM DRAIN (SD)
- SAN — SANITARY SEWER (SS)
- W — WATER LINE (W)
- M.H. ○ MANHOLE
- FL = 37.78 FLOW LINE ELEVATION, IN FEET ABOVE MEAN SEA LEVEL (MSL)
- AREA EXCAVATED TO 10 FEET BELOW GROUND SURFACE (ft BGS)
- AREA EXCAVATED TO 12 ft BGS

figure 2

SITE PLAN
FORMER CHEVRON STATION 9-2029
890 W. MACARTHUR BOULEVARD
Oakland, California

BASEMAP MODIFIED FROM DRAWING PROVIDED BY

611974-199(012)GN-WA002 MAR 28/2011

TABLES

TABLE 1

SOIL SAMPLE ANALYTICAL RESULTS
FORMER CHEVRON STATION 9-2029
890 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Boring ID	*Sample Depth (fbg)*	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*
			← Concentrations reported in milligrams per kilogram (mg/kg) →					
SB-10	5	1/4/11	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
	9.5	1/4/11	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
	14.5	1/4/11	<1	<0.0005	<0.001	<0.001	<0.001	<0.0005
	19.5	1/4/11	<1	**0.0006**	**0.002**	<0.001	<0.001	<0.0005

Abbreviations/Notes:
fbg = feet below grade
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015
Benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B
MTBE = Methyl tertiary butyl ether by EPA Method 8260B
<x = Not detected at or above stated laboratory reporting limit

TABLE 2

GROUNDWATER SAMPLE ANALYTICAL RESULTS
FORMER CHEVRON STATION 9-2029
890 WEST MACARTHUR BOULEVARD
OAKLAND, CALIFORNIA

Boring ID	*Sample Date*	*TPHg*	*Benzene*	*Toluene*	*Ethylbenzene*	*Xylenes*	*MTBE*
		←	Concentrations reported in micrograms per liter (µg/L)				→
SB-10	1/4/11	<50	<0.5	<0.5	<0.5	<0.5	**4**

Abbreviations/Notes:
fbg = feet below grade
TPHg = Total petroleum hydrocarbons as gasoline by EPA Method 8015
Benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8260B
MTBE = Methyl tertiary butyl ether by EPA Method 8260B
<x = Not detected at or above stated laboratory reporting limit

ATTACHMENT A

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION

SUMMARY OF ENVIRONMENTAL INVESTIGATION AND REMEDIATION
Former Chevron Service Station 9-2029
890 West MacArthur Boulevard
Oakland, California

1981 Tank Testing and Subsurface Investigation
In April 1981, Smith and Denison conducted a tank integrity test, which included advancing two exploratory borings to 12 feet below grade (fbg) and collecting two soil samples from each boring. The test results indicated the tanks were corroded, but had no holes. Total petroleum hydrocarbons as gasoline (TPHg) were detected in three of the four soil samples collected. No other details are known.

1991 Air Monitoring
In March 1991, Environmental Health Consultants conducted ambient air monitoring and sampling due to a strong hydrocarbon odor noted in the service station building. The results indicated hydrocarbons were present in air entering the station building from the underlying crawl space. Photo-ionization detector (PID) readings averaged between 100 and 150 parts per million by volume (ppmv) and peaked at 505 ppmv. Air sample analytical results detected approximately 100 ppmv of gasoline hydrocarbons and less than 1 ppmv of benzene.

1997 Dispenser and Gasoline Underground Storage Tank (UST) Upgrade
In February 1997, Gettler-Ryan Inc. (G-R) collected soil samples during dispenser replacement and UST upgrade activities. The five dispenser islands were removed and soil in the immediate vicinity of each island was excavated; each excavation area was approximately 12 feet by 10 feet by 2.5 feet deep. Soil samples were collected from the bottom of each excavation at approximately 3 fbg and analyzed for TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE). TPHg was detected in four of the samples at concentrations up to 38 milligrams per kilogram (mg/kg). BTEX and MTBE were detected in all the samples at concentrations up to 0.90 mg/kg and 0.62 mg/kg, respectively. A soil sample was also collected from the northern wall of the UST pit at 3 fbg; TPHg, BTEX, and MTBE were not detected in the sample. A sample was also collected of the groundwater pumped from the UST pit, and TPHg and BTEX were not detected. Approximately 162 cubic yards of soil and 7,800 gallons of groundwater were removed and disposed offsite during the work. The investigation results were presented in G-R's April 10, 1997 *Soil Sampling During Product Dispenser Replacement at Chevron Service Station #9-9029*.

2000 Subsurface Investigation
In October 2000, G-R advanced exploratory borings B-1 through B-10 to depths of 16.5 to 19 fbg. Soil samples were collected from each boring at depths of 6 and 11 fbg and analyzed for TPHg, BTEX, and MTBE. The soil samples collected from boring B-4 located adjacent to the former used-oil UST were additionally analyzed for oil and grease (O&G), TPH as diesel (TPHd), volatile organic compounds (VOCs), semi-VOCs, and the metals cadmium, chromium, lead, nickel, and zinc. The soil samples collected from boring B-2 located near the former hydraulic hoists were additionally analyzed for TPH as hydraulic oil (TPHho). TPHg (up to 930 mg/kg), BTEX (up to 100 mg/kg),

and/or MTBE (up to 13 mg/kg) were only detected in one or both of the soil samples collected from borings B-1, B-2, B-3, B-9, and B-10. TPHho was not detected in the soil samples collected from boring B-2; and O&G, TPHd, VOCs, and semi-VOCs were not detected in the soil samples collected from boring B-4. Grab-groundwater samples were also collected from each boring except B-9. TPHg (ranging from 500 to 33,000 micrograms per liter [µg/L]) and BTEX (ranging from 4.2 to 7,500 µg/L) were only detected in the groundwater samples collected from borings B-1, B-3, B-7, and B-10. MTBE was detected in all the groundwater samples at concentrations ranging from 34 (B-6) to 820 µg/L (B-1). TPHd was detected in the groundwater sample collected from boring B-4 at 170 µg/L; O&G, VOCs, and semi-VOCs were not detected. TPHho was not detected in the groundwater sample collected from boring B-2. Details of this investigation were presented in G-R's October 31, 2000 *Environmental Investigation Report*.

2002 Monitoring Well Installations

In March 2002, Delta Environmental Consultants, Inc. (Delta) installed monitoring wells MW-1 through MW-4 at the site. A total of 11 soil samples were collected at various depths from the well borings and analyzed for TPHg, BTEX, and MTBE. TPHg, BTEX, and MTBE were not detected in the soil samples collected from borings MW-1 and MW-2. TPHg (up to 240 mg/kg) and BTEX (up to 3.7 mg/kg) were detected in several of the soil samples collected from borings MW-3 and MW-4. MTBE was only detected in the sample collected at 4 fbg from boring MW-4 (0.23 mg/kg). Details of this investigation were presented in Delta's April 30, 2002 *Monitoring Well Installation Report*.

2005 Station Demolition

In April 2005, the station was demolished including the removal of all USTs, dispenser islands, and associated piping. Cambria Environmental Technology, Inc. (Cambria [now CRA]) collected soil samples EX-1 through EX-5 at 10 fbg from the sidewalls of the gasoline UST excavation. TPHg, BTEX, and MTBE generally were not detected in the five samples with the exception of TPHg (1.8 mg/kg) and toluene (0.0095 mg/kg) in sample EX-2. Soil samples EX-6 through EX-22 were collected at 3.5 fbg beneath the dispensers and product piping; TPHg (up to 370 mg/kg), BTEX (up to 0.61 mg/kg), and MTBE (0.37 mg/kg) were detected in one or several of the samples. Subsequently, the majority of the site was over-excavated to a depth of 12 fbg. Cambria collected 41 confirmation soil samples from the bottom and sidewalls of the excavation. The TPHg concentrations in the final bottom samples were well below the cleanup goal of 100 mg/kg. The TPHg concentrations in three sidewall samples (up to 450 mg/kg) exceeded the cleanup goal. Low concentrations of benzene and MTBE were also detected in several of the bottom and sidewall samples. Approximately 5,134 tons of soil and 25,486 gallons of groundwater were removed and disposed offsite during the work. Details of this investigations were presented in Cambria's June 17, 2005 *Underground Storage Tank/Product Piping Removal and Compliance Sampling Report*, and July 6, 2005 *Remedial Excavation Report*.

2006 Subsurface Investigation

In March 2006, Cambria advanced offsite exploratory borings SB-1 through SB-7 and onsite exploratory borings SB-8 and SB-9. Two grab-groundwater samples were

collected from each boring, except SB-4 and SB-7, at first encountered groundwater and approximately 10 to 15 feet deeper and analyzed for TPHg, BTEX, fuel oxygenates, 1,2-dichloroethane (1,2-DCA), and 1,2-dibromoethane (EDB). TPHg (up to 2,700 µg/L), BTEX (up to 170 µg/L), and/or MTBE (up to 210 µg/L) were detected in one or more of the samples collected from all the borings. Other fuel oxygenates, 1,2-DCA, and EDB were not detected in any of the samples. Additional details of this investigation were presented in Cambria's May 25, 2006 *Subsurface Investigation Report*.

2006 Well Destructions

In September 2006, Cambria supervised the destruction of wells MW-1 through MW-4 to facilitate site redevelopment. Additional details were presented in Cambria's October 13, 2006 *Well Destruction Report*.

2008 Well Installations

In July 2008, CRA installed offsite monitoring wells MW-5 through MW-8. Soil samples were collected approximately every 5 feet from the well borings, from 5 to 25 fbg and analyzed for TPHg, BTEX, fuel oxygenates, and 1,2-DCA. TPHg (up to 260 mg/kg) was only detected in two or three of the samples collected from borings MW-5, MW-6 and MW-7. Benzene (up to 0.21 mg/kg) was only detected in a few of the samples collected from borings MW-6 and MW-7. MTBE (up to 0.07 mg/kg) was detected in the majority of the samples collected from borings MW-5 and MW-6. Other fuel oxygenates and 1,2-DCA generally were not detected in any of the soil samples. Additional details of this investigation were presented in CRA's November 18, 2008 *Well Installation Report*.

ATTACHMENT B

DRILLING PERMITS AND BORING LOG

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 12/09/2010 By jamesy

Permit Numbers: W2010-0999
Permits Valid from 01/04/2011 to 01/04/2011

Application Id:	1291923317690	**City of Project Site:**	Oakland
Site Location:	890 W MacArthur Bl, Oakland, CA		
Project Start Date:	01/04/2011	**Completion Date:**	01/04/2011
Assigned Inspector:	Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org		
Applicant:	Conestoga-Rovers - Chris Benedict 10969 Trade Center Dr, #107, Rancho Cordova, CA 95670	**Phone:**	916-889-8900
Property Owner:	Stephen D'Kane WestMal LLC 1842 21st Ave, San Francisco, CA 94122	**Phone:**	--
Client:	Chevron Gas 6001 Bollinger Canyon Rd, San Ramon, CA 94612	**Phone:**	--

	Total Due:	$265.00
Receipt Number: WR2010-0423	**Total Amount Paid:**	$265.00
Payer Name : Conestoga-Rovers	Paid By: CHECK	**PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Environmental/Monitorinig Study - 2 Boreholes
Driller: Penecore - Lic #: 906899 - Method: other **Work Total: $265.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2010-0999	12/09/2010	04/04/2011	2	2.50 in.	25.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

5. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

6. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits

required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# OB100734 Job Site 880 W MACARTHUR BL Parcel# 012 -0959-021-01

Reserve spaces on Market St. One NO FEE, Ref X1001618. Permit Issued 12/17/10
Soil boring(s) on Market St. No impact on traffic lane.
ALLOW MONITORING WELLS IN PARKING LANE.

Display on Dashboard

Nbr of days: 1 Linear feet: 175
Effective: 01/04/11 Expiration: 01/04/11

SHORT TERM NON-METERED

	Applcnt	Phone#	Lic#	License Classes
Owner WESTMAC LLC				
Contractor PENECORE DRILLING	X	(530)681-3198	906899	C57
Arch/Engr				
Agent CRA/IAN HULL		(510)376-2749		

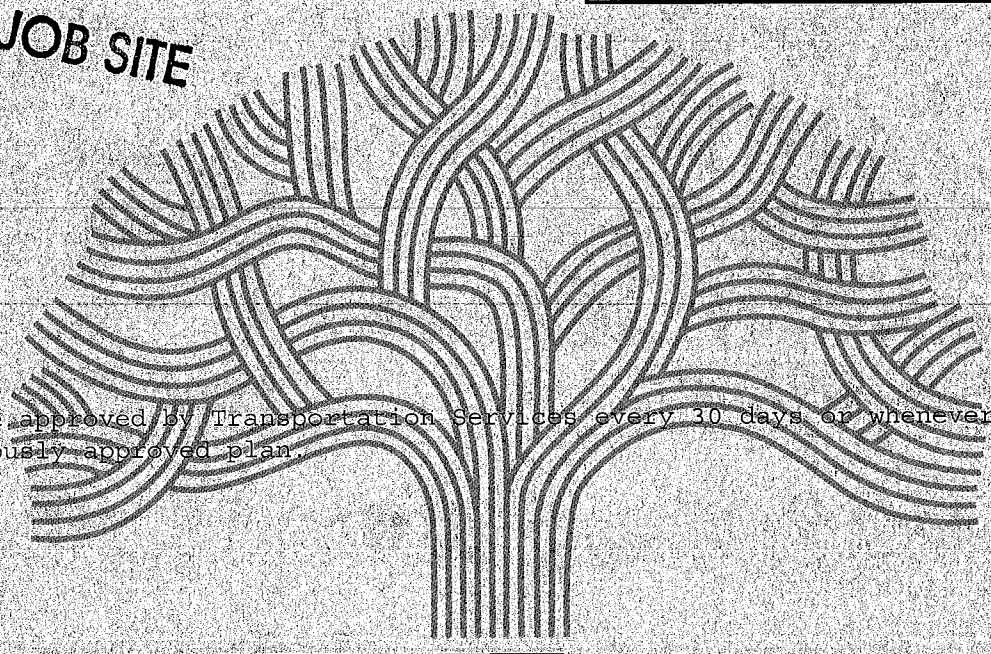
Applic Addr 1238 ALICE STREET, WOODLAND, CA, 95776

$219.74 TOTAL FEES PAID AT FILING $.00 TOTAL FEES PAID AT ISSUANCE

$71.00 Applic	$120.50 Permit
$.00 Process	$18.19 Rec Mgmt
$.00 Gen Plan	$.00 Invstg
$.00 Other	$10.05 Tech Enh

Display on Dashboard

JOB SITE



TCP needs to be approved by Transportation Services every 30 days or whenever deviated from the previously approved plan.

ADDRESS

Applicant: _____ _____

Issued by: _____ _____

DIST

CITY OF OAKLAND

PAID
12/17/10

CITY OF OAKLAND • Community and Economic Development Agency

250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Appl# X1001618 Job Site 880 W MACARTHUR BL Parcel# 012 -0959-021-01

Descr Soil boring(s) on Market St. No impact on traffic lane allowed. Call PWA INSPECTION prior to start: 510-238-3651. ALLOW MONITORING WELLS IN PARKING LANE. Permit Issued 12/17/10

Work Type EXCAVATION-PRIVATE P

USA # Util Co. Job # Acctg#:

Util Fund #:

		Applcnt	Phone#	Lic#	--License Classes--
Owner	WESTMAC LLC				
Contractor	PENECORE DRILLING	X	(530)681-3198	906899	C57
Arch/Engr					
Agent	CRA/IAN HULL		(510)376-2749		

Applic Addr 1238 ALICE STREET, WOODLAND, CA, 95776

JOB SITE

$436.05 TOTAL FEES PAID AT ISSUANCE

$71.00 Applic	$309.00 Permit
$.00 Process	$36.10 Rec Mgmt
$.00 Gen Plan	$.00 Invstg
$.00 Other	$19.95 Tech Enh

Permit Issued By _____ Date: _____

Finaled By _____ Date: _____

ADDRESS:

DIST:

CITY OF OAKLAND

PAID 12/17/10

CITY OF OAKLAND • Community and Economic Development Agency
250 Frank H. Ogawa Plaza, 2nd Floor, Oakland, CA 94612 • Phone (510) 238-3443 • Fax (510) 238-2263

Applications for which no permit is issued within 180 days shall expire by limitation. No refund after 180 days when expired.

Permit No. X1001618 Parcel #: 012 -0959-021-01
Project Address: 880 W MACARTHUR BL

Licensed Contractors' Declaration
I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and my license is in full force and effect.

Construction Lending Agency Declaration
I hereby affirm under penalty of perjury that there is a construction-lending agency for the performance of the work for which this permit is issued, as provided by Section 3097 of the Business and Professions Code. N/A under Lender implies No Lending Agency.

Lender_____ Address_____

Workers' Compensation Declaration

I hereby affirm under penalty of perjury one of the following declarations:

[ ] I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

[ ] I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.

CARRIER:_____POLICY NO._____

[ ] I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS, IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3707 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

Hazardous Materials Declaration

I hereby affirm that the intended occupancy [ ] WILL [ ] WILL NOT use, handle or store any hazardous, or acutely hazardous materials. (Checking "WILL" acknowledges that Sections 25505, 25533, & 25534 of the Health & Safety Code, as well as filing instructions, were made available to you.)

I HEREBY CERTIFY THE FOLLOWING: That I have read this document; that the above information is correct; and that I have truthfully affirmed all applicable declarations contained in this document. I agree to comply with all city and county ordinances and state laws relating to building construction, and hereby authorize representatives of this city to enter upon the above-mentioned property for inspection. I am fully authorized by the owner and to perform the work authorized by this permit.

ADDRESS:

DIST

PRINT NAME Signature [ ] Contractor, or [ ] Agent Date

C I T Y O F O A K L A N D
Community & Economic Development Agency
250 Frank H. Ogawa Pl, Oakland CA, 94612
Phone: (510)238-4774 FAX: (510)238-2263

PAYMENT RECEIPT

==========

Application#: OB100734 Payment#: 001

APPLICATION FEE	$71.00
OBSTRUCTION PERMIT	$120.50
RECORDS MANAGEMENT FEE (	$18.19
TECHNOLOGY ENHANCEMENT FE	$10.05
Subtotal:	$219.74

Application#: X1001618 Payment#: 001

APPLICATION FEE	$71.00
EXCAVATION PERMIT	$309.00
RECORDS MANAGEMENT FEE	$36.10
TECHNOLOGY ENHANCEMENT FE	$19.95
Subtotal:	$436.05

Sales Tax:	$.00
****** TOTAL PAID:	$655.79

==========

Check Payment: $655.79

==========

Payor: CONESTOGA-ROVERS & ASSC
Date: 12/17/10 Time: 11:42:21
By: MKH Register R02 Receipt# 145365

****

ORIGINAL RECEIPT REQUIRED FOR REFUND

****

Conestoga-Rovers & Associates
10969 Trade Center Drive, Suite 107
Rancho Cordova, CA 95670
Telephone: (916) 889-8900
Fax: (916) 889-8999

BORING/WELL LOG

CLIENT NAME	Chevron Environmental Management Co.	**BORING/WELL NAME**	SB-10
JOB/SITE NAME	Former Chevron 9-2029	**DRILLING STARTED**	04-Jan-11
LOCATION	890 West MacArthur Boulevard, Oakland, CA	**DRILLING COMPLETED**	04-Jan-11
PROJECT NUMBER	611974	**WELL DEVELOPMENT DATE (YIELD)**	NA
DRILLER	PeneCore Drilling	**GROUND SURFACE ELEVATION**	Not Surveyed
DRILLING METHOD	Direct push - continuous core - Hand Auger to 5'	**TOP OF CASING ELEVATION**	Not Surveyed
BORING DIAMETER	2 inches	**SCREENED INTERVAL**	NA
LOGGED BY	N. Allen	**DEPTH TO WATER (First Encountered)**	15.0 fbg (04-Jan-11)
REVIEWED BY	J. Kiernan, PE# C68498	**DEPTH TO WATER (Static)**	NA
REMARKS	Boring located southwest of site, 10' south of commercial property boundary.		

PID (ppm)	SAMPLE ID	DEPTH (fbg)	U.S.C.S.	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				CONCRETE	0.7	Concrete
0.0			CL	**CLAY** Grayish olive; moist; high plasticity.	4.0	
0.0	SB-10 -5	5	CL	**CLAY** Pale yellowish brown; moist; high plasticity.	6.5	
			GM	**Silty GRAVEL with sand** Moderate yellowish brown; moist; low plasticity.	7.5	
0.0	SB-10 -9.5	10	SM	**Silty SAND with gravel** Moderate yellowish brown; moist; moderate plasticity; fine sand.	11.0	Portland I/II
			ML	**SILT** Light brown; moist; low plasticity.		
0.0	SB-10 -14.5	15	GM	▽ **Silty GRAVEL with sand** Pale yellowish brown; wet; well graded angular gravels.	15.0	
0.0	SB-10 -19.5	20			20.0	Bottom of Boring @ 20 fbg

WELL LOG (PID) I:\PROJECT FILES\6-CHAR\61----\6119--\611974\9-2029 BORING LOGS.GPJ DEFAULT.GDT 2/9/11

ATTACHMENT C

STANDARD FIELD PROCEDURES

CRA

STANDARD FIELD PROCEDURES FOR GEOPROBE® SOIL AND GROUNDWATER SAMPLING

This document describes Conestoga-Rovers & Associates standard field methods for GeoProbe® soil and ground water sampling. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

Objectives

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor odor or staining, estimate ground water depth and quality and to submit samples for chemical analysis.

Soil Classification/Logging

All soil samples are classified according to the Unified Soil Classification System by a trained geologist or engineer working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG). The following soil properties are noted for each soil sample:

- Principal and secondary grain size category (i.e., sand, silt, clay or gravel)
- Approximate percentage of each grain size category,
- Color,
- Approximate water or separate-phase hydrocarbon saturation percentage,
- Observed odor and/or discoloration,
- Other significant observations (i.e., cementation, presence of marker horizons, mineralogy), and
- Estimated permeability.

Soil Sampling

GeoProbe® soil samples are collected from borings driven using hydraulic push technologies. A minimum of one and one half ft of the soil column is collected for every five ft of drilled depth. Additional soil samples can be collected near the water table and at lithologic changes. Samples are collected using samplers lined with polyethylene or brass tubes driven into undisturbed sediments at the bottom of the borehole. The ground surface immediately adjacent to the boring is used as a datum to measure sample depth. The horizontal location of each boring is measured in the field relative to a permanent on-site reference using a measuring wheel or tape measure.

Drilling and sampling equipment is steam-cleaned or washed prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

Sample Storage, Handling and Transport

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

Field Screening

After a soil sample has been collected, soil from the remaining tubing is placed inside a sealed plastic bag and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable GasTech® or photoionization detector measures volatile hydrocarbon vapor concentrations in the bag's headspace, extracting the vapor through a slit in the plastic bag. The measurements are used along with the field observations, odors, stratigraphy and ground water depth to select soil samples for analysis.

Grab Ground Water Sampling

Ground water samples are collected from the open borehole using bailers, advancing disposable Tygon® tubing into the borehole and extracting ground water using a diaphragm pump, or using a hydro-punch style sampler with a bailer or tubing. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

Discrete Depth Soil and Ground Water Sampling

Soil and groundwater samples are collected for lithologic and chemical analysis using a direct driven, dual tube soil coring system. A hydraulic hammer drives sampling rods into the ground to collect continuous soil cores. Two nested sampling rods are driven at the same time: a larger diameter outer rod to act as a temporary drive casing and a smaller inner rod to retrieve soil cores. As the rods are advanced the soil is driven into a sample barrel that is attached to the end of the inner rod. The outer rod ensures that the sample is collected from the desired interval by preventing sloughing of the overlying material. After reaching the desired depth the inner rods are removed from the boring and the sleeves containing the soil sample are removed from the inner sample barrel. Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon® tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

When collecting groundwater samples, the sample barrel and inner rods are removed from the boring once the targeted water bearing zone has been reached. The drive casing is pulled up from 0.5 to 5 feet to allow groundwater to enter the borehole. Small diameter well casing and screen is then installed in the borehole to facilitate sample collection. The drive casing is then pulled up sufficiently to expose the desired length of screen and samples are collected using a bailer, peristaltic, bladder or inertial pump. The ground water samples are decanted into the appropriate containers supplied by the analytic laboratory. Samples are labeled, placed in protective foam sleeves, stored on crushed ice at or below 4° C, and transported under chain-of-custody to the laboratory.

Duplicates and Blanks

Blind duplicate water samples are usually collected only for monitoring well sampling programs, at a rate of one blind sample for every 10 wells sampled. Laboratory-supplied trip blanks accompany samples collected for all sampling programs to check for cross-contamination caused by sample handling and transport. These trip blanks are analyzed if the internal laboratory quality assurance/quality control (QA/QC) blanks contain the suspected field contaminants. An equipment blank may also be analyzed if non-dedicated sampling equipment is used.

Grouting

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

ATTACHMENT D

LABORATORY ANALYTICAL REPORTS

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron c/o CRA
Suite 107
10969 Trade Center Drive
Rancho Cordova CA 95670

January 11, 2011

Project: 92029

Submittal Date: 01/06/2011
Group Number: 1228042
PO Number: 92029
Release Number: MTI
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SB-10-S-5-110104 Grab Soil	6178780
SB-10-S-9.5-110104 Grab Soil	6178781
SB-10-S-14.5-110104 Grab Soil	6178782
SB-10-S-19.5-110104 Grab Soil	6178783

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Chevron c/o CRA	Attn: CRA EDD
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: James Kiernan

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Questions? Contact your Client Services Representative
Natalie R Luciano at (717) 656-2300 Ext. 1881

Respectfully Submitted,

Robin C. Runkle
Senior Specialist

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Sample Description: SB-10-S-5-110104 Grab Soil
Facility# 92029 CRAW
890 W Macarthur-Oakland T0600173887 SB-10

LLI Sample # SW 6178780
LLI Group # 1228042
Account # 11997

Project Name: 92029

Collected: 01/04/2011 14:30 by NA

Submitted: 01/06/2011 08:50
Reported: 01/11/2011 14:46

Chevron c/o CRA
Suite 107
10969 Trade Center Drive
Rancho Cordova CA 95670

1SB10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1.03
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1.03
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1.03
10950	Toluene	108-88-3	N.D.	0.001	0.005	1.03
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1.03
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.43

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	B110102AA	01/10/2011 20:44	Chelsea B Eastep	1.03
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:19	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	11006A34B	01/07/2011 17:08	Marie D John	25.43
01150	GC - Bulk Soil Prep	SW-846 5030A	1	201100723461	01/07/2011 09:19	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Sample Description: SB-10-S-9.5-110104 Grab Soil
Facility# 92029 CRAW
890 W Macarthur-Oakland T0600173887 SB-10

LLI Sample # SW 6178781
LLI Group # 1228042
Account # 11997

Project Name: 92029

Collected: 01/04/2011 14:40 by NA

Submitted: 01/06/2011 08:50
Reported: 01/11/2011 14:46

Chevron c/o CRA
Suite 107
10969 Trade Center Drive
Rancho Cordova CA 95670

2SB10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	0.99
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.99
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.99
10950	Toluene	108-88-3	N.D.	0.001	0.005	0.99
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.99
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1	1	24.93

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	B110102AA	01/10/2011 21:06	Chelsea B Eastep	0.99
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:22	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	11006A34B	01/07/2011 17:44	Marie D John	24.93
01150	GC - Bulk Soil Prep	SW-846 5030A	1	201100723461	01/07/2011 09:23	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Sample Description: SB-10-S-14.5-110104 Grab Soil
Facility# 92029 CRAW
890 W Macarthur-Oakland T0600173887 SB-10

LLI Sample # SW 6178782
LLI Group # 1228042
Account # 11997

Project Name: 92029

Collected: 01/04/2011 15:40 by NA

Submitted: 01/06/2011 08:50
Reported: 01/11/2011 14:46

Chevron c/o CRA
Suite 107
10969 Trade Center Drive
Rancho Cordova CA 95670

3SB10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	N.D.	0.0005	0.005	1
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	1
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	1
10950	Toluene	108-88-3	N.D.	0.001	0.005	1
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	1
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.64

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	B110102AA	01/10/2011 21:28	Chelsea B Eastep	1
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:26	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	11006A34B	01/07/2011 18:20	Marie D John	25.64
01150	GC - Bulk Soil Prep	SW-846 5030A	1	201100723461	01/07/2011 09:27	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Sample Description: SB-10-S-19.5-110104 Grab Soil
Facility# 92029 CRAW
890 W Macarthur-Oakland T0600173887 SB-10

LLI Sample # SW 6178783
LLI Group # 1228042
Account # 11997

Project Name: 92029

Collected: 01/04/2011 15:45 by NA

Submitted: 01/06/2011 08:50
Reported: 01/11/2011 14:46

Chevron c/o CRA
Suite 107
10969 Trade Center Drive
Rancho Cordova CA 95670

4SB10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**mg/kg**	**mg/kg**	**mg/kg**	
10950	Benzene	71-43-2	0.0006	0.0005	0.005	0.95
10950	Ethylbenzene	100-41-4	N.D.	0.001	0.005	0.95
10950	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.0005	0.005	0.95
10950	Toluene	108-88-3	0.002	0.001	0.005	0.95
10950	Xylene (Total)	1330-20-7	N.D.	0.001	0.005	0.95
GC Volatiles	**SW-846 8015B modified**		**mg/kg**	**mg/kg**	**mg/kg**	
01725	TPH-GRO N. CA soil C6-C12	n.a.	N.D.	1.0	1.0	25.69

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10950	BTEX/MTBE 8260 Soil	SW-846 8260B	1	B110102AA	01/10/2011 21:51	Chelsea B Eastep	0.95
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
00374	GC/MS - Bulk Sample Prep	SW-846 5030A	2	201100723461	01/07/2011 09:32	Larry E Bevins	n.a.
06646	GC/MS HL Bulk Sample Prep	SW-846 5030A	1	201100723461	01/07/2011 09:29	Larry E Bevins	n.a.
01725	TPH-GRO N. CA soil C6-C12	SW-846 8015B modified	1	11006A34B	01/07/2011 18:57	Marie D John	25.69
01150	GC - Bulk Soil Prep	SW-846 5030A	1	201100723461	01/07/2011 09:31	Larry E Bevins	n.a.

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Quality Control Summary

Client Name: Chevron c/o CRA
Reported: 01/11/11 at 02:46 PM

Group Number: 1228042

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: B110102AA	Sample number(s): 6178780-6178783								
Benzene	N.D.	0.0005	0.005	mg/kg	100	104	80-120	3	30
Ethylbenzene	N.D.	0.001	0.005	mg/kg	91	97	80-120	6	30
Methyl Tertiary Butyl Ether	N.D.	0.0005	0.005	mg/kg	95	96	74-121	2	30
Toluene	N.D.	0.001	0.005	mg/kg	95	101	80-120	7	30
Xylene (Total)	N.D.	0.001	0.005	mg/kg	93	98	80-120	5	30
Batch number: 11006A34B	Sample number(s): 6178780-6178783								
TPH-GRO N. CA soil C6-C12	N.D.	1.0	1.0	mg/kg	97	95	67-119	2	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: B110102AA	Sample number(s): 6178780-6178783 UNSPK: P179351								
Benzene	101		55-143						
Ethylbenzene	86		44-141						
Methyl Tertiary Butyl Ether	84		55-129						
Toluene	96		50-146						
Xylene (Total)	87		44-136						

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs by 8260B - Solid
Batch number: B110102AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6178780	110	104	95	87
6178781	109	103	95	87
6178782	111	107	94	88
6178783	110	107	94	91
Blank	104	100	94	90
LCS	100	103	98	100
LCSD	100	101	98	100

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Analysis Report

Quality Control Summary

Client Name: Chevron c/o CRA Group Number: 1228042
Reported: 01/11/11 at 02:46 PM

Surrogate Quality Control

MS	101	100	101	99
Limits:	71-114	70-109	70-123	70-111

Analysis Name: TPH-GRO N. CA soil C6-C12
Batch number: 11006A34B

	Trifluorotoluene-F
6178780	88
6178781	85
6178782	86
6178783	84
Blank	89
LCS	88
LCSD	84
Limits:	61-122

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11997 Sample #: 6178780-83 SCR#: 248613

122804 2

Facility #: 9-2029
Site Address: 890 W. MACARTHUR BOULEVARD, OAKLAND, CA
Chevron PM: ROB SPEER Lead Consultant: CRA
Consultant/Office: CRA RANCHO CORDOVA
Consultant Prj. Mgr.: JAMES KIERNAN
Consultant Phone #: (916) 889-8917 Fax #: (916) 889-8999
Sampler: N ALLEN
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds

8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	___ Oxygenates	Lead 7420 ☐ 7421 ☐
SB-10-5	Soil		5	2011/01/04	2:30		X		1	X	X				
SB-10-9.5	↓		9.5	↓	2:40		↓		1	↓	↓				
SB-10-14.5	↓		14.5	↓	3:10		↓		1	↓	↓				
SB-10-19.5	↓		19.5	↓	3:45		↓		1	↓	↓				

Comments / Remarks

Custody Seal #
328421

Turnaround Time Requested (TAT) (please circle)

(STD. TAT)	72 hour	48 hour
24 hour	4 day	5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

		Date	Time		Date	Time
Relinquished by:		1/5/11	12:30	Received by:	Fed Ex.	
Relinquished by:				Received by:		
Relinquished by:				Received by:		
Relinquished by Commercial Carrier: UPS (FedEx) Other ____				Received by:	1/6/11	850
Temperature Upon Receipt 0.7 C°				Custody Seals Intact? (Yes) No		

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
N.D.	none detected	**MPN**	Most Probable Number
TNTC	Too Numerous To Count	**CP Units**	cobalt-chloroplatinate units
IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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Analysis Report

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron c/o CRA
Suite 107
10969 Trade Center Drive
Rancho Cordova CA 95670

January 12, 2011

Project: 92029

Submittal Date: 01/06/2011
Group Number: 1228041
PO Number: 92029
Release Number: MTI
State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LLI) #
SB-10-W-110104 Grab Water	6178778

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Chevron c/o CRA	Attn: CRA EDD
ELECTRONIC COPY TO	Chevron c/o CRA	Attn: James Kiernan

Lancaster Laboratories

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Analysis Report

Questions? Contact your Client Services Representative
Natalie R Luciano at (717) 656-2300 Ext. 1881

Respectfully Submitted,

Robin C. Runkle
Senior Specialist

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Sample Description: SB-10-W-110104 Grab Water
Facility# 92029 CRAW
890 W Macarthur-Oakland T0600173887 SB-10

LLI Sample # WW 6178778
LLI Group # 1228041
Account # 11997

Project Name: 92029

Collected: 01/04/2011 16:25 by NA

Submitted: 01/06/2011 08:50
Reported: 01/12/2011 15:48

Chevron c/o CRA
Suite 107
10969 Trade Center Drive
Rancho Cordova CA 95670

SB10-

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit*	As Received Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		ug/l	ug/l	ug/l	
10943	Benzene	71-43-2	N.D.	0.5	1	1
10943	Ethylbenzene	100-41-4	N.D.	0.5	1	1
10943	Methyl Tertiary Butyl Ether	1634-04-4	4	0.5	1	1
10943	Toluene	108-88-3	N.D.	0.5	1	1
10943	Xylene (Total)	1330-20-7	N.D.	0.5	1	1
GC Volatiles	**SW-846 8015B**		ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

General Sample Comments

State of California Lab Certification No. 2501

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10943	BTEX/MTBE 8260 Water	SW-846 8260B	1	P110104AA	01/11/2011 01:29	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P110104AA	01/11/2011 01:29	Sara E Johnson	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11010A20A	01/10/2011 21:47	Tyler O Griffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	11010A20A	01/10/2011 21:47	Tyler O Griffin	1

*=This limit was used in the evaluation of the final result

Lancaster Laboratories

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Analysis Report

Quality Control Summary

Client Name: Chevron c/o CRA
Group Number: 1228041
Reported: 01/12/11 at 03:48 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL**	Blank LOQ	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: P110104AA	Sample number(s): 6178778								
Benzene	N.D.	0.5	1	ug/l	100		79-120		
Ethylbenzene	N.D.	0.5	1	ug/l	99		79-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	1	ug/l	98		76-120		
Toluene	N.D.	0.5	1	ug/l	101		79-120		
Xylene (Total)	N.D.	0.5	1	ug/l	101		80-120		
Batch number: 11010A20A	Sample number(s): 6178778								
TPH-GRO N. CA water C6-C12	N.D.	50.	100	ug/l	109	109	75-135	0	30

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: P110104AA	Sample number(s): 6178778 UNSPK: P178806								
Benzene	108	108	80-126	0	30				
Ethylbenzene	104	103	71-134	1	30				
Methyl Tertiary Butyl Ether	99	98	72-126	0	30				
Toluene	105	104	80-125	1	30				
Xylene (Total)	105	105	79-125	0	30				

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: UST VOCs by 8260B - Water
Batch number: P110104AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
6178778	97	100	105	91
Blank	98	103	100	90
LCS	97	101	101	94
MS	97	106	100	93
MSD	97	105	99	93
Limits:	80-116	77-113	80-113	78-113

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: Chevron c/o CRA Group Number: 1228041
Reported: 01/12/11 at 03:48 PM

Surrogate Quality Control

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 11010A20A

	Trifluorotoluene-F
6178778	97
Blank	96
LCS	111
LCSD	118
Limits:	63-135

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Chevron California Region Analysis Request/Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. #: 11992 Sample #: 6178728-79 SCR#:

248611

1228041

Facility #: 9-2029
Site Address: 891 W. MACARTHUR BOULEVARD, OAKLAND, CA
Chevron PM: ROB SPEER Lead Consultant: CRA
Consultant/Office: CRA - RANCHO CORDOVA
Consultant Prj. Mgr.: JAMES KIERNAN
Consultant Phone #: (916) 889-8917 Fax #: (916) 889-8999
Sampler: N ALLEN
Service Order #: ☐ Non SAR:

Analyses Requested

Preservation Codes

Field Point Name	Matrix	Repeat Sample	Top Depth	Year Month Day	Time Collected	New Field Pt.	Grab	Composite	Total Number of Containers	BTEX + MTBE 8260 ☒ 8021 ☐	TPH 8015 MOD GRO	TPH 8015 MOD DRO ☐ Silica Gel Cleanup	8260 full scan	Oxygenates ___	Lead 7420 ☐ 7421 ☐	#	#							
SB-10	WATER			2011/01/04	9:25		X		6	X	X													
~~SB-11 MW~~	~~WATER~~			~~2011/01/04~~			~~X~~		~~6~~	~~X~~	~~X~~	~~X~~												

Preservative Codes
H = HCl T = Thiosulfate
N = HNO_3 B = NaOH
S = H_2SO_4 O = Other

☐ J value reporting needed
☐ Must meet lowest detection limits possible for 8260 compounds
8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ____ oxy's on highest hit
☐ Run ____ oxy's on all hits

Comments / Remarks

Custody Seal # 328421

Turnaround Time Requested (TAT) (please circle)
STD. TAT 72 hour 48 hour
24 hour 4 day 5 day

Data Package Options (please circle if required)
QC Summary Type I – Full
Type VI (Raw Data) ☐ Coelt Deliverable not needed
WIP (RWQCB)
Disk

	Date	Time		Date	Time
Relinquished by:	1/5/11	12:30	Received by: FedEx		
Relinquished by:			Received by:		
Relinquished by:			Received by:		
Relinquished by Commercial Carrier: UPS FedEx Other			Received by:	1/6/11	850
Temperature Upon Receipt D.7 C°			Custody Seals Intact? Yes No		

Explanation of Symbols and Abbreviations

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RL	Reporting Limit	**BMQL**	Below Minimum Quantitation Level
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IU	International Units	**NTU**	nephelometric turbidity units
umhos/cm	micromhos/cm	**ng**	nanogram(s)
C	degrees Celsius	**F**	degrees Fahrenheit
meq	milliequivalents	**lb.**	pound(s)
g	gram(s)	**kg**	kilogram(s)
ug	microgram(s)	**mg**	milligram(s)
ml	milliliter(s)	**l**	liter(s)
m3	cubic meter(s)	**ul**	microliter(s)

< less than - The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

J estimated value – The result is ≥ the Method Detection Limit (MDL) and < the Limit of Quantitation (LOQ).

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

U.S. EPA CLP Data Qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quantitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike sample not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results meet all requirements of NELAC unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.