GETTLER-RYAN INC.

TRANSMITTAL

TO: Mr. Thomas Bauhs
Chevron Products Company
P.O. Box 6004
San Ramon CA 94583

DATE: April 18, 2001, 2001
PROJ. #: 346498.03/DG26-127
SUBJECT: Well Installation Report
Chevron Service Station #20-6127
2301-2337 Blanding Avenue
Alameda, California

FROM:
Stephen J Carter
Senior Geologist
Gettler-Ryan Inc.
3140 Gold Camp Drive
Suite 170
Rancho Cordova, CA 95670

Continue w/ QMR2. And see if conc. drop, if bioremediation is occurring at site. Continue w/ silica gel clean-up -
Also analyze for DO, OPR, Nitrate, sulfate, Fe, alkalinity, BUT need to confirm it w/ another one-pt. event

WE ARE SENDING YOU:

COPIES	DATED	DESCRIPTION
1	April 18, 2001	Well Installation Report

THESE ARE TRANSMITTED as checked below:

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COMMENTS:

Enclosed is a copy of the referenced Report. If you have any questions, please call me at (916) 631-1314.

Cc: Eva Chu Alameda County Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 ;Ms. Julie Beck Ball, Helen Beck Kleeman and Mr. Peter Reinhold- 2720 Broderick Street San Francisco CA, 94123; Mr. Monroe Wingate- 3030 Bridgeway, Suite 230, Sausalito, Ca 94965.

Delta
Environmental
Consultants, Inc.

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

MONITORING WELL INSTALLATION REPORT

at

Chevron No. 20-6127
Former Signal Oil Marine Terminal
2301-2337 Blanding Avenue
Alameda, California

Report No. 346498.03
Delta Project DG26-127

Prepared for:

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

Prepared by:

DELTA ENVIRONMENTAL CONSULTANTS INC.
Network Associate **GETTLER – RYAN INC.**
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Staff Geologist

Stephen J. Carter
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R.G. 5577

April 10, 2001

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Delta
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MONITORING WELL INSTALLATION REPORT

at

Chevron No. 20-6127
Former Signal Oil Marine Terminal
2301-2337 Blanding Avenue
Alameda, California

Report No. 346498.03
Delta Project No. DG20/6127

INTRODUCTION

This report presents the results of a soil and groundwater investigation performed at the former Signal Oil Marine Terminal located at 2301 through 2337 Blanding Avenue in Alameda, California. The work was performed by Delta Environmental Consultants Inc. network associate Gettler-Ryan Inc. (GR) at the request of Chevron Products Company (Chevron) to evaluate if groundwater beneath the subject site could be impacting surface water in the Alameda Canal. The scope of work included: obtaining the required well installation permit; preparing a site safety plan; installing one groundwater monitoring well; developing and sampling the new well; surveying the newly installed well; and preparing a report documenting the work. This work was proposed in GR report No. 346498.02, *Work Plan For Monitoring Well Installation*, dated August 29, 2000, and approved by the Alameda County Environmental Protection Division (ACEPD) in a letter dated September 18, 2000.

SITE DESCRIPTION

The site, totaling approximately 3.5 acres, is located in the City of Alameda in Alameda County, California. The site is bound to the north by the Alameda Canal, to the south by Blanding Avenue, to the east by Park Street and to the west by an industrial property. A Signal Oil Gas Company gasoline distribution station operated at the site from at least 1930 until 1961. Since 1987, the site has been used as an office center and marina. Existing improvements include office buildings, a paved parking lot, walking paths, landscaping, a concrete seawall and boat slips along the Alameda Canal. Locations of pertinent site features are shown on Figure 2.

PREVIOUS ENVIRONMENTAL WORK

A preliminary site assessment was performed by CET Environmental Services and summarized in a report dated January 13, 1995. The report indicated that a Signal Oil and Gas Company gasoline distributing station operated at the site from at least 1930 until about 1961.

Eight above ground storage tanks, concrete secondary containment walls, underground piping, offices and storage buildings, a loading rack, and pumping station were used to store and distribute fuels and lubricants. Storage and distribution operations were located on the western quarter of the site. Between 1957 and 1963, the buildings at the site were reportedly removed. From 1973 to 1983, the northwestern portion of the site was used as a construction yard and for boat repair services. A restaurant and paved parking area, and possibly an automobile sales lot reportedly occupied the southeastern portion of the site during this time. Since 1987, the site has been used as an office center and marina. Existing improvements include office buildings, a paved parking lot, walking paths, landscaping, and a concrete seawall and boat slips along the Alameda Canal.

On February 17 and 20, 1995, Geomatrix advanced eight soil borings (SB-1 through SB-8) at the site. Total Petroleum Hydrocarbons as gasoline (TPHg; up to 2,000 parts per million, or ppm), Total Petroleum Hydrocarbons as diesel (TPHd; up to 250 ppm), and benzene (up to 3.7 ppm) were detected in soil samples from the borings. The historical information supplied by Chevron did not contain analytical results for groundwater samples collected from the borings, but did indicate that groundwater beneath the site was impacted.

Geomatrix collected additional groundwater samples from ten shallow borings (GWS-7 through GWS-16) in April 1995. TPHg (up to 22,000 parts per billion, or ppb) were detected in five borings, TPHd (up to 1,200 ppb) were detected in four borings, and benzene (up to 6,200 ppb) was detected in three borings. The borings containing detectable hydrocarbon concentrations are located in the northern corner of the site, with the highest concentrations detected in boring GWS-9.

Four additional borings (SB-9 through SB-12) were advanced at the site by RRM, Inc. on October 28 and 29, 1998, as part of a Tier 2 Risk Based Corrective Action (RBCA) assessment. TPHg (up to 2,200 ppm), TPHd (up to 2,900 ppm), and benzene (up to 3.3 ppm) were detected in soil samples from borings SB-9, SB-10, and SB-11. Methyl tert-butyl ether (MtBE) was detected in boring SB-9 in a soil sample collected at 13 feet below ground surface (bgs) at a concentration of 12 ppm by EPA Method 8020. TPHg (up to 14,000 ppb), TPHd (up to 83,000 ppb), and benzene (up to 1,400 ppb) were detected in groundwater samples from borings SB-9, SB-10, and SB-11. The highest hydrocarbon concentrations in soil and groundwater were detected in boring SB-9. Water samples collected from Alameda Canal, adjacent to the site, were non-detect for TPHd, benzene and MtBE. Based on depth to water data collected from the borings, which were temporarily cased and monitored over a 2-day period, groundwater flow was to the north toward Alameda Canal at an approximate gradient of 0.01.

FIELD ACTIVITIES

Field work was conducted in accordance with GR's Field Methods and Procedures (Appendix A) and Delta's *Class III Petroleum Site Health and Safety Plan* #DG26-127, dated September 7, 2000. Drilling permit #W00-665 was obtained from the Alameda Public Works Agency. Underground Service Alert (USA) was notified prior to drilling at the site. A Copy of the permit is included in Appendix B.

Well Installation

On December 29, 2000, a GR geologist observed Gregg Drilling and Testing Inc. (C57 #485165) install one groundwater monitoring well (MW-1) at the location shown on Figure 2. A hand auger was used for the first five feet of the borehole in order to clear the location for the presence of underground utilities. A track-mounted Limited Access Rig (LAR) equipped with 8-inch-diameter hollow-stem augers drilled the borehole to 19.5 feet below ground surface (bgs). A GR geologist prepared a log of the boring and screened the soil samples in the field for the presence of volatile organic compounds. The screening data are presented on the boring log (Appendix B).

The well was constructed of 2-inch-diameter polyvinyl chloride (PVC) well casing to a depth of 19 feet bgs. The bottom 15 feet of the well was screened with 0.02-inch machine-slotted casing. Lonestar #3 sand was placed in the annular space from the bottom of the boring to approximately 1 foot above the well screen. The well was then sealed with hydrated bentonite followed by neat cement. A water resistant well box installed in concrete was placed over the well. A expandable well cap secured with a lock was placed in the top of the well casing. Well construction details are shown on the boring log in Appendix B.

Drill cuttings were placed on and covered with plastic then stored at the site pending disposal. One 4-point composite sample was collected from the stockpile for disposal characterization.

Well Monitoring, Development and Sampling

The newly installed well was developed and sampled on January 23, 2001. Depth-to-water was measured and the well was checked for the presence of separate phase hydrocarbons (SPH). SPH were not found in the well. The well did not dewater during development, and the well yielded a minimum of 10 casing volumes. Following development, a groundwater sample was collected from the well. Purge water generated during development and sampling procedures was transported by IWM to McKittrick for disposal. Well development procedures are included in Appendix A. A copy of the well development form is included in Appendix C. Monitoring data are summarized in Table 2

Wellhead Survey

Following installation of the well, the elevation was surveyed by Virgil Chavez Land Surveying of Vallejo, CA (PLS #6323). The top of casing and vault box elevations were measured relative to Mean Sea Level (MSL), and the horizontal location of the well was measured. The surveyor's report is included in Appendix D. The well elevations are summarized in Table 2.

RESULTS OF THE SUBSURFACE INVESTIGATION

Soil encountered during this investigation consisted of clay with fine sand to approximately 6 feet bgs. This clayey zone contained concrete fragments indicating it was fill material. Clayey sand was encountered beneath the clayey zone to approximately 11 feet bgs. From approximately 11 feet bgs to the maximum explored depth there is layer of poorly graded medium to fine sand with silt.

Groundwater was encountered at 17.5 feet bgs during drilling. Based on the groundwater monitoring data collected on January 23, 2001, the water table beneath the site is at approximately 7.16 feet below the top of the well casing in the vicinity of MW-1. A detailed description of the soil encountered during drilling is presented on the boring log in Appendix B.

CHEMICAL ANALYTICAL RESULTS

All samples were analyzed by Sequoia Analytical in Walnut Creek, California (ELAP #1271). Soil samples from the well boring were analyzed by DHS LUFT for TPHg and TPHd, benzene, toluene, ethylbenzene and xylenes (BTEX), and methyl tert-butyl-ether (MtBE). Stockpile samples were analyzed for TPHg and BTEX by DHS LUFT, and total lead by EPA Method 6010. The groundwater sample was analyzed for TPHg, BTEX and MtBE by DHS LUFT, and TPHd by EPA Method 8015. Copies of the laboratory analytical reports and chains-of-custody are included in Appendix E.

Soil Analytical Results

Three soil samples from the well boring were analyzed (these data are summarized in Table1). MtBE was not detected in any of the soil samples. TPHg (230) were detected only in the sample from 10 feet bgs. The laboratory noted this included both gasoline and an unidentified hydrocarbon in the C6 to C12 range. TPHd were detected in the sample from 5 feet (30 ppm, unidentified hydrocarbon greater than C16) and 10 feet (160 ppm, diesel and unidentified hydrocarbons less than C16) bgs. Benzene was detected in the sample from 10 feet (0.04 ppm) and 15 feet (0.53 ppm) bgs.

The disposal characterization samples from the drill cuttings contained THPg, BTEX and lead in concentrations that were acceptable to the disposal facility.

Groundwater Analytical Results

MtBE was not detected in the groundwater sample from MW-1. TPHg and benzene were detected in the well at concentrations of 5,210 and 868 ppb respectively. The laboratory noted the gasoline appeared to be weathered. In addition, the groundwater sample contained 1,100 ppb of an unidentified hydrocarbon less than C16 reported as TPHd. These data are summarized in Table 2.

WASTE DISPOSAL

Approximately 1 cubic yard of soil cuttings were removed from the site by Integrated Wastestream Management and taken to McKittrick Waste Management for disposal.

CONCLUSIONS

Hydrocarbon impact to both soil and shallow groundwater beneath this site has been defined to the northwest, southwest and southeast. The Alameda Canal, which separates Oakland from Alameda Island and is connected to the San Francisco Bay, sits immediately adjacent to the northeast side of the site. Groundwater flow is to the north-northeast, toward the Canal. The highest hydrocarbons concentrations, both in soil and in groundwater, have been detected between the former storage tanks and the Canal. Shallow groundwater appears only slightly tidally influenced, and previous sampling indicates that groundwater is not discharging dissolved hydrocarbons to the Canal. This is likely due to a seawall that runs the length of the property along the Canal. The lack of significant plume migration and the lack of discharge hydrocarbon impact to the Canal 38 years after operations at the former bulk fuel distribution facility ceased suggest the plume is stable and future impact to Alameda Canal is unlikely.

The Regional Water Quality Control Board (RWQCB) has indicated1 that concentrations greater than 3,700 ppb of TPHg or 640 ppb of TPHd within 300 feet of Bay waters would require additional investigation to evaluate the likelihood of impact to Bay waters. Concentrations of 5,210 ppb of TPHg and 1,100 ppb of TPHd were detected in well MW-1, situated approximately 80 feet from Alameda Canal. While these concentrations appear to indicate that additional investigation is indicated, previous investigations at the site have delineated both groundwater and soil impact, established that the seawall appears to limit groundwater/Canal water interaction (limited tidal influence), and established that (at least in 1998) hydrocarbons were not detected in Bay waters immediately adjacent to the site. These factors strongly suggest that further assessment at the site is not warranted.

The RWQCB has also issued guidelines for application of risk-based screening levels (RBSLs) to sites in the Basin.2 These guidelines set specific RBSLs for use under various site conditions. Site-specific conditions and RBSL concentrations pertinent to this site are summarized in the attached table. Hydrocarbon concentrations detected in soil and groundwater beneath the site exceed the Final Interim RBSLs. However, a Tier 2 Risk-Based Corrective Action (RBCA) evaluation performed by RRM in 1999 established site-specific target levels (SSTLs) based on site-specific data. RRM concluded that soil and groundwater conditions at that time did not exceed SSTLs for any of the exposure scenarios examined. Hydrocarbon concentrations detected in soil or groundwater during installation of well MW-1 are below the maximum concentrations used in RRM's Tier 2 evaluation.

Because the hydrocarbon impact has been delineated, hydrocarbons do not appear to have impacted the Bay, and the previously completed Tier 2 RBCA evaluation indicated no human or environmental risk,

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1Mr. Chuck Headlee, personal communication, 1999.

2RWQCB, Application of Risk-Based Screening Levels and Decision Making to Site with Impacted Groundwater: Interim Final, August 2000.

additional work at this site is not warranted. The newly installed well should be monitored and sampled on a quarterly basis for 1 year to evaluate hydrocarbon trends. Grab samples should be collected from the adjacent Alameda Canal to evaluate for hydrocarbon impact. If hydrocarbon concentrations in the well do not exceed SSTLs established by the Tier 2 RBCA evaluation, if hydrocarbon concentrations in the well do not appear to be increasing, and if impact to the Canal waters is not detected, then the site should be closed and the well abandoned.

TABLE 1 - Soil Chemical Analytical Data-Chevron No. 20-6127, Former Signal Oil Marine Terminal, 2301-2337 Blanding Ave. Alameda CA

Sample ID	Date	Sample Depth (ft.)	TPHg (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)	MTBE (ppm)	TPHd (ppm)	Total Lead (ppm)
Well ID										
MW-1-5	12/29/01	5	<1.0	<0.0050	<0.0050	<0.0050	0.017	<0.050	30[3]	NR
MW-1-10	12/29/01	10	320[1]	0.40	1.6	0.90	1.1	<1.2	160[4]	NR
MW-1-15	12/29/01	15	<2.5[2]	0.53	0.021	0.028	0.065	<0.12	<1.0	NR
Composite										
Comp -1(A,B,C,D,)	12/29/01	NA	390[5]	3.6	3.6	3.4	4.4	NR	NR	41

EXPLANATIONS:

TPHg = Total Petroleum Hydrocarbons as gasoline
TPHd= Total Petroleum Hydrocarbons as diesel
MtBE= Methyl tert-butyl ether
ppm = parts per million
NR = Not Reported
[1]Chromatogram Pattern: Gasoline C6-C12 +Unidentified Hydrocarbons C6-C12
[2]Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
[3] Chromatogram Pattern: Unidentified Hydrocarbons >C16
[4] Chromatogram Pattern: Diesel C9-C24 + Unidentified Hydrocarbons <C16
[5] Chromatogram Pattern: Gasoline C6-C12

ANALYTICAL METHOD:

THPg, TPHd, BETX and MtBE DHS LUFT
Total Lead By EPA Method 6010

ANALYTICAL LABORATORY:

Sequoia Analytical (ELAP #1271)

346498.03
DG26-127

TABLE 2 - Groundwater Chemical Analytical Data-Chevron No. 20-6127, Former Signal Oil Marine Terminal, 2301-2337 Blanding Ave., Alameda CA

Sample ID	Date	Total Well Depth (ft.)	Well[1] Elev. (ft. MSL)	Depth to Water (ft.)	Floating Product (ft.)	Ground Water Elevation (ft.MSL)	TPHg (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-benzene (ppb)	Total Xylenes (ppb)	MTBE (ppb)	TPHd (ppb)
MW-1	01/23/01	18.67	10.62	7.16	0.00	3.46	5,210[2]	868	<50.0	<50.0	<50.0	<250	1,100[3,4]
TB-LB	01/23/01	NA	NA	NA	NA	NA	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	<50.0

EXPLANATIONS:

TPHg = Total Petroleum Hydrocarbons as gasoline
TPHd= Total Petroleum Hydrocarbons as diesel
MtBE= Methyl tert-Butyl Ether
PPb = parts per billion
NA= Not Applicable

[1]Well elevations reported as top of casing (TOC) surveyed by Virgil Chavez, Licensed California Land Surveyor No. 6323

[2]Chromatogram Pattern: Weathered Gasoline C6-C12

[3]Chromatogram Pattern: Unidentified Hydrocarbons <C16

[4]Analyzed with silica gel cleanup

ft. MSL = feet relative to Mean Sea Level.
ft. = feet

ANALYTICAL METHOD:

TPHg, BTEX, TPHd and MtBE by DHS LUFT

ANALYTICAL LABORATORY:

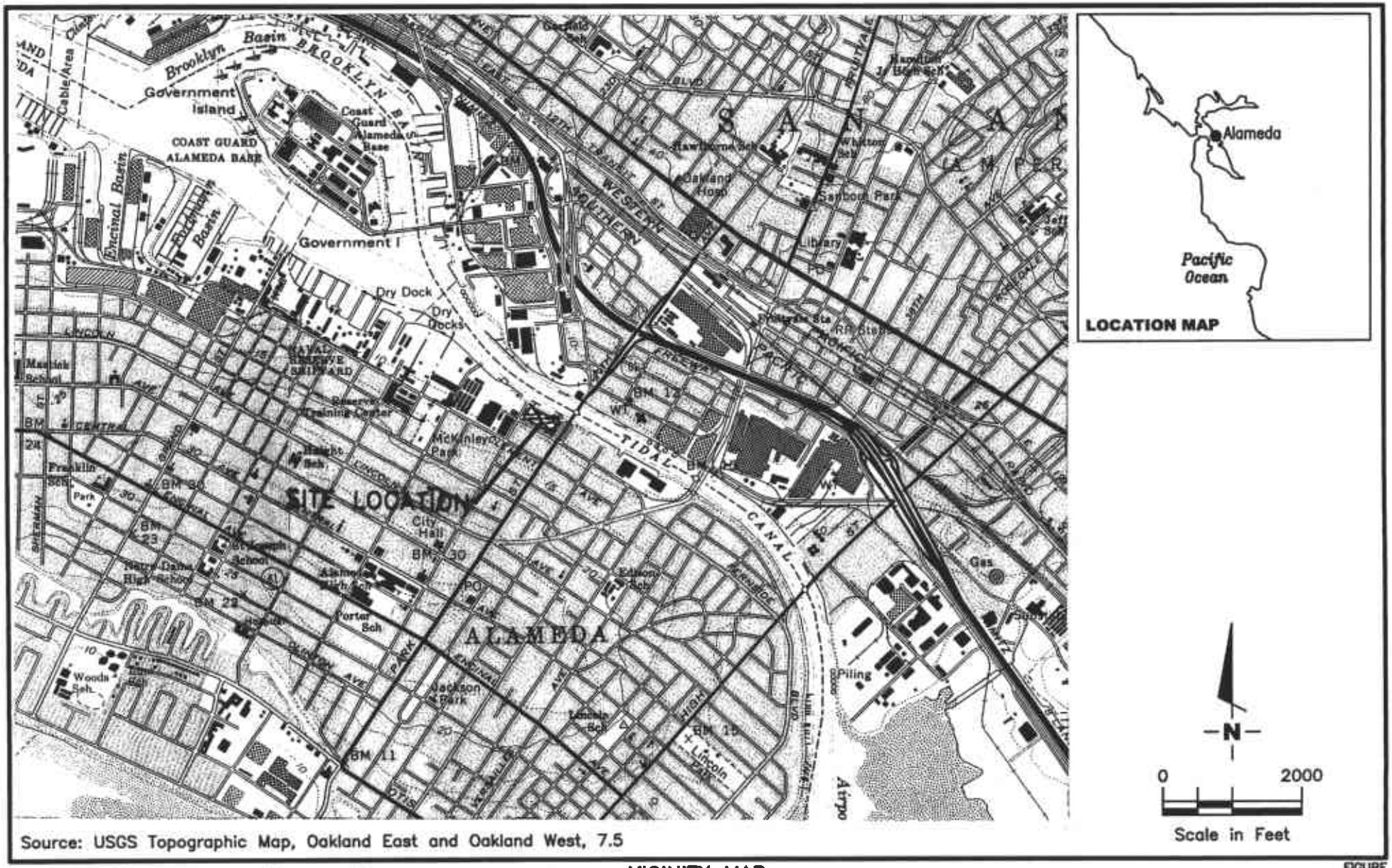
Sequoia Analytical (ELAP #1271)

Table 3-RBSL Comparison, Former Signal Oil Marine Terminal, 2301 -2337 Blanding Ave. Alameda CA

	Soil[4]	SB-9-5' (RRM, 1999)	MW-1@5' (GR, 2001)	Groundwater[4]	SP-9 (Geomatrix, 1998)	MW-1 (GR, 2001)
	ppm	ppm	ppm	ppb	ppb	ppb
Benzene	0.045	0.36	<0.005	1.0	1,400	868
Ethylbenzene	2.5	<0.12	<0.005	30	490	<50
Toluene	2.6	<0.12	<0.005	40	58	<50
Xyenes	1.0	0.28	0.17	13	630	<50
MTBE	0.028	<0.62	----	5.0	<10+	<250
TPHg	100	130	<1.0	100	14,000	5,210
TPHd	100	2,200	30	100	62,000	1,100

TPHg = Total Petroleum Hydrocarbons as gasoline
TPHd = Total Petroleum Hydrocarbons as diesel
ppm = parts per million
ppb = parts per billion
+ = MTBE by EPA Method 8260
---- = not analyzed for this constituent

1. Site use assumed to be residential based on previous condieration of site for low imcome housing.
2. Contaminated soil is encountered less than 3 meters form the ground surface.
3. TDS or groundwater pumping data unavailable, so groundwater is considered potential drinking water source.
4. RBSL Concentrations from *Application of Risk-Based Screening Levels and Decision Making to Site With Impacted Soil and Groundwater*, RWQCB, Interim-Final, August 2000.



Source: USGS Topographic Map, Oakland East and Oakland West, 7.5

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

VICINITY MAP
Former Signal Oil Marine Terminal (Chevron Station #20-6127)
2301-2337 Blanding Avenue
Alameda, California

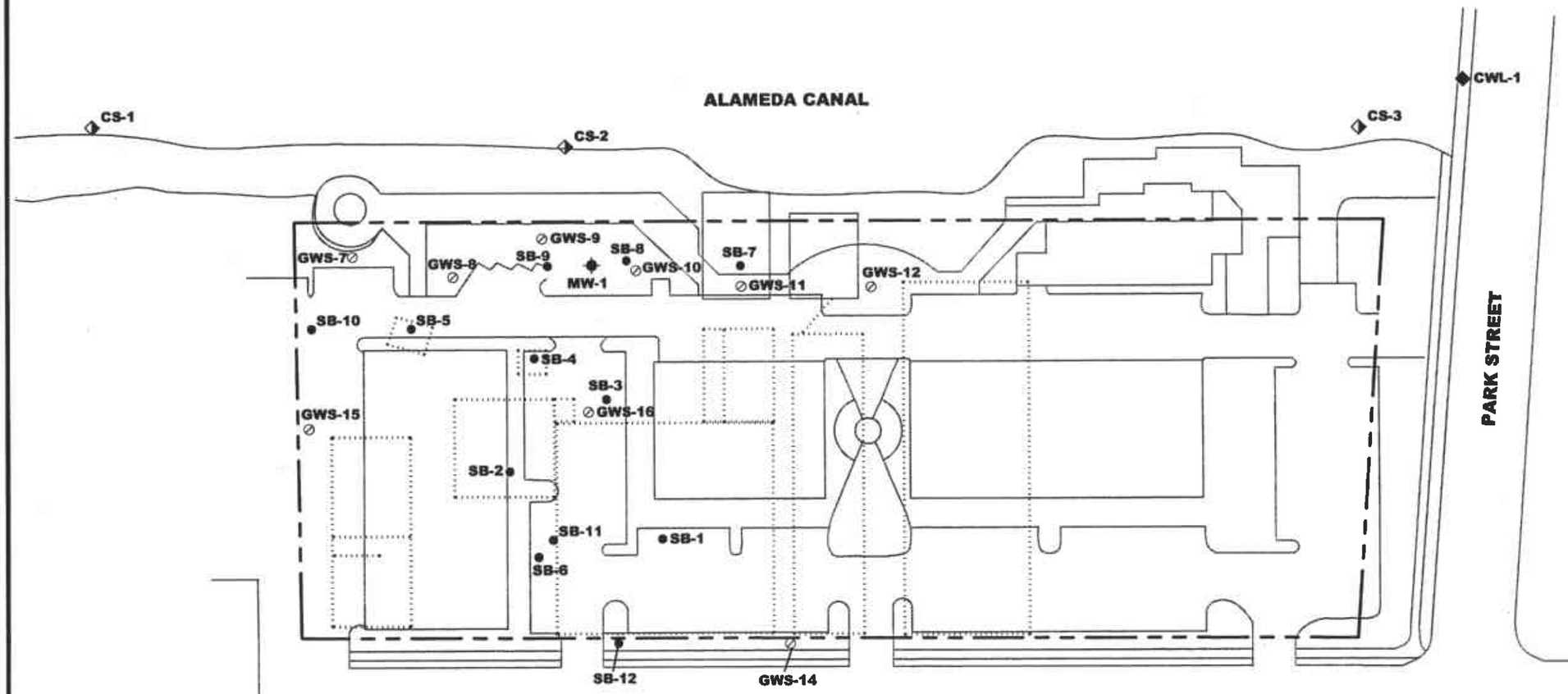
FIGURE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
346498		1/01	

FILE NAME: P:\ENVIRO\CHEVRON\20-6127\VIC-20-6127.DWG | Layout Tab: CA

EXPLANATION

- Groundwater monitoring well
- Canal water level gauging station from Park Street Bridge (RRM, October 1998)
- Canal grab surface water sample
- Shallow groundwater survey point (Geomatrix, April 1995)
- Site features noted on Sanborn Fire Insurance map, dated 1932



Source: Figure modified from drawing provided by RRM engineering contracting firm.

FIGURE 2

SITE PLAN
Former Signal Oil Marine Terminal (Chevron Station #20-6127)
2301-2337 Blanding Avenue
Alameda, California

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

PROJECT NUMBER 346498
REVIEWED BY
DATE 1/01
REVISED DATE

FILE NAME: P:\ENVIRO\CHEVRON\20-6127\V01-20-6127.DWG | Layout Tab: Site Plan

APPENDIX A

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 contents of these plans prior to initiating site work. The GR geologist or engineer at the site when the work is performed acts as the Site Safety Officer. GR utilizes a photoionization detector (PID) to monitor ambient conditions as part of the Health and Safety Plan.

Collection of Soil Samples

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 soil boring with a split-barrel sampling device fitted with 2-inch-diameter, clean brass tube 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 soils are 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 place in a cooler with blue ice for preservation. A chain-of-custody form is initiated in the field and accompanies the selected soil samples to the analytical laboratory. Samples are selected for chemical analysis based in part on:

a. depth relative to underground storage tanks and existing ground surface
b. depth relative to known or suspected groundwater
c. depth relative to areas of known hydrocarbon impact at the site
d. presence or absence of contaminant migration pathways
e. presence or absence of discoloration or staining
f. presence or absence of obvious gasoline hydrocarbon odors
g. 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.

Construction of Monitoring Wells

Monitoring wells are constructed in the exploratory soil 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 waterproof cap. A lock is placed on the well cap to prevent vandalism and unintentional introduction of materials into the well.

Measurement of Water Levels

The top of the newly-installed well casing is surveyed by a California-licensed Land Surveyor to mean sea level (MSL). Depth-to-groundwater in the well is measured from the top of the well casing with an electronic water-level indicator. Depth-to-groundwater is measured to the nearest 0.01-foot, and referenced to MSL.

Well Development and Sampling

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

Storing and Sampling of Drill Cuttings

Drill cuttings are stockpiled on and covered with plastic sheeting and samples are collected and analyzed for disposal classification on the basis of one composite sample per 100 cubic yards of soil. Stockpile samples are composed of four discrete soil samples, each collected from an arbitrary location on the stockpile. The four discrete samples are then composited in the laboratory prior to analysis.

Each discrete stockpile sample is collected by removing the upper 3 to 6 inches of soil, and them driving the stainless steel 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.

APPENDIX B

MONITORING WELL PERMIT, BORING LOGS

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST STR. HAYWARD CA. 94544
PHONE (510) 670-5554 FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Chevron #20-6127
2301 - 2377 Blanding Avenue
Alameda, California

California Coordinates Source ____ ft. Accuracy ± ____ ft.
CCN / ____ ft. CCE / ____ / ____
APN ____

CLIENT
Name Chevron Products Company Phone (925) 842-8898
Address PO Box 6004 Zip 94583
City San Ramon

APPLICANT
Name Geitler-Ryan Inc. Fax (916) 631-1317
Address 3164 Gold Camp Dr. #240 Phone (916) 631-1300
City Rancho Cordova Zip 95670

TYPE OF PROJECT
Well Construction
Cathodic Protection ☐
Water Supply ☐
Monitoring ☒
Geotechnical Investigation
General ☐
Contamination ☐
Well Destruction ☐

PROPOSED WATER SUPPLY WELL USE
New Domestic ☐ Replacement Domestic ☐
Municipal ☐ Irrigation ☐
Industrial ☐ Other ____ ☐

DRILLING METHOD:
Mud Rotary ☐ Air Rotary ☐ Auger ☒
Cable ☐ Other ☐

DRILLER'S LICENSE NO. 717510 (C57)

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum Depth 19 ft.
Casing Diameter 2 in. Number MW-1
Surface Seal Depth 4 ft.

GEOTECHNICAL PROJECTS
Number of Borings ____ Maximum Depth ____ ft.
Hole Diameter ____ in.

ESTIMATED STARTING DATE November 15, 2000
ESTIMATED COMPLETION DATE November 15, 2000

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [signature] DATE 10/2/00

FOR OFFICE USE

PERMIT NUMBER W00-665
WELL NUMBER ____
APN ____

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A) GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources WELL COMPLETION REPORT.
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

(C) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

D. GEOTECHNICAL
Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cutting

E. CATHODIC
Fill hole above anode zone with concrete placed by trem

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

APPROVED [signature] DATE 10/30

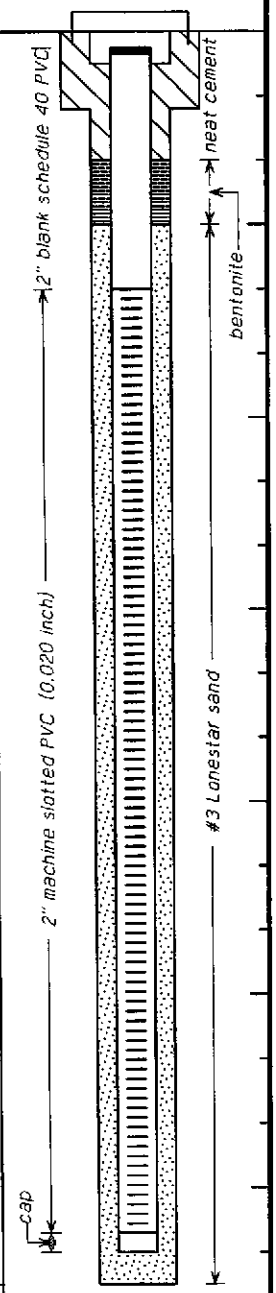
Gettler-Ryan, Inc.

Log of Boring MW-1

PROJECT: *Former Chevron Service Station No. 20-6127*	LOCATION: *2801-2337 Blanding Avenue, Alameda, CA*
GR PROJECT NO.: *346498.03*	CASING ELEVATION: *10.62 Ft. (MSL)*
DATE STARTED: *12/29/00*	WL (ft. bgs): *17* DATE: *12/29/00* TIME: *16:50*
DATE FINISHED: *12/29/00*	WL (ft. bgs): *8* DATE: *12/30/00* TIME: *11:00*
DRILLING METHOD: *8 in. Hollow Stem Auger*	TOTAL DEPTH: *19.5 feet*
DRILLING COMPANY: *Gregg Drilling*	GEOLOGIST: *Andrew Smith*

DEPTH (feet)	PID (ppm)	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GEOLOGIC DESCRIPTION
						Native material.
					CL	CLAY WITH SAND (CL) - very dark brown (7.5YR 2.5/2), moist, soft; 85% clay, 15% fine sand.
3						Trace of coarse gravel.
	57	MW-1-5				Concrete fragments at 4.5 feet.
6					SC	CLAYEY SAND (SC) - dark brown (7.5YR 3/2), moist, very loose; 75% fine to medium sand, 15% clay, 10% silt.
9	98	MW-1-10			SP	POORLY GRADED SAND (SP) - blueish gray (Gley 5B6/1), moist, very loose; 95% fine to medium sand, 5% silt.
12						
15	118	MW-1-15				Color changes to black (7.5YR, N 2/0) at 14.5 feet. Color changes to blueish gray (Gley 5B6/1) at 15 feet.
						Saturated at 17.5 feet.
18	109	MW-1-19				
						Bottom of boring at 19.5 feet bgs.
21						

WELL DIAGRAM



JOB NUMBER: *346498.03*

APPENDIX C

WELL DEVELOPMENT FORM

WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/ CHEVRON #206127
Facility Former SIGNAL OIL TEAM. Job#: 346498.02
Address: 2301-2334 BLANDING AVE Date: 1/23/01
City: ALAMEDA, CA Sampler: HAIG K.

Well ID MW-1 Well Condition: GOOD

Well Diameter 2 in. Hydrocarbon Thickness: ~~Ø~~ Ft. Amount Bailed (product/water): ~~Ø~~ (gal.)

Total Depth 18.67 ft.

Depth to Water 7.16 ft.

Volume Factor (VF)	2" = 0.17	3" = 0.38	4" = 0.66
	6" = 1.50	12" = 5.80	

11.51 x VF 0.17 = 1.95 x 3 (case volume) = Estimated Purge Volume: 19.5 (gal.)

Purge Equipment: Disposable Bailer; Bailer; (Stack); Suction; Grundfos; Other: _____

Sampling Equipment: (Disposable Bailer); Bailer; Pressure Bailer; Grab Sample; Other: _____

Starting Time: 10:43 Weather Conditions: RAIN
Sampling Time: 11:27 Water Color: CLOUDY Odor: _____
Purging Flow Rate: ≈ 3/4 gpm. Sediment Description: _____
Did well de-water? NO If yes; Time: _____ Volume: _____ (gal.)

Time	Volume (gal.)	pH	Conductivity µmhos/cm	Temperature °C	D.O. (mg/L)	ORP (mV)	Alkalinity (ppm)
10:45	2	7.91	1648	13.9			
10:51	6	7.44	1525	14.5			
10:57	10	7.59	1870	15.3			
11:04	15	7.52	1788	14.9			
11:09	18	7.48	1823	15.1			
11:12	20	7.51	1796	15.0			

LABORATORY INFORMATION

SAMPLE ID	(#) - CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	3 VOA	YES	HCL	SEQUOIA	G/BTEX/MTBE
	1 AMBER	"	N/A		TPH-D

COMMENTS: _____

APPENDIX D

SURVEYOR'S REPORT

Virgil Chavez Land Surveying
312 Georgia Street, Suite 225
Vallejo, California 94590-5907
(707) 553-2476 • Fax (707) 553-8698

January 29, 2001
Project No. 1904-15

Andrew Smith
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, CA 94568-2611

Subject: Monitoring Well Survey
Chevron Station No. 20-6127
3201 - 2337 Blanding Ave.
Alameda, CA

Dear Andrew:

This is to confirm that we have proceeded at your request to survey the new wells located at the above referenced location. The survey was completed on January 25, 2001. The benchmark used for the survey was a City of Alameda benchmark being a cut square at the centerline return, south corner of Oak and Blanding. The station and offset data are relative to face of building, beginning at the southeast corner. Measurements taken at approximate north side of top of box and top of casings were marked at location of measurements.
Benchmark Elev. = 8.236 feet, NGVD 29.

Well No.	Rim Elevation	TOC Elevation	Station	Offset
GWS - 10	10.98'	10.62'	2+12.53	54.41(RT)
SE Bldg. Cor.			0+00	0.00
NE Bldg. Cor.			1+61.37	0.00

Sincerely,

LICENSED LAND SURVEYOR
VIRGIL D. CHAVEZ
No. 6323
Exp. 12-31-02
STATE OF CALIFORNIA

Virgil D. Chavez, PLS 6323

APPENDIX E

CHEMICAL ANALYTICAL REPORTS AND CHAIN –OF-CUSTODY FORMS

Sequoia
Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

24 January, 2001

Andrew Smith
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Chevron
Sequoia Report: W101035

Enclosed are the results of analyses for samples received by the laboratory on 02-Jan-01 15:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
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FAX (925) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	24-Jan-01 11:30

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-1-5	W101035-01	Soil	29-Dec-00 16:30	02-Jan-01 15:55
MW-1-10	W101035-02	Soil	29-Dec-00 16:40	02-Jan-01 15:55
MW-1-15	W101035-03	Soil	29-Dec-00 16:45	02-Jan-01 15:55

Sequoia Analytical - Walnut Creek

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Charlie Westwater, Project Manager

Sequoia Analytical

404 N. Wiget Lane
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FAX (925) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Chevron Project Number: Chevron # 206127 Project Manager: Andrew Smith	**Reported:** 24-Jan-01 11:30

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

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-5 (W101035-01) Soil Sampled: 29-Dec-00 16:30 Received: 02-Jan-01 15:55									
Purgeable Hydrocarbons	ND	1.0	mg/kg	20	1A12003	12-Jan-01	12-Jan-01	EPA 8015/8020	
Benzene	ND	0.0050	"	"	"	"	"	"	
Toluene	ND	0.0050	"	"	"	"	"	"	
Ethylbenzene	ND	0.0050	"	"	"	"	"	"	
Xylenes (total)	**0.017**	0.0050	"	"	"	"	"	"	CF-01
Methyl tert-butyl ether	ND	0.050	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*95.0 %*	*40-140*		"	"	"	"	
MW-1-10 (W101035-02) Soil Sampled: 29-Dec-00 16:40 Received: 02-Jan-01 15:55									**P-04**
Purgeable Hydrocarbons	**320**	25	mg/kg	500	1A12003	12-Jan-01	12-Jan-01	EPA 8015/8020	
Benzene	**0.40**	0.13	"	"	"	"	"	"	
Toluene	**1.6**	0.13	"	"	"	"	"	"	
Ethylbenzene	**0.90**	0.13	"	"	"	"	"	"	
Xylenes (total)	**1.1**	0.13	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	1.2	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*%*	*40-140*		"	"	"	"	*S-01*
MW-1-15 (W101035-03) Soil Sampled: 29-Dec-00 16:45 Received: 02-Jan-01 15:55									**P-03**
Purgeable Hydrocarbons	ND	2.5	mg/kg	50	1A12003	12-Jan-01	14-Jan-01	EPA 8015/8020	
Benzene	**0.53**	0.013	"	"	"	"	"	"	
Toluene	**0.021**	0.013	"	"	"	"	"	"	
Ethylbenzene	**0.028**	0.013	"	"	"	"	"	"	
Xylenes (total)	**0.065**	0.013	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	0.12	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*98.3 %*	*40-140*		"	"	"	"	

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin 6747 Sierra Court Suite J Dublin CA, 94568	Project: Chevron Project Number: Chevron # 206127 Project Manager: Andrew Smith	**Reported:** 24-Jan-01 11:30

Diesel Hydrocarbons (C9-C24) by DHS LUFT

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-1-5 (W101035-01) Soil Sampled: 29-Dec-00 16:30 Received: 02-Jan-01 15:55									
Diesel Range Hydrocarbons	**30**	1.0	mg/kg	1	1A09004	09-Jan-01	11-Jan-01	DHS LUFT	D-12
Surrogate: n-Pentacosane		*262 %*		*50-150*	"	"	"	"	*S-04*
MW-1-10 (W101035-02) Soil Sampled: 29-Dec-00 16:40 Received: 02-Jan-01 15:55									
Diesel Range Hydrocarbons	**160**	5.0	mg/kg	5	1A09004	09-Jan-01	12-Jan-01	DHS LUFT	D-16
Surrogate: n-Pentacosane		*125 %*		*50-150*	"	"	"	"	
MW-1-15 (W101035-03) Soil Sampled: 29-Dec-00 16:45 Received: 02-Jan-01 15:55									
Diesel Range Hydrocarbons	ND	1.0	mg/kg	1	1A09004	09-Jan-01	10-Jan-01	DHS LUFT	
Surrogate: n-Pentacosane		*67.0 %*		*50-150*	"	"	"	"	

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	24-Jan-01 11:30

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

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A12003 - EPA 5030B [MeOH]										
Blank (1A12003-BLK1)				Prepared & Analyzed: 12-Jan-01						
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Methyl tert-butyl ether	ND	0.050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.604*		"	*0.600*		*101*	*40-140*			
LCS (1A12003-BS1)				Prepared & Analyzed: 12-Jan-01						
Benzene	0.714	0.0050	mg/kg	0.800		89.2	50-150			
Toluene	0.746	0.0050	"	0.800		93.2	50-150			
Ethylbenzene	0.796	0.0050	"	0.800		99.5	50-150			
Xylenes (total)	2.34	0.0050	"	2.40		97.5	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.646*		"	*0.600*		*108*	*40-140*			
Matrix Spike (1A12003-MS1)		**Source: W101035-01**		Prepared & Analyzed: 12-Jan-01						
Benzene	0.924	0.0050	mg/kg	0.800	ND	116	50-150			
Toluene	0.950	0.0050	"	0.800	ND	119	50-150			
Ethylbenzene	1.01	0.0050	"	0.800	ND	126	50-150			
Xylenes (total)	2.97	0.0050	"	2.40	0.017	123	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.580*		"	*0.600*		*96.7*	*40-140*			
Matrix Spike Dup (1A12003-MSD1)		**Source: W101035-01**		Prepared & Analyzed: 12-Jan-01						
Benzene	0.940	0.0050	mg/kg	0.800	ND	117	50-150	1.72	20	
Toluene	0.980	0.0050	"	0.800	ND	123	50-150	3.11	20	
Ethylbenzene	1.02	0.0050	"	0.800	ND	127	50-150	0.985	20	
Xylenes (total)	3.05	0.0050	"	2.40	0.017	126	50-150	2.66	20	
Surrogate: a,a,a-Trifluorotoluene	*0.582*		"	*0.600*		*97.0*	*40-140*			

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	24-Jan-01 11:30

Diesel Hydrocarbons (C9-C24) by DHS LUFT - Quality Control

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A09004 - EPA 3550A										
Blank (1A09004-BLK1)				Prepared & Analyzed: 09-Jan-01						
Diesel Range Hydrocarbons	ND	1.0	mg/kg							
Surrogate: n-Pentacosane	*0.822*		"	*1.11*		*74.1*	*50-150*			
LCS (1A09004-BS1)				Prepared: 09-Jan-01 Analyzed: 10-Jan-01						
Diesel Range Hydrocarbons	12.0	1.0	mg/kg	15.0		80.0	60-140			
Surrogate: n-Pentacosane	*0.978*		"	*1.11*		*88.1*	*50-150*			
LCS Dup (1A09004-BSD1)				Prepared: 09-Jan-01 Analyzed: 10-Jan-01						
Diesel Range Hydrocarbons	12.2	1.0	mg/kg	15.0		81.3	60-140	1.65	40	
Surrogate: n-Pentacosane	*0.967*		"	*1.11*		*87.1*	*50-150*			
Matrix Spike (1A09004-MS1)		**Source: W012671-06**		Prepared: 09-Jan-01 Analyzed: 10-Jan-01						
Diesel Range Hydrocarbons	11.8	1.0	mg/kg	15.0	ND	78.7	50-150			Q-02
Surrogate: n-Pentacosane	*0.900*		"	*1.11*		*81.1*	*50-150*			
Matrix Spike Dup (1A09004-MSD1)		**Source: W012671-06**		Prepared: 09-Jan-01 Analyzed: 10-Jan-01						
Diesel Range Hydrocarbons	12.6	1.0	mg/kg	15.0	ND	84.0	50-150	6.56	50	Q-02
Surrogate: n-Pentacosane	*0.978*		"	*1.11*		*88.1*	*50-150*			

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	24-Jan-01 11:30

Notes and Definitions

CF-01	Results between the primary and confirmation column varied by greater than 40% RPD.
D-12	Chromatogram Pattern: Unidentified Hydrocarbons > C16
D-16	Chromatogram Pattern: Diesel C9-C24 + Unidentified Hydrocarbons < C16
P-03	Chromatogram Pattern: Unidentified Hydrocarbons C6-C12
P-04	Chromatogram Pattern: Gasoline C6-C12 + Unidentified Hydrocarbons C6-C12
Q-02	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
S-04	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
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: ☐ Yes ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number #20127
Facility Address 2301-2337 Blanding Ave Alameda CA.
Consultant Project Number 34649.02
Consultant Name Gettler Ryan Inc.
Address 6747 Sierra Ct. Suite J Dublin CA
Project Contact (Name) Andrew Smith
(Phone) (925) 551-7444 (Fax Number) (925) 551-7888

Chevron Contact (Name) MR. Thomas Bauhs
(Phone) 925-842-8898
Laboratory Name Sequoia Analytical
Laboratory Release Number W101035
Samples Collected by (Name) Andrew Smith
Collection Date 12/29/00
Signature Andrew Smith

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	MTBE 8020					Remarks
MW-1-5	01A	1	S	D	1630		Yes	✓	✓							✓					
MW-1-10	02A	1	S	D	1640		↓	✓	✓							✓					
MW-1-15	03A	1	S	D	1645		↓	✓	✓							✓					
MW-1-19	Hold	1	S	D	1650		↓	—	—							—					Please Hold Sample MW-1-19, No test.

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Andrew Smith	GRI	1/2/00	Mark Kelly	Sequoia	1/2/01 1507
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Mark Kelly	Seq	1/2/01 1555			
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
			Mike Ignacio	1/2/01	1555

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COC-3.DWG/03 91/HCH

Sequoia
Analytical

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11 January, 2001

Andrew Smith
Gettler Ryan, Inc. - Dublin
6747 Sierra Court Suite J
Dublin, CA 94568

RE: Chevron
Sequoia Report: W101027

Enclosed are the results of analyses for samples received by the laboratory on 02-Jan-01 15:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Charlie Westwater
Project Manager

CA ELAP Certificate #1271

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	11-Jan-01 10:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp-1(A,B,C,D)	W101027-01	Soil	29-Dec-00 17:10	02-Jan-01 15:55

Charlie Westwater, Project Manager

Sequoia Analytical

404 N. Wiget Lane
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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	11-Jan-01 10:28

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

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp-1(A,B,C,D) (W101027-01) Soil	**Sampled: 29-Dec-00 17:10**		**Received: 02-Jan-01 15:55**						**P-01**
Purgeable Hydrocarbons	**390**	250	mg/kg	5000	1A09001	09-Jan-01	09-Jan-01	DHS LUFT	
Benzene	**3.6**	1.3	"	"	"	"	"	"	
Toluene	**3.6**	1.3	"	"	"	"	"	"	
Ethylbenzene	**3.4**	1.3	"	"	"	"	"	"	
Xylenes (total)	**4.4**	1.3	"	"	"	"	"	"	
Surrogate: a,a,a-Trifluorotoluene		*%*	*40-140*		*"*	*"*	*"*	*"*	*S-01*

Sequoia Analytical

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Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	11-Jan-01 10:28

Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp-1(A,B,C,D) (W101027-01) Soil	**Sampled: 29-Dec-00 17:10**		**Received: 02-Jan-01 15:55**						
Lead	**41**	1.0	mg/kg	1	1A04005	04-Jan-01	09-Jan-01	EPA 6010A	

Sequoia Analytical

404 N. Wiget Lane
Walnut Creek, CA 94598
(925) 988-9600
FAX (925) 988-9673
www.sequoialabs.com

Gettler Ryan, Inc. - Dublin	Project: Chevron	
6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	11-Jan-01 10:28

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A09001 - EPA 5030B [MeOH]										
Blank (1A09001-BLK1)				Prepared & Analyzed: 09-Jan-01						
Purgeable Hydrocarbons	ND	1.0	mg/kg							
Benzene	ND	0.0050	"							
Toluene	ND	0.0050	"							
Ethylbenzene	ND	0.0050	"							
Xylenes (total)	ND	0.0050	"							
Surrogate: a,a,a-Trifluorotoluene	*0.606*		"	*0.600*		*101*	*40-140*			
LCS (1A09001-BS1)				Prepared & Analyzed: 09-Jan-01						
Benzene	0.644	0.0050	mg/kg	0.800		80.5	50-150			
Toluene	0.678	0.0050	"	0.800		84.7	50-150			
Ethylbenzene	0.704	0.0050	"	0.800		88.0	50-150			
Xylenes (total)	2.10	0.0050	"	2.40		87.5	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.626*		"	*0.600*		*104*	*40-140*			
Matrix Spike (1A09001-MS1)		**Source: W101139-01**		Prepared & Analyzed: 09-Jan-01						
Benzene	0.790	0.0050	mg/kg	0.800	ND	98.8	50-150			
Toluene	0.804	0.0050	"	0.800	ND	101	50-150			
Ethylbenzene	0.858	0.0050	"	0.800	ND	107	50-150			
Xylenes (total)	2.52	0.0050	"	2.40	ND	105	50-150			
Surrogate: a,a,a-Trifluorotoluene	*0.582*		"	*0.600*		*97.0*	*40-140*			
Matrix Spike Dup (1A09001-MSD1)		**Source: W101139-01**		Prepared & Analyzed: 09-Jan-01						
Benzene	0.808	0.0050	mg/kg	0.800	ND	101	50-150	2.25	20	
Toluene	0.846	0.0050	"	0.800	ND	106	50-150	5.09	20	
Ethylbenzene	0.890	0.0050	"	0.800	ND	111	50-150	3.66	20	
Xylenes (total)	2.64	0.0050	"	2.40	ND	110	50-150	4.65	20	
Surrogate: a,a,a-Trifluorotoluene	*0.602*		"	*0.600*		*100*	*40-140*			

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6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
Dublin CA, 94568	Project Manager: Andrew Smith	11-Jan-01 10:28

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

Sequoia Analytical - Walnut Creek

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A04005 - EPA 3050B										
Blank (1A04005-BLK2)				Prepared & Analyzed: 08-Jan-01						
Lead	ND	1.0	mg/kg							
LCS (1A04005-BS2)				Prepared & Analyzed: 08-Jan-01						
Lead	50.5	1.0	mg/kg	50.0		101	80-120			
LCS Dup (1A04005-BSD2)				Prepared & Analyzed: 08-Jan-01						
Lead	49.9	1.0	mg/kg	50.0		99.8	80-120	1.20	20	
Matrix Spike (1A04005-MS1)		Source: W101027-01		Prepared: 04-Jan-01 Analyzed: 09-Jan-01						
Lead	93.6	1.0	mg/kg	50.0	41	105	80-120			
Matrix Spike Dup (1A04005-MSD1)		Source: W101027-01		Prepared: 04-Jan-01 Analyzed: 09-Jan-01						
Lead	86.3	1.0	mg/kg	50.0	41	90.6	80-120	8.12	20	

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6747 Sierra Court Suite J	Project Number: Chevron # 206127	**Reported:**
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Notes and Definitions

P-01	Chromatogram Pattern: Gasoline C6-C12
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
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: ☐ Yes ☐ No

Chain-of-Custody-Record

Chevron U.S.A. Inc.
P.O. BOX 5004
San Ramon, CA 94583
FAX (415)842-9591

Chevron Facility Number # 206127
Facility Address 2301 - 2337 Blanding Ave Alameda CA
Consultant Project Number 346478.02
Consultant Name Gettler Ryan Inc.
Address 6747 Sierra Ct. Suite J Dublin CA
Project Contact (Name) Andrew Smith
(Phone) (925) 551-7444 (Fax Number) 925-551-7888

Chevron Contact (Name) MR. Thomas Bauhs
(Phone) (925) 842-8898
Laboratory Name Sequoia Analytical
Laboratory Release Number 101027
Samples Collected by (Name) Andrew Smith
Collection Date 12/29/00
Signature

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil W = Water A = Air C = Charcoal	Type G = Grab C = Composite D = Discrete *	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)	Total Lead EPA (6010)					* Remarks
comp-1	01A-D	4	S	C	1710	none	Yes	X								X					1 - 4 PT Comp
(A,B,C,D)																					

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	GRI	1/2/00		Sequoia	1/4/01 1507
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
	Sequoia	1/2/01 1555			
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
			Mike Gross	1/2/01	1555

Turn Around Time (Circle Choice)
24 Hrs.
48 Hrs.
5 Days
10 Days
As Contracted

COC-3.DWG/03 91/HCH