7020 Koll Center Parkway, Suite 134, Pleasanton, CA 94566 (510) 426-5395 FAX (510) 426-5391

Compliance & Closure, Inc.

August 7, 1997

Alameda County Health Department
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, California 94502

Attention: Mr. Scott Seery

Subject: July 1997 Quarterly Monitoring Report
Former Jack Holland Sr. Oil Company
16301 East 14th Street, San Leandro, California
(CCI Project No. 12059-2)

Dear Mr. Seery:

In accordance with instructions from Ms. Barbara Holland, Compliance & Closure, Inc. is here by forwarding a copy of the July 1997 Quarterly Monitoring Report for the former Jack Holland Sr. Oil Company facility, located at 16301 East 14th Street, in the City of San Leandro, Alameda County, California.

CCI would appreciate your comments on this report. If you have any questions or require additional information, please call our office at (510) 426-5395.

Sincerely,
Compliance & Closure, Inc.

Gary R. Mulkey

Gary R. Mulkey, R.G. 5842

cc: Ms. Barbara Holland

97 AUG -8 PM 3:04

ENVIRONMENTAL PROTECTION

7020 Koll Center Parkway, Suite 134, Pleasanton, CA 94566 (510) 426-5395 FAX (510) 426-5391

Compliance & Closure, Inc.

July 31, 1997

Ms. Barbara Holland
20993 Foothill Boulevard
Hayward, California 94541

Subject: July 1997 Quarterly Report
Former Jack Holland Sr. Oil Company
16301 East 14th Street, San Leandro, California
(CCI Project No. 12059-2)

Dear Ms. Holland:

Compliance & Closure, Inc. (CCI) is pleased to present the July 1997 Quarterly Report for the sampling of the three groundwater monitoring wells, located at 16301 East 14th Street, in the City of San Leandro, Alameda County, California (Figure 1). CCI completed the well sampling in accordance with requirements of the Alameda County Health Care Services Agency. **The monitoring wells were sampled on July 22, 1997.**

Groundwater Sampling

Groundwater samples were collected from the three monitoring wells in accordance with CCI's Groundwater Sampling Protocol (Appendix A). The groundwater purged from each well and equipment rinse water were placed in a labeled, Department of Transportation-approved drum and left at the site pending laboratory results. A summary of the groundwater purge data is presented in Table 1.

Laboratory Analysis

North State Environmental (North State) of South San Francisco, California, a state-certified laboratory, analyzed the water samples. The water samples collected from each monitoring well (MW-1, MW-2 and MW-3) were analyzed for the presence of total petroleum hydrocarbons as gasoline (TPHG), benzene, toluene, ethylbenzene, and total xlyenes (BTEX), following EPA Methods 8015M and 8020. The water samples were also analyzed for total petroleum hydrocarbons as diesel (TPHD), following EPA Method 8015M and

3350B. In addition, monitoring well MW-3 was analyzed for total recoverable petroleum hydrocarbons (TRPH), following EPA Method 5520F.

Summary of Laboratory Results

Groundwater samples collected from the monitoring wells indicated two of the three wells to be contaminated with petroleum hydrocarbons. TPHG contamination ranged from below the laboratory reporting limit of 50 parts per billion (ppb) in well MW-3 to 180 ppb in well MW-1. Two of the three monitoring wells were reported to contain TPHD at concentrations ranging from "non-detect" in well MW-3 to 4,400 ppb TPHD in well MW-1. Benzene was only reported in MW-1, at a concentration of 1.1 ppb. Toluene and ethylbenzene were reported below the laboratory reporting limit of 0.5 ppb in monitoring wells MW-2 and MW-3. Total xylenes were reported at 2.6 ppb in MW-1, 1.5 ppb in MW-2 and below the laboratory reporting limit of 0.5 ppb in MW-3. Monitoring well MW-3 was also reported by the laboratory to be "non-detect" for TRPH. No samples in any of the other wells were analyzed for TRPH.

The results of the groundwater analysis are summarized in Table 2. The analytical reports from North State and chain-of-custody documents are attached in Appendix B.

Discussion

Groundwater measurements taken in the three monitoring wells on July 22, 1997 indicated that depth-to-groundwater ranged from approximately 7.55 to 8.28 feet below the top of the well casings. Groundwater contours indicate a groundwater flow direction in the vicinity of the three monitoring wells to be toward the northwest, at an approximate gradient of 0.01 feet per foot (Figure 2).

During the latest quarterly sample round, petroleum hydrocarbons were detected by the laboratory in two of the three onsite wells. During sampling of the wells, no sheen was noted on the surface of purge water collected from the three monitoring wells. Monitoring well MW-1, the down-gradient well, located on the northwest side of the site, was reported to contain 180 ppb TPHG and 4,400 ppb TPHD in the water. The TPHD concentrations in well MW-1 has increased in the last three months, from 500 ppb to 4,400 ppb. Diesel concentrations also increased in MW-2, from 60 ppb to 2,700 ppb. However, the over-all concentrations of petroleum hydrocarbons detected in water samples at the site have dropped significantly since the wells were first installed. No petroleum hydrocarbon contamination has been reported by the laboratory in well MW-2 over the past two sample rounds.

MW-3?

The next quarterly sample round is scheduled for October 1997.

A copy of this report should be forwarded to the following agencies in a timely manner:

Alameda County Health Care Services Agency
Hazardous Materials Division
1131 Harbor Bay Parkway
Alameda, California 94502
Attn: Mr. Scott Seery

Region Water Quality Control Board
2101 Webster Street
Suite 500
Oakland, California 94612
Attn: Mr. Kevin Graves

Limitations

The discussion presented in this report is based on the following:

1. The observations of the field personnel;

2. The results of the laboratory analyses performed by a state certified laboratory;

3. Our understanding of the regulations of the State of California and Alameda County.

It is possible that variations in the soil or groundwater conditions could exist beyond the points explored in this investigation. Also, changes in groundwater conditions could occur at some time in the future due to variations in rainfall, temperature, regional water usage, or other factors.

The services performed by CCI have been conducted in a manner consistent with the level of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the San Leandro area. No other warranty, express or implied, is made. Please note that contamination of soil and groundwater must be reported to the appropriate agencies in a timely manner.

CCI includes in this report chemical analytical data from a state-certified laboratory. CCI has been informed that the analyses are performed according to procedures suggested by the U.S. EPA and the

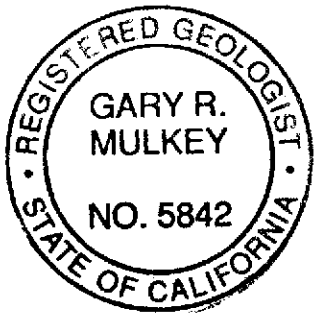
State of California. CCI is not responsible for laboratory errors in procedure or results reporting.

If you have any questions or require additional information, please call our office at (510) 426-5395.

Sincerely,
Compliance & Closure, Inc.

Gary R. Mulkey

Gary R. Mulkey, R.G. 5842



Former Jack Holland Sr.Oil Company
CCI Project No. 12059-2

July 30, 1997

TABLE 1

GROUNDWATER PURGE DATA

Sample No.	Date Sampled	Depth to Water (ft)	Well Depth (ft)	Purge Volume (gal)	Temp. (F)	Cond. (umhos/cm)	pH
MW-1	04/09/96	6.49	18.75	10	63.4	1827	7.25
	07/12/96	7.88	18.57	5	68.2	1385	6.90
	10/22/96	8.47	18.40	5	60	1388	6.8
	01/30/97	4.53	18.20	5	57.2	732	6.8
	04/04/97	7.14	18.20	5	63.9	1234	7.0
	07/22/97	7.55	18.20	5	67.8	1343	6.9
MW-2	04/09/96	6.54	21.53	10	60.5	1520	7.20
	07/12/96	8.06	21.00	5	69.0	760	6.95
	10/22/96	8.81	20.65	5	60	1035	6.8
	01/30/97	4.18	20.40	5	55.1	495	6.9
	04/04/97	7.16	20.33	5	63.8	736	6.9
	07/22/97	8.28	20.32	5	67.3	732	6.9
MW-3	04/09/96	6.61	22.90	10	63.2	1324	7.30
	07/12/96	7.83	21.58	5	69.6	922	7.10
	10/22/96	8.59	22.30	5	62	1151	6.9
	01/30/97	4.88	21.92	5	58.7	605	6.9
	04/04/97	7.13	21.84	5	64.1	917	6.8
	07/22/97	8.04	21.85	5	68.2	1024	6.8

ft	Feet below top of PVC casing
gal	Gallons
Temp.	Temperature
F	Degrees Fahrenheit
Cond.	Conductivity
unhos/cm	Micromhos per centimeter

Compliance & Closure, Inc.

Former Jack Holland Sr. Oil Company
CCI Project No. 12059-2

July 30, 1997

TABLE 2

WATER ANALYSIS DATA

Sample No.	Date Sampled	TPHG ug/kg	Benzene (ppb)	Toluene (ppb)	Ethyl Benzene (ppb)	Total Xylenes (ppb)	TPHD (ppb)	TRPH (ppb)	1,2-Dichloro benzene (ppb)
MW-1	04/09/96	33,000	[illegible]	83	22	91	9,700	N.R.	<1
	07/12/96	1,400	[illegible]	5.6	7.6	32	[illegible]	N.R.	N.R.
	10/22/96	2,600	[illegible]	8.9	2.1	6.6	[illegible]	N.R.	N.R.
	01/30/97	2,600	[illegible]	<0.5	<0.5	44	[illegible]	N.R.	N.R.
	04/04/97	2,700	[illegible]	8	10	25	[illegible]	N.R.	N.R.
	07/22/97	180	[illegible]	<0.5	1.3	2.6	[illegible]	N.R.	N.R.
MW-2	04/09/96	6,900	<0.5	5.1	4.8	160	8,900	N.R.	3.1
	07/12/96	480	<0.5	0.6	3.7	10	4,600	N.R.	N.R.
	10/22/96	7,300	<0.5	2.6	20	15	9,300	N.R.	N.R.
	01/30/97	<50	<0.5	<0.5	<0.5	<0.5	[illegible]	N.R.	N.R.
	04/04/97	63	<0.5	<0.5	2	<0.5	[illegible]	N.R.	N.R.
	07/22/97	70	<0.5	<0.5	<0.5	1.5	2,700	N.R.	N.R.
MW-3	04/09/96	<50	<0.5	<0.5	<0.5	<0.5	1,100	41,000	1.4
	07/12/96	<50	<0.5	<0.5	<0.5	<0.5	390*	N.R.	N.R.
	10/22/96	<50	<0.5	<0.5	<0.5	<0.5	4,700	1,100	N.R.
	01/30/97	<50	<0.5	<0.5	<0.5	<0.5	480	3	N.R.
	04/04/97	<50	<0.5	<0.5	<0.5	<0.5	<50	<500	N.R.
	07/22/97	<50	<0.5	<0.5	<0.5	<0.5	<50	<5000	N.R.
BB-1	04/09/96	<50	<0.5	0.5	<0.5	0.83	N.R.	N.R.	N.R.
	07/12/96	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	10/22/96	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	01/30/97	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	04/04/97	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
	07/22/97	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.

TRPH	Total Recoverable Petroleum Hydrocarbons
TPHD	Total Petroleum Hydrocarbons as Diesel
TPHG	Total Petroleum Hydrocarbons as Gasoline
ug/kg	Micrograms per kilogram - equivalent to parts per billion
<	Below laboratory detection limit
*	Pattern of Chromatogram resembles a whethered or degraded petroleum hydrocarbon

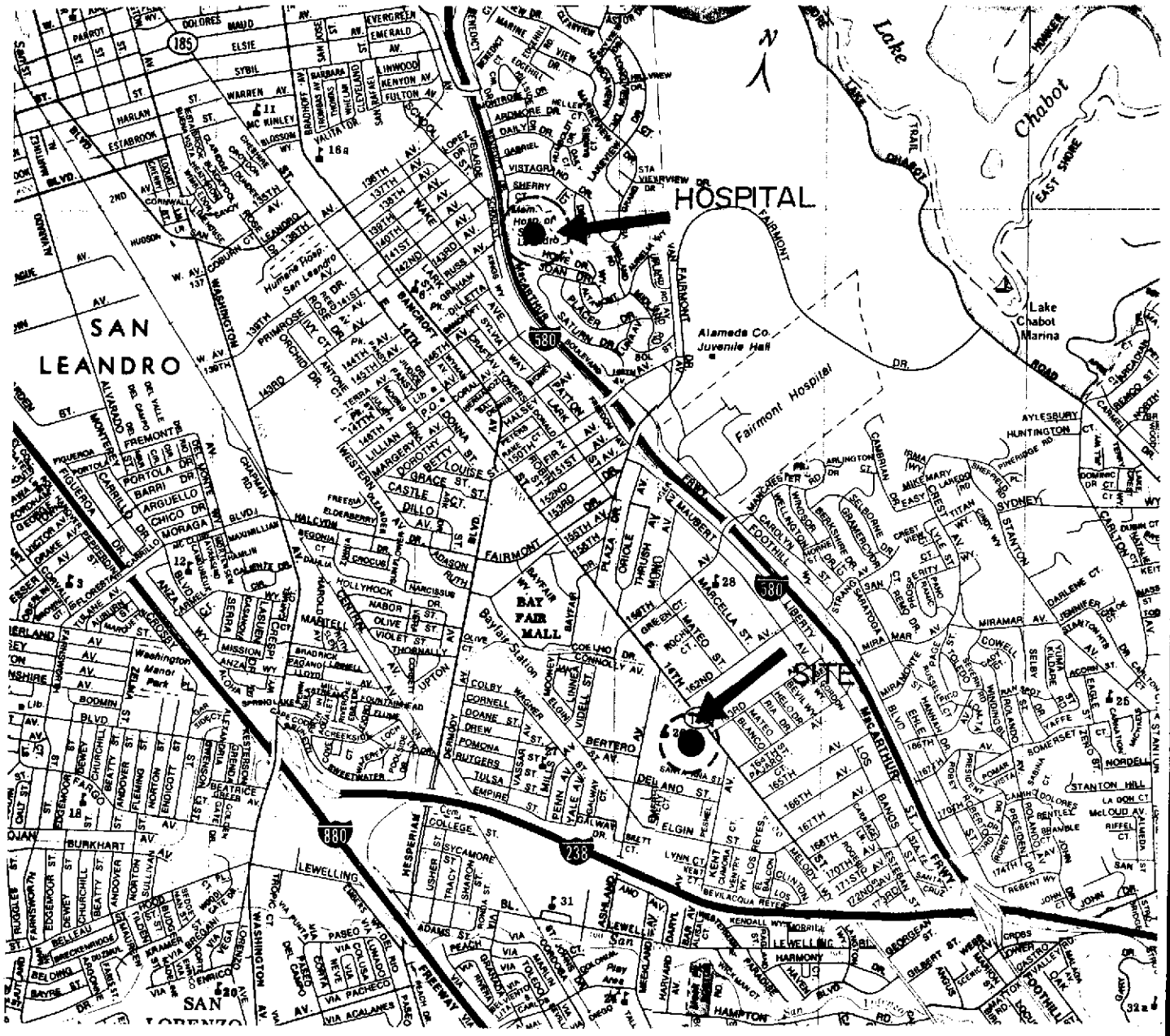
Current Department of Health Services Drinking Water Standards

Benzene	1ppb (MCL)
Toluene	100 ppb (AL)
Ethylbenzene	680 ppb (MCL)
Xylenes	1,750 ppb (MCL)

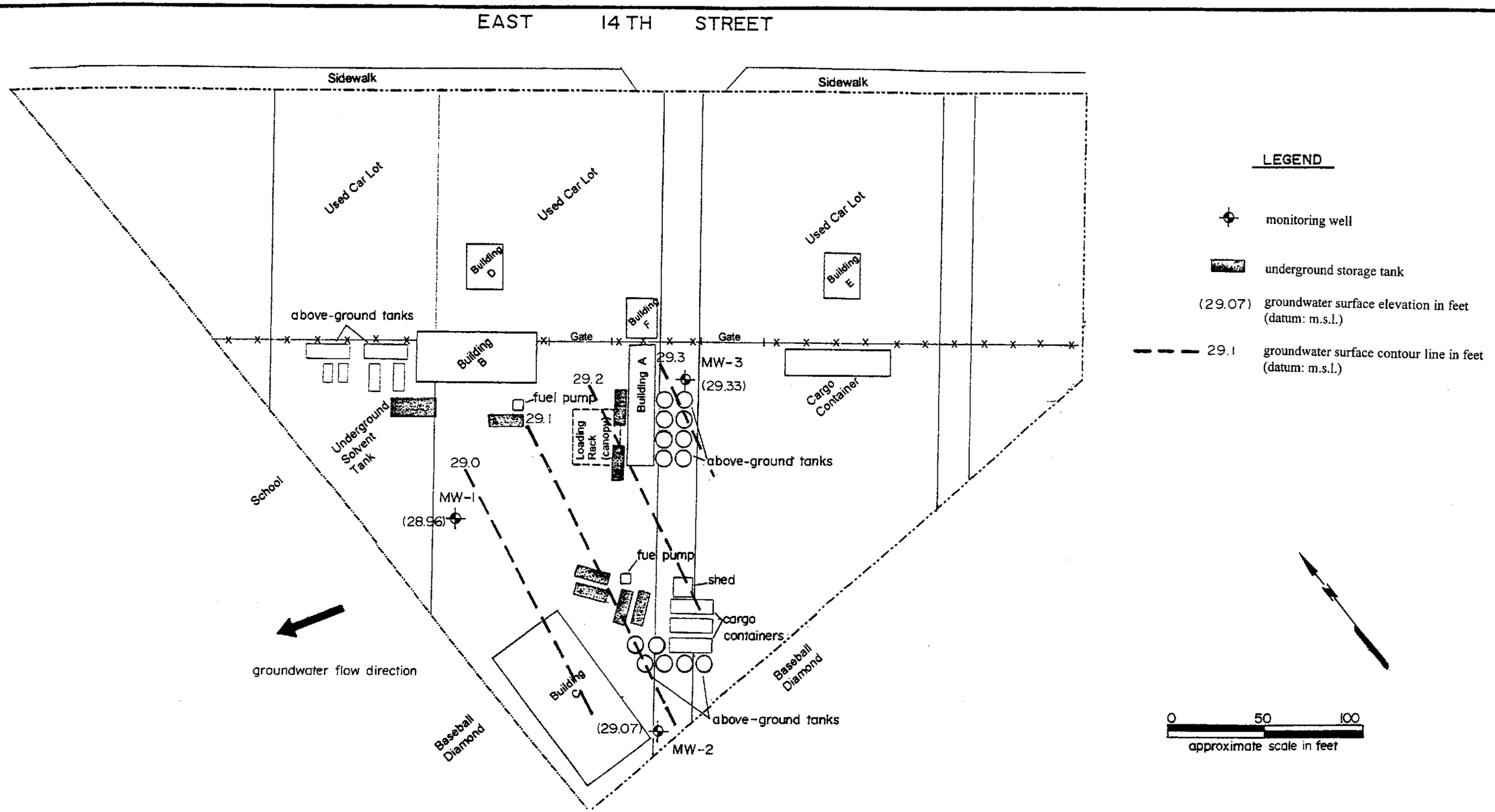
Note: Subject to change as reviewed by Department of Health Services

MCL: Maximum Contaminant Level
AL: Action Level

Compliance & Closure, Inc.



reviewed by:	HOSPITAL LOCATION MAP	Compliance & Closure, Inc.
approved by:	MEMORIAL HOSPITAL	
drawn by: GM	2800 BENEDICT DRIVE	
job no. 12059	SAN LEANDRO, CALIFORNIA	date: 11/14/95 drawing no. FIG. 1



Base: Cambria Environmental – locations are approximate

REVIEWED BY:	GROUNDWATER SURFACE CONTOUR MAP (07/22/97)	Compliance & Closure, Inc.
	FORMER JACK HOLLAND SR. OIL COMPANY	
APPROVED BY:	16301 EAST 14TH STREET	JOB #: 12059-2 / DRAWN BY: GM
	SAN LEANDRO, CALIFORNIA	DATE: 7/31/97 / DRAWING #: FIG. 2

G R O U N D W A T E R S A M P L I N G P R O T O C O L

Sampling of groundwater is performed by Compliance & Closure, Inc. sampling technicians. Summarized field sampling procedures are as follows:

1. Proceed to first well with clean and decontaminated equipment.

2. Measurements of liquid surface(s) in the well, and total depth of monitoring well. Note presence of silt accumulation.

3. Field check for presence of floating product; measure apparent thickness.

4. Purge well prior to collecting samples; purge volume (casing volumes) calculated prior to removal.

5. Monitor groundwater for temperature, pH, and specific conductance during purging. Allow well to recover.

6. Collect samples using Environmental Protection Agency (EPA) approved sample collection devices, i.e., teflon or stainless steel bailers or pumps.

7. Transfer samples into laboratory-supplied EPA-approved containers.

8. Label samples and log onto chain-of-custody form.

9. Store samples in a chilled ice chest for shipment to a state-certified analytical laboratory.

10. Decontaminate equipment prior to sampling next well.

Equipment Cleaning and Decontamination

All water samples are placed in precleaned laboratory-supplied bottles. Sample bottles and caps remain sealed until actual usage at the site. All equipment which comes in contact with the well or groundwater is thoroughly cleaned with trisodium phosphate (TSP) solution and rinsed with deionized or distilled water before each use at the site. This cleaning procedure is followed between each well sampled. Wells are sampled in approximate order of increasing contamination. If a teflon cord is used, the cord is cleaned. If a nylon or cotton cord is used, a new cord is used in each well. All equipment blanks are collected prior to sampling. The blanks are analyzed periodically to ensure proper cleaning procedures are used.

Water Level Measurements

Depth to groundwater is measured in each well using a sealed sampling tape or scaled electric sounder prior to purging or sampling. If the well is known or suspected of containing free-phase petroleum hydrocarbons, an optical interface probe is used to measure the hydrocarbon thickness and groundwater level. Measurements are collected and recorded to the nearest 0.01 foot. Each monitoring well's total depth will be measured; this will allow a relative judgment of well siltation to be made and need for redevelopment.

Bailer Sheen Check

If no measureable free-phase petroleum hydrocarbons are detected, a clear acrylic bailer is used to determine the presence of a sheen. Any observed film, as well as odor and color of the water is recorded.

Groundwater Sampling

Prior to groundwater sampling, each well is purged of "standing" groundwater. Either a bailer, hand pump, or submersible pump is used to purge the well. The amount of purging is dependent on the well yield. In a high yield formation, samples will be collected when normal field measurement, including temperature, pH, and specific conductance stabilize, provided a minimum of three well-casing volumes of water have been removed. Field measurements will be taken after purging each well volume. Physical parameter

measurements (temperature, pH, and specific conductance) are closely monitored throughout the well purging process and are used as indicators for assessing sufficient purging. The purging parameters are measured to observe stabilization to a range of values typical for that aquifer and well. Stable field parameters are recognized as indicative of groundwater aquifer chemistry entering the well. Specific conductance (conductivity) meters are read to the nearest ±10 umhos/cm and are calibrated daily, if possible. Temperature is read to the nearest 0.1 F. Calibration of physical parameter meters will follow manufacturer's specifications. Collected field data during purging activities will be entered on the Well Sampling Field Data Sheet.

In low yield formations, the well is purged such that the "standing" water is removed and the well is allowed to recharge. (Normal field measurements will be periodically recorded during the purging process). In situations where recovery to 80% of static water level is estimated, or observed to exceed a two hour duration, a sample will be collected when sufficient volume is available for a sample for each parameter. Attempts will be made so the well is not purged dry such that the recharge rate causes the formation water to cascade into the well.

In wells where free-phase hydrocarbons are detected, the free-phase portion will be bailed from the well and the estimated volume removed and recorded. A groundwater sample will be collected if bailing reduces the amount of free-phase hydrocarbons to the point where they are not present in the well. Well sampling will be conducted using one of the aforementioned methods depending on the formation yield. However, if free-phase hydrocarbons persis throughout bailing, then a groundwater sample will not be collected.

Volatile organic groundwater samples are collected so that air passage through the sample does not occur or is minimal (to prevent volatiles from being stripped from the samples): sample bottles are filled by slowly running the sample down the side of the bottle until there is a positive convex meniscus over the neck of the bottle; the teflon side of the septum (in cap) is positioned against the meniscus, and the cap screwed on tightly; the sample is inverted and the bottle lightly tapped. The absence of an air bubble indicates a successful seal; if a bubble is evident, the cap is removed, more sample is added, and the bottle is resealed.

Chain-of-Custody

Groundwater sample containers are labeled with a unique sample number, location, and date of collection. All samples are logged into a chain-of-custody form and placed in a chilled ice chest for shipment to a laboratory certified by the State of California Department of Health Services.

Sample Storage

Groundwater samples collected in the field are stored in an ice chest cooled to 4 C while in transit to the office or analytical laboratory. Samples are stored in a refrigerator overnight and during weekends and holidays. The refrigerator is set to 4 C and is locked with access controlled by a designated sample custodian.

Quality Assurance/Quality Control Objectives

The sampling and analysis procedures employed by Compliance & Closure, Inc. for groundwater sampling and monitoring follow quality assurance/quality control (QA/QC) guidelines. Quality assurance objectives have been established to develop and implement procedures for obtaining and evaluating water quality and field data in an accurate, precise, and complete manner. In this way, sampling procedures and field measurements provide information that is comparable and representative of actual field conditions. Quality control (QC) is maintained by site-specific field protocols and requiring the analytical laboratory to perform internal and external QC checks. The goal is to provide data that are accurate, precise, complete, comparable, and representative. The definitions as developed by overseeing federal, state, and local agency guidance documents for accuracy, precision, completeness, comparability, and representativeness are:

- **Accuracy** - the degree of agreement of a measurement with an accepted reference or true value.
- **Precision** - a measure of agreement among individual measurements under similar conditions. Usually expressed in terms of the standard deviation.
- **Completeness** - the amount of valid data obtained from a measurement system compared to the amount that was expected to meet the project data goals.
- **Comparability** - express the confidence with which one data set can be compared to another.
- **Representativeness** - a sample or group of samples that reflect the characteristics of the media at the sampling point. It also includes how well the sampling point represents the actual parameter variations which are under study.

Laboratory and field handling procedures of samples are monitored by including QC samples for analysis with every submitted sample lot from a project site. QC samples may include any combination of the following:

- **Trip Blanks:** Used for purgeable organic compounds only; QC samples are collected in 40 milliliter (ml) sample vials filled in the analytical laboratory with organic-free water. Trip blanks are sent to the project site, and travel with project site samples. Trip blanks are **not** opened, and are returned from a project site with the project site samples for analysis.

- **Field Blank:** Prepared in the field using organic-free water. These QC samples accompany project site samples to the laboratory and are analyzed for specific chemical parameters unique to the project site where they were prepared.

- **Duplicates:** Duplicated samples are collected "second samples" from a selected well and project site. They are collected as either split samples or second-run samples collected from the same well.

- **Equipment Blank:** Periodic QC samples collected from field equipment rinseate to verify decontamination procedures.

The number and types of QC samples are determined and analyzed on a project-specific basis.

Shallow Groundwater Survey

A shallow groundwater survey employes reconnaissance field sampling and chemical analysis for rapid plume mapping. Occasionally, a state-certified laboratory subcontractor may be used. The subcontractor would sample for analysis at locations marked by the CCI field geologist. The thin-diameter probes from which groundwater is collected are advanced to the water bearing stratum, sample is withdrawn to the surface, and analyzed immediately thereafter. Probe holes are backfilled with a grout slurry or as the local permitting agency requires. The shallow survey contractor will supply sampling, purging, and field chemical analysis to CCI in their report. CCI considers this type of shallow probe mapping (together with shallow groundwater sampling) to be a reconnaissance technique only.

Superior Analytical Laboratory

COMPLIANCE & CLOSURE, INC.
7020 KOLL CENTER PKWY #134
PLEASANTON, CA 94566

Date: July 29, 1997

Attn: GARY MULKEY

Laboratory Number : 22995

Project Number/Name : 12059-2
Facility/Site : JACK HALLAND OIL CO.
SAN LEANDRO, CA

Dear GARY MULKEY:

Attached is Superior Analytical Laboratory report for the samples received on July 22, 1997. This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety. Following the cover letter is the Case Narrative detailing sample receipt and analysis. Also enclosed is a copy of the original Chain-of-Custody record confirming receipt of samples.

Please note that any unused portion of the sample will be discarded after August 21, 1997, unless you have requested otherwise.

We appreciate the opportunity to be of service to you. If you have any questions, please contact our Laboratory at (510) 313-0850.

Sincerely,

Afsaneh Salimpour
Project Manager

Superior
Analytical Laboratory

CASE NARRATIVE

COMPLIANCE & CLOSURE, INC.
Project Number/Name: 12059-2
Laboratory Number: 22995

Sample Receipt

Three water samples were received by Superior Analytical Laboratory on July 22, 1997.

Cooler temperature was 5.2°C

No abnormalities were noted with sample recieving.

Sample Analysis

The samples were analyzed for methods , 5520, 8015M and 8020.

GASBTXE:

P - There is a greater than 25% difference for detected concentration between the two GC columns.

TPH:

I - The surrogate recovery was high due to the presence of interfering compounds in the sample.

Customer Service: (800) 521-6109 • Laboratory: (510) 313-0850 • Facsimile: (510) 229-0916
Post Office Box 2648 • 835 Arnold Drive • Suite #106 • Martinez, California 94553
1555 Burke Street • Suite A • San Francisco, California 94124

Superior
Analytical Laboratory

COMPLIANCE & CLOSURE, INC.
Attn: GARY MULKEY

Project 12059-2
Reported on July 29, 1997

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Chronology

Laboratory Number 22995

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-1	07/22/97	07/22/97	07/23/97	07/23/97	DG232.37	01
MW-2	07/22/97	07/22/97	07/23/97	07/23/97	DG232.37	02
MW-3	07/22/97	07/22/97	07/23/97	07/23/97	DG232.37	03

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
DG232.37-01	Method Blank	MB	Water	07/23/97	07/23/97
DG232.37-02	Laboratory Spike	LS	Water	07/23/97	07/23/97
DG232.37-03	Laboratory Spike Duplicate	LSD	Water	07/23/97	07/23/97
DG232.37-04	PBCL-H2O	MS 71164-10	Water	07/23/97	07/23/97
DG232.37-05	PBCL-H2O	MSD 71164-10	Water	07/23/97	07/23/97

Superior Analytical Laboratory

COMPLIANCE & CLOSURE, INC.
Attn: GARY MULKEY

Project 12059-2
Reported on July 28, 1997

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22995-01	MW-1	Water	2.0	-
22995-02	MW-2	Water	2.0	-
22995-03	MW-3	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22995-01 Conc. ug/L	RL	22995-02 Conc. ug/L	RL	22995-03 Conc. ug/L	RL
Diesel:	4400	100	2700	100	ND	50
Unknown Hydrocarbons	NA		NA		380**	50
>> Surrogate Recoveries (%) <<						
Tetracosane	164I		136		115	

Superior
Analytical Laboratory

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 22995
Method Blank(s)

	DG231.02-01 Conc. ug/L	RL
Diesel:	ND	50
Unknown Hydrocarbons	ND	50
>> Surrogate Recoveries (%) <<		
Tetracosane	113	

Superior
Analytical Laboratory

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Quality Assurance and Control Data

Laboratory Number: 22995

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
DG231.02 02 / 03 - Laboratory Control Spikes						
Diesel:		1000	680/620	68/62	55-150	9
>> Surrogate Recoveries (%) <<						
Tetracosane				110/108	65-130	

I - The surrogate recovery was high due to the presence of interfering compounds in the sample.

** -Heavier Hydrocarbons were found in the range of diesel, but do not resemble a diesel fingerprint. Possible motor oil.

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Superior Analytical Laboratory

COMPLIANCE & CLOSURE, INC.
Attn: GARY MULKEY

Project 12059-2
Reported on July 29, 1997

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22995-01	MW-1	Water	1.0	-
22995-02	MW-2	Water	1.0	-
22995-03	MW-3	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22995-01 Conc. ug/L	RL	22995-02 Conc. ug/L	RL	22995-03 Conc. ug/L	RL
Gasoline Range	180	50	70	50	ND	50
Benzene	1.1	0.5	ND	0.5	ND	0.5
Toluene	ND	0.5	ND	0.5	ND	0.5
Ethyl Benzene	1.3	0.5	ND	0.5	ND	0.5
Total Xylenes	2.6	0.5	1.5P	0.5	ND	0.5
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)	94		93		89	

Superior
Analytical Laboratory

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 22995
Method Blank(s)

	DG232.37-01 Conc. ug/L	RL
Gasoline Range	ND	50
Benzene	ND	0.5
Toluene	ND	0.5
Ethyl Benzene	ND	0.5
Total Xylenes	ND	0.5
>> Surrogate Recoveries (%) <<		
Trifluorotoluene (SS)	88	

Superior Analytical Laboratory

Gasoline Range Petroleum Hydrocarbons and BTXE
by EPA SW-846 5030/8015M/8020
Gasoline Range quantitated as all compounds from C6-C10

Quality Assurance and Control Data

Laboratory Number: 22995

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L)						
DG232.37 02 / 03 - Laboratory Control Spikes						
Gasoline Range		2000	2100/2200	105/110	65-135	5
Benzene		20	19/18	95/90	65-135	5
Toluene		20	19/19	95/95	65-135	0
Ethyl Benzene		20	19/19	95/95	65-135	0
Total Xylenes		60	59/57	98/95	65-135	3
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				93/91	50-150	
For Water Matrix (ug/L)						
DG232.37 04 / 05 - Sample Spiked: 71164 - 10						
Gasoline Range	520	2000	2400/2300	94/89	65-135	5
Benzene	0.54	20	19/19	92/92	65-135	0
Toluene	22	20	47/47	125/125	65-135	0
Ethyl Benzene	5.1	20	23/23	90/90	65-135	0
Total Xylenes	53	60	110/110	95/95	65-135	0
>> Surrogate Recoveries (%) <<						
Trifluorotoluene (SS)				92/91	50-150	

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Narrative:

P - There is a greater than 25% difference for detected concentration between the two GC columns.

Definitions:

ND	=	Not Detected			
RL	=	Reporting Limit			
NA	=	Not Analysed			
RPD	=	Relative Percent Difference			
ug/L	=	parts per billion (ppb)	ug/kg	=	parts per billion (ppb)
mg/L	=	parts per million (ppm)	mg/kg	=	parts per million (ppm)

Superior Analytical Laboratory

COMPLIANCE & CLOSURE, INC.
Attn: GARY MULKEY

Project 12059-2
Reported on July 29, 1997

Total Petroleum Oil and Grease by Standard Method 5520F

Chronology

Laboratory Number 22995

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-3	07/22/97	07/22/97	07/29/97	07/29/97	DG291.34	03

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
DG291.34-01	Method Blank	MB	Water	07/29/97	07/29/97
DG291.34-02	Laboratory Spike	LS	Water	07/29/97	07/29/97
DG291.34-03	Laboratory Spike Duplicate	LSD	Water	07/29/97	07/29/97

Superior Analytical Laboratory

COMPLIANCE & CLOSURE, INC.
Attn: GARY MULKEY

Project 12059-2
Reported on July 29, 1997

Total Petroleum Oil and Grease by Standard Method 5520F

LAB ID	Sample ID	Matrix	Dil.Factor	Moisture
22995-03	MW-3	Water	1.0	-

R E S U L T S O F A N A L Y S I S

Compound	22995-03 Conc. RL ug/L	
Oil and Grease	ND	5000

Superior Analytical Laboratory

Total Petroleum Oil and Grease by Standard Method 5520F

Quality Assurance and Control Data

Laboratory Number: 22995

Compound	Sample conc.	SPK Level	SPK Result	Recovery %	Limits %	RPD %
For Water Matrix (ug/L) DG291.34 02 / 03 - Laboratory Control Spikes						
Oil and Grease		30000	30000/32000	100/107	50-110	7

Definitions:
ND = Not Detected
RL = Reporting Limit
NA = Not Analysed
RPD = Relative Percent Difference
ug/L = parts per billion (ppb)
mg/L = parts per million (ppm)
ug/kg = parts per billion (ppb)
mg/kg = parts per million (ppm)

Superior
Analytical Laboratory

COMPLIANCE & CLOSURE, INC.
Attn: GARY MULKEY

Project 12059-2
Reported on July 28, 1997

Total Extractable Petroleum Hydrocarbons
by EPA SW-846 Method 8015M

Chronology

Laboratory Number 22995

Sample ID	Sampled	Received	Extract.	Analyzed	QC Batch	LAB #
MW-1	07/22/97	07/22/97	07/23/97	07/26/97	DG231.02	01
MW-2	07/22/97	07/22/97	07/23/97	07/26/97	DG231.02	02
MW-3	07/22/97	07/22/97	07/23/97	07/26/97	DG231.02	03

QC Samples

QC Batch #	QC Sample ID	TypeRef.	Matrix	Extract.	Analyzed
DG231.02-01	Method Blank	MB	Water	07/23/97	07/23/97
DG231.02-02	Laboratory Spike	LS	Water	07/23/97	07/23/97
DG231.02-03	Laboratory Spike Duplicate	LSD	Water	07/23/97	07/23/97

Superior Analytical Laboratory

Total Petroleum Oil and Grease by Standard Method 5520F

Quality Assurance and Control Data

Laboratory Number: 22995
Method Blank(s)

	DG291.34-01 Conc. ug/L	RL
Oil and Grease	ND	5000

Compliance & Closure, Inc.

CHAIN OF CUSTODY RECORD AND ANALYSIS REQUEST

22945

PROJECT NO.	PROJECT NAME/SITE	P.O #:
12059-2	Jack Holland Oil Co. San Leandro, CA	

SAMPLERS (SIGN) Gary R. Mulkey (PRINT) Gary R. Mulkey

ANALYSIS REQUESTED

Samples kept @ 4°C.

SAMPLE IDENTIFICATION	DATE	TIME	COMP	GRAB	PRES. USED	ICED	NO. CONTAINERS	SAMPLE TYPE	BTEX (602/8020)	TPHg (8015)	TPHd (8015)	TOG 418.1/5520	601/8010	624/8240	625/8270	REMARKS
MW-1	7/22/97	10:40		X	HCL/NO	X	4	water	X	X	X					
MW-2	7/22/97	11:15		X	HCL/NO	X	4	water	X	X	X					
MW-3	7/22/97	11:50		X	HCL/NO	X	5	water	X	X	X	X				

Please Initial:
Samples Stored in ice.
Appropriate containers
Samples preserved
VOA's without headspace
Comments:

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	LABORATORY:	PLEASE SEND RESULTS TO:
Gary R. Mulkey	7/22/97			Superior Analytical Martinez, CA	COMPLIANCE & CLOSURE 7020 KOLL CENTER SUITE 134 PLEASANTON, CA 94566 (510) 426-5395
RELINQUISHED BY	DATE	TIME	RECEIVED BY	REQUESTED TURNAROUND TIME: Normal	
RELINQUISHED BY	DATE	TIME	RECEIVED BY		
RELINQUISHED BY	DATE 7/23/97	TIME 12:35	RECEIVED BY LABORATORY	RECEIPT CONDITION	PROJECT MANAGER: GARY R. MULKEY

COMPLIANCE & CLOSURE WELL DEVELOPMENT LOG

Hollmd oil co -
July 97 qtly Rpt.

JOB # 12059-2 **DATE:** 7-22-97

NAME: Hollmd oil **TIME:** 10:45

WELL #	VOLUME	TD	DTW	Ph	TEMP	COND	COMMENTS
MW-1	5	18.20	7.55	6.9	67.8	1343	clear to slightly cldy, mod product odor
MW-2	5	20.32	8.28	6.9	67.3	732	slightly cldy, no odor
MW-3	5	24.85	8.04	6.8	68.2	1024	clear to slightly cldy, no odor.

pH w/ #4 & #10 buffer

EQUIPMENT CALIBRATION DATE: 7-22-97

SERIAL No. 9209