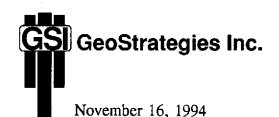


MONITORING WELL INSTALLATION REPORT

Unocal Service Station No. 5325 3220 Lakeshore Avenue Oakland, California

4814702-18

November 16, 1994



Mr. David DeWitt Unocal Corporation P.O. Box 5155 San Ramon, California 94583

SUBJECT:

MONITORING WELL INSTALLATION REPORT

Unocal Service Station No. 5325 3220 Lakeshore Avenue

Oakland, California

Mr. DeWitt:

This Monitoring Well Installation Report describes field activities performed by GeoStrategies Inc. (GSI) on June 2, 1994, during installation of three groundwater monitoring wells at the above referenced site (Figure 1). The scope of work described herein was presented in the GSI Report No. 781402-17, Work Plan, dated March 22, 1994. This work was performed at the request of Unocal Corporation (Unocal).

This work was undertaken in response to an Alameda County Health Care Services Agency (ACHSA) request (letter to Unocal dated January 8, 1993) that Unocal initiate additional measures to delineate the extent of previously detected hydrocarbons in groundwater beneath the site. Field work was performed to comply with State of California Water Resources Control Board's Leaking Underground Storage Tanks (LUFT) Field Manual, Regional Water Quality Control Board's (RWQCB) Tri-Regional Board Staff Recommendations for Preliminary Investigation and Evaluation of Underground Tank Sites, and ACHSA guidelines. GSI Field Methods and Procedures are presented in Appendix A.

BACKGROUND

Site Description

The site is currently occupied by an operating service station situated at the intersection of Lakeshore Avenue and Lake Park Avenue in the City of Oakland (Vicinity Map, Figure 1). Site facilities consist of two 12,000-gallon gasoline and one 550-gallon waste-oil underground storage tanks (UST), three dispenser islands, and a station building with three service bays. Location of these facilities and other pertinent site features are shown on the Site Plan, Figure 2. Local topography slopes gently to west-northwest.

4814702-18

Regional Geology

The site is situated on estuarine deposits northeast of the Lake Merritt basin and southwest of the Piedmont Hills. These deposits consist primarily of unconsolidated, water-saturated, dark plastic clay and silty clay rich in organic material. Locally, lenses and stringers of well-sorted silt and sand as well as beds of peat are observed (Helley and others, 1979).

Previous Work

In May 1990, GSI drilled three exploratory soil borings (U-A through U-C) adjacent to the UST complex to depths ranging between 10 and 12.5 feet below ground surface (bgs). Total Petroleum Hydrocarbons as Gasoline (TPH-Gasoline) were detected in three soil samples from each boring collected from depths of between 4.5 and 12.5 feet bgs at concentrations ranging between 2 and 7,500 parts per million (ppm). Location of these borings are shown on the Site Plan, Figure 2.

Two 10,000-gallon gasoline underground storage tanks (USTs) and one 550-gallon waste-oil UST were replaced in June, 1990 (Plate 2). Approximately 850 cubic yards of soil were excavated during UST replacement activities. Analytical results indicated that soil samples collected from the limits of the excavation did not contain concentration of TPH-Gasoline above the detection limit of 1 ppm except for one sample. This sample, collected from the southern sidewall, contained 12 ppm of TPH-Gasoline. Four of the six soil samples collected from the product line trenches contained concentrations of TPH-Gasoline ranging from 12 to 60 ppm. These four samples were collected adjacent to each of the dispenser islands.

Groundwater monitoring wells U-1, U-2, and U-3 were installed by GSI in September 1990. Soil samples collected from borings U-1 and U-2 at depths of 6.5 and 6.0 feet bgs, respectively, contained TPH-Gasoline at concentrations 110 and 480 ppm, respectively. Groundwater samples collected from monitoring wells U-1 and U-2 contained TPH-Gasoline at concentrations of 690 and 780 parts per billion (ppb), respectively. Benzene concentrations in these samples were 38 and 27 ppb, respectively. TPH-Gasoline and benzene were not detected in the groundwater sample from monitoring well U-3. Location of these groundwater monitoring wells are shown on Site Plan, Figure 2.

Quarterly monitoring of groundwater monitoring wells began in the fourth quarter of 1990. Historical depth-to-water levels in the wells have ranged from approximately 8 to 12 feet bgs. The groundwater flow direction has ranged from southeast to west-southwest at calculated hydraulic gradients of between 0.002 and 0.02. Historical chemical concentrations of TPH-Gasoline in groundwater samples from Wells U-1 and U-2 have ranged between 140 and 34,000 ppb. Benzene concentrations in samples from these wells ranged between 1 and

2,400 ppb. TPH-Gasoline was detected in groundwater samples from Well U-3 once in August, 1993, at a concentration of 210 ppb.

PRESENT FIELD ACTIVITIES

Field work was performed in accordance with the GSI Site Safety Plan. Underground Service Alert (USA) was notified prior to drilling activities. Groundwater monitoring well permits were obtained from Zone 7 Water Agency and an encroachment and metered parking space permits were obtained from the City of Oakland. The field procedures used for this scope of work are included in Appendix A.

Soil Borings and Groundwater Monitoring Wells

Three exploratory soil borings (U-4, U-5, and U-6) were drilled on June 2, 1994, using a truck-mounted hollow-stem auger drilling rig with 8-inch and 10-inch diameter hollow-stem augers. Drilling was performed by Gregg Drilling of Pacheco, California (License No. C57-485165). Borings U-4, U-5, and U-6 were drilled to total depths of approximately 25.0 feet, 21.5 feet, and 24.5 feet bgs, respectively. Soil samples were collected from the exploratory soil borings at five-foot intervals. A GSI geologist observed the drilling and prepared a log for each boring (Appendix B). Soil generated during drilling activities were placed on and covered with plastic sheeting at the site pending disposal.

Monitoring wells U-4, U-5, and U-6 were installed to depths of 20.0, 20.0, and 24.0 feet bgs, respectively. The onsite wells U-4 and U-5 were constructed using 4-inch diameter Schedule 40 PVC casing and 0.02-inch machine-slotted well screen. The offsite well U-6 was constructed using 2-inch diameter Schedule 40 PVC casing and 0.02-inch machine-slotted well screen. The location of these wells are shown on Figure 2. Groundwater was first encountered during drilling at depths between 6.25 and 10 feet bgs. Water-levels stabilized after well installation at depths between 8.8 and 19.2 feet bgs. Well construction details are presented with the logs of borings in Appendix B.

Well Survey and Development

All site monitoring wells were surveyed to Mean Sea Level (MSL) by Virgil Chavez Land Surveying (California licensed Land Surveyor #6323) located in Vallejo, California. Measurements were recorded from the top of the well box and the top of the casing. Well survey data are presented in Appendix C.

The monitoring wells were developed by Gettler-Ryan Inc. (G-R) of Dublin, California on June 15, 1994. Wells U-4 and U-5 dewatered during development. Groundwater was discharge into properly labeled steel drums and stored onsite pending disposal. Well development field data sheets are presented in Appendix D.

Groundwater Sampling

Groundwater samples for each groundwater monitoring well were collected by MPDS Services, Inc. (MPDS) of Concord, California on June 22, 1994. Quarterly monitoring and sampling data are reported separately by MPDS in Quarterly Data Report dated July 21, 1994.

SOIL AND WATER DISPOSAL

Soils generated from drilling activities were stockpiled onsite and sampled according to GSI Field Methods and Procedures (Appendix A). Pending approval, these soils will be transported to an appropriate disposal facility.

Water generated during well development was temporarily stored onsite in properly labeled 55-gallon drums. At the request of Unocal, the purge water and drums were removed from the site by Armour Petroleum of Vacaville, California.

RESULTS

Geology

Soil encountered beneath and near the subject site during the drilling activities consists of clay, silt, sand, and gravel to depths of approximately 25 feet bgs. Sand fill and silt were primarily observed in the vadose zone at depths ranging from 6 to 10 feet bgs. Sand and silty sand soils underlie the silt and sand fill at depths from 6 to 21 feet bgs and comprise the water-bearing zone beneath the site. This water-bearing zone is underlain by silt and clay to the total depth explored of 25 feet bgs. Each boring was terminated in clay or silt, which appear to be laterally continuous beneath the site.

Soil Analytical Data

During this investigation a total of four soil samples from the borings were submitted for chemical analysis. One soil sample each from borings U-5 and U-6, and two samples from boring U-4 were analyzed for TPH-Gasoline according to EPA Method 8015 (Modified) and for Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX) according to EPA Method 8020. Four soil samples from the drill cuttings were submitted to the laboratory for compositing

into one sample before analyzing for TPH-Gasoline, BTEX, and soluble lead. Analyses were performed by Sequoia Analytical (Sequoia), a California State-certified (DHS #1210) environmental laboratory located in Redwood City, California.

TPH-Gasoline and benzene were not detected in soil samples collected from boring U-4 at depths of approximately 4 and 9.5 feet bgs and from boring U-6 at a depth of approximately 5.5 feet bgs. TPH-Gasoline and benzene were detected in the soil sample from boring U-5 at approximately 6 feet bgs at concentrations of 400 and 1.9 parts per million (ppm), respectively. Samples from the drill cuttings contained TPH-Gasoline, benzene, and soluble lead at concentrations of 590, 3.2, and 0.34 ppm, respectively. Soil sample chemical analytical data are summarized in Table 1. Copies of the soil chemical analytical report and Chain-of-Custody form are presented in Appendix E.

Groundwater Analytical Data

The second quarter groundwater monitoring and sampling event performed by MPDS of Concord, California indicates that groundwater monitoring wells U-2 and U-5 contain detectable concentrations of TPH-Gasoline and benzene (MPDS, July 21, 1994). Well U-2 contained 31,000 ppb of TPH-Gasoline and 2,200 ppb of benzene; well U-5 contained 210 ppb of TPH-Gasoline and 7.1 ppb of benzene. Well U-1 contained 200 ppb of TPH-Gasoline, however, benzene was not detected above the reporting limit of 0.5 ppb. Wells U-3 and U-4 did not contain detectable concentrations of TPH-Gasoline and BTEX.

CONCLUSIONS

Based on the environmental investigations performed at the site the following conclusions are presented:

- Soil containing petroleum hydrocarbons exist near borings U-1, U-2, and U-5, near each of the dispenser islands, and near the southern sidewall at the limit of the UST excavation.
- At this time groundwater appears to be delineated to the north, south, and east of the former UST complex.

Please call if you should have questions regarding this project.

No. 5577

Sincerely,

GeoStrategies Inc.,

Stephen J. Carter Project Geologist

RG 5577

Greg A. Gurss Project Manager

Table 1

Soil Analytical Data

Figure 1

Vicinity Map

Figure 2

Site Plan

Appendix A. GSI Field Methods and Procedures

Appendix B. Logs of Borings and Well Construction Details

Appendix C. Well Survey Data

Appendix D. Gettler-Ryan Inc. Field Data Sheets

Appendix E. Soil Chemical Analytical Reports and Chain-of-Custody Form

Reference Cited

- E.J. Helley, K.R. Lajoie, W.E. Spangle, and M.L. Blair, 1979, Flatland Deposits of the San Francisco Bay Region, California their geology and engineering properties and their importance to comprehensive planning, U.S. Geological Survey Professional Paper 943 pp.
- GeoStrategies Inc., Report No. 7814-5, Monitoring Well Installation Report, December 19, 1990.
- MPDS Services Incorporated, Report No. MPDS-UN5325-03, Quarterly Data Report, July 21, 1994.

TABLE 1

SOIL ANALYTICAL DATA

Unocal Service Station No. 5325 3220 Lakeshore Avenue Oakland, California

SAMPLE LD	SAMPLE DEPTH (FEET)	SAMPLE DATE	TPH-G (PPM)	BENZENE (PPM)	TOLUENE (PPM)	ETHYLBENZENE (PPM)	XYLENES (PPM)	STLC LEAD (PPM)
U-4-4.0	4.0	02-Jun-94	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	NA
U-4-9.5	9.5	02-Jun-94	< 1.0	<0,0050	<0.0050	<0.0050	<0.0050	NA
U-5-6.0	6.0	02-Jun-94	400	1,9	12	9.9	43	NA
U-6-5,5	5.5	02-Jun-94	< 1.0	<0.0050	0.0090	<0.0050	0,17	NA
US-1-A-D		02√Jun-94	590	3.2	8.6	11	47	0.34

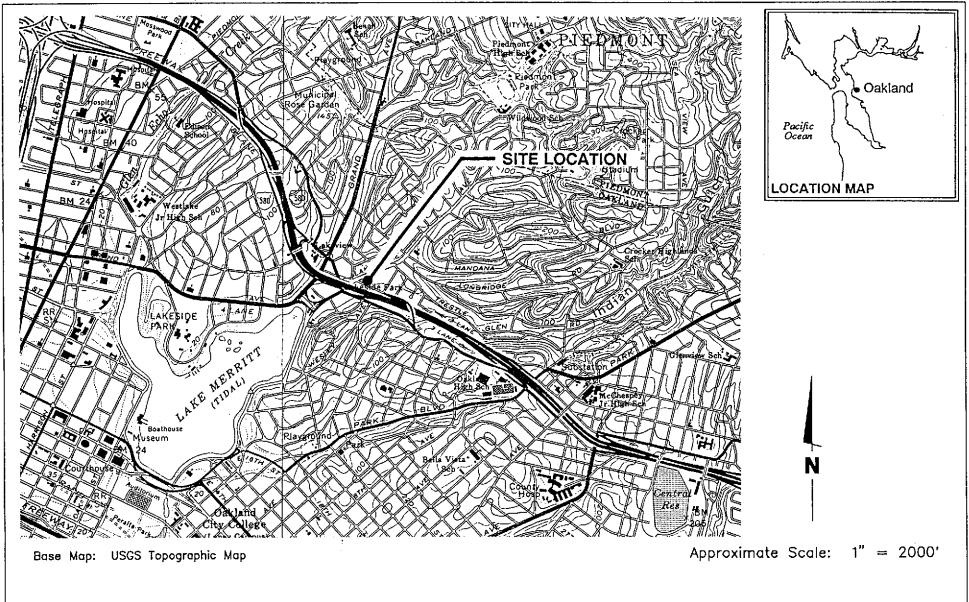
TPH-G = Total Petroleum Hydrocarbons as Gasoline.

PPM = Parts Per Million.

STLC = Soluble Threshold Limit Concentration.

NA = Not Analyzed.

Notes: 1. All data shown as <x are reported as ND (none detected).



JOB NUMBER

7814

GeoStrategies Inc.

REVIEWED BY RG/CEG

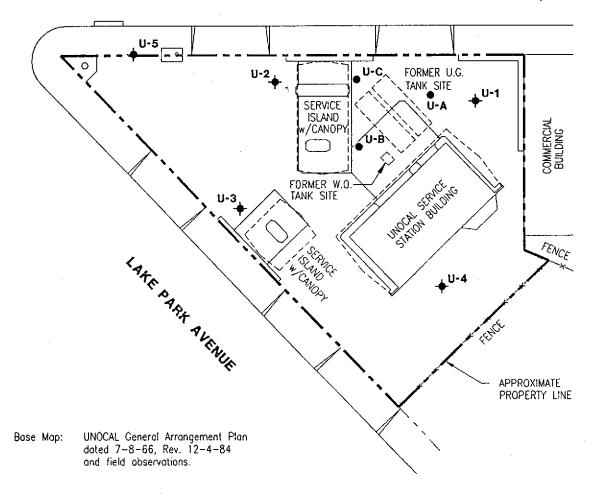
Vicinity Map
UNOCAL Service Station #5325 3220 Lakeshore Avenue

Oakland, California

DATE 6/90 REVISED DATE

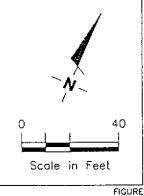
PLATE

LAKESHORE AVENUE



EXPLANATION

- Groundwater monitoring well
- Soil boring



GeoStrategies Inc.

SITE PLAN UNOCAL Service Station #5325 3220 Lakeshore Avenue Oakland, California

REVISED DATE

DATE 7/94

JOB NUMBER REVIEWED BY 781402

GEOSTRATEGIES INC. FIELD METHODS AND PROCEDURES

Site Safety Plan

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

Collection of Soil Samples

Exploratory soil borings are drilled by a California-licensed well driller. A GSI geologist is present to observe the drilling, collect soil samples for description, physical testing, and chemical analysis, and prepare a log of the exploratory soil boring. Soil samples are collected from the exploratory soil boring with a split-barrel 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 on:

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

Field Screening of Soil Samples

A PID is used to perform head-space analysis in the field for the presence of organic vapors from the soil sample. This test procedure involves removing soil from the tip of the sampling device or sample liner into a clean glass jar, and immediately covering the jar with aluminum foil secured under a ring-type threaded lid. After approximately twenty minutes, the foil is pierced and the atmosphere within the jar tested using a PID. Head-space screening results are recorded on the boring log. Head-space screening procedures are performed and results recorded as reconnaissance data. GSI 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 extends from the total well depth to a point above the groundwater. An appropriately-sized sorted sand is placed in the annular adjacent to the entire screened interval. A bentonite 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

Each wells is alternately surged with a bailer, then purged to remove accumulated sediments. Development continues until the water in each well runs clear and well parameters (temperature, pH, and conductivity) have stabilized. After development the wells are sampled by Unocal's monitoring and sampling contractor (MPDS Services, Incorporated).

Storing and Sampling of Drill Cuttings

Drill cuttings are stockpiled on plastic sheeting. Stockpile samples are collected on the basis of one composite sample per 50 cubic yards of soil. Each composite stockpile sample is composed of 4 discrete sample tubes, composited in the laboratory prior to analysis. Locations of each discrete stockpile sample are chosen arbitrarily.

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.

	MAJOR DIVI	SIONS		TYPICAL NAMES
ive		CLEAN GRAVELS WITH LITTLE	GW	WELL GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
). 200 SIE	GRAVELS	OR NO FINES	GP	POORLY GRADED GRAVELS WITH OR WITHOUT SAND, LITTLE OR NO FINES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	COARSE FRACTION IS LARGER THAN NO. 4 SIEVE SIZE	GRAVELS WITH	GM	SILTY GRAVELS, SILTY GRAVELS WITH SAND
GRAINE		OVER 15% FINES	GC	CLAYEY GRAVELS, CLAYEY GRAVELS WITH SAND
OARSE.		CLEAN SANDS WITH LITTLE	sw	WELL GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
C THAN!	SANDS MORE THAN HALF	OF NO FINES	SP	POORLY GRADED SANDS WITH OR WITHOUT GRAVEL, LITTLE OR NO FINES
MOF	COARSE FRACTION IS SMALLER THAN NO. 4 SIEVE SIZE	SANDS WITH	SM	SILTY SANDS WITH OR WITHOUT GRAVEL
	-	OVER 15% FINES	sc	CLAYEY SANDS WITH OR WITHOUT GRAVEL
SIEVE			ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTS WITH SANDS AND GRAVELS
JLS N NO. 200	SILTS AN LIQUID LIMIT	D CLAYS 50% OR LESS	CL	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY CLAYS WITH SANDS AND GRAVELS, LEAN CLAYS
INED SO			OL	ORGANIC SILTS OR CLAYS OF LOW PLASTICITY
VE-GRAI			мн	INORGANIC SILTS, MICACEOUS OR DIATOMACIOUS, FINE SANDY OR SILTY SOILS, ELASTIC SILTS
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE		D CLAYS EATER THAN 50%	СН	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
MORE			ОН	ORGANIC SILTS OR CLAYS OF MEDIUM TO HIGH PLASTICITY
	HIGHLY ORG	SANIC SOILS	PT	PEAT AND OTHER HIGHLY ORGANIC SOILS

LL	- Liquid Limit (%)
PI	- Plastic Index (%)
PID	- Volatile Vapors in ppm
MA	- Particle Size Analysis
2.5 YR 6/2	 Soil Color according to Munsell Soil Color Charts (1975 Edition)
5 GY 5/2	- GSA Rock Color Chart

No Soil Sample Recovered
 Undisturbed Sample
 Bulk or Classification Sample
 First Encountered Ground Water Level
 Piezometric Ground Water Level

Penetration - Sample drive hammer weight - 140 pounds falling 30 inches. Blows required to drive sampler 1 foot are indicated on the logs



GeoStrategies Inc.

Unified Soil Classification - ASTM D 2488-85 and Key to Test Data

G	S	Ge	eoStrat	eç	jies	, Inc	•	Log of Boring U-4
PRO	JECT:	UNC	CAL STAT	ΙΟN	/ #53	25		LOCATION: 3220 Lakeshore Avenue, Oakland, CA.
GSI	PROJE	CT N	0.: <i>4814</i>	.702	2			CASING ELEVATION: 11.15 MSL
<u> </u>	E STA							WL (ft. bgs): 10 DATE: 6/2/94 TIME: 07:46
DAT	E FINI	SHE	D: <i>6/2/9</i>	4				WL (ft. bgs): 19.2 DATE: 6/2/94 TIME: 14:25
DRI	LING	METH	IOD: <i>10 in</i>				uger	TOTAL DEPTH: 25 Feet
DRI	LING	COMP		gg	Drillin	g Co.	· · · · · · · · · · · · · · · · · · ·	GEOLOGIST: R. Mallory
OEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GE	OLOGIC DESCRIPTION
				-		:	PAVEMENT	
5-	0	11	U-4-4.0			ML.	SANDY SIŁT (ML 3/2), stiff, mediu to coarse sand, s Stiff at 3.5 feet.	
10-	0	44	U-4-9.5		The state of the s	SM	decrease sand t	To olive brown (2.5YR 4/4), o 5% at 8.5 feet. 1) - yellowish brown (10Y 5/4), 1, 65% medium to fine sand, 35% silt. H GRAVEL (ML) - light olive brown low plasticity, moist, 60% silt, 25% and, 15% gravel, black spherical
15-	0	39	U-4-15.0			ML	(2.5Y 5/4), hard	H GRAVEL (ML) - light olive brown low plasticity, moist, 60% silt, 25% and, 15% gravel, black spherical
20-	0	26	U-4-20.0				🗜 decrease sand t	to brownish yellow (IOYR 6/8), o 10%, decrease gravel to 0%, pale) caliche deposits at 18.5 feet.
25-	0	22	U-4-25.0				COLOR CHANGE	to pale olive (5Y 6/3) at 23.5 feet.
			in a particular	-				at 25 feet. 6/2/94 to equivalent standard penetration
30-								
35-								_

JOB NUMBER: 4814.702

Ğ	S	Ge	eoStra	teg	gies,	Inc	•	Log of Borin	g U-5
PRO	JECT:	UNC	OCAL STAT	TOI	V #53:	25		LOCATION: 3220 Lakeshore Avend	ue, Oakland, CA.
			0.: 4814					CASING ELEVATION: 6.98 MSL	
DAT	E STA	RTEC): 6/2/94	1				WL (ft. bgs): 6.25 DATE: 6/2/94	TIME: 11:32
DAT	E FINI	SHE	D: 6/2/9	4				WL (ft. bgs): 10.6 DATE: 6/2/94	TIME: 14:00
DRI	LING	METH	IOD: <i>10 in</i>), H	ollow S	Stem A	uger	TOTAL DEPTH: 21.5 Feet	
DRI	LING	COMP	ANY: Gre	gg	Drillin	g Co.		GEOLOGIST: R. Mallory	
DEPTH feet	PIO (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GE	OLOGIC DESCRIPTION	WELL DIAGRAM
5-	568	15	U-5-6.0	-		SP ML SP	100% medium sand	e gray (5YR 4/2), loose, damp, d, brick fragments (fill). k greenish gray (5GY 4/1), stiff, , moist, 90% silt, 10% fine sand,	
10-	110	4	U-5-11.5			ML/CL	dense, saturated SILTY CLAY (ML (10YR 3/2), medi	k greenish dray (5GY 4/I), medium l, 95% sand, 5% silt, /CL) - very dark grayish brown um stiff, high plasticity, saturated, lt, rootholes, roots.	4" machine slotted PVC
15-	0	15	U-5-16.5			CL	CLAY (CL) – ver stiff, medium plas rootholes, roots.	y dark grayish brown (10YR 3/2), sticity, saturated, 60% clay, 30% silt,	
20-	0	10	U-5-21.5				CHANGE to light	nd to 15% at 20 feet. COLOR olive brown (2.5Y 5/4) at 21 feet.	K YK L Dentonite
25-			1.000.11.000.000				_	at 21.5 feet. 6/2/94 to equivalent standard penetration	
30-								÷	
35- JOB	NUME	BER:	4814.70	 - -					Page I of I

G	S	Ge	eoStrat	teç	gies	, Inc		Log of Borin	g U-6
PRO	JECT:	UNC	CAL STAT	TIO	V #53	325		LOCATION: 3220 Lakeshore Avenu	ie, Oakland, CA.
GSI	PROJE	CT N	0.: 4814	.70	2			CASING ELEVATION: 7.14 MSL	
DAT	E STA	RTEC	: 6/2/94	1	-		· · · · · - · · · · · · · · · ·	WL (ft. bgs): 7 DATE: 6/2/94	TIME: 04:35
	E FINI			-				WL (ft. bgs): 8.8 DATE: 6/2/94	TIME: 14:05
<u> </u>			IOD: 8 in.	Но	llow S	Stem Ad	iaer	TOTAL DEPTH: 24.5 Feet	
						ng Co.	-G	GEOLOGIST: R. Mallory	· · · · · · · · · · · · · · · · · · ·
				<u> </u>		Ĭ			
OEPTH feet	PID (ppm)	BLOWS/FT. *	SAMPLE NUMBER	SAMPLE INT.	GRAPHIC LOG	SOIL CLASS	GE	OLOGIC DESCRIPTION	WELL DIAGRAM
P P	<u>a</u>	<u></u>	<u>v</u>	S	9	S			THE THE
- - - 5-	0		U-6-5.5	-		SM	PAVEMENT SILTY SAND (SM	1) - dark brown (10YR 3/2), medium	≥" blank Pyc
-	Ŭ	11	0 0 0.0	7	Ш	ML	dense, damp, 803 trace brick fragn	% medium sand, 15% silt, 5% gravel.	
-		"			$\{ $	ML	¥		
	0	11	U-6-8.0			SM	4/1), stiff, low pla sand, 5% clay.	(ML) – dark greenish gray (66Y asticity, saturated, 70% silt, 25% fine	
10-	0	5	U-6-10.0	4			CLAY (CH) – ver medium stiff, high silt, trace organi	y dark gray (10YR 3/1), soft to plasticity, saturated, 90% clay, 10%	
- 15—	0	88	U-6-15.0			СН	SILTY SAND (SM loose, saturated, COLOR CHANGE (medium to corase	1) — dark greenish gray (56Y 4/1), 70% fine to medium sand, 30% silt. to dark yellowish brown (10YR 4/4), e sand, decreasing silt at 15 feet.	2" machine slotted PVC (0.02 inch)
20-	0	30	U-6-20.5			GW-GC	GRAVEL WITH CL grayish brown (2	AY AND SAND (GW-GC) – dark 2.5Y 4/2), dense, saturated, 85% avel, 25% fine to coarse sand, 10%	
25-	0	44	U-6-24.5			CL/ML		CL/ML) - greenish gray (5G 5/1), /	The second of th
-					- - - - -		fine to medium sa Bottom of boring	at 24.5 feet. 6/2/94 to equivalent standard penetration	
30-				-					-
35-				_			1		-
	NUMF	JER:	4814.70	 2		1			Page 1 of 1

Virgil Chavez Land Surveying

1418 Lassen Street Vallejo, California 94591 707.553.2476

> July 12, 1994 Project No. 1104-11

> > JUL 1 4 1994

Robert Mallory GeoStrategies, Inc. 6747 Sierra Ct., Suite G Dublin, Ca. 94568

Subject: Monitoring Well Survey 3220 Lakeshore Avenue

Oakland, Ca.

Dear Robert:

This is to confirm that we have proceeded at your request to survey the ground water monitoring wells located at the above referenced location. The survey was performed on June 10. Our findings are shown in the table below. The benchmark used for the survey was a City of Oakland benchmark, a cut square in the top of curb, at the northeasterly corner of Walker and Cheney Ave.

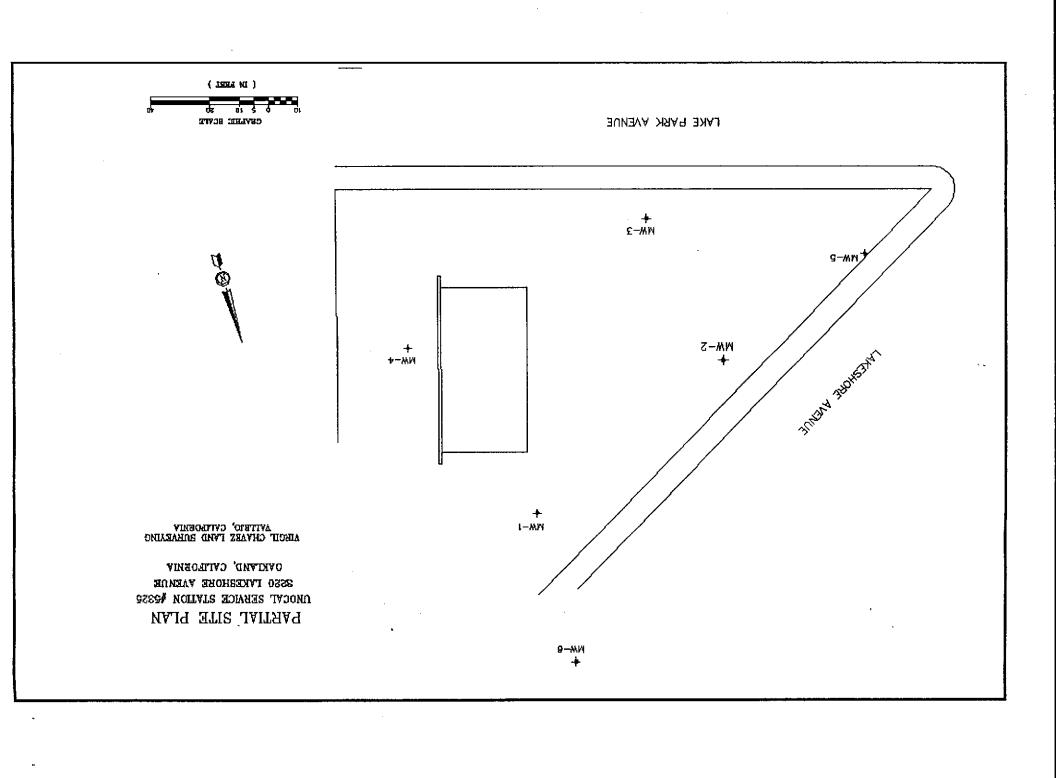
Benchmark Elevation = 9.055 feet, City datum; add 3.00 feet to U.S.G.S. datum.

Monitoring We	11 No.	Rim Elevation	Top of Casing Elevation
U - 1		8.88′	8.46′
U - 2		8.04′	7.62′
U - 3		11.26′	10.98′
U - 4		11.33′	11.15'
U ~ 5		7.40′	6.98′
U - 6		NO RIM	. 7.14′

No. 6323
Exp. 12 11-94

Sincerely yours,

Virgil D. Chavez, P.L.S. 6323 Virgil Chavez Land Surveying



WELL DEVELOPMENT FORM

		Page	_/ or
(to be filled out in offi	ice)		
Client UNOCAL S	ss# <u>5325</u>	#	7814.02
Name POBERT MALLORY	Location_	3020 CAKESHORE,	OVE., OAKLAND
Well#	Screened	Interval 5-20	Depth 20/
Aquifer Material 5/67	Y SAND	Installation Dat	e <u>6/\$/99</u>
Drilling Method How	STEM AUGER	Borehole Diamete	r
Comments regarding well :			
		0.01.	
(to be filled out in the	field)	Name $F(C)$	
Date_ G-15-94	Developme	ent Method Sursk	Purse -
Total Depth 20'	- Depth to liqu	id <u>/0.05</u> = Water	Column 970
Product thickness 9.95 Water Column x Diamet			gals
Purge Start	Stop	R	ategpm
Total gallons removed	Clarity Char Cha	Development stor	0
			RIU 07/

WELL DEVELOPMENT FORM

		Pa	age	_ of <u></u>
(to be filled out in office)				_
Client UNOCA SS#	5325	J	ob#	or
Name ROBERT MALLONY	Location_ 322	20 CAKE	ESHORE AVE	E., OAKLAND
Well#	Screened Into	erval	4,5-20	_ Depth_ 70/
Aguifer Material SOND +	5/47 I	nstallati	on Date	6/31/94
Drilling Method Howow STEM	nuser B	orehole D	lameter	10" (4" CASING)
Comments regarding well insta				
**************************************	_ 		12 Plni	/
(to be filled out in the fiel Date $6-15-94$	d) N	ame	Save	Purce
Date 6-15-47	Development	Method	24.70	.2.8es
Total Depth 19.5' - Dep	th to liquid_	6.6.K =	WaterColum	in/2 300
Product thickness	<u></u>			· ·
<u>1).98</u> x <u>,66</u> Water Column Diameter (i	x	x 0.0	408 =	gals
Purge Start	Stop		Rate	gpm
Gallons Q Q ISS3 Q ICC ICC ICC ICC ICC ICC ICC	Muddy Muddy Muddy Muddy Muddy eloudy 177,00 (+	Developmentime)	6.95 6.95 6.98 6.98 6.96	Drums
	-			

WELL DEVELOPMENT FORM

(to be fille	d out in office	•)		:	,	
Client Woo	SS#	5325		Job#		
Name Robert	- MALLONY	Location	3220 LAK	ESHONE AV	E, OAKLAI	<u>vo</u>
Woll# 23	u-6	Screened :	Interval	5-24	Depth	24'
Acuifer Mate	rial	FN. GENJEL	Installat	ion Date	6/8/44	<i>'</i>
Drilling Met	hod Hollow STEN	AUGER &	Borehole	Diameter_	8 (NI CASING)
	yarding well ins	•				e ^m te
•						
Date	ed out in the f	. Developme	nt Method_	JUVILLE	1 400	7
Total Depth	23.6	Depth to liqu	id_7110	= WaterCo	lumn 163	
Product this	× 617	x 2.8	x d	0408 =	28:	gals
Water Column Purge Start	Diameter 5524	Stop	•	Rat	egr	m
					1550	
25 20 25 30 35 90 40 45	Time 5,25 5,30 5,33 \ 6,33 \ 5,34 \ 5,47 5,47 5,49 5,15 \ 6,04	Clarity Ony Maddy Clandy Clandy	Temp. (21.7) (22.7) (22.7) (23.7) (23.7) (23.7) (23.7) (23.7) (23.7) (23.7) (23.7)	2.05 7.76 7.29 7.33 7.19 7.31 7.31	1/28C 1/28C 1/35 1/35 1/37 1/37 1/37 1/37 1/37 1/37 1/37 1/37	Vity
Total gallon Depth to lie	quid Z	At 7:00	_(time)			
Odor of wate	e: ·	<u> </u>	Water di	<u>,</u>	B 044	\$
Comments	Low pr	eduev-		7,	EVA0***	See No.
			4:			



680 Chesapeake Drive 1900 Bates Avenue, Suite L. Concord, CA 94520 819 Striker Avenue, Suite 8 Sacramento, CA 95834

Redwood City, CA 94063

(510) 686-9600 (916) 921-9600

(415) 364-9600 . ____FAX_(415) 364-9233 FAX (510) 686-9689 FAX (916) 921-0100

JUN 16 1004

Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Dublin, CA 94568

Attention: Robert Mallory

Client Project ID: Sample Matrix:

7814.02, Unocal 5325

Soil

Analysis Method: EPA 5030/8015 Mod./8020

First Sample #: 4F23401 Sampled:

Jun 2, 1994

Received:

Jun 3, 1994

Reported: Jun 10, 1994

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 4F23401 U-4-4.0	Sample I.D. 4F23402 U-4-9.5	Sample I.D. 4F23403 U-5-6.0	Sample I.D. 4F23404 U-6-5.5	
Purgeable Hydrocarbons	1.0	N.D.	N.D.	400	N.D.	
Benzene	0.0050	N.D.	N.D.	1.9	N.D.	
Toluene	0.0050	N.D.	N.D.	12	0.0090	
Ethyl Benzene	0.0050	N.D.	N.D.	9.9	N.D.	
Total Xylenes	0.0050	N.D.	N.D.	43	0.17	
Chromatogram Pai	ttern:			Gas	Gas	

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	25	1.0
Date Analyzed:	6/6/94	6/7/94	6/7/94	6/7/94
Instrument Identification:	GCHP-6	GCHP-6	GCHP-6	GCHP-6
Surrogate Recovery, %: (QC Limits = 70-130%)	106	87	89	99

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard. Analytes reported as N.D. were not detected above the stated reporting limit.

SEQUOIA ANALYTICAL

Todd Olive Project Manager

4F23401.GET <1>

£14.07



680 Chesapeake Drive 1900 Bates Avenue, Suite L 819 Striker Avenue, Suite 8

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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Client Project ID:

7814.02, Unocal 5325

Matrix:

Solid

Dublin, CA 94568 Attention: Robert Mallory

QC Sample Group: 4F23401-04

Reported:

Jun 10, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	
Method: Analyst:	EPA 8020 C. Donohue	EPA 8020 C. Donohue	EPA 8020 C. Donohue	EPA 8020 C. Donohue	
MS/MSD Batch#:	4EG1105	4EG1105	4EG1105	4EG1105	
Date Prepared: Date Analyzed: Instrument I.D.#: Conc. Spiked:	6/6/94 6/6/94 GCHP-6 0.20 mg/kg	6/6/94 6/6/94 GCHP-6 0.20 mg/kg	6/6/94 6/6/94 GCHP-6 0.20 mg/kg	6/6/94 6/6/94 GCHP-6 0.60 mg/kg	
Matrix Spike % Recovery:	75	75	80	77	
Matrix Spike Duplicate % Recovery:	75	75	80	77	
Relative % Difference:	0.0	0.0	0.0	0.0	

LCS Batch#:

Date Prepared: Date Analyzed: Instrument I.D.#:

> LCS % Recovery:

% Recovery **Control Limits:** 55-145

47-155

56-140

SEQUOIA ANALYTICAL

Todd Olive Project Manager Please Note:

47-149

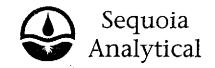
The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

UNOCAL 7

680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600

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- ☐ 1900 Bates Ave., Suite LM Concord, CA 94520 (510) 686-9600
- Q 18939 120th Ave., N.E., Suite 101 Bothell, WA 98011 (206) 481-9200
- Q East 11115 Montgomery, Suite B Spokane, WA 99206 (509) 924-9200
- Q 15055 S.W. Sequola Pkwy, Suite 110 Portland, OR 97222 (503) 624-9800

Company Name: 6	es STRATE	GIES	. //	W.		· Pr	oject N	Vame:	-	7814	1.07	2.						
	SIERRA			# G		U	NOCA	L Proje	ect Ma	anager	:	mal	1E	De	WIT	~	·	
City: DUBLIN		CA		Zip Code:	94	1568 RE	elease	#:				· · · ·			· · · · · · · · · · · · · · · · · · ·	····		
Telephone: 5/0 C	51 -8777		FAX #:	50 551	- 75	Si سج کا	te #:	5.	325	5		·			<u>.</u>	-		
Report To: Zore KT							C Data	a: 🖄 L	evel A	A (Stand	lard) [⊒ Lev	el B		Level C	·	Level D	
Turnaround ☑ 10 Working Days ☐ 2 Working Days ☐ 1 Time: ☐ 5 Working Days ☐ 24 Hours ☐ 1								☐ Drinking Water Analyses Requested ☐ Waste Water (Y)								—— ä		
Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type		boratory ample #	1			//					//		Comment	s
1. U-4-4.0	6/2/44 7:35	SOIL	/	4" SETL TURE			X	X										horatory
2. U-4-9.5	6/2/44 7:46	1	.1	>			X	X					<u> </u>					204
3.U-5-6.0	6/2/94 11:32	1.	1	}			X	X										-
4.4-6-5.5	6/2/94 4:27	V)	Ψ			X	X										J. S.
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Relinquished By:			Date	:	Time		Rece	ived E	ly:				D	ate:		Time:		
Relinquished By:			Date		Time:	<u> </u>	Rece	ived E	y Lab	1//	ens	trom	-a [6- : Date:	3-94	Time:	1500	
Were Samples Receive	ed in Good Condi	tion? 🗅 Y	es 🗅 No	Sa	umples	on ice?	⊒ Yes	□ No	Met	hod of	Shipm	ent				Pag	je of	
To be completed upor 1) Were the analy 2) Was the report Approved by:	ses requested or	the Cha	ed turnai	stody repo round time Signature:	? 🗆 Y	es ⊡ Nol	lf no, v	vhat w	as the	alyses a e turnai ipany:	round	ll need time?_	ed?				ate:	
i whichen pa:				oignature: ,					_com	ірапу:						D	ale:	



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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Client Project ID:

Unocal, 7814.02, #5325

Sampled:

Jun 2, 1994

Sample Descript:

Soil, US-1A-D (Comp. 4)

Received:

Jun 3, 1994

Dublin, CA 94568 Attention: Robert Mallory

Lab Number:

4F20001

Reported:

Jun 19, 1994

CORROSIVITY, IGNITABILITY, AND REACTIVITY

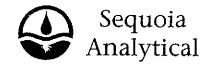
Analyte	Detection Limit	Sample Results
Corrosivity:	N.A.	 8.2
Ignitability: Flashpoint (Pensky-Martens), °C	N.A.	 34
Reactivity: Sulfide, mg/kg Cyanide, mg/kg Reaction with water	13 0.50 N.A.	 N.D. N.D. Negative

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Todd Olive Project Manager

4F20001.GET <1>.



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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Client Project ID: Unocal, 7814.02, #5325

Sampled: Jun 2, 1994

Dublin, CA 94568

Sample Descript: Soil, US-1A-D (Comp. 4) Received: Jun 3, 1994

Attention: Robert Mallory

Lab Number:

4F20001

Reported: Jun 19, 1994

INORGANIC PERSISTENT AND BIOACCUMULATIVE TOXIC SUBSTANCES

Soluble Threshold Limit Concentration

Total Threshold Limit Concentration

Waste Extraction Test

Analyte	STLC Max. Limit	Detection Limit	Analysis Result	TTLC Max. Limit	Detection Limit	Analysis Result
	(mg/L)	(mg/L)	(mg/L)	(mg/kg)	(mg/kg)	(mg/kg)
Antimony	15	0.10		500		
Arsenic	5.0		-	500	5.0	-
Barium		0.10	-	500	5.0	-
	100	0.10	-	10,000	5.0	-
Beryllium	0.75	0.010	-	75	0.50	-
Cadmium	1.0	0.010	-	100	0.50	•
Chromium (VI)	5.0	0.0050	-	500	0.050	•
Chromium	560	0.010	-	2,500	0.50	•
Cobalt	80	0.050	-	8,000	2.5	_
Copper	25	0.010	-	2,500	0.50	-
Lead	5.0	0.10	0.34	1,000	5.0	_
Mercury	0.20	0.00020	_	20	0.010	
Molybdenum	350	0.050	_	3,500	2.5	_
Nickel	20	0.050	<u>.</u>	2,000	2.5	-
Selenium	1.0	0.10	_	100	5.0	_
Silver	5.0	0.010	_	500	0.50	-
Thallium	7.0	0.10	_	700	5.0	_
Vanadium	24	0.050	_	2,400	2.5	-
Zinc	250	0.010	-	5,000	0.50	-
Asbestos	-	10	-	10,000	100	-
Fluoride	180	0.10	- .·	18,000	1.0	•

TTLC results are reported as mg/kg of wet weight. Asbestos results are reported as fibers/g. Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL

Todd Olive Project Manager



680 Chesapeake Drive 1900 Bates Avenue, Suite L 819 Striker Avenue, Suite 8 Sacramento, CA 95834

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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J

Client Project ID:

Unocal, 7814.02, #5325

Sampled: Received: Jun 2, 1994

Dublin, CA 94568

Sample Matrix: Analysis Method:

EPA 5030/8015 Mod./8020

Reported:

Jun 3, 1994 Jun 19, 1994

Attention: Robert Mallory

First Sample #:

4F20001

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 4F20001 US-1A-D	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.	Sample I.D.
Purgeable		(Comp. 4)					
Hydrocarbons	1.0	590					
Benzene	0.0050	3.2					
Toluene	0.0050	8.6					
Ethyl Benzene	0.0050	11				·	
Total Xylenes	0.0050	47					
Chromatogram Pat	tern:	Gas					

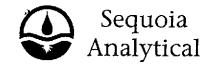
Quality Control Data

Report Limit Multiplication Factor:	50	
Date Analyzed:	6/7/94	,
Instrument Identification:	GCHP-7	
Surrogate Recovery, %: (QC Limits = 70-130%)	102	

Purgeable Hydrocarbons are quantitated against a fresh gasoline standard. Analytes reported as N.D. were not detected above the stated reporting limit.

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Todd Olive Project Manager



680 Chesapeake Drive 1900 Bates Avenue, Suite L 819 Striker Avenue, Suite 8

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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J Dublin, CA 94568 Client Project ID: Unocal, 7814.02, #5325

Matrix:

Solid

Attention: Robert Mallory

QC Sample Group: 4F20001

Reported:

Jun 19, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	
Analyst:	C. Donohue	C. Donohue	C. Donohue	C. Donohue	
MS/MSD					
Batch#:	4EG1103	4EG1103	4EG1103	4EG1103	
Date Prepared:	6/7/94	6/7/94	6/7/94	6/7/94	
Date Analyzed:	6/7/94	6/7/94	6/7/94	6/7/94	
Instrument I.D.#:	GCHP-7	GCHP-7	GCHP-7	GCHP-7	
Conc. Spiked:	0.20 mg/kg	0.20 mg/kg	0.20 mg/kg	0.60 mg/kg	
Matrix Spike					
% Recovery:	75	75	80	83	
Matrix Spike Duplicate %					
Recovery:	75	75	75	78	
Relative %					
Difference:	0.0	0.0	6.5	6.2	
0/00/00/00/00/00/00/00/00/00/00/00/00/0	*****************************				

LCS Batch#:

Date Prepared: Date Analyzed: Instrument I.D.#:

LCS % Recovery:

% Recovery Control Limits:

55-145

47-149

47-155

56-140

SEQUOIA ANALYTICAL

Todd Olive Project Manager Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.



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Gettler Ryan/Geostrategies 6747 Sierra Court, Ste J Dublin, CA 94568

Client Project ID:

Unocal, 7814.02, #5325

Matrix:

Liquid

Attention: Robert Mallory

QC Sample Group: 4F20001

Reported:

Jun 19, 1994

QUALITY CONTROL DATA REPORT

ANALYTE	Beryllium	Cadmium	Chromium	Nickel	
		- Committee	Ginomian	MONO	
Method:	EPA 200.7	EPA 200.7	EPA 200.7	EPA 200.7	
Analyst:	S. O'Donnell	S. O'Donnell	S. O'Donnell	S. O'Donnell	
MS/MSD		•			
Batch#:	4F42701	4F42701	4F42701	4F42701	
,, -	(11 12101	4(42) 01	41 42/01	
Date Prepared:	6/9/94	6/9/94	6/9/94	6/9/94	
Date Analyzed:	6/9/94	6/9/94	6/9/94	6/9/94	
Instrument I.D.#:	MTJA-4	MTJA-4	MTJA-4	MTJA-4	
Conc. Spiked:	1.0 mg/L	1.0 mg/L	1.0 mg/L	1.0 mg/L	
Matrix Spike					
% Recovery:	104	00	404	405	
70 Hecovery.	104	99	101	105	
Matrix Spike					
Duplicate %			4		
Recovery:	103	98	101	104	
•					
Relative %					
Difference:	0.96	1.0	0.0	0.94	
LOO Databar					
LCS Batch#:	BLK060994	BLK060994	BLK060994	BLK060994	
Date Prepared:	6/9/94	6/9/94	6/9/94	6/9/94	
Date Analyzed:	6/9/94	6/9/94	6/9/94	6/9/94	
Instrument I.D.#:	MTJA-4	MTJA-4	MTJA-4	MTJA-4	
_ LCS %					
Recovery:	103	99	101	103	
% Recovery					
Control Limits:	75-125	75-125	75-125	75-125	

SEQUOIA-ANALYTICAL

Todd Olive Project Manager Please Note:

The LCS is a control sample of known, interferent free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

UNOCAL @

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- □ 190
- Q 18939 120th Ave., N.E., Suite 101 Bothell, WA 98011 (206) 481-9200 "
- Q East 11115 Montgomery, Suite B Spokane, WA 99206 (509) 924-9200

15055 S.W. Sequoia Pkwy, Suite 110 • Portland, OR 97222 • (503) 624-9800

Company Name: (Seo S	TRAT	ے ای سے	<i>- S</i>	1NC.		F	roject	Name	•	781	4, c) Z						7
Address:	7	SIEIC	RA	CT.	# 6	<u></u>	Ĺ	JNOCA	L Proj					Æ	D.e l	W11T	,	-,	1
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Report To: <i>PoBさに</i>			1									ard)	☐ Leve	el B	<u> </u>	_evel C	. (Level D] ¥
Turnaround ☑ 10 W							☐ Dri								equest				- 1 €
	orking Day orking Day		24 Hours 2 - 8 Hou				☐ Wa	eta Ma	tor	PS: 1		<u> </u>						$\overline{\mathcal{I}}$	
Client Sample I.D.	Date/ Sam	Time pled	Matrix Desc.	# of Cont.	Cont. Type	ł.	ooratory ample #	//		\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	13/0/	\ <u>\</u>	1	ĺΠ	1/2	96		Comments	7
1. US-1A	6/2/90	17:20	SOIL	/	44 STORE TUBE			1	1	<i>)</i> ~	1				01) (DMB) 5170	ellow - Laboratory
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3. 45-10 m	}	12:08)	/	 			<u> </u>	1	×	<						$\int A$	NAEVEZ	
4.45-10	V	12:51)	1	V			۲	X	$\chi \chi$	\ \ <u>\</u>				1) /	9.5] <u>§</u>
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Relinguished By:	· ·			Date: Time		Time:		Rece	eived l	3y Lab	:{ //}	TATE	5/52		ر ک Date:	3-94	Time:	1501	
Were Samples Receiv	red in Go	od Condi	tion? 🗆 Y	′es □ No	o Sa	mples	on Ice?				$\frac{1}{2}$							ge of	_
To be completed upo 1) Were the anal 2) Was the report	yses requ t issued v	uested or within the	n the Cha request	ed turna	round time	? 🗅 Y	es 🗆 No	If no,	what w	vas the	turna	round	time?_	•					.
Approved by:					orginatule						parry.	<u> </u>					U	ate:	<u>. 1</u>