USA GASOLINE CORPORATION
30101 Agoura Court, Ste. 200, Agoura Hills, CA 91301-4311
(818) 865-9200 FAX (818) 865-0092

ENVIRONMENTAL PROTECTION

95 MAY -9 PM 2:11

May 4, 1995

Mr. Barney Chen
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502

4490

RE: USA Gasoline Station #57
10700 MacArthur Blvd.
Oakland, California

Dear Mr. Chen,

Please find enclosed, a copy of the Site Assessment Report for the above referenced site. This report was prepared by Alton GeoScience for USA Gasoline Corporation. We appreciate all your cooperation.

If you have any questions please call me at (818) 865-9200 Ext 214.

Thank you.

Sincerely,

Srikanth Dasappa
Environmental Engineer

SUPPLEMENTARY SITE ASSESSMENT REPORT

April 24, 1995

FORMER USA GASOLINE STATION #57
10700 MacArthur Boulevard
Oakland, California 94605

Alton Project No. 41-0034

Prepared For:

USA GASOLINE CORPORATION
30101 Agoura Court, Suite 200
Agoura Hills, California 91391-0092

Prepared By:

Ailsa S. Le May
Geologist

Matthew W. Katen, RG
Senior Geologist

ALTON GEOSCIENCE
30A Lindbergh Avenue
Livermore , California 94550

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1.0 INTRODUCTION

This report presents the findings of a supplementary site assessment investigation conducted at Former USA Gasoline Station #57, located at 10700 MacArthur Boulevard in Oakland, California (Figure 1). This work was performed in accordance with the Alameda County Health Care Services Agency (ACHCSA), Department of Environmental Health requirements, and the Alton Geoscience site assessment workplan dated September 8, 1994.

The planned site assessment activities were performed to:

- further characterize the lateral and vertical extent of soil hydrocarbons beneath the site;
- further characterize the lateral extent of dissolved-phase hydrocarbons beneath the site; and
- establish the local ground water gradient beneath the site.

2.0 SITE DESCRIPTION

Present Site Use: The site is currently vacant (Figure 2).

Past Site Use: The site was formerly a retail fuel station dispensing gasoline and diesel fuel from four underground storage tanks (USTs) located in the southern portion of the site. On July 19, 1994, four USTs (three 12,000-gallon tanks containing gasoline, and one 8,000-gallon tank containing diesel fuel) were excavated and removed from the site.

Future Site Use: There are plans to redevelop the shopping center which occupies the site and surrounding property.

Adjacent Property: The site is located in the southeast corner of the Foothill Square Shopping Center, which is bounded on the north by 106th Avenue, on the east by Foothill Boulevard, on the south by 108th Avenue, and on the west by MacArthur Boulevard. The immediate vicinity of the site is an asphalt parking area. Residences are located south of the site, across 108th Avenue. Highway 580, a multi-lane, limited access freeway, is located east of the site, across Foothill Boulevard.

Geography: The site is located in the City of Oakland, California, approximately 1 mile north of downtown San Leandro, at an elevation of approximately 80 feet above mean sea level (National Geodetic Vertical Datum [NGVD]-1929). The site is near the eastern edge of the East Bay Plain; the Berkeley Hills rise abruptly east of the site. The topography in the site vicinity slopes to the southwest.

Regional Geology: The site is located in the East Bay Plain, in the eastern part of the San Francisco Bay area. Much of the East Bay Plain is underlain by the Temescal formation and the Alameda formation, which are of Pleistocene age (DWR, 1975). The Temescal formation consists of interfingering layers of clayey gravel, sandy silty clay, and various clay-silt-sand mixtures. The formation varies in thickness to a maximum of approximately 60 feet. Underlying the Temescal formation is the Alameda formation, which consists of unconsolidated continental and marine gravels, sands, silts, and clays, with some shells and organic material in places. The Alameda formation has a maximum known thickness of 1,050 feet (Radbruch, 1957).

Regional Hydrogeology: The site is located in the East Bay Plain Ground Water Area, a subarea of the Santa Clara Valley Basin. Groundwater occurs in unconsolidated Quaternary alluvium, including the Alameda formation (DWR, 1975).

Ground Water Quality and Usage: Most water used in the area is imported from the Sierra Nevada by the East Bay Municipal Utilities District. Scattered wells supply individual dwellings, and a few commercial and industrial developments (DWR, 1975).

3.0 BACKGROUND SITE CONDITIONS

Site conditions prior to this investigation include the following:

- Two onsite groundwater monitoring wells (S-1 and S-2) were present at the site.

- The static water level was previously calculated to be approximately 17.3 feet below grade (fbg) (WEGE, 1994). The groundwater gradient and direction were not determined.

- Dissolved-phase hydrocarbons were detected in ground water samples collected from Monitoring Wells S-1 and S-2.

- Adsorbed-phase gasoline hydrocarbons were detected in soil samples collected beneath the former gasoline USTs at depths of approximately 12.5 to 19.5 fbg (maximum concentration of total petroleum hydrocarbons as gasoline [TPH-G] of 1,400 parts per million [ppm]), and beneath the product lines south of the former dispensers at a depth 3.5 fbg (maximum TPH-G concentration of 4,500 ppm). Adsorbed-phase diesel hydrocarbons were detected beneath the former diesel UST at depths of approximately 12.5 to 15.5 fbg (maximum concentration of total petroleum hydrocarbons as diesel [TPH-D] of 230 ppm) (USA Gas, 1994).

- Soil samples collected by Alton Geoscience in October, 1994 from the former UST tank cavity during over excavation activities indicated concentrations of hydrocarbon-impacted soil at approximately 12 and 13 fbg to the south and southwest of the former tanks. Samples TC3-3, TC3-4, TC3-5, and TC3-6 yielded TPH-G concentrations of 300 ppm, 510 ppm, 2,400 ppm, and 940 ppm, respectively. Soil Sample TC3-3, directly adjacent to the former diesel tank also contained 330 ppm TPH-D (Alton Geoscience, December 13, 1994).

- Over excavation of the former UST cavity extended to a maximum depth of approximately 18 fbg. Alton Geoscience personnel observed no water infill in the cavity. Friable and fractured sandstone was observed at approximately 13 fbg in the south portion of the tank cavity.

4.0 FIELD ACTIVITIES

4.1 DRILLING AND SOIL SAMPLING

On February 28 through March 2, 1995, Alton Geoscience conducted a supplementary site assessment at Former USA Gasoline Station #57. The investigation included the drilling of eight soil borings (B-1 through B-8) to depths from 12 to 46 fbg, and the installation of one groundwater monitoring well (MW-3) to a depth of 45 fbg. Refer to Figure 2 for the soil boring and well locations. The soil boring proposed to be drilled in the area between the former diesel

tank and the pump island was not drilled due to inaccessibility. The groundwater monitoring well was developed approximately 72 hours after installation.

Soil samples were collected at depth intervals of 5 feet or less using a California-modified split spoon sampler. Refer to Appendix A for details regarding general field procedures, boring logs, and groundwater monitoring well construction details. See Figures 3 and 4 for geologic cross sections showing soil types beneath the site.

Select soil samples collected during drilling were submitted to a state-certified laboratory and were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) using EPA Method 8015 modified for gasoline, total petroleum hydrocarbons as diesel (TPH-D) using EPA Method 8015 modified for diesel, and toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8020. As originally proposed in the workplan, soil samples were not analyzed for total lead as per the ACHCSA, Department of Environmental Health letter, dated November 2, 1994. The results of the laboratory analysis for soil samples are listed in Table 1, and select results are shown on Figure 5. Refer to Appendix B for a description of the analytical methods used and copies of the Official Laboratory Reports, Quality Assurance/Quality Control (QA/QC) Reports, and Chain of Custody Records.

4.2 WELL ELEVATION SURVEY

On March 15, 1995, the groundwater monitoring wells were surveyed relative to a City of Oakland benchmark by Ron Archer, Civil Engineer Inc. Refer to Appendix C for the survey data.

4.3 FLUID LEVEL MONITORING AND GROUNDWATER SAMPLING

On March 3, 1995 fluid levels were measured and groundwater samples collected from three monitoring wells as per standard regulatory protocol. The groundwater samples were submitted to a state-certified laboratory for analysis for TPH-G using EPA Method 8015 modified for gasoline, TPH-D using EPA Method 8015 modified for diesel, and BTEX using EPA Method 8020. Results of the laboratory analysis for water samples are listed in Table 2 and shown in Figure 6. A groundwater elevation contour map is shown in Figure 7.

4.4 SOIL AND WATER DISPOSAL

Approximately 3.5 cubic yards of soil cuttings were generated during drilling activities. The soil was stockpiled on and covered with plastic sheeting pending disposal at a certified waste disposal facility. Approximately 200 gallons of rinsate water and groundwater generated during well development and groundwater sampling activities were stored onsite in DOT-approved drums pending transport and disposal at a certified waste disposal facility.

5.0 FINDINGS

The results of this investigation are summarized as follows:

- Average depth to static groundwater at the site is approximately 14 fbg. The local hydraulic gradient established by water levels in Monitoring Wells S-1, S-2, and MW-3 is calculated to be approximately 0.015 foot-per-foot towards the north-northeast.

- The depth to first encountered groundwater in MW-3 was approximately 40 fbg, as measured on February 28, 1995. After approximately 20 hours, the depth to groundwater was measured to be approximately 31 fbg. The depth to first encountered groundwater in B-1 and B-2 was 44 and 29 fbg, respectively. The static groundwater level was measured to be approximately 14 fbg on March 3, 1995. No groundwater was encountered at a depth of 18 fbg in the excavation cavity of the former USTs during over excavation activities performed during the month of October, 1994 (the excavation remained open for an extended period of time).

- Groundwater sampling activities on March 3, 1995, showed that the groundwater monitoring wells did not yield large quantities of water; the recharge rate in MW-3 was approximately 5 gallons per hour.

- Silty clays and sandy and clayey silts were encountered from 0 to 13 fbg in some areas of the site. Gravelly sand was encountered at approximately 13 to fbg in Soil Borings B-1 and MW-3. From approximately 16 fbg to the entire depth of investigation, fractured and friable sandstone interbedded with weathered relatively unconsolidated clays and silts.

- Soil hydrocarbon-concentrations and Benzene were detected in Soil Borings B-1, B-2, B-3, B-6, B-8 and MW-3 (maximum TPH-G concentrations of 540 and 2.6 ppm, respectfully were detected in Soil Boring B-1 at a depth of 13.0 feet).

- TPH-D concentrations were detected in soil samples collected from Borings B-1, B-2, B-3, B-6, and MW-3. A maximum TPH-D concentration of 55 ppm was detected in Soil Boring B-1 at a depth of 13.0 feet.

- No soil hydrocarbon concentrations were detected in Soil Borings B-4, B-5, or B-7 in the area of the former pump islands.

- Dissolved-phase TPH-G, TPH-D, and BTEX concentrations were detected in the monitoring wells at the site. Maximum TPH-G, TPH-D, and Benzene concentrations of 24,000, 6,000, and 1,900 ppb, respectfully, were detected in Monitoring Well S-2, located downgradient of the former tank cavity.

6.0 CONCLUSIONS

Based on the results of this investigation, Alton Geoscience concludes:

- Local groundwater flow direction beneath the site flows in a north-northeasterly direction.

- Based on the first encountered groundwater depths during drilling (29 to 44 fbg), the lack of groundwater encountered during tank excavation activities to a depth of 18 fbg, and the slow recharge characteristics of MW-3 during installation, it appears that groundwater exists under confined or semi-confined conditions below a depth of approximately 20 fbg. Groundwater stabilizes at a depth of approximately 13 to 15 fbg in wells at the site.

- The onsite monitoring wells will not readily yield large quantities of water as indicated by the very slow well recharge rates observed during sampling activities.

- The soil hydrocarbons have been adequately characterized vertically in Soil Borings B-1 and MW-3.

- Soil hydrocarbon concentrations are present in the soil beneath the site adjacent to the southeast/southwest corner of the former USTs. Hydrocarbons may have migrated along the gravelly sand and fractured bedrock present at depths of 13 to 16 fbg in the southwest corner of the tank cavity.

- Soil hydrocarbon concentrations were found in low to non-detectable amounts in borings drilled in the area of the former pump islands. The lateral and vertical extent of soil hydrocarbons have been adequately characterized in the vicinity of the former pump islands.

- Dissolved-phase hydrocarbon concentrations are present in the water beneath the site. The lateral extent of the dissolved-phase plume has not been characterized beneath the site.

7.0 REFERENCES

Alton Geoscience, September 8, 1994, Supplementary Site Assessment Workplan for Former USA Gasoline Station #57, 10700 MacArthur Boulevard in Oakland, California.

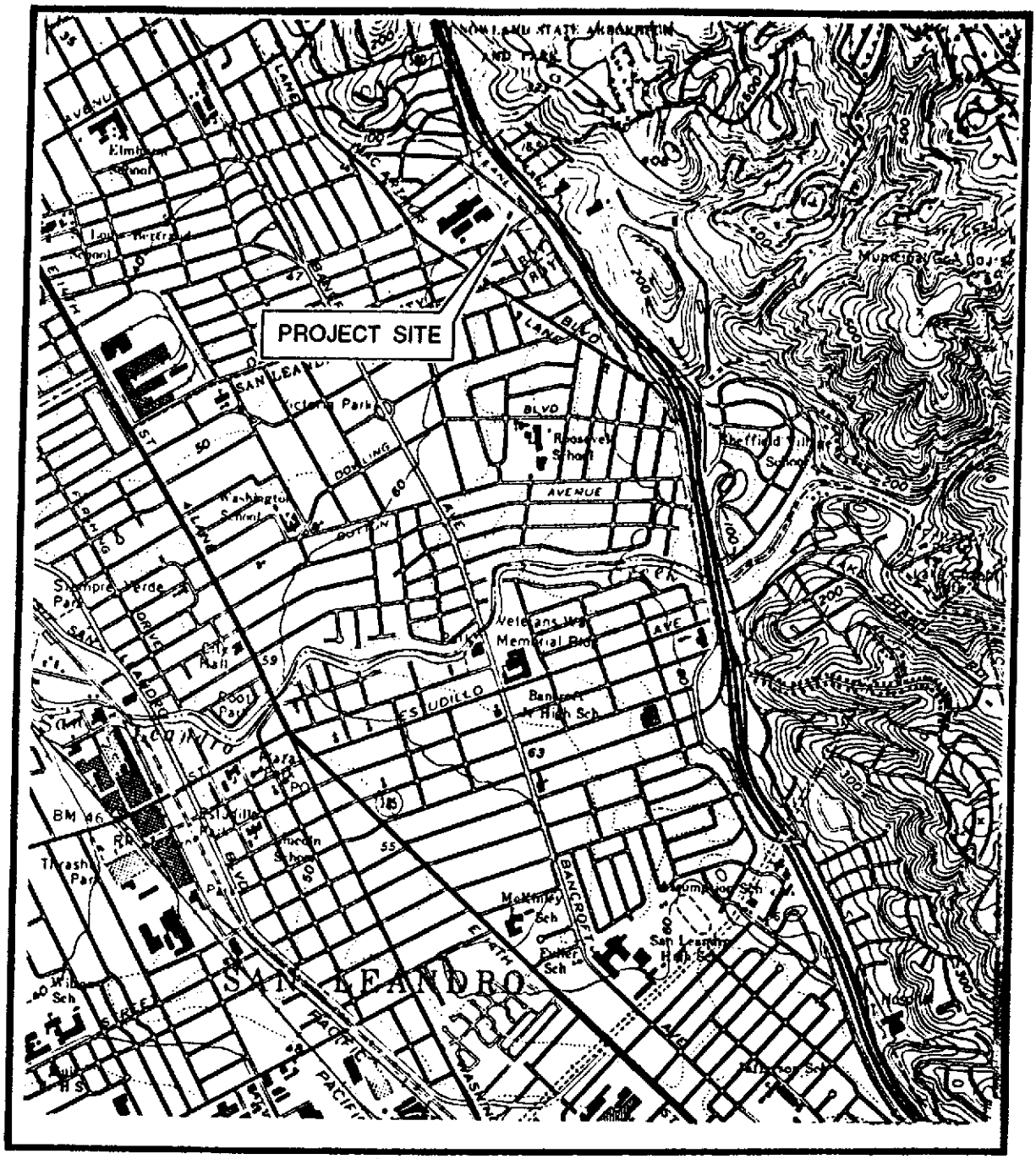
Alton Geoscience, December 13, 1994, Letter Report for Tank Cavity Soil Sampling Activities for Former USA Gasoline Station #57, 10700 MacArthur Boulevard in Oakland, California.

California Department of Water Resources (DWR), October 1975, Sea-Water Intrusion in California; Inventory of Coastal Ground Water Basins, Bulletin No. 63-5.

Radbruch, Dorothy H., 1957, Areal and Engineering Geology of the Oakland West Quadrangle, California, United States Geologic Survey Miscellaneous Geologic Investigations Map I-239.

Western Geo-Engineers (WEGE), February 23, 1994, USA Station #57 Groundwater Monitoring, Oakland, Alameda County, California on 1/27/94 for USA Gasoline Corporation.

USA Gasoline, 1994. Results of tank cavity soil sampling activities carried out by WEGE during the month of September, 1994 (provided by USA Gasoline, personal communication).



SCALE 1:24,000

Source: U.S.G.S. Map
San Leandro Quadrangle
California
7.5 Minute Series

VICINITY MAP

Former USA Gas #57
10700 MacArthur Boulevard
Oakland, California

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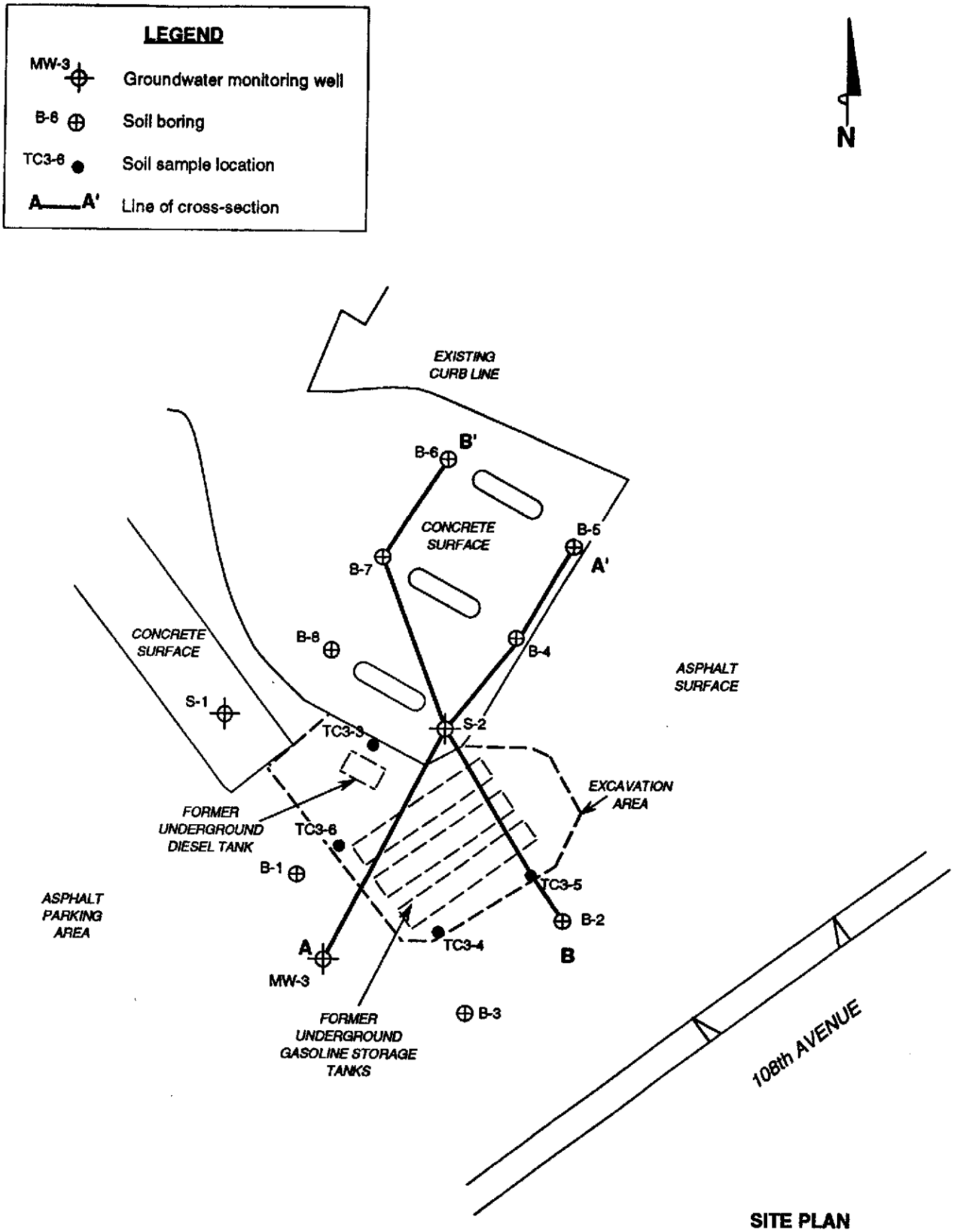
Livermore, California

Project No. 41-0034

FIGURE 1



SITE PLAN

Former USA Gas #57
10700 MacArthur Boulevard
Oakland, California

SCALE (feet)
0 15 30

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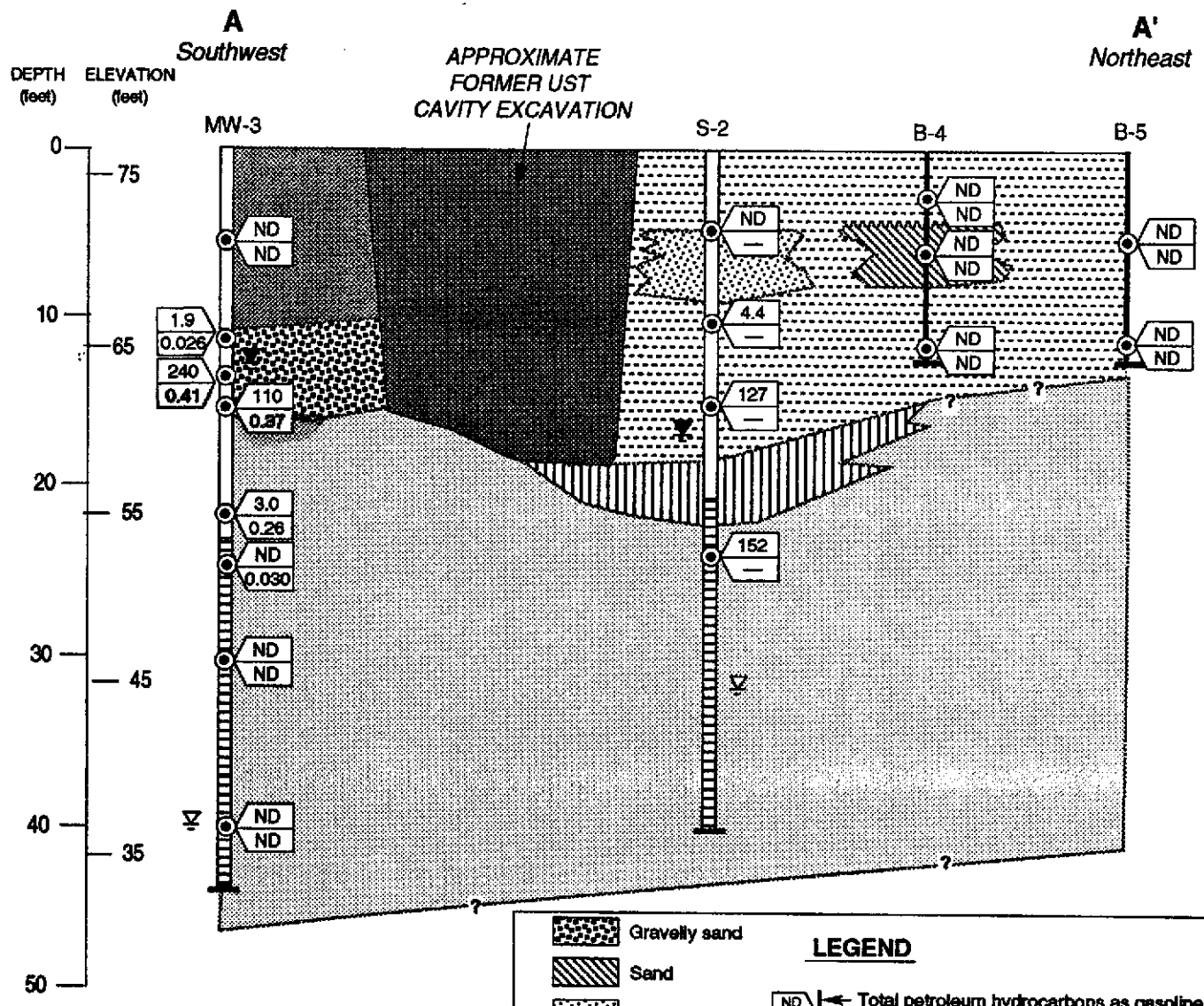
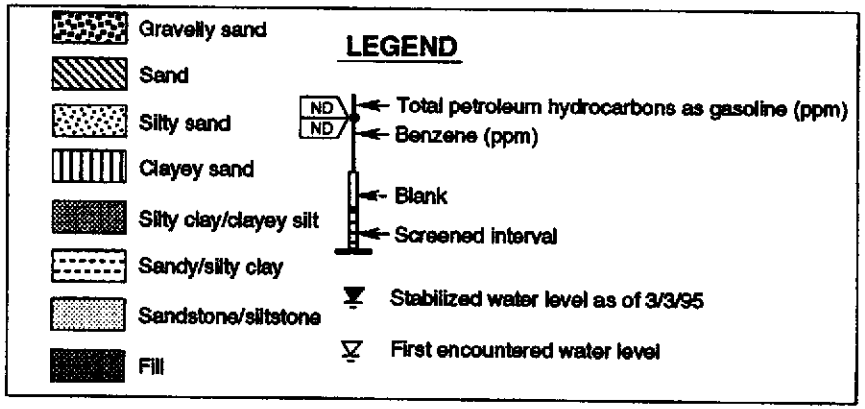
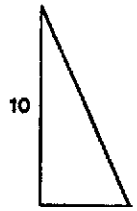
FIGURE 2

41-0034/New Plan 04/11/95







SCALE (feet)
Vertical exaggeration = 2:1

CROSS SECTION A-A'

Former USA Gas #57
10700 MacArthur Boulevard
Oakland, California

FIGURE 3

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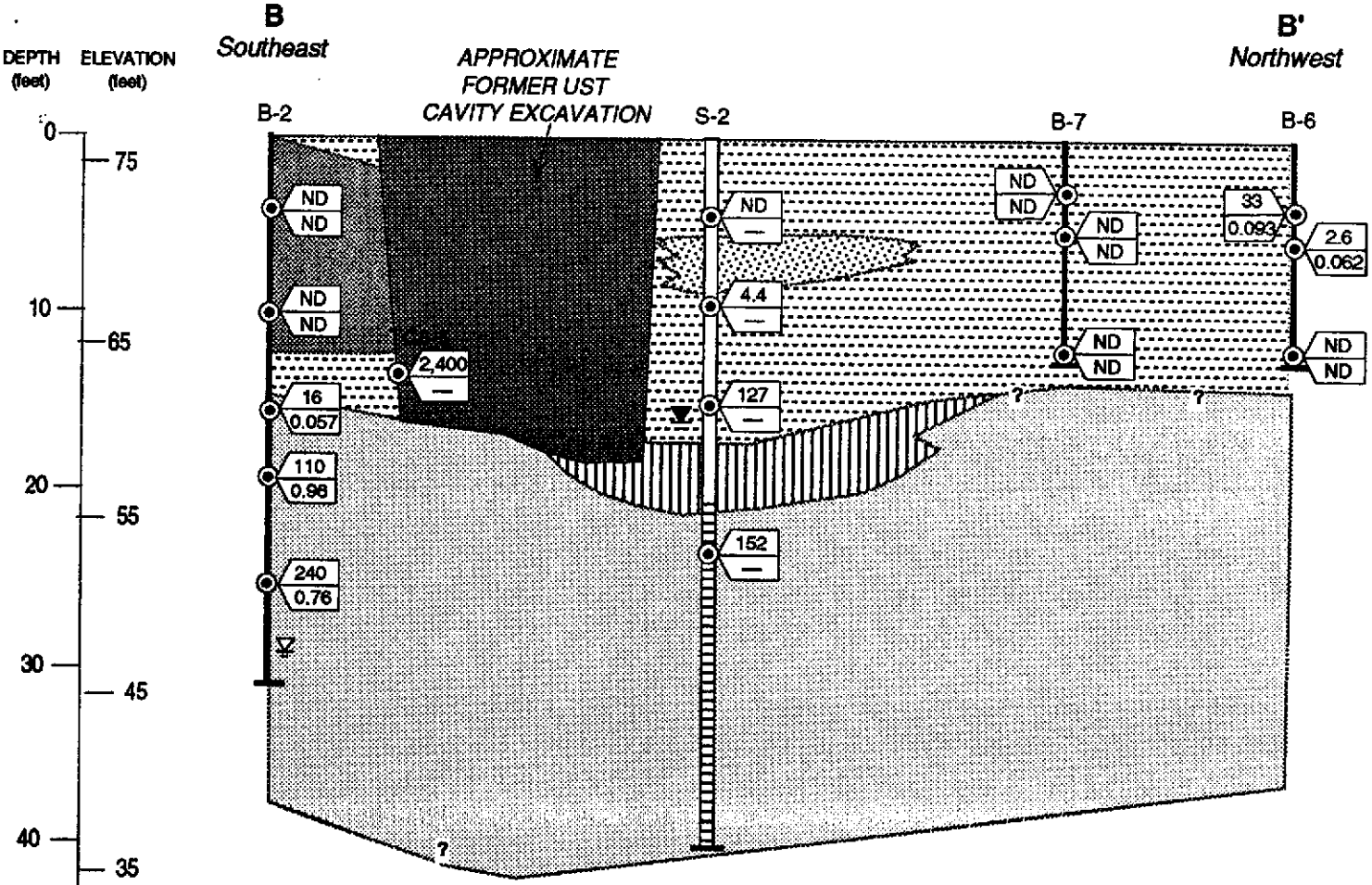
41-0034 04/12/95



10
10
SCALE (feet)
Vertical exaggeration = 2:1

LEGEND

- Silty sand
- Clayey sand
- Silty clay/clayey silt
- Sandy/silty clay
- Sandstone/siltstone
- Fill

ND / ND — Total petroleum hydrocarbons as gasoline (ppm) / Benzene (ppm)

- Blank
- Screened interval
- Stabilized water level as of 3/3/95
- First encountered water level

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CROSS SECTION B-B'

Former USA Gas #57
10700 MacArthur Boulevard
Oakland, California

FIGURE 4

41-0034 04/12/95

MONITORING WELL INSTALLATION

Monitoring wells are constructed of 4-inch-diameter, flush-threaded Schedule 40 PVC blank and screened (0.020-inch slot size) casing. Where possible, the screened interval will extend at least 10 feet above, and 10 to 20 feet below, the top of the groundwater table. The annular space surrounding the screened casing is backfilled with Sri Supreme # 8 sand (filter pack) to approximately 2 feet above the top of the screened section.

which well(s) are there ?

Recovery wells are constructed of 6-inch diameter flush-threaded Schedule 40 PVC blank and screened (0.030-inch slot size) casing. Where possible, the screened interval will extend at least 10 feet above, and 10 to 20 feet below, the top of the groundwater table. The annular space surrounding the screened casing is backfilled with medium aquarium sand (filter pack) to approximately 2 feet above the top of the screened section.

Vapor Extraction wells are constructed of 4-inch diameter flush-threaded Schedule 40 PVC blank and screened (0.030-inch slot size) casing. The annular space surrounding the screened casing is backfilled with medium aquarium sand (filter pack) to approximately 1 feet above the top of the screened section.

During monitoring and recovery well construction, the filter pack is completed by surging with a rig-mounted surge block. A 2 to 3 foot thick bentonite annular seal is placed above the filter pack. The remaining annular space is grouted with Portland cement and/or bentonite grout to the surface. Utility access boxes are installed slightly above grade. Locking, watertight caps are installed to prevent unauthorized access to the well, and limit infiltration of surface fluids.

FLUID LEVEL MONITORING

Fluid levels are monitored in the wells using an electronic interface probe with conductance sensors. The presence of liquid-phase hydrocarbons is verified using a hydrocarbon-reactive paste. The depth to liquid-phase hydrocarbons and water is measured relative to the well box top or top of casing. Well box or casing elevations are surveyed to within 0.02 foot relative to a county or city bench mark.

GROUNDWATER PURGING AND SAMPLING

Groundwater monitoring wells are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no liquid-phase hydrocarbons are purged of groundwater prior to sampling so that fluids sampled are representative of fluids within the formation. Temperature, pH, and specific conductance are typically measured after each well casing volume has been removed. Purging is considered complete when these parameters vary less than 10% from the previous readings, or when four casing volumes of fluid have been removed. Samples are collected without further purging if the well does not recharge within 2 hours to 80% of its volume before purging. The purged water is either pumped directly into a licensed vacuum truck or temporarily stored in labeled drums prior to transport to an appropriate treatment or recycling facility. If an automatic recovery system (ARS) is operating at the site, purged water may be pumped into the ARS for treatment.

Groundwater samples are collected by lowering a 1.5-inch-diameter, bottom-fill, disposable polyethylene bailer just below the static water level in the well. The samples are carefully transferred from the check-valve-equipped bailer to 1-liter and 40-milliliter glass containers. The sample containers are filled to zero headspace and fitted with Teflon-sealed caps. Each sample is labeled with the project number, well number, sample date, and sampler's initials. Samples remain chilled at approximately 4°C prior to analysis by a state-certified laboratory.

CHAIN OF CUSTODY PROTOCOL

Chain of custody protocol is followed for all soil and groundwater samples selected for laboratory analysis. The chain of custody form(s) accompanies the samples from the sampling locality to the laboratory, providing a continuous record of possession prior to analysis.

DECONTAMINATION

Drilling and Soil Sampling

Drilling equipment is decontaminated by steam cleaning before being brought onsite. The augers are also steam cleaned before each new boring is commenced. Prior to use, the sampler and sampling tubes are brush-scrubbed in a Liqui-nox and potable water solution and rinsed twice in clean potable water. Sampling equipment and tubes are also decontaminated before each sample is collected to avoid cross-contamination between borings.

Groundwater Sampling

Purging and sampling equipment that could contact well fluids is either dedicated to a particular well or cleaned prior to each use in a Liqui-nox solution followed by two tap water rinses.

UNIFIED SOIL CLASSIFICATION SYSTEM

MAJOR DIVISIONS			TYPICAL NAMES	
COARSE-GRAINED SOILS MORE THAN HALF IS LARGER THAN No. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN No. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW	WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP	POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM	SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC	CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN No. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP	POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM	SILTY SANDS, SAND-SILT MIXTURES
			SC	CLAYEY SANDS, SAND-CLAY MIXTURES
FINE-GRAINED SOILS MORE THAN HALF IS SMALLER THAN No. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL	INORGANIC CLAYS OF LOW- TO MEDIUM-PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			CH	INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH	ORGANIC CLAYS OF MEDIUM- TO HIGH-PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

SYMBOLS AND NOTES

- SAMPLE INTERVAL
- SAMPLE NOT RECOVERED
- BENTONITE
- CONCRETE
- GROUT
- FILTER SAND PACK
- STATIC WATER LEVEL
- WATER LEVEL ENCOUNTERED WHEN DRILLING

ppm = parts per million (mg/kg)
ppb = parts per billion (µg/kg)
ND = not detected at detection limits stated in official laboratory reports
CGI = combustible gas indicator
OVA = organic vapor analyzer
PID = photoionization detector
LEL = lower explosive limit
TPH = total petroleum hydrocarbons
TRPH = total recoverable petroleum hydrocarbons
NA = not applicable

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KEY TO BORING LOG

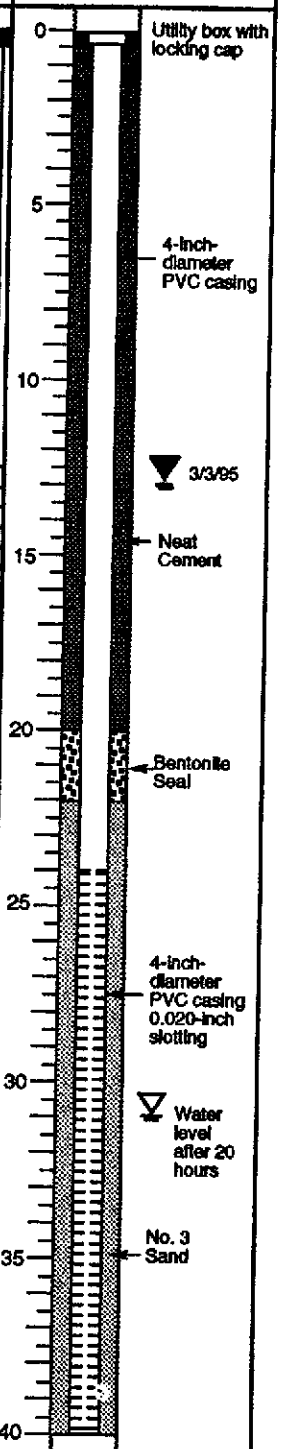
PROJECT NO.: 41-0034
LOCATION: USA Gas #57
10700 MacArthur Boulevard
Oakland, California

DATE DRILLED: 2/28/95
LOGGED BY: A. Le May
APPROVED BY: M. Katen, RG
DRILLING CO.: Bayland Drilling

DRILLING METHOD: 10-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 44.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
				0	Hand-augered to 5 feet. 4 inches of Asphalt.	
7,8,10	115	ND		5	CLAYEY SILT: yellowish brown, soft, damp, very fine-grained.	ML
5,7,8	20	1.9		10	Olive, moist.	
—	10% LEL	240			GRAVELLY SAND: yellowish brown, damp, well graded, with clay.	GC
13,24,50 for 4"	2% LEL	110		15		
5 for 5"	500				SANDSTONE: brownish yellow, very friable, dry, fine-grained with silt.	
—	50				SILTSTONE: dark yellowish brown, very friable, dry, with sand.	
11,22,50 for 4"	100	3.0		20		
50 for 6"	10	ND			Soft, interbedded with fractured, very hard, damp sandstone.	
50 for 6"	25			25		
—	20				Dry.	
15,17,19	50	ND				
—	0			30	Damp.	
—	15					
—	15			35		
	0				With increased clay content in siltstone, mottled dark green and yellowish brown. Moist.	
50 for 6"	100	ND		40		

WELL CONSTRUCTION DETAIL



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Livermore, California

LOG OF EXPLORATORY BORING

MW-3

PROJECT NO.: 41-0034
LOCATION: USA Gas #57
10700 MacArthur Boulevard
Oakland, California

DATE DRILLED: 2/28/95
LOGGED BY: A. Le May
APPROVED BY: M. Katen, RG
DRILLING CO.: Bayland Drilling

DRILLING METHOD: 10-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 44.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY	WELL CONSTRUCTION DETAIL
				40				40
				45				End cap 45
				50				50
				55				55
				60				60
				65				65
				70				70
				75				75
				80				80

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Livermore, California

LOG OF EXPLORATORY BORING

MW-3
PAGE 2 OF 2

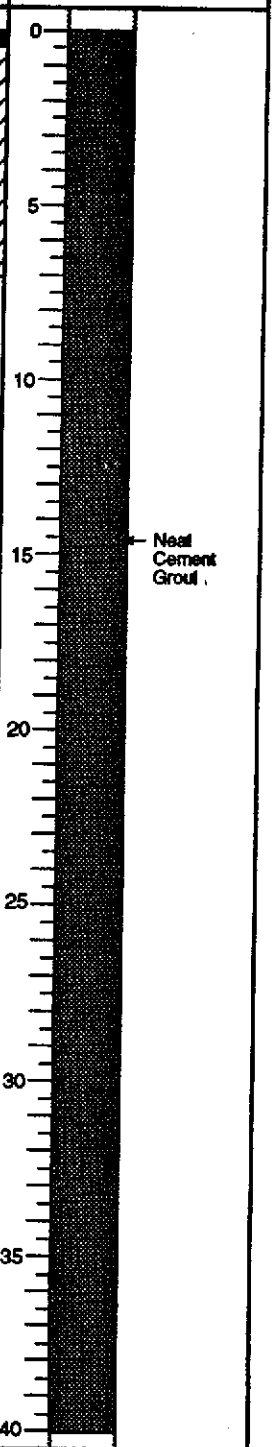
PROJECT NO.: 41-0034	DATE DRILLED: 2/28/95
LOCATION: USA Gas #57	LOGGED BY: A. Le May
10700 MacArthur Boulevard	APPROVED BY: M. Katen, RG
Oakland, California	DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-Inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 46.0 feet DEPTH TO WATER: 44.0 feet

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
				0	Hand-augered to 4 feet. 6 inches of Concrete.	
7,11,8	0	ND		5	SILTY CLAY: dark gray brown, soft, damp.	CL
6,7,11	75	44		10	CLAYEY SILT: dark yellowish brown, soft, damp, few small pebbles.	ML
8,11,15	70% LEL	540		15	GRAVELLY SAND: mottled dark yellow brown and green, loose, damp, with clay.	GC
					From approximately 17 feet to bottom of hole: interbedded sandstone and siltstone.	
21,37,42	350	ND		20	SANDSTONE: light olive brown, very fractured and friable with calcium carbonate infill in fractures.	
					SILTY CLAY (weathered bedrock): dark grayish brown, soft, damp at 10 feet.	
		3.9			Light olive brown, wet, with gravel.	
47 for 12"	5% LEL			25	SANDSTONE: light olive brown, very fractured and friable with calcium carbonate infill in fractures.	
15,29,26	5% LEL	ND		30	SILTY CLAY (weathered bedrock): light olive brown, soft, wet, with gravel.	
					GRAVELLY SAND (weathered bedrock): dark yellowish brown, loose, moist.	
12,15,19	175	ND		35	Interbedded with silty clay.	
41,27,35	175	ND		40		

LITHOLOGY

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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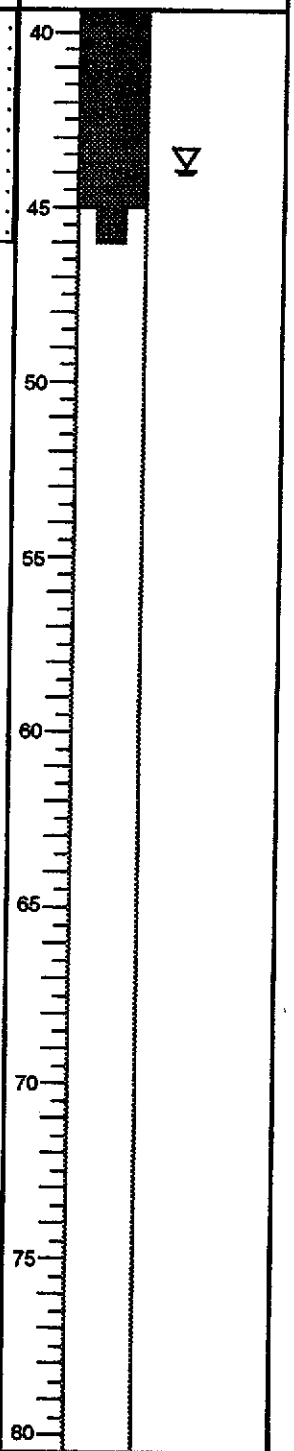
PAGE 1 OF 2

PROJECT NO.: 41-0034	DATE DRILLED: 2/28/95
LOCATION: USA Gas #57	LOGGED BY: A. Le May
10700 MacArthur Boulevard	APPROVED BY: M. Katen, RG
Oakland, California	DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-Inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 46.0 feet DEPTH TO WATER: 44.0 feet

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
27,30 41 for 4"	40	4		40 45 50 55 60 65 70 75 80	GRAVELLY CLAY (weathered bedrock): dark yellowish brown, saturated, well graded, with sand and pebbles to 1/4 inch.	ML	

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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PAGE 2 OF 2

PROJECT NO.: 41-0034
LOCATION: USA Gas #57
10700 MacArthur Boulevard
Oakland, California

DATE DRILLED: 3/1/95
LOGGED BY: A. Le May
APPROVED BY: M. Katen, RG
DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 31.0 feet DEPTH TO WATER: 29.0 feet

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0	Hand-augered to 5 feet. 4 inches of Asphalt.		
11,12,17	60	ND		5	CLAYEY SILT: dark yellowish brown, soft, damp, fine-grained, low plasticity.	ML	
11,16,21	80	ND		10	At approximately 10 feet depth includes small pebbles and mottled dark brown and green.		
21,27,31	5% LEL	16		15	SANDY CLAY: dark yellowish brown, damp, fine-grained.	CL	
					SANDSTONE: brownish yellow, fractured, damp, fine-grained, with clay.		
8,10,16	325	110		20	SANDY CLAY (weathered bedrock): dark yellowish brown, damp, fine-grained. SANDSTONE: brownish yellow, fractured, fine-grained, with green staining.		
8,11,17	60 150% LEL	240		25	Interbedded with sandy clay. SANDY CLAY (weathered bedrock) to 25 feet, then fractured sandstone.		
6,11,13	LEL off scale			30	GRAVELLY SAND (weathered bedrock): very dark grayish brown, loose, saturated, well graded.		
				35			
				40			

WELL CONSTRUCTION DETAIL

ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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PAGE 1 OF 1

41-0034/B-1 03/17/95

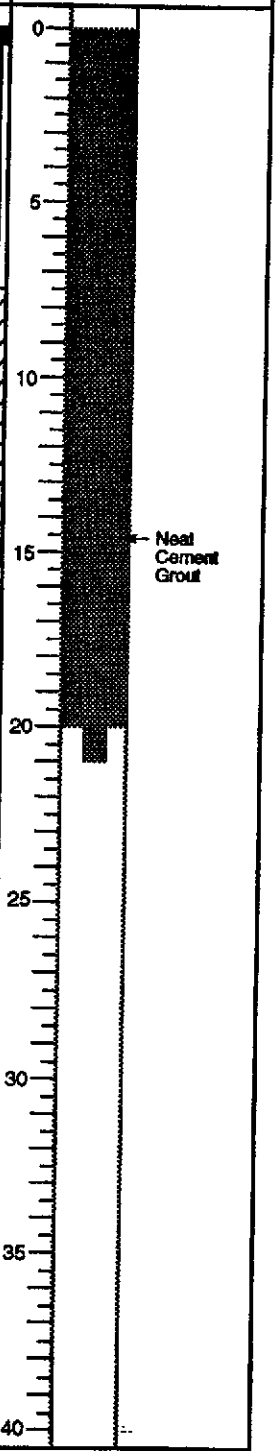
PROJECT NO.: 41-0034
LOCATION: USA Gas #57
10700 MacArthur Boulevard
Oakland, California

DATE DRILLED: 3/1/95
LOGGED BY: A. Le May
APPROVED BY: M. Katen, RG
DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 21.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0	Hand-augered to 5 feet. 4 inches Asphalt.		
5,7,10	0			5	CLAYEY SILT: brown, soft, damp, fine-grained, with sand and occasional pebbles.	ML	
8,10,8	5	ND		10	SANDY CLAY: very dark grayish brown, soft, damp, with small pebbles and a moderate amount of silt.	SC	
28,39,43	15	10		15	SANDSTONE: light yellowish brown, friable, very fractured, contains 3-inch thick layer of sandy clay at 15 feet.		
27,46,23	30	15		20	Interbedded with gravelly clay. GRAVELLY CLAY (weathered bedrock): dark olive brown, moderately soft, with large pebbles to 0.5-inch diameter.		
				25			
				30			
				35			
				40			

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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PAGE 1 OF 1

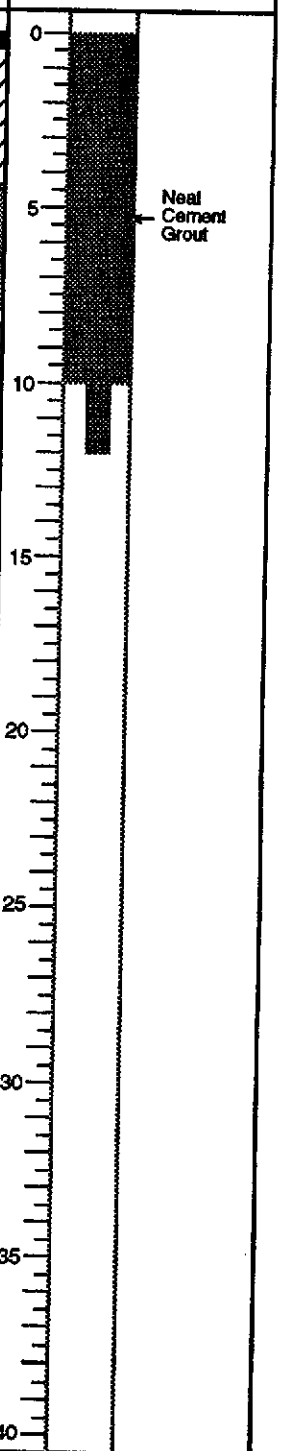
41-0034/B-3 03/21/95

PROJECT NO.: 41-0034	DATE DRILLED: 3/2/95
LOCATION: USA Gas #57	LOGGED BY: A. Le May
10700 MacArthur Boulevard	APPROVED BY: M. Katen, RG
Oakland, California	DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 12.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0	Hand-augered to 4 feet. 6 Inches Concrete		
5,7,13	5	ND			SANDY CLAY: olive brown, soft, saturated from surface, with small amount of pebbles.	CL	
7,7,8	15	ND		5	SAND: dark yellowish brown, loose, saturated, medium- to coarse-grained sand, poorly graded.	SP	
6,15,15	15	ND		10	SANDY CLAY: olive brown, medium soft, moist, with small amount of pebbles.	CL	
				15			
				20			
				25			
				30			
				35			
				40			

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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PAGE 1 OF 1

PROJECT NO.: 41-0034
LOCATION: USA Gas #57
10700 MacArthur Boulevard
Oakland, California

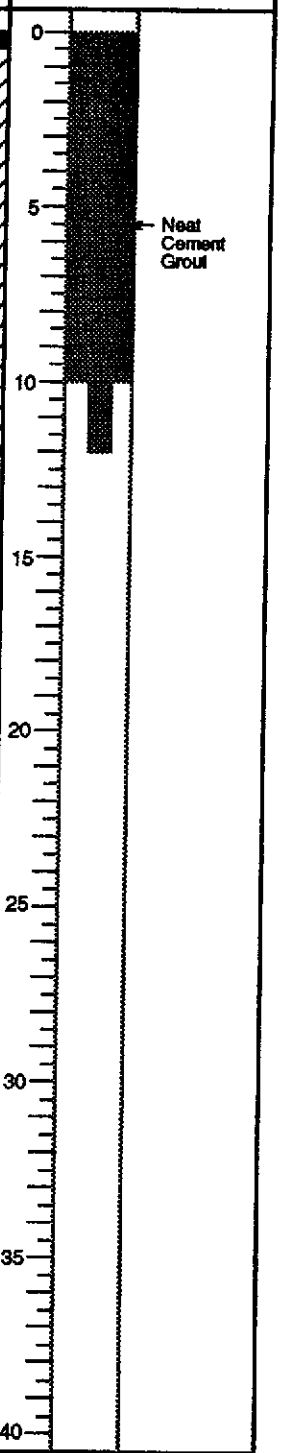
DATE DRILLED: 3/2/95
LOGGED BY: A. Le May
APPROVED BY: M. Katen, RG
DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-Inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 12.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS
				0	Hand-augered to 4 feet. 6 inches Concrete.	
—	0				SANDY CLAY: olive brown, very soft, damp, with small pebbles.	CL
5,7,14	10	ND		5	Moist, with silt.	
15,16,21	15	ND		10		
				15		
				20		
				25		
				30		
				35		
				40		

LITHOLOGY

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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41-0034/B-5 03/21/95

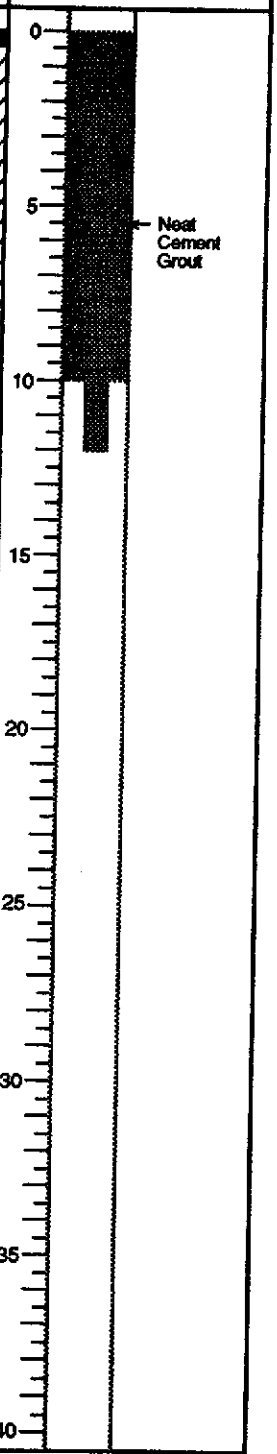
PROJECT NO.: 41-0034
LOCATION: USA Gas #57
10700 MacArthur Boulevard
Oakland, California

DATE DRILLED: 3/2/95
LOGGED BY: A. Le May
APPROVED BY: M. Katen, RG
DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 12.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0	Hand-augered to 4 feet. 6 inches of Concrete.		
2,2,5	130 60	33			SANDY CLAY: green olive gray, very soft, damp, with silt and occasional pebbles.	CL	
2,7,11	10	2.6		5	Olive gray.		
2,13,21	10	ND		10	SILTY CLAY: dark brown, soft, with occasional larger pebbles.		
				15			
				20			
				25			
				30			
				35			
				40			

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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PAGE 1 OF 1

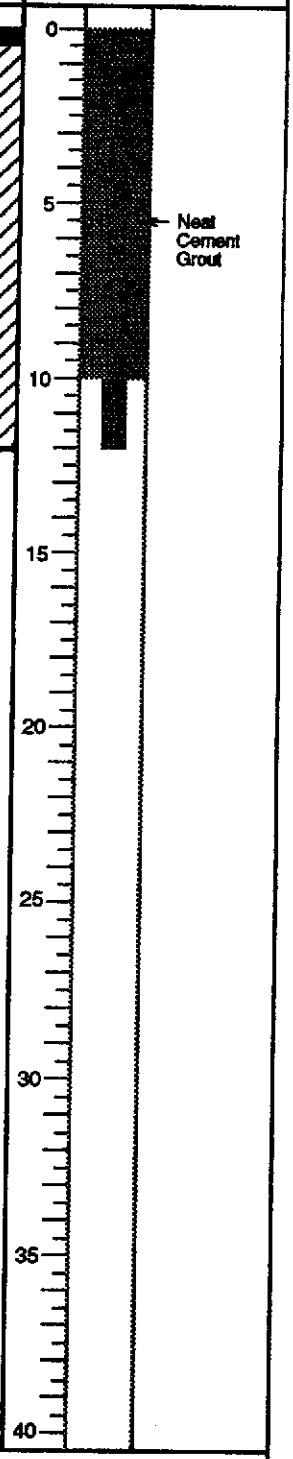
41-0034/B-6 03/21/95

PROJECT NO.: 41-0034	DATE DRILLED: 3/2/95
LOCATION: USA Gas #57	LOGGED BY: A. Le May
10700 MacArthur Boulevard	APPROVED BY: M. Katen, RG
Oakland, California	DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 12.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0	Hand-augered to 5 feet. 6 inches Concrete.		
2,2,5	130 60	ND			SANDY CLAY: dark olive gray, very soft, damp, with silt and occasional pebbles.	CL	
2,7,11	10	ND		5	At 4.5 feet depth, dark brown, harder, increased silt content.		
2,13,21	10	ND		10	Dark olive gray, medium hard, damp, with silt. At 11.5 feet depth, dark brown, hard.		
				15			
				20			
				25			
				30			
				35			
				40			

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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PAGE 1 OF 1

41-0034/B-7 03/21/95

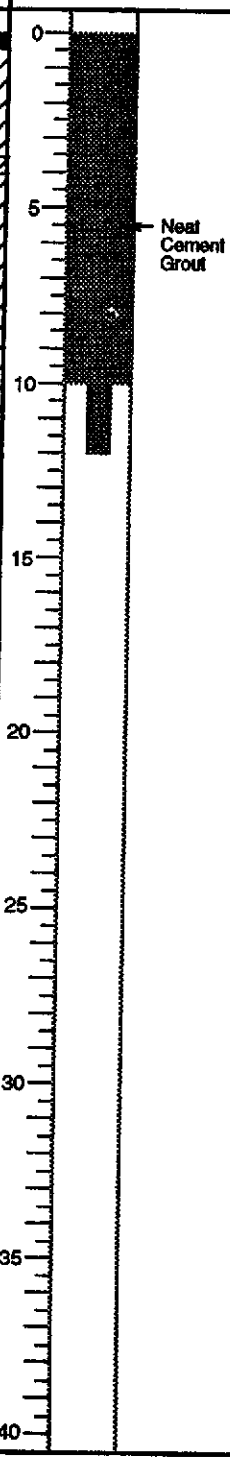
PROJECT NO.: 41-0034
LOCATION: USA Gas #57
10700 MacArthur Boulevard
Oakland, California

DATE DRILLED: 3/2/95
LOGGED BY: A. Le May
APPROVED BY: M. Katen, RG
DRILLING CO.: Bayland Drilling

DRILLING METHOD: 8-inch diameter Hollow-Stem Auger
SAMPLER TYPE: California Modified Split-Spoon
TOTAL DEPTH: 12.0 feet DEPTH TO WATER:

BLOWS PER 6 INCHES	CGI (ppm)	TPH-G (ppm)	SAMPLE	DEPTH (feet below grade)	DESCRIPTION	USCS	LITHOLOGY
				0	Hand-augered to 4 feet. 6 inches Concrete.		
4,4,7	90	17			SANDY CLAY: dark olive gray, very soft, damp.	CL	
					CLAYEY SAND: dark olive gray, very soft, damp, with some small gravel pebbles.	SC	
2,3,5	95	ND		5	GRAVELLY CLAY: dark olive gray, very soft, saturated.	CL	
17,23,22	25	2.0		10	SILTY CLAY: dark yellowish brown, hard, damp, with rare small pebbles, with sand.		
				15			
				20			
				25			
				30			
				35			
				40			

WELL CONSTRUCTION DETAIL



ALTON GEOSCIENCE
Livermore, California

LOG OF EXPLORATORY BORING

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APPENDIX B

ANALYTICAL METHODS, OFFICIAL LABORATORY REPORTS, AND CHAIN OF CUSTODY RECORDS

ANALYTICAL METHODS

All analyses were performed by a state-certified laboratory in accordance with the following methods:

Sample Analysis - Soil & Water

Total Petroleum Hydrocarbons
as Gasoline (TPH-G) using EPA Method 8015 Modified for gasoline

Total Petroleum Hydrocarbons
as Diesel (TPH-D) using EPA Method 8015 Modified for diesel

Benzene, Toluene,
Ethylbenzene, and
Total Xylenes (BTEX) using EPA Method 8020

OFFICIAL LABORATORY REPORTS AND QUALITY ASSURANCE/QUALITY CONTROL (QA/QC) REPORTS

Official laboratory and QA/QC reports are provided by the state-certified laboratory performing the analyses. The QA/QC reports for samples from each group of analyses completed for a single gas chromatograph calibration are provided.

CHAIN OF CUSTODY PROTOCOL

Chain of Custody protocol was followed for all samples selected for laboratory analysis. The Chain of Custody form(s) accompanies the samples from the sampling locality to the laboratory, providing a continuous record of possession prior to analysis.

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Ailsa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 503-0193

Sampled: Feb 28, 1995
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0193 B-1 (5.5)	Sample I.D. 503-0194 B-1 (9.5)	Sample I.D. 503-0195 B-1 (13.0)	Sample I.D. 503-0196 B-1 (20.0)	Sample I.D. 503-0197 B-1 (25.0)	Sample I.D. 503-0198 B-1 (31.0)
Purgeable Hydrocarbons	1.0	N.D.	44	540	N.D.	3.9	N.D.
Benzene	0.0050	N.D.	0.12	2.6	0.012	0.048	N.D.
Toluene	0.0050	N.D.	N.D.	10	0.016	0.14	0.011
Ethyl Benzene	0.0050	N.D.	0.14	7.5	N.D.	0.062	0.0057
Total Xylenes	0.0050	N.D.	0.40	48	0.029	0.37	0.045
Chromatogram Pattern:		--	Gasoline	Gasoline		Gasoline	--

RECEIVED
MAR 31 1995

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	50	1.0	1.0	1.0
Date Analyzed:	3/6/95	3/6/95	3/7/95	3/6/95	3/6/95	3/6/95
Instrument Identification:	HP-4	HP-2	HP-4	HP-4	HP-4	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	95	104	88	97	86	95

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

5030193.ALT <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience	Client Project ID:	USA Gas #57	Sampled: 2/28 - 3/1/95
30-A Lindbergh Ave.	Sample Matrix:	Soil	Received: Mar 3, 1995
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: Mar 16, 1995
Attention: Alisa LeMay	First Sample #:	503-0199	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0199 B-1 (35.0)	Sample I.D. 503-0200 B-1 (40.5)	Sample I.D. 503-0201 B-2 (5.0)	Sample I.D. 503-0202 B-2 (10.5)	Sample I.D. 503-0203 B-2 (16.0)	Sample I.D. 503-0204 B-2 (21.0)
Purgeable Hydrocarbons	1.0	N.D.	N.D.	N.D.	N.D.	16	110
Benzene	0.0050	0.014	N.D.	N.D.	N.D.	0.057	0.96
Toluene	0.0050	0.018	N.D.	N.D.	N.D.	0.028	0.41
Ethyl Benzene	0.0050	0.012	N.D.	N.D.	N.D.	0.029	0.33
Total Xylenes	0.0050	0.079	N.D.	N.D.	N.D.	1.2	1.5
Chromatogram Pattern:		--	--	--	--	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	25
Date Analyzed:	3/6/95	3/7/95	3/6/95	3/6/95	3/6/95	3/6/95
Instrument Identification:	HP-2	HP-4	HP-2	HP-4	HP-4	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	97	92	95	94	92	92

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

5030193.ALT <2>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Allsa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 502-0205

Sampled: Mar 1-2, 1995
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 502-0205 B-2 (26.0)	Sample I.D. 502-0206 B-3 (11.0)	Sample I.D. 502-0207 B-3 (15.5)	Sample I.D. 502-0208 B-3 (20.5)	Sample I.D. 502-0209 B-4 (3.0)	Sample I.D. 502-0210 B-4 (6.0)
Purgeable Hydrocarbons	1.0	240	N.D.	10	15	N.D.	N.D.
Benzene	0.0050	0.76	N.D.	0.044	0.041	N.D.	N.D.
Toluene	0.0050	1.4	N.D.	0.11	0.37	N.D.	N.D.
Ethyl Benzene	0.0050	0.85	N.D.	0.079	0.15	N.D.	N.D.
Total Xylenes	0.0050	1.9	N.D.	0.63	1.1	N.D.	N.D.
Chromatogram Pattern:		Gasoline	--	Gasoline	Gasoline	--	--

Quality Control Data

Report Limit Multiplication Factor:	10	1.0	2.5	2.0	1.0	1.0
Date Analyzed:	3/7/95	3/6/95	3/6/95	3/8/95	3/6/95	3/6/95
Instrument Identification:	HP-4	HP-4	HP-4	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	110	89	86	107	100	102

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

5030193.ALT <3>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Ailsa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 503-0211

Sampled: Mar 2, 1995
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0211 B-4 (12.0)	Sample I.D. 503-0212 B-5 (5.5)	Sample I.D. 503-0213 B-5 (12.0)	Sample I.D. 503-0214 B-6 (4.0)	Sample I.D. 503-0215 B-6 (5.5)	Sample I.D. 503-0216 B-6 (12.0)
Purgeable Hydrocarbons	1.0	N.D.	N.D.	N.D.	33	2.6	N.D.
Benzene	0.0050	N.D.	N.D.	N.D.	0.093	0.062	N.D.
Toluene	0.0050	N.D.	N.D.	N.D.	0.065	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.	N.D.	0.33	0.030	N.D.
Total Xylenes	0.0050	N.D.	N.D.	N.D.	2.0	0.047	0.022
Chromatogram Pattern:		--	--	--	Gasoline	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	5.0	1.0	1.0
Date Analyzed:	3/7/95	3/7/95	3/7/95	3/8/95	3/7/95	3/7/95
Instrument Identification:	HP-4	HP-4	HP-4	HP-2	HP-2	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	94	89	91	92	100	101

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

5030193.ALT <4>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Ailsa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 503-0217

Sampled: Mar 2, 1995
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0217 B-7 (3.5)	Sample I.D. 503-0218 B-7 (5.0)	Sample I.D. 503-0219 B-7 (12.0)	Sample I.D. 503-0220 B-8 (3.0)	Sample I.D. 503-0221 B-8 (5.5)	Sample I.D. 503-0222 B-8 (12.0)
Purgeable Hydrocarbons	1.0	N.D.	N.D.	N.D.	17	N.D.	2.0
Benzene	0.0050	N.D.	N.D.	N.D.	0.012	0.019	0.042
Toluene	0.0050	N.D.	N.D.	N.D.	0.021	N.D.	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.	N.D.	0.12	0.050	N.D.
Total Xylenes	0.0050	N.D.	N.D.	N.D.	0.16	N.D.	0.016
Chromatogram Pattern:		--	--	--	Gasoline	--	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	2.0	1.0	1.0
Date Analyzed:	3/7/95	3/7/95	3/7/95	3/7/95	3/7/95	3/7/95
Instrument Identification:	HP-4	HP-2	HP-2	HP-2	HP-4	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	91	103	104	114	74	104

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

5030193.ALT <5>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Alisa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 503-0223

Sampled: Feb 28, 1995
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0223 MW-3 (5.5)	Sample I.D. 503-0224 MW-3 (11.5)	Sample I.D. 503-0225 MW-3 (13.5)	Sample I.D. 503-0226 MW-3 (15.5)	Sample I.D. 503-0227 MW-3 (21.5)	Sample I.D. 503-0228 MW-3 (24.5)
Purgeable Hydrocarbons	1.0	N.D.	1.9	240	110	3.0	N.D.
Benzene	0.0050	N.D.	0.026	0.41	0.37	0.26	0.030
Toluene	0.0050	N.D.	0.011	0.64	3.8	0.24	0.0069
Ethyl Benzene	0.0050	N.D.	0.0061	2.0	1.5	0.059	0.0056
Total Xylenes	0.0050	N.D.	0.019	5.4	10	0.50	0.016
Chromatogram Pattern:		--	Gasoline	Gasoline	Gasoline	Gasoline	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	50	50	1.0	1.0
Date Analyzed:	3/7/95	3/7/95	3/7/95	3/7/95	3/7/95	3/7/95
Instrument Identification:	HP-4	HP-2	HP-4	HP-4	HP-4	HP-2
Surrogate Recovery, %: (QC Limits = 70-130%)	93	95	89	100	92	96

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

5030193.ALT <6>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Allsa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 5030/8015/8020
First Sample #: 503-0229

Sampled: Feb 28, 1995
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0229 MW-3 (29.5)	Sample I.D. 503-0230 MW-3 (39.5)
Purgeable Hydrocarbons	1.0	N.D.	N.D.
Benzene	0.0050	N.D.	N.D.
Toluene	0.0050	0.0054	N.D.
Ethyl Benzene	0.0050	N.D.	N.D.
Total Xylenes	0.0050	0.0092	N.D.
Chromatogram Pattern:		--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0
Date Analyzed:	3/7/95	3/7/95
Instrument Identification:	HP-2	HP-4
Surrogate Recovery, %: (QC Limits = 70-130%)	95	92

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

SEQUOIA ANALYTICAL, #1271

Kevin Van Slambrook
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Ailsa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: 503-0195

Sampled: 2/28 - 3/2/95
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0195 B-1 (13.0)	Sample I.D. 503-0200 B-1 (40.5)	Sample I.D. 503-0205 B-2 (26.0)	Sample I.D. 503-0208 B-3 (20.5)	Sample I.D. 503-0211 B-4 (12.0)	Sample I.D. 503-0213 B-5 (12.0)
Extractable Hydrocarbons	1.0	55	N.D.	22	1.3	N.D.	N.D.
Chromatogram Pattern:		Unidentified Hydrocarbons C9-C24	--	Unidentified Hydrocarbons C9-C24	Unidentified Hydrocarbons C9-C24	--	--

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0	1.0	1.0
Date Extracted:	3/8/95	3/8/95	3/8/95	3/8/95	3/8/95	3/8/95
Date Analyzed:	3/10/95	3/10/95	3/10/95	3/10/95	3/10/95	3/10/95
Instrument Identification:	GCHP-5A	GCHP-5B	GCHP-5B	GCHP-5B	GCHP-5B	GCHP-5B

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

SEQUOIA ANALYTICAL, #1210

Kevin Van Slambrook
Project Manager

5030193.ALT <8>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Alisa LeMay

Client Project ID: USA Gas #57
Sample Matrix: Soil
Analysis Method: EPA 3550/8015
First Sample #: 503-0214

Sampled: 2/28 - 3/2/95
Received: Mar 3, 1995
Reported: Mar 16, 1995

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit mg/kg	Sample I.D. 503-0214 B-6 (4.0)	Sample I.D. 503-0217 B-7 (3.5)	Sample I.D. 503-0221 B-8 (5.5)	Sample I.D. 503-0225 MW-3 (13.5)
Extractable Hydrocarbons	1.0	5.3	N.D.	N.D.	12
Chromatogram Pattern:		Unidentified Hydrocarbons C9-C24	--	--	Unidentified Hydrocarbons C9-C24

Quality Control Data

Report Limit Multiplication Factor:	1.0	1.0	1.0	1.0
Date Extracted:	3/8/95	3/8/95	3/8/95	3/8/95
Date Analyzed:	3/10/95	3/10/95	3/10/95	3/10/95
Instrument Identification:	GCHP-5B	GCHP-5B	GCHP-5B	GCHP-5B

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

SEQUOIA ANALYTICAL, #1210

Kevin Van Slambrook
Project Manager

5030193.ALT <9>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Allsa LeMay

Client Project ID: USA Gas #57
Matrix: Solid

QC Sample Group: 5030193-230

Reported: Mar 16, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes	Diesel
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020	EPA 8015 Mod.
Analyst:	A. Tuzon	A. Tuzon	A. Tuzon	A. Tuzon	N. Herrera
MS/MSD Batch#:	5030181	5030181	5030181	5030181	9503518-4
Date Prepared:	3/7/95	3/7/95	3/7/95	3/7/95	3/8/95
Date Analyzed:	3/7/95	3/7/95	3/7/95	3/7/95	3/9/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	GCHP-5B
Conc. Spiked:	0.40 mg/kg	0.40 mg/kg	0.40 mg/kg	1.2 mg/kg	15 mg/kg
Matrix Spike % Recovery:	95	95	103	100	87
Matrix Spike Duplicate % Recovery:	95	95	100	98	93
Relative % Difference:	0.0	0.0	3.0	2.0	7.4
LCS Batch#:	1LCS030795	1LCS030795	1LCS030795	1LCS030795	BLK030895
Date Prepared:	3/7/95	3/7/95	3/7/95	3/7/95	3/8/95
Date Analyzed:	3/7/95	3/7/95	3/7/95	3/7/95	3/9/95
Instrument I.D.#:	HP-2	HP-2	HP-2	HP-2	GCHP-5A
LCS % Recovery:	97	97	101	101	87
% Recovery Control Limits:	55-145	47-149	47-155	56-140	38-122

SEQUOIA ANALYTICAL, #1210

Kevin Van Slambrook
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.

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Company Name: ALTON GEOSCIENCE	Project Name: USA GAS #57
Address: 30A Wedbergh Ave	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	
Telephone: 510 606 9150 FAX #: 5106069260	P.O. #: 417188
Report To: Gilsa LeMay Sampler: Gilsa LeMay	QC Data: ☒ Level A (Standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Time: ☒ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☐ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☒ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH6/BTEX	TPH-D	Comments
1. B-1 (5.5)	2-28-95	Soil	1	steel tube	5030193	X		
2. B-1 (9.5)					5030194	X		
3. B-1 (13.0)					5030195	X	X	
4. B-1 (20.0)					5030196	X		
5. B-1 (25.0)					5030197	X		
6. B-1 (31.0)					5030198	X		
7. B-1 (35.0)					5030199	X		
8. B-1 (40.5)					5030200	X	X	
9. B-1 (46.0)								hold
10.								

Relinquished By:	Date: 3-3-95	Time: 1220	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 3/3/95	Time: 1220

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____ Page ___ of ___

Pink - Client
Yellow - Sequoia
White - Sequoia

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Company Name: ACTON GEOSCIENCE		Project Name: USA GAS #57	
Address: 30X Lindbergh Ave		Billing Address (if different):	
City: Livermore State: CA	Zip Code: 94550		
Telephone: 510 606 9150	FAX #: 510 606 9260	P.O. #: 417188	
Report To: Alisa LeMay	Sampler: Alisa LeMay	QC Data: ☒ Level A (Standard) ☐ Level B ☐ Level C ☐ Level D	

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☒ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G/BTEX	TPH-D	Comments
1. B-2 (5.0)	3-1-95	Soil	1	steel tube	5030201	X		
2. B-2 (10.5)					5030202	X		
3. B-2 (16.0)					5030203	X		
4. B-2 (21.0)					5030204	X		
5. B-2 (26.0)					5030205	X	X	
6. B-2 (31.0)								hold
7. B-3 (5.5)								HOLD
8. B-3 (11.0)					5030206	X		
9. B-3 (15.5)					5030207	X		
10. B-3 (20.5)					5030208	X	X	

Relinquished By:	Date: 3-3-95	Time: 1720	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 3/3/95	Time: 1720

Were Samples Received in Good Condition? ☐ Yes ☐ No

Samples on Ice? ☐ Yes ☐ No Method of Shipment _____

Page 1 of 1

Pink - Client

Yellow - Sequoia

White - Sequoia

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☐ 819 West Striker Ave. • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Company Name: ALTON GEOSCIENCE	Project Name: USA GAS #57
Address: 30A Londonderry Ave	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	
Telephone: 510 606 9150 FAX #: 5106069260	P.O. #: 417188
Report To: Ailsa LeMay Sampler: Ailsa LeMay	QC Data: ☒ Level A (Standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours

☐ Drinking Water ☐ Waste Water ☒ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G / BTEX	TPH-D	Comments
1. B-4 (3.0)	3-2-95	Soil	1	steel tube	5030209	X		
2. B-4 (6.0)					5030210	X	X	
3. B-4 (12.0)					5030211	X	X	
4. B-5 (4.0)						~~X~~		
5. B-5 (5.5)					5030212	X		please Hold
6. B-5 (12.0)					5030213	X	X	
7. B-6 (4.0)					5030214	X	X	
8. B-6 (5.5)					5030215	X		
9. B-6 (12.0)					5030216	X		
10.								

Pink - Client
Yellow - Sequoia
White - Sequoia

Relinquished By:	Date: 3-3-95	Time: 17:20	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 3/3/95 Time: 1720

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Company Name: ALTON GEOSCIENCE	Project Name: USA GAS #57
Address: 30A Lindbergh Ave	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	
Telephone: 510 606 9450 FAX #: 510 606 9260	P.O. #: 417188
Report To: Ailsa LeMay Sampler: Ailsa LeMay	QC Data: ☒ Level A (Standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Time: ☒ 10 Working Days ☐ 3 Working Days ☐ 2 - 8 Hours ☐ 7 Working Days ☐ 2 Working Days ☐ 5 Working Days ☐ 24 Hours (10 day)

☐ Drinking Water ☐ Waste Water ☒ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G/BTEX	TPH-D	Comments
1. B-7 (3.5)	3-2-95	Soil	1	Steel tube	5030217	X	X	
2. B-7 (5.0)					5030218	X		All to be Rush Turn
3. B-7 (12.0)					5030219	X		
4. B-8 (3.0)					5030220	X		
5. B-8 (5.5)					5030221	X	X	
6. B-8 (12.0)					5030222	X		
7. SP-1								please Hold
8. SP-2								please Hold
9. SP-3								please Hold
10. SP-4								please Hold

Relinquished By:	Date: 3-3-95	Time: 17:20	Received By:	Date: / Time:
Relinquished By:	Date:	Time:	Received By:	Date: / Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: 3/3/95 Time: 1120

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____

Page 1 of 1

Pink - Client Yellow - Sequoia White - Sequoia

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

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☐ 819 West Striker Ave. • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Company Name: ALTON GEOSCIENCE	Project Name: USA GAS # 57
Address: 30A Lindbergh Ave	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	
Telephone: 510 606 9150 FAX #: 510 606 9260	P.O. #: 417188
Report To: Ailsa LeMay Sampler: Ailsa LeMay	QC Data: ☒ Level A (Standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Time:
☒ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days
☑ 3 Working Days ☐ 2 Working Days ☐ 24 Hours
☐ 2 - 8 Hours

☐ Drinking Water
☐ Waste Water
☒ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G	BTEX	TPH-D	Comments
1. MW-3 (5.5)	2-28-95	Soil	1	steel tube	5030223	X			
2. MW-3 (11.5)					5030224	X			
3. MW-3 (13.5)					5030225	X	X		
4. MW-3 (15.5)					5030226	X			
5. MW-3 (21.5)					5030227	X			
6. MW-3 (24.5)					5030228	X			
7. MW-3 (29.5)					5030229	X			
8. MW-3 (39.5)					5030230	X			
9.									
10.									

Pink - Client
Yellow - Sequoia
White - Sequoia

Relinquished By:	Date: 3-3-95	Time: 17:20	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By:	Date: Time:
Relinquished By:	Date:	Time:	Received By Lab:	Date: Time:

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience	Client Project ID:	USA Gas #57	Sampled: Mar 3, 1995
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Mar 6, 1995
Livermore, CA 94550	Analysis Method:	EPA 5030/8015/8020	Reported: Mar 22, 1995
Attention: Ailsa LeMay	First Sample #:	503-0307	

TOTAL PURGEABLE PETROLEUM HYDROCARBONS with BTEX DISTINCTION

Analyte	Reporting Limit µg/L	Sample I.D. 503-0307 MW-3	Sample I.D. 503-0308 S1	Sample I.D. 503-0309 S2
Purgeable Hydrocarbons	50	2,500	910	24,000
Benzene	0.50	540	260	1,900
Toluene	0.50	92	7.6	440
Ethyl Benzene	0.50	36	16	600
Total Xylenes	0.50	200	14	2,500
Chromatogram Pattern:		Gasoline	Gasoline	Gasoline

Quality Control Data

Report Limit Multiplication Factor:	10	10	20
Date Analyzed:	3/11/95	3/11/95	3/9/95
Instrument Identification:	HP-1	HP-1	HP-1
Surrogate Recovery, %: (QC Limits = 70-130%)	82	75	107

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

SEQUOIA ANALYTICAL, #2000

Kevin Van Slambrook
Project Manager

5030307.ALT <1>

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
404 N. Wiget Lane, Walnut Creek, CA 94598, (510) 988-9600, FAX (510) 988-9673
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

Alton Geoscience	Client Project ID:	USA Gas #57	Sampled: Mar 3, 1995
30-A Lindbergh Ave.	Sample Matrix:	Water	Received: Mar 6, 1995
Livermore, CA 94550	Analysis Method:	EPA 3510/3520/8015	Reported: Mar 22, 1995
Attention: Alisa LeMay	First Sample #:	503-0307	

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS

Analyte	Reporting Limit µg/L	Sample I.D. 503-0307 MW-3	Sample I.D. 503-0308 S1	Sample I.D. 503-0309 S2
Extractable Hydrocarbons	50	1,600	5,900	6,000
Chromatogram Pattern:		Discrete Peaks and Unidentified Hydrocarbons C9-C24	Unidentified Hydrocarbons C9-C24	Unidentified Hydrocarbons C9-C24

Quality Control Data

Report Limit Multiplication Factor:	1.0	10	4.0
Date Extracted:	3/13/95	3/13/95	3/13/95
Date Analyzed:	3/15/95	3/18/95	3/16/95
Instrument Identification:	GCHP-4A	GCHP-5B	GCHP-5A

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

SEQUOIA ANALYTICAL, #1210

Kevin Van Slambrook
Project Manager

5030307.ALT <2>

Sequoia Analytical

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Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Alisa LeMay

Client Project ID: USA Gas #57
Matrix: Liquid

QC Sample Group: 5030307-09

Reported: Mar 22, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	N. Zahedi	N. Zahedi	N. Zahedi	N. Zahedi
MS/MSD Batch#:	5030074	5030074	5030074	5030074
Date Prepared:	3/9/95	3/9/95	3/9/95	3/9/95
Date Analyzed:	3/9/95	3/9/95	3/9/95	3/9/95
Instrument I.D.#:	HP-1	HP-1	HP-1	HP-1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	101	93	104	106
Matrix Spike Duplicate % Recovery:	94	80	101	99
Relative % Difference:	7.2	15	2.9	6.8
LCS Batch#:	LCS030995	LCS030995	LCS030995	LCS030995
Date Prepared:	3/9/95	3/9/95	3/9/95	3/9/95
Date Analyzed:	3/9/95	3/9/95	3/9/95	3/9/95
Instrument I.D.#:	HP-1	HP-1	HP-1	HP-1
LCS % Recovery:	102	103	105	108
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #2000

Kevin Van Slambrook
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.

Sequoia Analytical

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Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Alisa LeMay

Client Project ID: USA Gas #57
Matrix: Liquid

QC Sample Group: 5030307-09

Reported: Mar 22, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Benzene	Toluene	Ethyl Benzene	Xylenes
Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Analyst:	N. Zahedi	N. Zahedi	N. Zahedi	N. Zahedi
MS/MSD Batch#:	LCS031195	LCS031195	LCS031195	LCS031195
Date Prepared:	3/11/95	3/11/95	3/11/95	3/11/95
Date Analyzed:	3/11/95	3/11/95	3/11/95	3/11/95
Instrument I.D.#:	HP-1	HP-1	HP-1	HP-1
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Matrix Spike % Recovery:	108	109	113	114
Matrix Spike Duplicate % Recovery:	100	101	102	106
Relative % Difference:	7.7	7.6	10	7.3
LCS Batch#:	LCS031195	LCS031195	LCS031195	LCS031195
Date Prepared:	3/11/95	3/11/95	3/11/95	3/11/95
Date Analyzed:	3/11/95	3/11/95	3/11/95	3/11/95
Instrument I.D.#:	HP-1	HP-1	HP-1	HP-1
LCS % Recovery:	108	109	113	114
% Recovery Control Limits:	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL, #2000

Kevin Van Slambrook
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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Alton Geoscience
30-A Lindbergh Ave.
Livermore, CA 94550
Attention: Allsa LeMay

Client Project ID: USA Gas #57
Matrix: Liquid

QC Sample Group: 5030307-09

Reported: Mar 22, 1995

QUALITY CONTROL DATA REPORT

ANALYTE	Diesel
Method:	EPA 8015 Mod.
Analyst:	B. Ali
MS/MSD Batch#:	BLK031395
Date Prepared:	3/13/95
Date Analyzed:	3/14/95
Instrument I.D.#:	GCHP-4A
Conc. Spiked:	600 µg/L
Matrix Spike % Recovery:	73
Matrix Spike Duplicate % Recovery:	80
Relative % Difference:	8.7
LCS Batch#:	-
Date Prepared:	-
Date Analyzed:	-
Instrument I.D.#:	-
LCS % Recovery:	-
% Recovery Control Limits:	38-122

SEQUOIA ANALYTICAL, #1210

Kevin Van Slambrook
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.

SEQUOIA ANALYTICAL
CHAIN OF CUSTODY

☐ 680 Chesapeake Drive • Redwood City, CA 94063 • (415) 364-9600 FAX (415) 364-9233
☐ 819 West Striker Ave. • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
☒ 1900 Bates Ave., Suite LM • Concord, CA 94520 • (510) 686-9600 FAX (510) 686-9689

Company Name: ALTON GEOSCIENCE	Project Name: USA GAS #57
Address: 30A Lindbergh Ave	Billing Address (if different):
City: Livermore State: CA Zip Code: 94550	
Telephone: 510 6069150 FAX #: 5106069260	P.O. #: 417187
Report To: Ailsa LeMay Sampler: Mark Farid	QC Data: ☒ Level A (Standard) ☐ Level B ☐ Level C ☐ Level D

Turnaround Time: ☒ 10 Working Days ☐ 7 Working Days ☐ 5 Working Days ☐ 3 Working Days ☐ 2 Working Days ☐ 24 Hours ☐ 2 - 8 Hours

☐ Drinking Water ☐ Waste Water ☒ Other

Analyses Requested

Client Sample I.D.	Date/Time Sampled	Matrix Desc.	# of Cont.	Cont. Type	Sequoia's Sample #	TPH-G/BTEX	TPH-D							Comments
1. MW-3	3/3 2:30	H2O	3	VOA		X	X					5030307		A-D
2. S1	3/3 12:50	↓	1	1L Amber		X	X					5030308		
3. S2	3/3 2:00	↓	↓	↓		X	X					5030309		↓
4.														
5.														
6.														
7.														
8.														
9.														
10.														

Relinquished By: Mark Farid	Date: 3/6/95	Time: 9:40	Received By: [signature]	Date: 3/6/95	Time: 9:40
Relinquished By: [signature]	Date: 3/6/95	Time: 11:50	Received By: [signature]	Date: 3-6-95	Time: 1:20
Relinquished By: [signature]	Date: 3-6-95	Time: 4:20	Received By Lab: [signature]	Date: 3/6/95	Time: 1600

Were Samples Received in Good Condition? ☐ Yes ☐ No Samples on Ice? ☐ Yes ☐ No Method of Shipment _____

Page of

Pink - Client
Yellow - Sequoia
White - Sequoia

RON ARCHER

CIVIL ENGINEER INC.

CONSULTING • PLANNING • DESIGN • SURVEYING

4133 Mohr Ave., Suite E • Pleasanton, CA 94566
(510) 462-9372

MARCH 15, 1995

JOB NO 2258

ELEVATIONS OF EXISTING MONITORING WELLS AT THE FORMER U.S.A. GASOLINE CORPORATION STATION NO. 57 LOCATED AT 10700 MacARTHUR BOULEVARD, CITY OF OAKLAND, ALAMEDA COUNTY, CALIFORNIA.

FOR: *ALTON GEOSCIENCE*

BENCHMARK: # 106

A FOUND CUT "T" AT THE BACK OF SIDEWALK INTERSECTION OF THE NORTHWESTERLY CORNER OF INTERSECTION OF DURANT AVENUE AND FOOTHILL BOULEVARD ELEVATION TAKEN AS 79.392 M.S.L. (N.G.V.D.).

MONITORING WELL DATA TABLE

WELL DESIGNATION	TOP OF CASING ELEVATION	TOP OF BOX ELEVATION
S-1	74.74 (IRON COLLAR)	75.07
S-2	76.86	77.36
MW-3	76.30	76.72

NOTE: ELEVATION TAKEN ON THE IRON COLLAR ON S1 WAS NEXT TO THE LOCKING RING.