

Shell Oil Company



P.O. Box 4023
Concord, CA 94520

Telephone: (415) 676-1414

December 17, 1987

Mr. Rick Mueller
Pleasanton Fire Department
4444 Railroad
Pleasanton, Ca. 94506

SUBJECT: SHELL STATION
3790 HOPYARD RD. & LOS POSITAS
PLEASANTON, CA.

Dear Mr. Mueller:

Enclosed is the report from Pacific Environmental Group, Inc. dated December 4, 1987 presenting the results of the soil and groundwater investigation conducted at the referenced location.

If you should have any questions or comments, please contact me at (415) 676-1414 ext. 127.

Very Truly Yours,

A handwritten signature in cursive script, appearing to read "Stanley J. Roller".

Stanley J. Roller
Area Environmental Engineer

enclosure

cc: Mr. Greg Zentner, Regional Water Quality Control Board
Ms. Christa Lopez, Gettler-Ryan Inc.
Mr. Craig Mayfield, Alameda County Water District
Mr. Ray Newsome, Shell Oil Co.

Shell Oil Company



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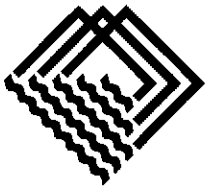
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Mr. Craig Mayfield, Alameda County Water District
Mr. Ray Newsome, Shell Oil Co.



PACIFIC
ENVIRONMENTAL
GROUP, INC.

RECEIVED

DEC 07 1987

GETTLER-RYAN, INC.
GENERAL CONTRACTOR

December 4, 1987
Project No. 101-08.01

Gettler-Ryan Inc.
1992 National Avenue
Hayward, CA 94545

Attn: Mr. Jeff Ryan

Re: Shell Service Station
Hopyard Road at W. Los Positas
Pleasanton, California

Gentlemen:

This letter presents the results of a soil and groundwater investigation conducted at the Shell Oil Company service station located at Hopyard Road and West Los Positas Boulevard in Pleasanton, California (See Figure 1). The purposes of the investigation were to: 1) document soil conditions beneath the tank complex and adjacent to the product lines and 2) document groundwater conditions at the site. The scope of this investigation included installation of two tank-backfill interface monitoring wells, two groundwater monitoring wells, and sampling and analysis of the two groundwater monitoring wells.

SITE INVESTIGATION

Procedures

The two interface wells (ST-1 and ST-2) and the two groundwater monitoring wells (S-1 and S-2) were installed on October 28, 1987. The interface wells were installed in-between the product storage tanks at the site. The groundwater monitoring wells were installed adjacent to product and vent lines. The well locations are shown on Figure 1.

The borings for the monitoring wells and the interface wells were drilled using eight-inch diameter hollow-stem auger drilling equipment and were logged by a PACIFIC geologist using the Unified Soil Classification System. Boring logs are attached to this report. Soil samples collected for logging and analysis from the monitoring well borings were collected at five-foot intervals by advancing a California-modified split-spoon sampler with brass liners into undisturbed soil beyond the tip of the auger.

The sampler was driven a maximum of 18 inches, using a 140-pound hammer with a 30-inch drop. Soil samples for logging of the interface wells were taken from auger returns while drilling in the tank backfill. At the fill-native soil interface, an undisturbed sample was collected with a California-modified split spoon sampler in the manner described above.

The soil samples collected were used to perform a head-space analysis in the field for volatile organic compounds. The test procedure involved measuring approximately 30 grams from an undisturbed soil sample, placing this sub-sample in a clean glass jar, and sealing the jar with aluminum foil secured under a ring-type threaded lid. The jar was placed in a warm water bath (75 to 90 degrees F) for approximately twenty minutes. Then the foil was pierced and the head-space within the jar was tested for total organic vapor, measured in parts per million, with a TIP photo-ionization detector. The results of these tests appear on the boring logs.

The borings for the monitoring wells were advanced approximately 20 feet into the water-bearing zone. After the drilling, monitoring wells were constructed using 3-inch diameter, Schedule 40 PVC casing and 0.020-inch factory-slotted screen. The screen was placed through the entire saturated section, extending approximately 10 feet above the static water level. Graded sand pack was placed in the annular space across the screened interval, and it extended approximately one foot above the screen. A bentonite and concrete seal extends from the sand pack to the ground surface. The borings for the interface wells were advanced 18 inches into the native soil beneath the tank backfill. After drilling, interface wells were constructed with 3-inch diameter, Schedule 40 PVC casing and 0.020-inch factory-slotted screen. The screen was placed from 13.5 feet to 4.5 feet in depth. Pea gravel was backfilled around the casing, and a one-foot bentonite and/or concrete seal extended to the surface. A locking cap and protective vault box were installed by Gettler-Ryan on the top of each well.

The two groundwater monitoring wells (S-1 and S-2) were sampled by PACIFIC on November 6, 1987. The procedure consisted of first measuring the water level in each well, and checking each well for the presence of floating petroleum product using a clear teflon bailer. Floating product was not detected in either of the wells. The wells were then purged of approximately four casing volumes using

a submersible pump. After purging the wells were allowed to partially restabilize and samples were collected using a teflon bailer. The samples were placed into the appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to the laboratory for analysis. The groundwater samples were analyzed for low boiling hydrocarbons (gasoline) and benzene, toluene, and xylene isomers (BTX).

Soil samples collected from Borings ST-1 and ST-2 at the depth interval of 13 to 14.5 feet, along with soil samples collected from Borings S-1 and S-2 at the depth intervals of 14 to 15.5 feet, 19 to 20.5 feet, and 33.5 to 35 feet were analyzed for the presence of gasoline, BTX compounds, and total lead. Certified Analytical Reports which summarized analytical methods for the soil and groundwater samples are attached to this letter.

Subsurface Conditions

Subsurface conditions encountered during installation of Wells S-1 and S-2 consisted primarily of clay to the total depth explored of 35 feet. Soils encountered during installation of Wells ST-1 and ST-2 consisted of gravelly sand and clayey sand fill to a depth of 13 feet, underlain by clay to the total depth explored of 14.5 feet. Product odor was noted in all four borings to depths of approximately 14-1/2 to 15 feet.

Groundwater was encountered and stabilized at a depth of approximately 15 feet in Borings S-1 and S-2. Based on regional topography and the proximity of the site to local drainages, the groundwater flow at the site appears to be to the west-southwest.

Field Results

TIP readings ranged from 2.0 parts per million (ppm) to 1789 ppm. Most of the relatively high TIP readings recorded during headspace analysis were noted in soil samples obtained at or just below the water table, from the depths of 15 to 20 feet. TIP results did not correlate well with the analytical results, probably due to moisture content and/or the abundance of naturally occurring organic matter in the soil.

Analytical Results

Gasoline concentrations ranged from none detected in Borings S-1 and S-2 at the 33.5 to 35 foot depth interval to 57 ppm from Boring S-1 at 14 to 15.5 feet in depth.

Soil samples taken from the native soil directly beneath the tank complex in Borings ST-1 and ST-2 contained 13 ppm and 23 ppm gasoline, respectively. Lead concentrations ranged from 4.2 ppm to 7.1 ppm for all samples analyzed.

Laboratory analysis of groundwater samples revealed dissolved gasoline concentrations for Wells S-1 and S-2 of 920 parts per billion (ppb) and 16,000 ppb, respectively. Groundwater and soil analytical results are presented on the attached Table 1, as well as on the attached Certified Analytical Reports.

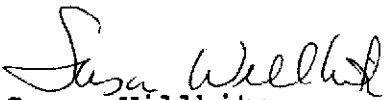
SUMMARY OF FINDINGS

- o The project site is underlain by primarily clayey deposits.
- o Groundwater beneath the site occurs at an approximate depth of 15 feet. The regional groundwater flow direction appears to be west-southwesterly, based on surface topography and drainage patterns in the area.
- o Gasoline concentrations in soil samples analyzed ranged from none detected for samples taken approximately 20 feet below water to 57 ppm for samples taken at static water level. Lead concentrations for soil samples ranged from 4.2 ppm to 7.1 ppm.
- o Groundwater collected from Wells S-1 and S-2 contained 920 ppb and 16,000 ppb dissolved gasoline, respectively.

If you have any questions regarding the contents of this report, please call.

Sincerely,

PACIFIC ENVIRONMENTAL GROUP, INC.


Susan Willhite
Senior Geologist
CEG 1272

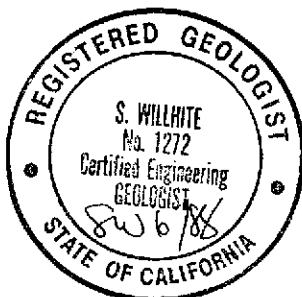


TABLE 1

Summary of Analytical Results

Soil Samples

<u>Boring</u>	<u>Depth (feet)</u>	<u>Gasoline (ppm)</u>	<u>Benzene (ppm)</u>	<u>Toluene (ppm)</u>	<u>Xylenes (ppm)</u>	<u>Lead (ppm)</u>
ST-1	13.0-14.5	13	2.7	0.3	1.4	4.2
ST-2	13.0-14.5	23	0.22	0.7	4.3	4.6
S-1	14.0-15.5	57	5.3	0.3	6.8	7.0
	19.0-20.5	9	0.43	0.1	0.8	6.4
	33.5-35.0	nd	nd	nd	nd	4.2
S-2	14.0-15.5	53	6.7	0.1	8	5.4
	19.0-20.5	5	0.07	nd	0.4	7.1
	33.5-35.0	nd	nd	nd	nd	5.4
Detection Limits		5	0.05	0.1	0.4	

Groundwater Samples (Sample Date: 11/6/87)

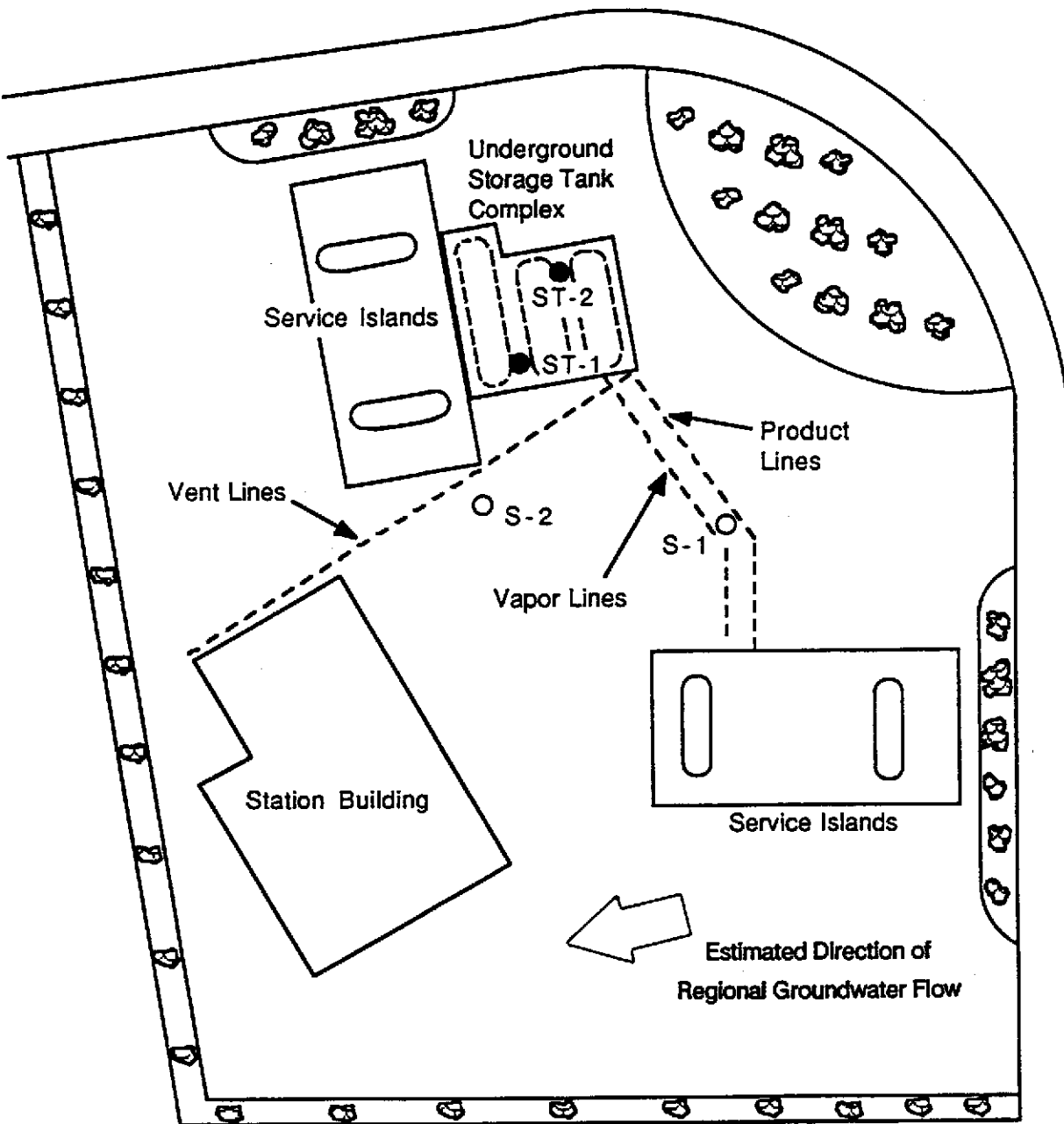
<u>Well</u>	<u>Gasoline (ppb)</u>	<u>Benzene (ppb)</u>	<u>Toluene (ppb)</u>	<u>Xylenes (ppb)</u>
S-1	920	230	nd	150
S-2	16,000	870	nd*	2,700
Detection Limits	50	1	1 100*	1

Notes: nd - not detected
 ppb - parts per billion
 ppm - parts per million

Los Positas Boulevard



Hopyard Road



Legend

○ S-1
● ST-1

Groundwater Monitoring Well Location
Tank Backfill Interface Well Location



Landscaping

Approximate Scale 1" = 30'



PACIFIC
ENVIRONMENTAL
GROUP, INC.

Shell Service Station
Hopyard Road and West Las Positas Boulevard
Pleasanton, California

SITE MAP

FIGURE:
1
PROJECT:
101-08.01

UNIFIED SOIL CLASSIFICATION SYSTEM

PRIMARY DIVISIONS		GROUP SYMBOL	TYPICAL NAMES
COARSE GRAINED SOILS more than half is larger than #200 sieve	GRAVELS half of coarse fraction larger than #4 sieve	CLEAN GRAVELS (less than 5% fines)	GW Well graded gravels, gravel-sand mixtures; little or no fines
			GP Poorly graded gravels or gravel-sand mixtures; little or no fines
		GRAVEL WITH FINES	GM Silty gravels, gravel-sand-silt mixtures
			GC Clayey gravels, gravel-sand-clay mixtures
	SANDS half of coarse fraction smaller than # 4 sieve	CLEAN SANDS (less than 5% fines)	SW Well graded sands, gravelly sands, little or no fines
			SP Poorly graded sands or gravelly sands, little or no fines
		SANDS WITH FINES	SM Silty sands, sand-silt mixtures
			SC Clayey sands, sand-clay mixtures, plastic fines
FINE GRAINED SOILS more than half is smaller than #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 more than 50%	MH Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts	
		CH Inorganic clays of high plasticity, fat clays	
		OH Organic clays of medium to high plasticity, organic silts	
HIGHLY ORGANIC SOILS		Pt Peat and other highly organic soils	

**WELL LOG
KEY TO ABBREVIATIONS**

Drilling Method

HSA - Hollow stem auger
CFA - Continuous flight auger
Air - Reverse air circulation

Gravel Pack

CA - Coarse aquarium sand

Sampling Method

Cal. Mod. - California modified split-spoon sampler (2" inner diameter) driven 18" by a 140-pound hammer having a 30" drop. Where penetration resistance is designated "P", sampler was instead pushed by drill rig.
Disturbed - Sample taken from drill-return materials as they surfaced.
n/a - Not applicable

Moisture Content

Dr - Dry
Dp - Damp
Mst - Moist
Wt - Wet
Sat - Saturated

Sorting

PS - Poorly sorted
MS - Moderately sorted
WS - Well sorted

Plasticity

L - Low
M - Moderate
H - High

H-NU (ppm)

ND - No detection

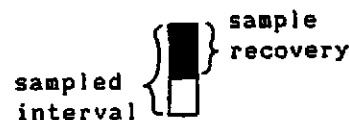
Density

Sands and gravels
VL - Very loose
L - Loose
MD - Medium dense
D - Dense
VD - Very dense

Silts and clays
VS - Very soft
Sft - Soft
MSt - Medium Stiff
Stf - Stiff
VSt - Very stiff
Hd - Hard

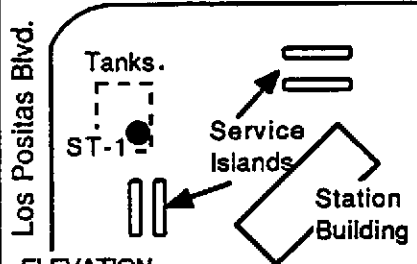
Symbols

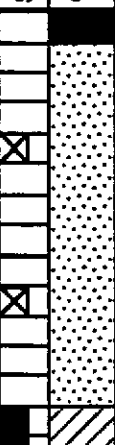
▽ - First encountered ground water
▼ - Static ground water level

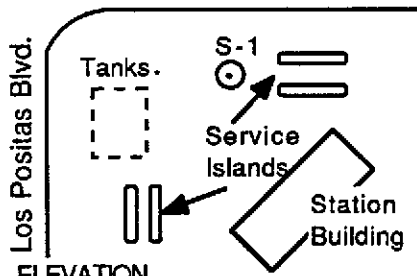


GRAIN-SIZE SCALE

GRADE LIMITS U.S. Standard inches sieve size	GRADE NAME
-----12.0-----	Boulders
-----3.0----- 3.0 in.	Cobbles
-----0.19----- No. 4	Gravel
0.08 - - - - No. 10	coarse
- - - - - No. 40	medium
----- No. 200 -----	fine
	Sand
	Silt
	Clay Size

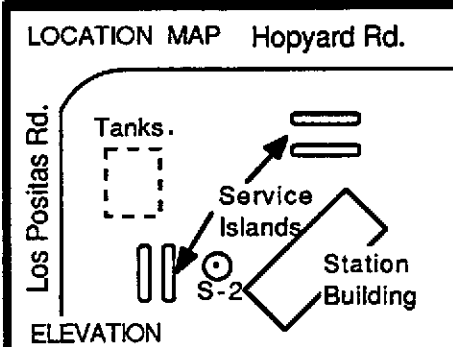
<p>LOCATION MAP Hopyard Rd.</p>  <p>Los Positas Blvd.</p> <p>ELEVATION</p>	<p>PACIFIC ENVIRONMENTAL GROUP, INC.</p> <p>PROJECT NO. 101-08.01 LOGGED BY: EL DRILLING METHOD: HSA SAMPLING METHOD: CAL. MOD. CASING TYPE: SHC. #40 PVC SLOT SIZE: 0.020 GRAVEL PACK: 12 X 20 SAND</p>	<p>WELL / BORING NO. ST-1 PAGE 1 OF 1</p> <p>CLIENT: G-R/SHELL DATE DRILLED: 10/28/87 LOCATION: Hopyard & Los Positas HOLE DIAMETER: 8" HOLE DEPTH: 14.5' WELL DEPTH: 14.5' WELL DIAMETER: 3"</p>
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WELL COMPLETION	MOISTURE CONTENT	TIP	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
<p>Concrete Over Bentonite ↑</p> <p>Pea Gravel ↓</p>				2 4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44		<p>SW</p> <p>CL</p>	<p>CONCRETE FILL</p> <p>SAND FILL; gray; 5-10% fines; fine to coarse grained; 20-30% fine gravel; no product odor.</p> <p>@ 10'; as above; 5-10% fine gravel; strong product odor; product sheen in sample.</p> <p>CLAY; black; moderate plasticity; trace organics; rootlets; soft; faint product odor.</p> <p>BOTTOM OF BORING AT 14.5 FEET</p>
		120	5				

LOCATION MAP Hopyard Rd. 	PACIFIC ENVIRONMENTAL GROUP, INC. PROJECT NO. 101-08.01 LOGGED BY: EL DRILLING METHOD: HSA SAMPLING METHOD: CAL MOD. CASING TYPE: SHC. #40 PVC SLOT SIZE: 0.020 GRAVEL PACK: 12 X 20 SAND	WELL / BORING NO. S-1 PAGE 1 OF 1 CLIENT: G-R/SHELL DATE DRILLED: 10/28/87 LOCATION: Hopyard & Los Positas HOLE DIAMETER: 8" HOLE DEPTH: 35' WELL DEPTH: 35' WELL DIAMETER: 3"
---	---	--

WELL COMPLETION	MOISTURE CONTENT	TIP	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				2			CL	ASPHALT & BASEROCK FILL
		Dp 31.5	P	4			CL	CLAY; gray; trace silt; moderate plasticity; 5-10% fine sand; trace medium sand to fine gravel; faint product odor.
		Dp 85.0	27	6			CL	@ 5'; as above; thin (1") interbed of fine sand; gravel saturated with black product; strong product odor.
		Dp 454	6	8			CH	CLAY; black; high plasticity; trace fine sand; very stiff; faint product odor.
		Dp 597	9	10			CL	CLAY; black; moderate plasticity; trace silt; 5-10% organics; hydrogen sulfide odor; rootlets; medium stiff; faint product odor.
		Wt 2.0	9	12			CL	@ 19'; as above; stiff; no product odor.
		Wt 64.5	11	14			CL	@ 24'; as above; occasional 1"-2" thick peaty clay interbeds; hydrogen sulfide odor; stiff; no product odor.
		Wt 4.0	9	16			CL	@ 29'; as above; peat absent; stiff; no product odor.
				18			CL	@ 33.5'; as above; trace fine to medium sand; 5-10% coarse sand to fine gravel; stiff; no product odor.
				20			CL	
				22			CL	
				24			CL	
				26			CL	
				28			CL	
				30			CL	
				32			CL	
				34			CL	
				36			CL	
				38			CL	
				40			CL	
				42			CL	
				44			CL	

BOTTOM OF BORING AT 35 FEET



PACIFIC ENVIRONMENTAL GROUP, INC.

PROJECT NO. 101-08.01
 LOGGED BY: E.L.
 DRILLING METHOD: HSA
 SAMPLING METHOD: CAL. MOD.
 CASING TYPE: SHC. #40 PVC
 SLOT SIZE: 0.020
 GRAVEL PACK: 12 X 20 SAND

WELL / BORING NO. S-2
 PAGE 1 OF 1

CLIENT: G-R/SHELL
 DATE DRILLED: 10/28/87
 LOCATION: Hopyard & Los Positas
 HOLE DIAMETER: 8"
 HOLE DEPTH: 35'
 WELL DEPTH: 35'
 WELL DIAMETER: 3"

WELL COMPLETION	MOISTURE CONTENT	TIP	PENETRATION RESISTANCE (BLOW/FT)	DEPTH (feet)	SAMPLE GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
Concrete				2		CL	ASPHALT & BASEROCK FILL
	Dp	4.5	P	4		CL	CLAY; gray; moderate plasticity; silty; trace fine to coarse sand; faint product odor.
				6			@3.5'; as above; 5-10% coarse sand to fine gravel; moderate product odor.
Bentonite	Dp	83.5	11	10		CH	CLAY; gray; high plasticity; trace coarse gravel; rootholes; stiff; faint product odor.
				12			
12 X 20 Sand	Dp	314	6	14		CL	CLAY; gray; moderate plasticity; trace fine sand; roots; occasional peaty interbeds; 5-15% organics; hydrogen sulfide odor; medium stiff; faint product odor.
				16			
	Wt	333	3	20			@ 19'; as above; soft; no product odor.
				22			
	Wt	20.5	7	24			@ 24'; as above; peat absent; medium stiff; no product odor.
				26			
				28			
Caved	Wt	5.5	10	30			@29'; as above; no product odor.
				32			
	Wt	11.5	12	34		CH	CLAY; gray; high plasticity; trace silt; stiff; no product odor.
				36			
				38			
				40			
				42			
				44			

BOTTOM OF BORING AT 35 FEET



**INTERNATIONAL
TECHNOLOGY
CORPORATION**

Pacific Environmental Group, Inc.
1601 Civic Center Drive
Suite 202
Santa Clara, CA 95050

November 23, 1987

RECEIVED
NOV 23 1987
PACIFIC ENVIRONMENTAL GROUP, INC.

ATTN: John Adams

Following are the results of analyses on the samples described below.

Project Number: 101-08.01
Lab Numbers: S7-11-033-01 thru S7-11-033-08
Number of Samples: 8
Sample Type: soil
Date Received: 11/3/87
Analyses Requested: Low Boiling Hydrocarbons, Total Lead

The method of analysis for low boiling hydrocarbons is taken from E.P.A. Methods 8015, 8020 and 5030. The sample is examined using the purge and trap technique. Final detection is by gas chromatography using a flame ionization detector as well as a photo-ionization detector.

The result for total low boiling hydrocarbons is calculated as gasoline and include benzene, toluene, ethyl benzene and xylenes.

Results of the analyses for total lead performed by the IT Cerritos Laboratory are attached. The sample identifications are as follows:

<u>IT Santa Clara Laboratory Number</u>	<u>Sample Identification</u>
S7-11-033-01	ST-1, 13-14.5'
S7-11-033-02	ST-2, 13-14.5'
S7-11-033-03	S-1, 14-15.5'
S7-11-033-04	S-1, 19-20.5'
S7-11-033-05	S-1, 33.5-35'
S7-11-033-06	S-2, 14-15.5'
S7-11-033-07	S-2, 19-20.5'
S7-11-033-08	S-2, 33.5-35'


Fred Rouse

FR/ksr

1 Page Following - Table of Results

IT/Santa Clara to
Pacific Environmental Group, Inc.
ATTN: John Adams

November 23, 1987
Page 1 of 1

Summary of Results

Project Number: 101-08.01

Parts per Million - (Dry Soil Basis)

Lab Number	Sample Identification	Parts per Million - (Dry Soil Basis)			
		Low Boiling Hydrocarbons (Gasoline)	Benzene	Toluene	Ethyl benzene and xylenes
S7-11-033-01	ST-1, 13-14.5'	13.	2.7	0.3	1.4
S7-11-033-02	ST-2, 13-14.5'	23.	0.22	0.7	4.3
S7-11-033-03	S-1, 14-15.5'	57.	5.3	0.3	6.8
S7-11-033-04	S-1, 19-20.5'	9.	0.43	0.1	0.8
S7-11-033-05	S-1, 33.5-35'	nd	nd	nd	nd
S7-11-033-06	S-2, 14-15.5'	53.	6.7	0.1	8.
S7-11-033-07	S-2, 19-20.5'	5.	0.07	nd	0.4
S7-11-033-08	S-2, 33.5-35'	nd	nd	nd	nd
Detection Limit		5.	0.05	0.1	0.4



**INTERNATIONAL
TECHNOLOGY
CORPORATION**

**ANALYTICAL
SERVICES**

17605 Fabrica Way • Cerritos, California 90701 • 213-921-9831 / 714-523-9200

IT CORPORATION
RECEIVED
NOV 23 1987



CERTIFICATE OF ANALYSIS

Prepared for: **IT Corporation
397 Mathew Street
Santa Clara, CA 95050**

Date: **November 19, 1987**

Attn: **Sample Administration**

Date Received: **November 7, 1987** P.O. Number **189993/4631-67** Job Number **43658/s/s**
(PEG)

Eight (8) soil samples

The samples were digested with acid. Lead was analyzed by flame atomic absorption spectroscopy. The results are listed below.

<u>Sample ID</u>	<u>Lead</u> Milligrams Per Kilogram
S7-11-033-01A	4.2
S7-11-033-02A	4.6
S7-11-033-03A	7.0
S7-11-033-04A	6.4
S7-11-033-05A	4.2
S7-11-033-06A	5.4
S7-11-033-07A	7.1
S7-11-033-08A	5.4

I certify that this report truly represents the finding of work performed by me or under my direct supervision.

Hung-Dwan Lee
Hung-Dwan Lee
Chemist

Reviewed and Approved

Ken Faust
Ken Faust
Technical Director



RECEIVED
DEC 1 1987
PACIFIC ENVIRONMENTAL GROUP, INC.

Pacific Environmental Group, Inc.
1601 Civic Center Drive
Suite 202
Santa Clara, CA 95050

November 30, 1987

ATTN: John Adams

Following are the results of analyses on the samples described below.

Project Number: 101-08.01, Hopyard & Las Politas
Lab Numbers: S7-11-069-01 and S7-11-069-02
Number of Samples: 2
Sample Type: Water
Date Received: 11/6/87
Analyses Requested: Low Boiling Hydrocarbons

The method of analysis for low boiling hydrocarbons is taken from EPA Methods 8015, 8020 and 5030. The sample is examined using the purge and trap technique. Final detection is by gas chromatography using a flame ionization detector as well as a photoionization detector.

The result for total low boiling hydrocarbons is calculated as gasoline and include benzene, toluene, ethyl benzene and xylenes.

Summary of Results

ND = None Detected

Micrograms per Liter

Lab Number	Sample Identification	Micrograms per Liter			
		Low Boiling Hydrocarbons (Gasoline)	Benzene	Toluene	Ethyl benzene and xylenes
S7-11-069-01	S-1	920.	230.	ND	150.
S7-11-069-02	S-2	16,000.	870.	ND*	2,700.

Detection Limit

5.
100.*

Fred Rouse

FR/gg