Chevron U.S.A. Products Company
2410 Camino Ramon, San Ramon, California • Phone (510) 842-9500
Mail Address: P.O. Box 5004, San Ramon, CA 94583-0804

December 22, 1992

Ms. Susan Hugo
Alameda County Health Care Services
80 Swan Way, Room 200
Oakland, CA 94621

Re: Former Chevron Service Station No. 9-3864
5101 Telegraph Avenue, Oakland, California

Dear Ms. Hugo :

Enclosed is the soil and groundwater investigation report prepared by Pacific Environmental Group (PEG) and dated December 18, 1992. This soil and groundwater investigation should satisfy Alameda County's concerns.

Briefly, five (5) continuous core borings were drilled off-site to determine if any soil contamination existed down-gradient, cross-gradient, and up-gradient of the subject site. All of the borings were then converted into temporary groundwater monitoring wells to determine if groundwater was impacted.

Analytical results showed nondetectable levels of total petroleum hydrocarbon as gasoline (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX) in borings TC-1, TC-2, TC-3, and TC-5. Traces of hydrocarbon impacted soil was detected in up-gradient soil boring TC-4. The highest level was 46 ppm TPH-G. Analytical results from the groundwater samples showed nondetectable levels of TPH-G and BTEX in the down and cross-gradient wells TC-1, TC-2, and TC-3. Dissolved hydrocarbon was detected in well TC-4 at 120000 ppb TPH-G, 500 ppb ethylbenzene, and 400 ppb xylenes. Well TC-5 also showed dissolved hydrocarbon in the groundwater at 2400 ppb TPH-G and 3 ppb xylenes.

If you have any questions or comments, please feel free to call me at (510) 842-8752.

Sincerely,

Chevron U.S.A. Products Co.

Kenneth Kan
Engineer

LKAN/MacFile 9-3864R10

cc : Mr. Richard Hiett, RWQCB-San Francisco Bay Area
2101 Webster Street, Suite 500, Oakland, CA 94612

Mr. Ravi Arulananthum, Alameda County Health Care Services
80 Swan Way, Room 200, Oakland, CA 94621

Ms. Bette Owen, Chevron U.S.A. Products Co.

PACIFIC
ENVIRONMENTAL
GROUP, INC.

December 18, 1992
Project 325-17.01

Mr. Kenneth Kan
Chevron U.S.A. Products Company
P.O. Box 5004
San Ramon, California 94583-0804

Re: Former Chevron Service Station 9-3864
5101 Telegraph Avenue
Oakland, California

Dear Mr. Kan:

This letter documents the findings of off-site soil and groundwater investigation by Pacific Environmental Group, Inc. (PACIFIC) at the site referenced above. The purpose of this investigation was to: (1) determine if the relatively low concentrations of hydrocarbons in groundwater on site have migrated off site and (2) determine if the former Shell station located northeast of the site or the property east of the site are potential sources of hydrocarbons in groundwater beneath and in the vicinity of the Chevron site. The scope of work consisted primarily of the collection of soil samples from five off-site borings and the collection of groundwater samples from temporary PVC screened casing installed in each boring.

Included in this letter is a brief discussion of site conditions, scope of work, and findings and conclusions. Field and analytical procedures are documented in Attachment A.

SITE BACKGROUND

Four on-site groundwater monitoring wells (C-1 through C-4) were installed in November 1990 (Figure 1). Depth to groundwater has ranged from approximately

2025 Gateway Place, Suite 440, San Jose, California 95110 (408) 441-7500 FAX (408) 441-7539
620 Contra Costa Blvd., Suite 209, Pleasant Hill, California 94523 (510) 825-0855 FAX (510) 825-0882

14 to 17 feet below ground surface (bgs) (Table 1). Groundwater flow has typically been calculated to the west.

Groundwater samples collected semi-annually from the upgradient well (C-1) and Wells C-2 and C-3 have contained concentrations of total petroleum hydrocarbons calculated as gasoline (TPH-g) ranging between 210 and 6,700 parts per billion (ppb) (Table 2). Groundwater samples collected from Well C-4, located adjacent to the waste oil tank located in the downgradient (western) portion of the site, have contained TPH-g at concentrations ranging from none detected to 70 ppb.

SCOPE OF WORK

In order to determine if hydrocarbons in groundwater have migrated off site and to investigate for potential upgradient sources in the vicinity of the site, PACIFIC performed the following scope of work:

Soil Borings

The locations of the borings are shown on Figure 1 and are discussed below:

- Borings TC-1 and TC-2 were drilled on the north side of 52nd Street in order to characterize groundwater conditions northwest (lateral/downgradient) of the site.
- Boring TC-3 was drilled on the south side of 51st Street in order to characterize groundwater conditions southwest (lateral/ downgradient) of the site.
- Borings TC-4 and TC-5 were drilled on the east side of Telegraph Avenue, at locations north and south of Claremont Avenue, in order to further characterize upgradient groundwater conditions.

Soil and Groundwater Sampling

Soil samples collected from each soil boring and groundwater samples collected from temporary screened casing installed in each boring were analyzed for TPH-g and benzene, toluene, ethylbenzene, and xylenes (BTEX compounds).

FINDINGS

Subsurface Conditions

Borings TC-1 through TC-5 were drilled November 30, 1992 and were advanced to maximum depth of 22 feet bgs. These off-site borings indicate that the soils in the vicinity of the site consist primarily of coarse-grained alluvium (sands/gravels) with common fine-grained silt and clay interbeds. Groundwater was encountered at depths of approximately 12 and 15 feet bgs.

Soil Analytical Results

Soils collected and analyzed for TPH-g and BTEX compounds in capillary fringe soils from Borings TC-1, TC-2, TC-3, and TC-5 were not detected. Soil samples collected from upgradient Boring TC-4 contained TPH-g concentrations ranging from non-detectable levels to 44 parts per million (ppm).

Groundwater Analytical Results

TPH-g and BTEX compounds were not detected in groundwater samples collected from the downgradient/lateral Borings TC-1 through TC-3. The groundwater sample collected from Boring TC-4, located adjacent to the former Shell service station upgradient from the site, contained a TPH-g concentration of 120,000 ppb. Groundwater from the upgradient Boring TC-5 contained a TPH-g concentration of 2,400 ppb.

If you have any questions please do not hesitate to call.

Sincerely,

Pacific Environmental Group, Inc.

John Cavanaugh
Senior Staff Geologist

Steve Krcik
Project Geologist
RG 4976

Attachments:
Table 1 - Groundwater Elevation Data - On-Site Wells
Table 2 - Groundwater Analytical Data - On-Site Wells
Table 3 - Soil Analytical Date - Off-Site Borings
Table 4 - Groundwater Analytical Data - Temporary Wells
Figure 1 - Site Map
Figure 2 - TPH-Gasoline/Benzene Concentration Map
Attachment A - Field and Analytical Procedures
Attachment B - Boring Logs TC1 through TC-5
Attachment C - Certified Analytical Reports and Chain-of-Custody Documentation

Table 1
Groundwater Elevation Data
On-Site Wells

Chevron U.S.A. Station 9-3864
5101 Telegraph Avenue
Oakland, California

Well Number	Sample Date	Well Elevation (feet, MSL)	Depth to Water (feet, TOC)	Groundwater Elevation (feet, MSL)
C-1	12/06/90	117.45	15.34	102.11
	06/06/91		14.62	102.83
	12/04/91		14.48	102.87
	06/02/92		14.53	102.92
C-2	12/06/90	116.16	15.34	100.82
	06/06/91		14.62	101.54
	12/04/91		15.43	100.73
	06/02/92		14.42	101.74
C-3	12/06/90	115.70	16.86	98.84
	06/06/91		15.69	100.01
	12/04/91		15.38	100.32
	06/02/92		15.40	100.30
C-4	12/06/90	116.10	17.68	98.42
	06/06/91		16.49	99.61
	12/04/91		16.82	99.28
	06/02/92		16.92	99.18

TOC = Top of casing
MSL = Mean sea level

Depth to water measurements and top of casing elevations prior to June 6, 1992 were compiled from the January 17, 1991 Site Update Report prepared for this site by GeoStrategies, Inc. of Hayward, California.

Table 2
Groundwater Analytical Data
On-Site Wells
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

Former Chevron U.S.A. Station 9-3864
5101 Telegraph Avenue
Oakland, California

Well Number	Sample Date	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-Benzene (ppb)	Xylenes (ppb)
C-1	12/06/90	1,900	17	11	3	21
	06/06/91	3,400	21	15	11	18
	12/04/91	2,700	22	16	13	23
	06/02/92	1,900	170	170	13	83
C-2	12/06/90	210	140	9	2	11
	06/06/91	4,800	340	23	19	23
	12/04/91	3,900	85	15	9.1	15
	06/02/92	3,300	76	9.2	14	15
C-3	12/06/90	210	2	<0.5	<0.5	1
	12/06/90[a]	220	2	0.6	<0.5	2
	06/06/91	6,400	310	21	16	21
	12/04/91	5,100	120	18	17	20
	06/02/92	6,700	140	44	17	37
C-4	12/06/90	<50	<0.5	<0.5	<0.5	<0.5
	12/18/90[b]	<50	<0.5	<0.5	<0.5	<0.5
	06/06/91	<50	1.0	1.0	<0.5	0.7
	12/04/91	70	6.5	9.8	1.7	8.6
	06/02/92	70	3.0	4.4	1.8	9.0

ppb = Parts per billion
< = Compound not detected above specified detection limit.
a. Duplicate sample
b. Well C-4 was also analyzed for halogenated volatile organic compounds (HVOCs) by EPA Method 8010, and metals (Cd, Cr, Pb, Ni, and Zn) by EPA-approved methods. Two ppb chloroform, 0.18 ppm chromium, 0.25 ppm nickel and 0.23 ppm zinc were detected. Other HVOCs, Cd, and Pb were not detected.

Table 3
Soil Analytical Data
Off-Site Borings
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

Former Chevron U.S.A. Station 9-3864
5101 Telegraph Avenue
Oakland, California

Sample Location	Sample Date	Depth (feet)	TPH as Gasoline (ppm)	Benzene (ppm)	Toluene (ppm)	Ethylbenzene (ppm)	Xylenes (ppm)
TC-1	11/30/92	10	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND
TC-2	11/30/92	10	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND
TC-3	11/30/92	10	ND	ND	ND	ND	ND
		15	ND	ND	ND	ND	ND
TC-4	12/01/92	7	ND	ND	ND	ND	ND
		10	4.4	ND	0.019	0.013	0.019
		13	46	ND	0.18	0.12	0.07
		16	0.7[a]	ND	0.18	0.12	0.07
TC-5	12/01/92	10	ND	ND	ND	ND	ND
		16	ND	ND	ND	ND	ND

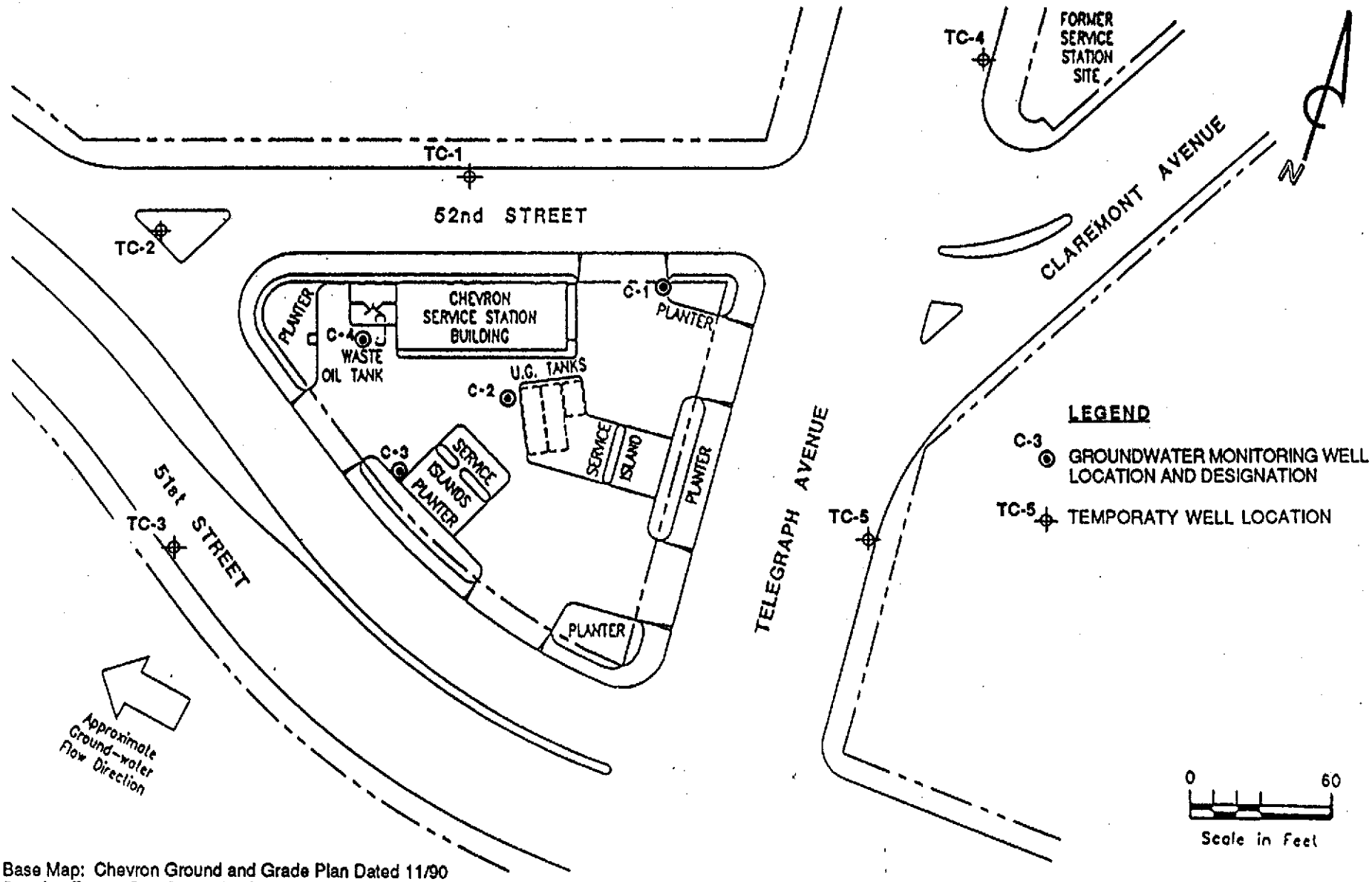
ppm = Parts per million
ND = Not detected
a = Purgeable hydrocarbons quantified as gasoline may be due to a heavier petroleum product.

Table 4
Groundwater Analytical Data
Temporary Wells
Total Petroleum Hydrocarbons
(TPH as Gasoline and BTEX Compounds)

Former Chevron U.S.A. Station 9-3864
5101 Telegraph Avenue
Oakland, California

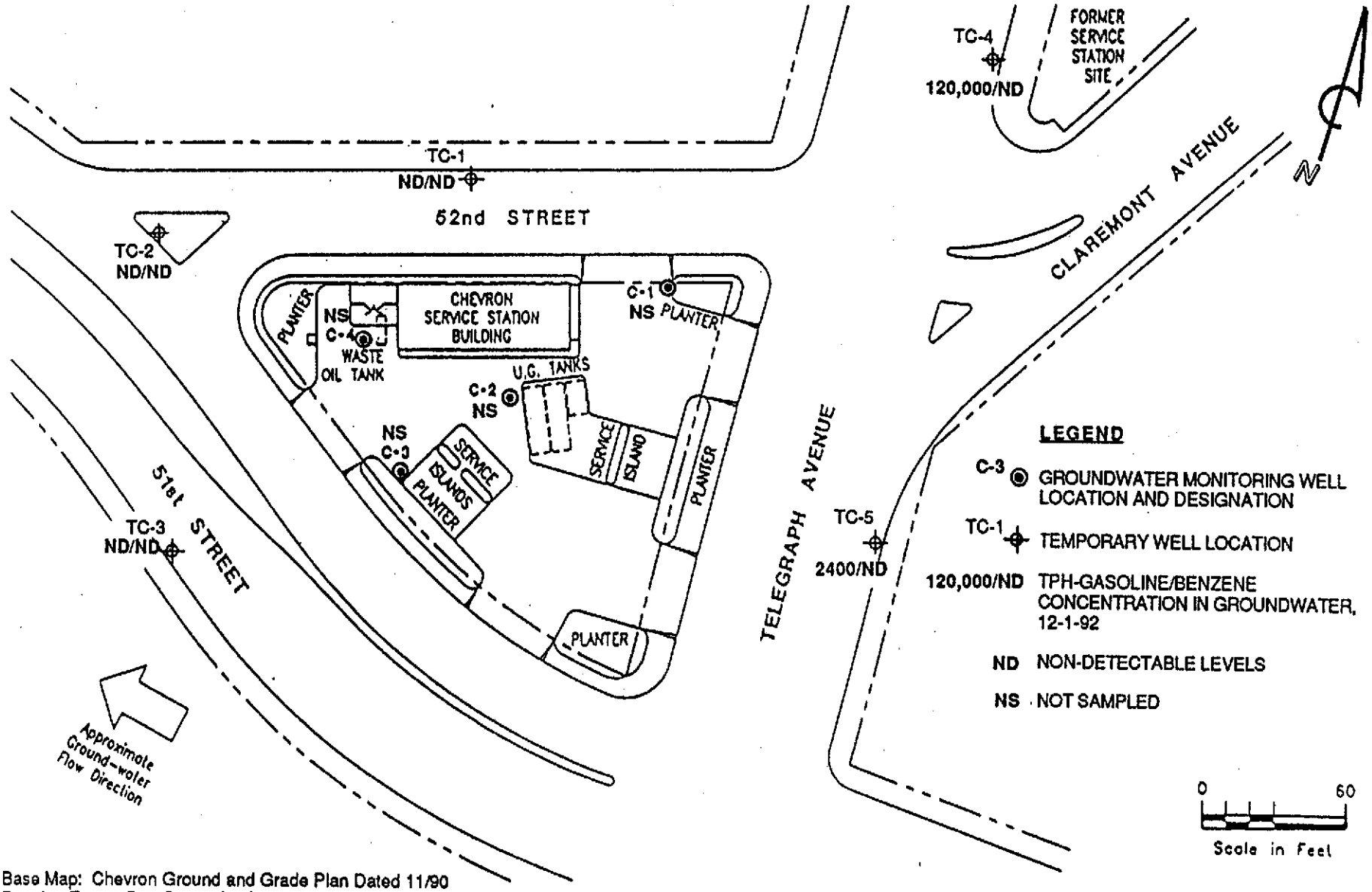
Well Number	Sample Date	TPH as Gasoline (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl-Benzene (ppb)	Xylenes (ppb)
TC-1	11/30/92	ND	ND	ND	ND	ND
TC-2	11/30/92	ND	ND	ND	ND	ND
TC-3	11/30/92	ND	ND	ND	ND	ND
TC-4	12/01/92	120,000	ND	ND	500	400
TC-5	12/01/92	2,400	ND	ND	ND	3

ppb = Parts per billion
ND = Not detected



Base Map: Chevron Ground and Grade Plan Dated 11/90
Drawing From: Geo-Strategies Inc.

PACIFIC ENVIRONMENTAL GROUP, INC.	CHEVRON SERVICE STATION 9-3864 5101 Telegraph Avenue Oakland, California SITE PLAN	FIGURE: 1 PROJECT: 325-17.01



Base Map: Chevron Ground and Grade Plan Dated 11/90
Drawing From: Geo-Strategies Inc.

PACIFIC ENVIRONMENTAL GROUP, INC.

CHEVRON SERVICE STATION 9-3864
5101 Telegraph Avenue
Oakland, California

TPH-GASOLINE/BENZENE CONCENTRATION MAP

FIGURE: **2**

PROJECT: 325-17.01

ATTACHMENT A

FIELD AND ANALYTICAL PROCEDURES

ATTACHMENT A
FIELD AND ANALYTICAL PROCEDURES

Boring Procedures

The borings were drilled using 2-inch diameter hydraulically driven sampling equipment, equipped with stainless steel drive casing, and were logged by a PACIFIC geologist using the Unified Soil Classification System and standard geologic techniques. Soil samples for logging and possible chemical analysis were collected continuously, as part of the drilling process, by advancing a sampler with brass liners into undisturbed soil. Soil samples selected for possible chemical analysis were retained in the brass liners, capped with Teflon and plastic end caps, and sealed in clean zip lock bags. These samples were placed on ice for transport to the laboratory, accompanied by chain-of-custody documentation. All down-hole drilling and sampling equipment was steam-cleaned following the completion of each soil boring. Down-hole sampling equipment removed from the boring was washed in a TSP solution between samples.

The soil borings were converted to temporary groundwater monitoring wells by the installation of 1-inch diameter, Schedule 40 PVC casing with 0.010-inch factory slotted screen. Approximately 5 feet of screen was placed in the upper portion of the first encountered water-bearing zone in each borehole. The drive casing was removed from the water-bearing zone prior to sampling to allow horizontal flow of groundwater in to the temporary casing. Upon completion of sampling, the temporary casing was removed and the borehole grouted from the bottom of the surface.

Groundwater Sampling Procedures

The sampling procedure consisted of first measuring the water level in the boring each with an electronic water-level indicator, and checking the boring for the presence of separate-phase hydrocarbons using a clear Teflon bailer. A groundwater sample was then collected using a Teflon bailer, placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported on ice to the laboratory. All well development and purge water was stored on site in DOT approved 55-gallon drums.

Laboratory Analysis Procedures

The groundwater samples and selected soil samples were analyzed for total petroleum hydrocarbons calculated as gasoline (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX compounds) by EPA Methods 5030/8015/8020. The samples were examined using the purge and trap technique, with final detection by gas chromatography. The analysis was performed by a state-certified laboratory.

ATTACHMENT B

BORING LOGS TC-1 THROUGH TC-5

WELL LOG
KEY TO ABBREVIATIONS

Drilling Method

HSA - Hollow stem auger
CFA - Continous 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.
Shelby - Shelby Tube thin-walled sampler (3" diameter), where sampler is pushed by drill-rig.

Moisture Content

Dry - 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

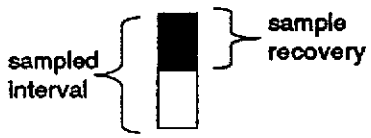
H-NU (ppm)

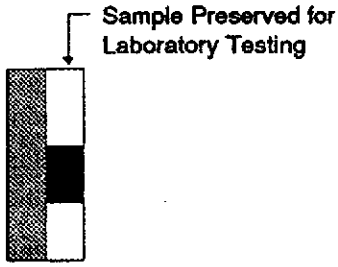
ND - No detection

Symbols

▽ - First encountered ground water

▼ - Static ground water level





Density (Blows/Foot - Cal Mod Sampler)

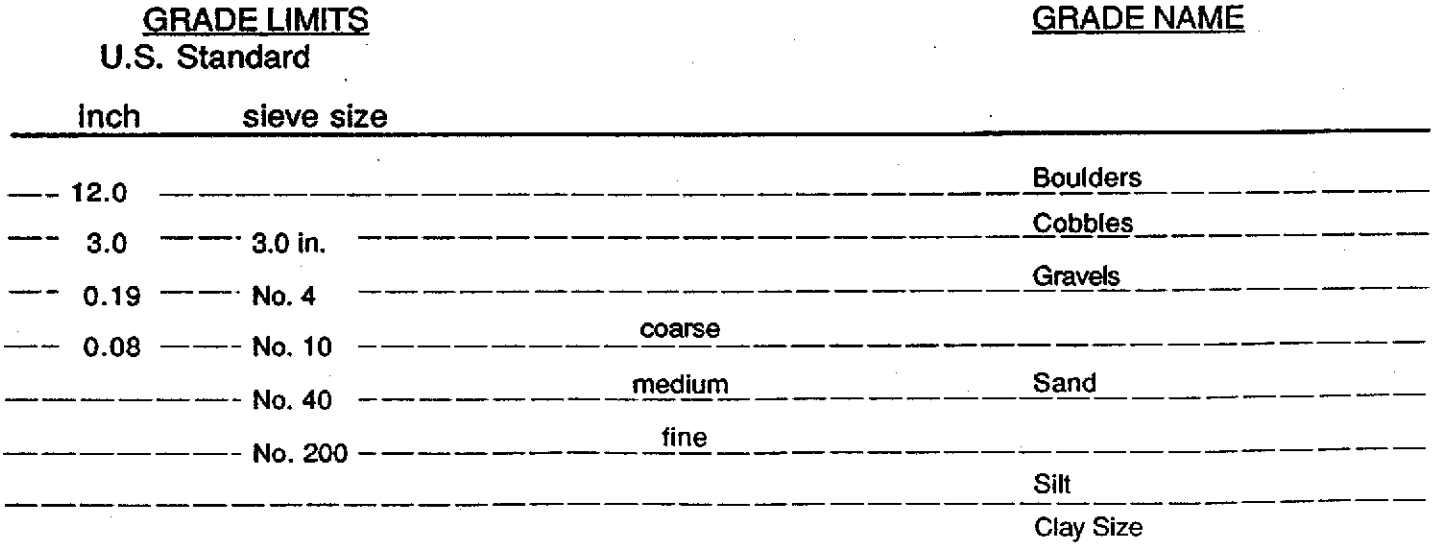
Sands and gravels

0 - 5	- Very Loose
5 - 13	- Loose
13 - 38	- Medium dense
38 - 63	- Dense
over 63	- Very dense

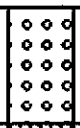
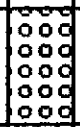
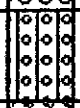
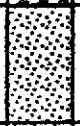
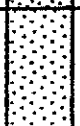
Silts and Clays

0 - 2	- Very Soft
2 - 4	- Soft
4 - 9	- Firm
9-17	- Stiff
17 - 37	- Very Stiff
37 - 72	- Hard
over 72	- Very Hard

GRAIN - SIZE SCALE

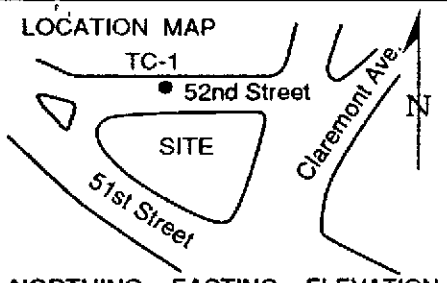


PACIFIC ENVIRONMENTAL GROUP, INC.

Primary Divisions			Group Symbol/Graphic		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 sand, 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

PACIFIC ENVIRONMENTAL GROUP, INC.

Unified Soil Classification System



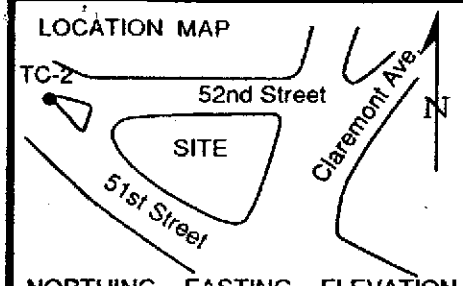
PACIFIC ENVIRONMENTAL GROUP, INC.

BORING NO. TC-1
PAGE 1 OF 1

PROJECT NO. 325-17.01
LOGGED BY: AW
DRILLER: PRECISION
DRILLING METHOD: HYDRAULIC
SAMPLING METHOD: CONTINUOUS
CASING TYPE: NA
SLOT SIZE: NA
GRAVEL PACK: NA

CLIENT: CHEVRON
DATE DRILLED: 11-30-92
LOCATION: Telegraph-Oakland
HOLE DIAMETER: 2.5"
HOLE DEPTH: 19'
WELL DIAMETER: NA
WELL DEPTH: NA
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY / SAMPLE INTERVAL / GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
Back Filled With Grout				1–3			ASPHALT ROAD BASE TO APPROXIMATELY 3'
				3–5		SC	CLAYEY SAND: medium brown; 30-40% fines; very fine sand; no product odor; very little recovery in 5-7' sample.
	Mst			6–9			
	Mst			10			@10': very little recovery; chert.
	Mst			11–12		CL	SANDY CLAY: medium brown with gray mottling; low plasticity; 10-15% very fine to fine sand; iron oxide staining; small rootholes; no product odor.
				13–14		ML	SANDY SILT: blue gray; low plasticity; 10-20% very fine sand; brown mottling; shell material; sulfur odor; no product odor.
				15			LANDSLIDE DEPOSITS: mixture of sand, gravel and clay.
	Mst-Wt			16–17		ML	SILT: light to medium brown; low plasticity; trace very fine to fine sand; mottled light gray to medium brown tan; no product odor.
	Wt			18			
				19			BOTTOM OF BORING AT 19'
				20–22			



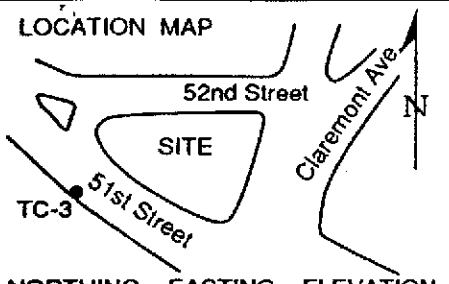
PACIFIC ENVIRONMENTAL GROUP, INC.

BORING NO. TC-2
PAGE 1 OF 1

PROJECT NO. 325-17.01
LOGGED BY: AW
DRILLER: PRECISION
DRILLING METHOD: HYDRAULIC
SAMPLING METHOD: CONTINUOUS
CASING TYPE: NA
SLOT SIZE: NA
GRAVEL PACK: NA

CLIENT: CHEVRON
DATE DRILLED: 11-30-92
LOCATION: Telegraph-Oakland
HOLE DIAMETER: 2.5"
HOLE DEPTH: 21'
WELL DIAMETER: NA
WELL DEPTH: NA
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY / SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				0				ASPHALT
				1				ROADBASE
Back Filled With Grout				2			CL	CLAY: gray black.
				3			SM	SILTY SAND: no recovery 3-8.5'.
				4				
				5				
				6				
				7				
				8				
				9				@8.5': very dark brown; 20-30% fines; dual classification sandy silt; high moisture content; very soft; no product odor.
	Mst-Wt			10				
				11			CL	CLAY: medium to light gray; low plasticity; iron oxide mottling; trace-10% very fine to fine sand; dense; no product odor.
	Mst			12				
				13				
				14				
	Mst			15				
				16				
				17				
	Mst			18				@19': increase in medium to coarse sand.
				19				
				20			GM	SILTY GRAVEL: medium to light brown; 20-30% fines; 10-20% very fine to fine sand; angular coarse sand and gravel.
	Mst-Wt			21				BOTTOM OF BORING AT 21'
				22				



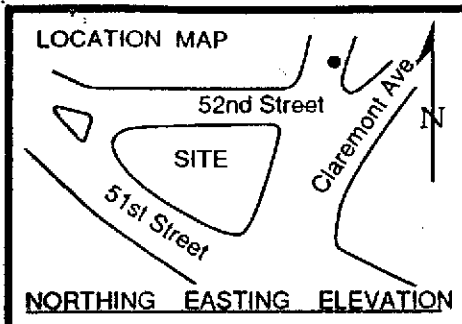
PACIFIC ENVIRONMENTAL GROUP, INC.

BORING NO. TC-3
PAGE 1 OF 1

PROJECT NO. 325-17.01
LOGGED BY: AW
DRILLER: PRECISION
DRILLING METHOD: HYDRAULIC
SAMPLING METHOD: CONTINUOUS
CASING TYPE: NA
SLOT SIZE: NA
GRAVEL PACK: NA

CLIENT: CHEVRON
DATE DRILLED: 11-30-92
LOCATION: Telegraph-Oakland
HOLE DIAMETER: 2.5"
HOLE DEPTH: 22'
WELL DIAMETER: NA
WELL DEPTH: NA
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
									CONCRETE
				1					ROADBASE
Back Filled With Grout				2				FL	GRAVELLY CLAYEY FILL
				3					
				4					
				5					
	Dp			6					
				7					
				8				CL	SANDY CLAY: medium to dark brown; low plasticity; 20-30% very fine to medium sand; 20-30% medium to coarse sand; 5-10% gravel; angular to subangular gravel; iron oxide staining; no product odor.
	Dp			9					
				10					
				11					
				12				GC	CLAYEY GRAVEL: medium brown; 20-30% fines; fine to coarse sand; 20-30% angular to rounded gravels chert; sandstone clasts; no product odor.
	Mst			13					
				14					
▼				15				ML	GRAVELLY SILT: medium brown; low plasticity; 10-30% very coarse sand and fine gravel; no product odor.
				16					
▽	Mst-Wt			17					
				18				SM	SILTY SAND: medium brown; 30-40% fines; fine to coarse sand; trace sub-well rounded gravel; wet; no product odor.
				19					
	Mst-Wt			20				GM	SILTY GRAVEL: medium brown; highly angular coarse fragment; 20-40% fines; 10-20% very fine to medium sand; siltstone and chert pebbles; iron oxide staining; no product odor.
				21					
				22					BOTTOM OF BORING AT 22'



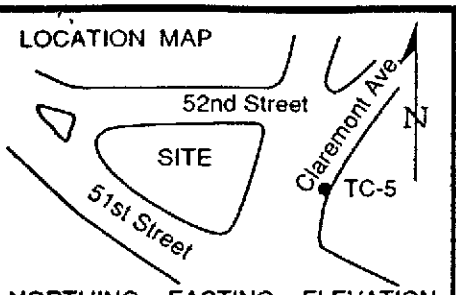
PACIFIC ENVIRONMENTAL GROUP, INC.

BORING NO. TC-4
PAGE 1 OF 1

PROJECT NO. 325-17.01
LOGGED BY: AW
DRILLER: PRECISION
DRILLING METHOD: HYDRAULIC
SAMPLING METHOD: CONTINUOUS
CASING TYPE: NA
SLOT SIZE: NA
GRAVEL PACK: NA

CLIENT: CHEVRON
DATE DRILLED: 12-1-92
LOCATION: Telegraph-Oakland
HOLE DIAMETER: 2.5"
HOLE DEPTH: 22'
WELL DIAMETER: NA
WELL DEPTH: NA
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY	SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
				0					CONCRETE ROADBASE
Back Filled With Grout				1					
				2					
	Dp	280		3				CL	CLAY: very dark brownish black; low plasticity; 10-20% fine to medium sand; trace to coarse sand; iron oxide staining; faint to medium product odor.
				4					
				5					
				6					
	Dp	134		7					@7': faint to moderate product odor.
				8					
				9				GC	CLAYEY GRAVEL: medium dark grayish brown; angular coarse sand and fine gravel; subrounded to well rounded clasts; blue gray staining; moderate to strong product odor.
	Dp	88.8		10					
				11					
▼				12					
	Mst	180		13					@13': strong product odor.
▽				14					
				15					
	Wt	389		16					@16': discolored; strong product odor.
				17					
				18					
	Wt	22.3		19					@19': no to faint product odor.
				20				ML	SILT: sandy; light to medium brown; low plasticity; 20-30% fine sand; trace gravel at 20'; no product odor.
				21					
				22					BOTTOM OF BORING AT 22'



PACIFIC ENVIRONMENTAL GROUP, INC.

BORING NO. TC-5
PAGE 1 OF 1

PROJECT NO. 325-17.01
LOGGED BY: AW
DRILLER: PRECISION
DRILLING METHOD: HYDRAULIC
SAMPLING METHOD: CONTINUOUS
CASING TYPE: NA
SLOT SIZE: NA
GRAVEL PACK: NA

CLIENT: CHEVRON
DATE DRILLED: 12-1-92
LOCATION: Telegraph-Oakland
HOLE DIAMETER: 2.5"
HOLE DEPTH: 22'
WELL DIAMETER: NA
WELL DEPTH: NA
CASING STICKUP: NA

WELL COMPLETION	MOISTURE CONTENT	PID	PENETRATION (BLOWS/FT)	DEPTH (FEET)	RECOVERY SAMPLE INTERVAL	GRAPHIC	SOIL TYPE	LITHOLOGY / REMARKS
								CONCRETE
Back Filled With Grout				1				ROADBASE
				2				
				3			CL	CLAY: dark brown; low plasticity; 10-20% very fine to fine sand; roots; organics; no product odor.
				4				
				5			ML	SILT: medium; dark brown; low plasticity; 20-30% very fine to fines and; no product odor.
	Dp	261		6				
				7				
				8				
				9				
	Dp	99		10				@10': increase in fine sand; no product odor.
				11				
				12				
				13				
				14				
				15				
				16				@16': little recovery; no product odor.
	Mst	110		17			GC	CLAYEY GRAVEL: medium brownish gray; 20-40% fines; subrounded to angular gravels; iron oxide staining; saturated; faint to no product odor.
	Wt	142		18				
				19				
				20				
				21				
				22				BOTTOM OF BORING AT 22'

ATTACHMENT C

CERTIFIED ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

December 4, 1992

Ms. Maree Doden
PACIFIC ENVIRONMENTAL GROUP
2025 Gateway Place, Ste. 440
San Jose, CA 95110

Client Ref. 9-3864/325-17.01
Clayton Project No. 92120.18

Dear Ms. Doden:

Attached is our analytical laboratory report for the samples received on December 2, 1992. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Suzanne Silvera, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH
Director, Laboratory Services
Western Operations

RHP/tb
Attachments

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-1 10'		
Lab Number:	9212018-01A	Date Sampled:	11/30/92
Sample Matrix/Media:	SOIL	Date Received:	12/02/92
Preparation Method:	EPA 5030	Date Prepared:	12/02/92
Analytical Method:	EPA 8015/8020	Date Analyzed:	12/03/92

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	112	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-1 15'	Date Sampled:	11/30/92
Lab Number:	9212018-02A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	112	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-2 10'	Date Sampled:	11/30/92
Lab Number:	9212018-03A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	117	50 - 150	

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-2 15'	Date Sampled:	11/30/92
Lab Number:	9212018-04A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	116	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-3 10'	Date Sampled:	11/30/92
Lab Number:	9212018-05A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	116	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-3 15'	**Date Sampled:**	11/30/92
Lab Number:	9212018-06A	**Date Received:**	12/02/92
Sample Matrix/Media:	SOIL	**Date Prepared:**	12/02/92
Preparation Method:	EPA 5030	**Date Analyzed:**	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	116	50 -	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-4 7'	**Date Sampled:**	12/01/92
Lab Number:	9212018-07A	**Date Received:**	12/02/92
Sample Matrix/Media:	SOIL	**Date Prepared:**	12/02/92
Preparation Method:	EPA 5030	**Date Analyzed:**	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	113	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-4 10'	Date Sampled:	12/01/92
Lab Number:	9212018-08A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	0.019	0.005
Ethylbenzene	100-41-4	0.013	0.005
p,m-Xylenes	---	0.006	0.005
o-Xylene	95-47-6	0.013	0.005
Gasoline	---	4.4	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	129	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-4 13'	Date Sampled:	12/01/92
Lab Number:	9212018-09A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.05
Toluene	108-88-3	0.18	0.05
Ethylbenzene	100-41-4	0.12	0.05
p,m-Xylenes	---	0.07	0.05
o-Xylene	95-47-6	ND	0.05
Gasoline	---	46	3

Surrogates		Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	121	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-4 16'	Date Sampled:	12/01/92
Lab Number:	9212018-10A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	0.7a	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	119	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

a Purgeable hydrocarbons quantitated as gasoline may be due to heavier petroleum product.

Clayton
ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-5 10'	Date Sampled:	12/01/92
Lab Number:	9212018-11A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	113	50	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton
ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-5 16'	Date Sampled:	12/01/92
Lab Number:	9212018-12A	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL - UCL
a,a,a-Trifluorotoluene	98-08-8	117	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9212018-19A	Date Received:	--
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	ND	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL	UCL
a,a,a-Trifluorotoluene	98-08-8	113	50	150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

Clayton ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-1		
Lab Number:	9212018-14A	**Date Sampled:**	12/01/92
Sample Matrix/Media:	WATER	**Date Received:**	12/02/92
Preparation Method:	EPA 5030	**Date Prepared:**	12/03/92
Analytical Method:	EPA 8015/8020	**Date Analyzed:**	12/03/92

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes	---	ND	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline	---	ND	50
SURROGATE		**RECOVERY (%)**	**LIMITS (%)**
a,a,a-Trifluorotoluene	98-08-8	116	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-2	Date Sampled:	12/01/92
Lab Number:	9212018-15A	Date Received:	12/02/92
Sample Matrix/Media:	WATER	Date Prepared:	12/03/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes	---	ND	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline	---	ND	50
SURROGATE		RECOVERY (%)	LIMITS (%)
a,a,a-Trifluorotoluene	98-08-8	115	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-3	Date Sampled:	12/01/92
Lab Number:	9212018-16A	Date Received:	12/02/92
Sample Matrix/Media:	WATER	Date Prepared:	12/03/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes	---	ND	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline	---	ND	50
SURROGATE		**RECOVERY (%)**	**LIMITS (%)**
a,a,a-Trifluorotoluene	98-08-8	117	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable

Clayton ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-4	Date Sampled:	12/01/92
Lab Number:	9212018-17A	Date Received:	12/02/92
Sample Matrix/Media:	WATER	Date Prepared:	12/03/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	200
Toluene	108-88-3	ND	200
Ethylbenzene	100-41-4	500	200
p,m-Xylenes	---	400	200
o-Xylene	95-47-6	ND	200
Gasoline	---	120,000	30,000
SURROGATE		**RECOVERY (%)**	**LIMITS (%)**
a,a,a-Trifluorotoluene	98-08-8	109	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable

Note: Detection limits increased due to dilution necessary for quantitation

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	TC-5	Date Sampled:	12/01/92
Lab Number:	9212018-18A	Date Received:	12/02/92
Sample Matrix/Media:	WATER	Date Prepared:	12/03/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	2
Toluene	108-88-3	ND	2
Ethylbenzene	100-41-4	ND	2
p,m-Xylenes	---	3	2
o-Xylene	95-47-6	ND	2
Gasoline	---	2,400	300
SURROGATE		**RECOVERY (%)**	**LIMITS (%)**
a,a,a-Trifluorotoluene	98-08-8	104	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable

Note: Detection limits increased due to dilution necessary for quantitation

Clayton ENVIRONMENTAL CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	SP-1	Date Sampled:	11/30/92
Lab Number:	9212018-13E	Date Received:	12/02/92
Sample Matrix/Media:	SOIL	Date Prepared:	12/02/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
p,m-Xylenes	---	ND	0.005
o-Xylene	95-47-6	ND	0.005
Gasoline	---	0.5a	0.3

Surrogates		Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	120	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received

a Purgeable hydrocarbons quantitated as gasoline may be due to heavier petroleum product.

Clayton
ENVIRONMENTAL
CONSULTANTS

Results of Analysis
for
Chevron U.S.A., Inc./Pacific Environmental Group, Inc.

Client Reference: 9-3864/325-17.01
Clayton Project No. 92120.18

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9212018-20A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	12/03/92
Preparation Method:	EPA 5030	Date Analyzed:	12/03/92
Analytical Method:	EPA 8015/8020		

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes	---	ND	0.4
o-Xylene	95-47-6	ND	0.4
Gasoline	---	ND	50
SURROGATE		**RECOVERY (%)**	**LIMITS (%)**
a,a,a-Trifluorotoluene	98-08-8	116	50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable

Quality Assurance Results Summary
for
Clayton Project No. 92120.18

Clayton Lab Number: 9212018-12A
Ext./Prep. Method: EPA 5030
Date: 12/02/92
Analyst: CDW
Std. Source: V921105-01W
Sample Matrix/Media: SOIL

Analytical Method: EPA8015 8020
Instrument ID: 05587
Date: 12/03/92
Time: 12:17
Analyst: PF
Units: MG/KG

Analyte	Sample Result	Spike Level	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE (PID)	ND	0.0100	0.00976	98	0.00982	98	98	53	140	0.6	28
GASOLINE (FID)	ND	0.500	0.540	108	0.511	102	105	41	164	5.5	37
TOLUENE (PID)	ND	0.0400	0.0369	92	0.0363	91	92	60	139	1.6	22

LCS = Laboratory Control Sample
ND = Not detected at or above limit of detection
LCL = Lower Control Limit
UCL = Upper Control Limit
SDR = Spike out of range due to high sample concentration

Quality Assurance Results Summary
for
Clayton Project No. 92120.18

Clayton Lab Number: 9212018-14A
Ext./Prep. Method:
Date: / /
Analyst:
Std. Source: V921105-01W
Sample Matrix/Media: WATER

Analytical Method: EPA8015 8020
Instrument ID: 02857
Date: 12/03/92
Time: 16:53
Analyst: PF
Units: UG/L

Analyte		Sample Result	Spike Level	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE	(PID)	ND	2.00	2.00	100	2.05	103	101	81	118	2.5	20
GASOLINE	(FID)	ND	200	205	103	233	117	110	80	150	13	25
TOLUENE	(PID)	ND	9.00	8.44	94	8.65	96	95	84	118	2.5	20

LCS = Laboratory Control Sample
ND = Not detected at or above limit of detection
LCL = Lower Control Limit
UCL = Upper Control Limit
SOR = Spike out of range due to high s

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

Chevron Facility Number 9-3664
Facility Address 5101 TELEGRAPH AVENUE, Berkeley
Consultant Project Number 325-17.01
Consultant Name Pacific Environmental Group
Address 2025 Gateway Place Ste.440 San Jose 95110
Project Contact (Name) STEVE KRCK/MAREE DODEN
(Phone) (408)441-7500 Number) 441-7539

Chevron Contact (Name) Ken Kahn
(Phone)
Laboratory Name CLAYTON
Laboratory Release Number 819704
Samples Collected by (Name) ANDREW WILLERTON
Collection Date 11/30/92, 12/1/92
Signature Andrew Willerton

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	Analyses To Be Performed: BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
																			9212018	
TC-1 10'	01 A	1	S	D			Y	✓												DATE collected 11/30/92
TC-1 15'	02	1						✓												
TC-2 10'	03	1						✓												
TC-2 15'	04	1						✓												
TC-3 10'	05	1						✓												
TC-3 15'	06	1						✓												
TC-4 7'	07	1						✓												
TC-4 10'	08	1						✓												12/1/92
TC-4 13'	09	1						✓												
TC-4 16'	10	1						✓												
TC-4		1						✓												
TC-5 10'	11 A	1						✓												
TC-5 16'	12	1						✓												
SP-1	13 A-D Bottle	4		C				✓												*SP-1 IS A COMPOSITE OF 4 SLEEVES

NOTE: DO NOT BILL TB-LB SAMPL

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Andrew Willerton	T.E.C.	12/2/92 @ 10:30 AM	Jim Mitchell	CEC	12/2/92 @ 10:30 AM
Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Jim Mitchell	CEC	12/2/92 @ 11:30 AM			
Relinquished By (Signature)	Organization	Date/Time	Received For Laboratory By (Signature)		Date/Time
			Stacy B Rueth		12/2/92 11:20

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

Copy of Lab Report and COC to Chevron Contact: No

Chain-of-Custody Record

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

Chevron Facility Number: 9-3864
Facility Address: 5101 TELEGRAPH AVE, Berkeley
Consultant Project Number: 325-17.01
Consultant Name: Pacific Environmental Group
Address: 2025 Gateway Place Ste.440 San Jose 95110
Project Contact (Name): STEVE KRCIK / MARIE DODEN
(Phone) (408)441-7500 (Fax Number) 441-7539

Chevron Contact (Name): Ken Kahn
(Phone):
Laboratory Name: CLAYTON
Laboratory Release Number:
Samples Collected by (Name): ANDREW WILLERTON
Collection Date: 12/1/92
Signature: Andrew Willerton

9212018

Sample Number	Lab Sample Number	Number of Containers	Matrix S = Soil A = Air W = Water C = Charcoal	Type G = Grab C = Composite D = Discrete	Time	Sample Preservation	Iced (Yes or No)	BTEX + TPH GAS (8020 + 8015)	TPH Diesel (8015)	Oil and Grease (5520)	Purgeable Halocarbons (8010)	Purgeable Aromatics (8020)	Purgeable Organics (8240)	Extractable Organics (8270)	Metals Cd,Cr,Pb,Zn,Ni (ICAP or AA)					Remarks
-1	14 A-C	3	W				Y	✓												
-2	15	3	W				Y	✓												40ml VOAs
-3	16	3	W				Y	✓												↓
-4	17	3	W				Y	✓												↓
-5	18	3	W				Y	✓												↓

NOTE: DO NOT BILL TB-LB SAMPLE

Relinquished By (Signature)	Organization	Date/Time	Received By (Signature)	Organization	Date/Time
Andrew Willerton	PEG.	12/2/92 @ 10:30 am	[signature] Mitchell	CEC	12/2/92 @ 10:30 AM
[signature] Mitchell	CEC	12/2/92 @ 11:20 AM			
			Received For Laboratory By (Signature): [signature]		12/2/92 11:20

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