December 16, 1992

Ms. Jennifer Eberle Alameda County Health Care Services Department of Environmental Health 80 Swan Way, Room 200 Oakland, CA 94621

Re: Former Gulf Service Station #0006 460 Grand Avenue, Oakland, CA

Dear Ms. Eberle:

This letter is intended to summarize activities which have occurred at the above referenced site within the past thirty days pursuant to Chevron's letter from Jon Robbins addressed to Mark Thompson of the Alameda County District Attorney's Office dated November 17, 1992. Outlined below is a summarization of these activities presented in numerical order.

- 1. Stockpiled soils excavated from the fuel tank pit and waste oil pits have been characterized for total petroleum hydrocarbons as gasoline (TPH-g), benzene, toluene, ethyl-benzene, and xylenes. Stockpiled soils excavated from the waste oil tank pit were characterized for the aforementioned constituents as well as Cadmium, Chromium, Lead, Zinc, Nickel, total petroleum hydrocarbons as diesel (TPH-d), and oil and grease. Analysis on samples from the fuel tank pit stockpile reported non-detectable concentrations of TPH-g and BTEX. Analysis on samples from the waste oil stockpile indicate the presence of oil and grease as well as metals. The analytical results are shown in the enclosed laboratory report.
- 2. Standing water in the fuel tank pit was analyzed for TPH-g, BTEX and total lead. Standing water in the waste oil tank pit was analyzed for TPH-g, TPH-d, oil and grease, Cadmium, Chromium, Lead, Zinc, and Nickel. Analytical results indicate non-detectable concentrations of all constituents exclusive of an atypical diesel concentration indicative of hydrocarbons heavier than diesel. The analytical results are shown in the enclosed laboratory report.
- 3. Three monitor wells have been installed per Treadwell & Rollo's approved April 30, 1991, work plan. These wells were installed on December 14 and 15, however were not developed and sampled until today to allow for the proper development time of 24 hours. Ground water samples were collected this afternoon and delivered to an analytical laboratory. Results are expected by late Thursday or early Friday. Soil samples were taken on Tuesday and results of those analyses are expected later today. Additional work performed included installation of a soil boring between the former product islands down to ground water as specified in the addendum to Treadwell & Rollo's work plan. The installation of another soil boring near the waste oil pit was not conducted at this time per your recommendation that samples be taken following removal of standing water and

Page 2
Former Gulf Service Station #0006
December 16, 1992

overexcavation activities.

- 4. From visual inspection of the site and construction drawings of the station, it appears that an "oil-water" separator had been utilized at the site. Additional site characterization in this area should occur when it is deemed that the oil-water separator will no longer be used and there are no limitations to accessing soils beneath and around the separator.
- 5. Upon visits to the site by myself on December 4 and visits by other Chevron consultants, the previously referenced 55 gallon drum could not be located. I have been unsuccessful in attempts to contact the property owners' representative, Mr. John Gibson, to inquire if they had knowledge of the whereabouts of this drum. At this time the status of this drum is unclear.
- 6. Per a phone conversation with Jon Robbins, it is my understanding that the current property owners have no intention of utilizing the hydraulic hoists located in the service bays. Additional soils investigation should be performed concurrent with the removal of the hoists when it is determined that these hoists will no longer be utilized in future operations and there are no limitations to accessing the soils beneath and around the hoists.

We appreciate your assistance over the past thirty days in the completion of the above mentioned tasks. Additional work to occur once all analytical results are received includes the following:

- A. To provide you with the most current information, copies of all soil and ground water analytical data will be faxed as soon as these results become available. This data is expected late Thursday or early Friday of this week. A formal report documenting the installation of the three wells and one soil boring will be forwarded to your office for your review.
- B. Standing water in the former fuel and waste oil pits will be pumped out and transported to Chevron's Richmond terminal for proper handling at the terminal's recycling facility. This activity has been approved by the Regional Board in letters previously faxed to you.
- C. Overexcavation of the former waste oil pit will be conducted in accordance with your recommendations outlined in item number 3 above.
- D. Stockpiled soils from the fuel tank excavation will be utilized as backfill material. Stockpiled soils from the waste oil tank in addition to soils generated from further excavation of the waste oil tank pit will be properly disposed of offsite.

We trust this letter meets the requirements set forth by Alameda County at this time. If the County determines that reasonable progress has been made consistent with those actions outlined in item numbers 1 through 6, I understand another thirty days will be extended for the preparation of a site Remediation Work Plan. Chevron will continue with the above planned activities and awaits your evaluation of actions taken with the past thirty days.

If you have any questions or comments, please do not hesitate to contact me at (510) 842-8134.

Page 3
Former Gulf Service Station #0006 December 16, 1992

Very truly yours, CHEVRON U.S.A. PRODUCTS COMPANY

Mark A. Miller

Site Assessment and Remediation Engineer

Enclosure

cc: Jon Robbins - CHVPKV/V1156 File (GULF6 REG1)



825 Arnold Drive, Suite 114 • Martinez, California 94553 • [510] 229-1512 / fax [510] 229-1526

TOUCHSTONE DEVELOPMENTS

Attn: JEFF MONROE

Project 100-6 Reported 12/14/92

TOTAL	PETKOLEUM	HYDROCARBONS
	• • • •	

Lab #	Sample Identification	Sampled	Analyzed Matrix
87316- 1 87316- 2 87316- 3 87316- 4 87316- 5 87316- 6	S-1 6·2 S-3 S-4 FUEL TANK PIT STOCKPILE S-5 S-6	12/04/92 12/04/92 12/04/92 12/04/92 12/04/92 12/04/92	12/11/92 Soil 12/11/92 Soil 12/11/92 Soil 12/11/92 Soil 12/11/92 Soil 12/11/92 Soil
87316- 7 87316- 8 87316- 9 87316-10	S-7 S·8 W-1} WASTE OIL TANK PIT STOCKPILE SOILS F'I'-1 a·d Z, FUEL TANK PIT WATER SAMPLE	12/04/92 12/04/92 12/04/92 12/04/92	12/11/92 Soil 12/11/92 Soil 12/11/92 Soil 12/11/92 Soil 12/07/92 Water

RESULTS OF ANALYSIS

Laboratory Number: 87316-1 87316-2 87316-3 87316-4 87316-5

Gasoline: Benzene: Tolucne: Ethyl Benzene: Xylenes: Oil and Grease: Diesel:	ND<1 ND<.005 ND<.005 ND<.005 ND<.005 NA		ND<1 ND<.005 ND<.005 ND<.005 ND<.005 NA	ND<1 ND<.005 ND<.005 ND<.005 ND<.005 NA	ND<.005 ND<.005
Concentration:	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
haboratory Number:	87316. 6	87316- 7	87316- 8	87316- 9	87316-10
				W 1 (1)	

Casoline:	ND<1	ND<1	ND<1	ND<1	ND<50
Benzene:	ND<.005	ND<.005	ND<.005	ND<.005	ND<0.5
Toluene:	ND<.005	ND<.005	ND<.005	ND<.005	ND<0.5
Ethyl Benzene:	ND<.005	ND<.005	ND<.005	ND<.005	ND<0.5
Xylenes:	ND<.005	ND<.005	ND<.005	ND<.005	ND<0.5
Oil and Grease:	NA	ΝΛ	NA	8400	NA
Diesel:	NV	NA	NA	190 *	NA
Concentration:	mg/kg	mg/kg	mg/kg	mq/kg	ug/L



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TOUCHSTONE DEVELOPMENTS

Attn: JEFF MONROE

Project 100-6 Reported 12/14/92

P.03

TOTAL PETROLEUM HYDROCARBONS

Lab #

Sample identification

Sampled

Analyzed Matrix

87316-11

WT 1 a f) WASTE OIL TANK

12/04/92

12/07/92 Water

PIT WATER SAMRE

RESULTS OF ANALYSIS

Laboratory Number: 87316-11

Gasoline: Benzene: ND<50 ND<0.5 ND<0.5

Toluene: Ethyl Benzene:

ND<0.5 ND<0.5 ND<0.5

Xylenes: Oil and Grease: Diesel:

ND<5000 170 *

Concentration:

ug/L

Page 2 of 4

^{*} Diesel concentration range reported. The pattern observed in the chromatogram was more typical of hydrocarbons that are heavier than diesel.



CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 3 of 4 QA/QC INFORMATION SET: 87316

NA : ANALYSIS NOT REQUESTED

ND = ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

mg/kg = parts per million (ppm)

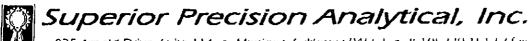
OIL AND GREASE ANALYSIS By Standard Methods Method 5520F: Minimum Detection Limit in Soil: 50mg/kg

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons: Minimum Quantitation Limit for Diesel in Soil: 1mg/kg

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons: Minimum Quantitation Limit for Gasoline in Soil: 1mg/kg

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Soil: 0.005mg/kg

ANALYTE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
			·· ·· -	
Gasoline:	200 ng	97/90	78	70-130
Benzene:	200 ng	87/85	28	70-130
Toluene:	200 ng	90/89	1%	70-130
Ethyl Benzenc:	200 ng	94/92	2%	70-130
Xylenes:	200 rig	95/92	38	70-130
Oil and Grease:	30 ppm	85/89	5 ሄ	70-130
Diesel:	200 ppm	131/132	1 %	67-139



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CERTIFICATE OF ANALYSIS

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS

Page 4 of 4 QA/QC INFORMATION SET: 87316

NA = ANALYSIS NOT REQUESTED

ND - ANALYSIS NOT DETECTED ABOVE QUANTITATION LIMIT

ug/L = parts per billion (ppb)

Oll AND GREASE ANALYSIS By Standard Methods Method 5520F: Minimum Detection Limit in Water: 5000ug/L

Modified EPA SW-846 Method 8015 for Extractable Hydrocarbons: Minimum Quantitation Limit for Diesel in Water: 50ug/L

EPA SW-846 Method 8015/5030 Total Purgable Petroleum Hydrocarbons: Minimum Quantitation Limit for Gasoline in Water: 50ug/L

EPA SW-846 Method 8020/BTXE
Minimum Quantitation Limit in Water: 0.5ug/L

NNALYTE	SPIKE LEVEL	MS/MSD RECOVERY	RPD	CONTROL LIMIT
Gasoline:	200 ng	81/91	J. J.	75 125
Benzene:	200 ng	93/99	6	70-130
Toluene:	200 ng	95/100	5	70-130
Ethyl Benzene:	200 ng	98/104	દ	70-130
Xylenes:	200 ng	99/106	7	70-130
Oil and Grease:	200 ng	120/121	1	70-130
Diesel:	200 ng	108/108	0	70-130

Richard Syma, Ph.D.

Laboratory Director



825 Arnold Drive, Suite 114 • Martinez, California 94553 • (510) 229-1512 / fax (510) 229-1526

TOUCHSTONE DEVELOPMENTS

12/16/92 11:49

Attn: JEFF MONROE

Project 100-6 Reported 10-December-1992

EPA METHOD 8010

Sample preparation by Furge and Trap (EPA SW-846 Method 5030) and Chromatographic analysis using an electrolytic conductivity detector (EPA SW-846 Method 8010).

Chronology				Laboratory	Number	87316
Identification	Sampled	Received	Extracted	Analyzed	Run #	Lab #
W-1 WT-1 a-f		12/04/92 12/04/92	/ /	12/07/92 12/08/92		9 11

P. 07



Superior Precision Analytical, Inc.

825 Arnold Drive, Suite 114 - Martinez, California 94553 - (510) 279-1512 / fax (510) 229-1526

TOUCHSTONE DEVELOPMENTS

Attn: JEFF MONROE

Project 100-6 Reported 10-December-1992

EPA METHOD 8010

Laboratory Number Sample Identification Matrix w.o. pit water 87316- 9 Soil 87316 11 Water

RESULTS OF ANALYSIS

Laboratory Number: 87316 9 87316-11

Chloromethane: ND<5 ND<0.5 ND<0.5 Vinyl Chloride: ND<5 Bromomethane: ND < 0.5ND<5Chloroethane: ND<0.5 ND<5 Trichlorofluoromethane: ND<5 ND<0.5 1,1-Dichloroethene: ND<5ND < 0.5ND<0.5 Dichloromethane: ND<5 ND<0.5 c-1,2-Dichloroethene: ND<5 1,1-Dichloroethane: ND<5ND<0.5t-1,2-Dichloroethene: ND<5 ND<0.5 Chloroform: ND<5 ND<0.5ND<0.5 1,1,1-Trichloroethane: ND<5 Carbon tetrachloride: ND<5 ND<0.5 1,2-Dichlorocthane: ND<5 ND<0.5 Trichloroethene: ND<5 ND<0.5ND<5 ND<0.5 1,2-Dichloropropane: Bromodichloromethane: ND<5 ND<0.5 c-1,3-Dichloropropene: ND<5 ND<0.5 ND<0.5 t-1,3-Dichloropropene: ND<51,1,2-Trichloroethane: ND<5 ND<0.5 Tetrachloroethene: ND < 5ND<0.5 Dibromochloromethane: ND<0.5 ND<5 ND<5 Chlorobenzene: ND<0.5 Bromoform: ND<5 ND<0,5 1,1,2,2-Tetracl-ethane:ND<5 ND<0.5ND<0.5 1,3-Dichlorobenzene: ND<5 1,4-Dichlorobenzene: ND<5 ND<0.51,2-Dichlorobenzene: ND<5 ND<0.5 Concentration: ug/kg ug/L Surrogate Recovery: 57€ 898

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Quality Assurance and Control Data - Soil Laboratory Number 87316

Compound	Mothod Blank (ug/kg)	PQI: (ug/kg)	Average Spike Recovery (%)	Limits (%)	KPD (%)	Spike Level (ug/kg)
Chloromethane:	ND<5	5				
Vinyl Chloride:	ND<5	5				
Bromomethane:	ND<5	5				
Chloroethane:	ND<5	5				
Trichlorofluoromethana:	ND<5	5				
1,1-Dichloroethene:	ND<2	5	124%	60-140	<1%	100
Dichloromethane:	ND<5	5				
c-1,2-Dichloroethene:	ND<5	5				
1,1-Dichloroethane:	ND<5	5				
t-1,2 Dichloroethene:	ND<5	5				
Chloroform:	ND<5	5				
1,1,1-Trichloroethane:	ND<5	<u>(</u> 1				
Carbon tetrachloride:	ND<5	5				
1,2-Dichloroethane:	ND<5	5				
Trichloroethene:	ND<5	5	100%	60-140	3&	100
1,2-Dichloropropane:	ND<5	5				•
Bromodichloromethane:	ND⊄5	5				
c-1,3-Dichloropropene:	ND<5	5				
t-1,3-Dichloropropene:	ND<5	5				
1,1,2-Trichloroethane:	ND<5	5				
Tetrachloroethene:	ND<5	5				
Dibromochloromethaue:	ND<5	5				
Chlorobenzene:	ND<5	5	103%	60-140	0%	1.00
Bromoform:	ND<5	5				
1,1,2,2-Tetracl-ethane:	ND<5	5				
1,3-Dichlorobenzene:	ND<5	5				
1,4-Dichlorobenzene:	ND<5	5				
1,2-Dichlorobenzene:	ND<5	5				
4-Chlorotoluene:	93%					
Average Recovery:			109%		28	



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EPA METHOD 8010

Quality Assurance and Control Data - Water Laboratory Number 87316

Compound	Method Blank (ug/L)	PQL (ug/L)	Average Spike Recovery (%)	Limits (%)	RPD (*)	Spike Level (ug/L)
Chloromethane: Vinyl Chloride: Bromomethane: Chloroethane: Trichloroflouromethane: 1,1,-Dichloroethene: Dichloromethane: C-1,2,-Dichloroethene: 1,1-Dichloroethane: T-1,2,-Dichloroethene: Chloroform:	ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5	0.5 0.5 0.5 0.5 0.5 0.5 0.5	1.18%	80·120	10%	100
1,1,1-Trichloroethane: Carbon Tetrachloride: 1,2,-Dichloroethane: Trichloroethene: 1,2-Dichloropropane: Bromodichloromethane: C-1,3 Dichloropropene: T-1,3-Dichloropropene:	ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5	0.5 0.5 0.5 0.5 0.5 0.5 0.5 0.5	99%	80-120	8\$	100
1,1,2-Trichloroethane: Tetrachloroethene: Dibromochloromethane: Chlorobenzene: Bromoform: 1,1,2,2-Tetracl-ethane: 1,3-Dichlorobenzene: 1,4-Dichlorobenzene: 1,2-Dichlorobenzene:	ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5 ND<0.5	0.55 0.55 0.55 0.55 0.55 0.55	102%	80-120	<1.8	1.00
4-Chlorotoluene: Average Spike Recovery:	68%		106%		ጋ %	

Definitions:

ND = Not Detected

PQL - Practical Quantitation Limit

QC File No. 87316

RPD = Relative Percent Difference

Senior Analyst



825 Amold Drive, Suite 114 * Martinez, California 94553 * (510) 779 1512 / lax (510) 279-1576

CERTIFICATE OF ANALYSIS

LABORATORY NO.: 8/316

CLIENT: TOUCHSTONE DEVELOPMENTS

CLIENT JOB NO.: 100-6

DATE RECEIVED: 12/04/92 DATE REPORTED: 12/14/92

DATE SAMPLED: 12/04/92

ANALYSIS FOR CADMIUM, CHROMIUM, LEAD & ZINC by EPA SW-846 Method 6010

# LVB	Sample Identification	Cadmium	Conce Chromium	ntration Lead	(mg/L) (mg/kg) Nickel
3.3	W-1 wo tank SP (mg/kg) WT-1 a-f pit watermg/L) from wo tank mg/kg - parts per milli		23 ND<0.05	88 NE<0.1	340	30 พิเว<0.1

Method Detection Limit for Cadmium in Soil: 1 mg/kg
Method Detection Limit for Chromium in Soil: 5 mg/kg
Method Detection Limit for Lead in Soil: 5 mg/kg
Method Detection Limit for Zinc in Soil: 20 mg/kg
Method Detection Limit for Cadmium in Water: 0.05 mg/L
Method Detection Limit for Chromium in Water: 0.05 mg/L
Method Detection Limit for Lead in Water: 0.1 mg/L
Method Detection Limit for Zinc in Water: 0.05 mg/L
Method Detection Limit for Nickel in Soil: 10 mg/kg
Method Detection Limit for Nickel in Water: 0.1 mg/L

QAQC Summary: MS/MSD Average Recovery: 92%

Duplicate RPD : 2%

Richard Srna, Ph.D.

Laboratory Manager



CERTIFICATE OF ANALYSIS

LABORATORY NO.: 87316

CLIENT: TOUCHSTONE DEVELOPMENTS

CLIENT JOB NO.: 100-6

DATE RECEIVED: 12/04/92 DATE REPORTED:12/14/92

DATE SAMPLED: 12/04/92

ANALYSIS FOR TOTAL LEAD by SW 846 Method 6010

LAB #	Sample Identification	Concentration (mg/L) Total bead
10	FT-1 a-d	ND<0.1

mg/L - parts per million (ppm)

Method Detection Limit for Lead in Water: 0.1 mg/L

QAQC Summary: MS/MSD Average Recovery: 92%

Duplicate RPD : 2%

Richard Srna, Ph.D.