FLUOR DANIEL GTI

TO: Ms. Mary Haber
Attorney-at-Law
353 Sacramento Street, Suite 600
San Francisco, CA 94111

DATE: 11/25/96 JOB NO. 02070-0324
FROM: Brian Garber
RE: Former Texaco Service Station
3810 Broadway
Oakland, California

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1	3	11/25/96	FINAL Soil and Groundwater Assessment Report

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Remarks: Dear Ms. Haber:

The enclosed report is for your records. Also included are copies for forwarding to the appropriate parties. Please call our West Sacramento office with questions or comments.

Thank you.

Brian Garber

Copies to:

Copy forwarded by Fluor Daniel GTI: *Mr. Marvin Katz*
Texaco Refining and Marketing, Inc.
108 Cutting Boulevard
Richmond, California 94804

C324tran wk4

FLUOR DANIEL GTI

November 25, 1996

Ms. Mary Haber
353 Sacramento Street, Suite 600
San Francisco, California 94111

Subject: Soil and Groundwater Assessment Report
Former Texaco Service Station
3810 Broadway, Oakland, California
Fluor Daniel GTI Project 02070 0324

Dear Ms. Haber:

Fluor Daniel GTI, Inc. is pleased to present this Soil and Groundwater Assessment Report for drilling and sampling of soil borings, groundwater monitoring well installation, and groundwater sampling activities at the subject site (Figures 1 and 2, Attachment 1) between September 17 and October 10, 1996. Prior to conducting these activities, Fluor Daniel GTI conducted Second Quarter 1996 groundwater monitoring and sampling of the four original on-site wells on June 28, 1996; the findings of this monitoring and sampling event are also included in this report.

Scope of Work

The scope of work conducted during this phase of the investigation included:

- Obtaining a Minor Encroachment Permit, and an Excavation Permit, from the City of Oakland, Office of Planning and Building, for placing two monitoring wells within the public right-of-way, and a Drilling Permit from the Alameda County Zone 7 Water Agency
- Completing a Health and Safety Plan pertaining to the site activities conducted during the assessment
- Conducting Second Quarter 1996 groundwater monitoring and sampling of the four original groundwater monitoring wells on the site (MW-1 through MW-4)
- Contacting Underground Service Alert (USA) to mark utilities located on the right-of-way on Broadway and 38th Street
- Commissioning of an underground locating service to survey the subsurface to locate and identify underground utilities and structures on the subject property
- Drilling of six soil borings and installation of six new groundwater monitoring wells in the borings
- Collection of five soil samples from each boring for laboratory analysis (Table 1, Attachment 2)
- Redrilling wells MW-1, MW-2, and MW-3 , and reinstalling new monitoring wells with screen intervals intercepting the groundwater/vadose zone interface.

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- Development of the newly installed groundwater monitoring wells
- Having the top-of-casing elevation surveyed to a local benchmark by a licenced surveyor
- Measuring depth-to-water (DTW) in the 10 site-related monitoring wells (Table 2)
- Collection of groundwater samples from each monitoring well that did not contain separate phase liquid hydrocarbons (SPH) for laboratory analysis
- Preparation and submittal of this Soil and Groundwater Investigation Report

METHODOLOGY

Permitting/Site Specific Health and Safety Plan

A Minor Encroachment Permit, and an Excavation Permit were obtained from the City of Oakland, Office of Planning and Building, for placing two monitoring wells within the public right-of-way prior to conducting the field work. Also obtained was a Drilling Permit from the Zone 7 Water Agency. Copies of these permits are included in Attachment 3.

Following a review of site conditions, Fluor Daniel prepared a site-specific *Health and Safety Plan* as required by the Occupational Safety and Health Administration (OSHA) Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120). The document was reviewed and signed by Fluor Daniel GTI personnel and subcontractors prior to beginning work at the site.

Utilities Survey

An underground locating service was retained to conduct a subsurface survey of underground utilities on the subject site prior to commencement of the subsurface activities. In addition, Underground Service Alert was contacted on August 29, 1996, to have member utilities notified of the pending monitoring well installation activities on the right-of-ways of Broadway and 38th Street.

Soil Boring Drilling and Sampling

Between September 19 and 23, 1996, six soil borings were drilled at the subject site for the purpose of collecting soil samples and to install groundwater monitoring wells. The monitoring well borings were drilled using a B-61 mobile drilling rig using 8-inch outside-diameter hollow-stem augers. The soil boring and monitoring well locations are presented in Figure 2. Soil samples were collected at 5-foot intervals starting from approximately 5 feet below grade (BG) to the total depth of the boring. A modified California split-spoon sampler was used for soil sample collection. Prior to the subsurface exploration, all down-hole equipment was cleaned using high-pressure steam to prevent cross contamination between borings. The sampler was lined with four 2-inch-diameter, 6-inch-long brass liners to allow for collecting an intact soil

sample. The sampler was washed with Alconox® detergent and water, and double rinsed with water prior to each sample collection.

The drilling was supervised by a Fluor Daniel GTI geologist who logged the materials encountered according to the Unified Soil Classification System. Soil samples were collected for headspace analysis at 5 foot intervals from approximately 5 feet below grade to the total depth of the boring. Headspace analysis was conducted on the soil samples using a photo-ionization detector (PID).

Soil samples were also collected from each boring for laboratory analysis. A total of five soil samples were collected for laboratory analysis from each of the soil borings prior to converting them to monitoring wells. The soil samples were sealed with Teflon™ sheets, plastic caps, and duct tape. The soil samples were stored on ice in an insulated chest and transported to NEI/GTEL Environmental Laboratories Inc. (NEI/GTEL), a California-certified laboratory in Wichita, Kansas, for analysis, accompanied by a chain-of-custody record. Selected soil samples were analyzed for benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA methods 5030/8020, total petroleum hydrocarbons as diesel (TPH-D) by EPA methods 3550/8015, and as gasoline (TPH-G) by EPA methods 5030/8015. Also, two composite soil samples were collected from the soil cutting pile generated during drilling for waste characterization by the laboratory.

Monitoring Well Construction

Following the drilling of the soil borings to a total depth of 35 feet, six groundwater monitoring wells (MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10) were constructed (Figure 2). The monitoring wells were completed with 25 feet of 2-inch-diameter polyvinylchloride (PVC), 0.020-inch-slot screen. The wells were finished to the surface with 10 feet of 2-inch-diameter PVC casing. The annular space between the borehole and casing was backfilled with Lonestar 2/12 sand from the well completion depth to approximately 8 feet below grade. A sanitary seal consisting of hydrated bentonite chips was installed above the sand to approximately 7 feet below grade, followed by cement grout to the surface. The wells were finished with a water-tight locking cap inside a traffic-rated street box. Well construction diagrams are shown on drilling logs presented in Attachment 4.

Soil cuttings generated during the drilling were placed on top of and covered with plastic, and stored on site pending laboratory analysis and proper disposal.

Reinstallation of Monitoring Wells

Three previously installed monitoring wells (MW-1, MW-2, and MW-3) were redrilled for the purpose of adjusting the screen interval to intercept the groundwater/vadose zone interface. This will allow collection of representative groundwater samples and accurate measurement of separate-phase hydrocarbons, if present.

Need new construction logs.

The wells were redrilled to their total depth using 8-inch outside-diameter hollow-stem augers. New monitoring wells were then installed in the redrilled borings. Monitoring wells MW-1, MW-2, and MW-3 were constructed the same way as wells MW-5 through MW-10

Monitoring Well Development

The four original monitoring wells were developed on June 28, 1996, during the Second Quarter 1996 groundwater monitoring and sampling task. On October 10, 1996, all of the wells, including those that were redrilled and installed in the current assessment, were developed prior to sampling. The purpose of the well development is to improve the hydraulic communication with the surrounding aquifer. Suspended sediment was removed from the wells using a surge and bail technique until the extracted groundwater was free of fine particles Development water was placed in 55-gallon steel drums, labeled, and stored on site pending laboratory analysis to determine a proper disposal method.

Groundwater Monitoring

On June 28, October 10, and November 7, 1996, the depth to groundwater was measured in the monitoring wells using an INTERFACE PROBE™ Well Monitoring System, which can detect both water and SPH levels. On June 28, 1996, SPH was detected in well MW-2 at a thickness of 1.35 feet and in MW-3 at a thickness of 1.43 feet. On October 10, 1996 no SPH was detected. On November 7, 1996, SPH was found in wells MW-1 and MW-2 at a thickness of 0.01 foot.

Groundwater Sampling

On June 28 and October 10, 1996, groundwater samples were collected from the groundwater monitoring wells. Before sampling, the wells were purged of approximately 4 well-casing volumes. The temperature, conductivity, and pH of the purge water were measured during purging.

Groundwater samples were collected using well-dedicated, polyurethane, disposable bailers and placed in sample containers supplied by the laboratory performing the analyses. The sample containers were labeled and placed in an ice-chilled, insulated container for transport under chain-of-custody protocol to NEI/GTEL, a California-certified laboratory in Wichita, Kansas for the analyses. The groundwater samples from both sampling dates were analyzed for BTEX and TPH-G using EPA methods 8020/8015, respectively. The groundwater sample from well MW-1 collected on June 18, 1996, and all 10 groundwater samples collected on October 10, 1996, were also analyzed for TPH-D using EPA method 3510/8015. The groundwater sample collected from well MW-1 on June 18, 1996, was screened for total petroleum hydrocarbons-as-lubricating oil (TPH-L), and analyzed for TPH-L by EPA method 8015 on October 10, 1996. Additionally, all 10 groundwater samples collected on October 10, 1996, were analyzed for methyl-tert-butyl-ether (MTBE) using EPA method 8020. The presence of MTBE was then confirmed, in samples with positive MTBE results, using EPA method 8240.

RESULTS

Lithology

Soil borings for monitoring wells MW-5, MW-6, MW-7, MW-8, MW-9, and MW-10 were advanced to 35 feet BG. The subsurface material encountered consisted mainly of clay with some thin interbedded sands and minor gravels. A 2- to 3-foot-thick sand was logged in all new borings at 30-35 feet BG. The soil boring logs are enclosed in Attachment 4.

Headspace Analysis of Soil Samples

Soil samples were collected at 5-foot intervals starting at 5-feet BG from the monitoring well borings for headspace analysis using a PID. Headspace analysis detected volatile organic compounds (VOCs) at concentrations ranging from non-detectable to 7 parts per million (ppm) in the soil samples collected from the soil boring for well MW-5; 1.1 to 50 ppm in the boring for well MW-6; 14 to 729 ppm in the boring for well MW-8; and non-detectable to 23 ppm in the boring for well MW-9. No VOC concentrations were detected in the samples collected from the soil borings drilled for wells MW-7 and MW-10. Results of the headspace analysis are recorded on the drilling logs in Attachment 4.

Laboratory Analysis of Soil Samples

Laboratory analysis of the soil samples collected from the six soil borings that were converted to monitoring wells were analyzed by NEI/GTEL, a California-certified laboratory. No detectable concentrations of TPH-G, TPH-D, and benzene were present in the soil samples analyzed from borings MW-5, MW-7 and MW-10. TPH-G was detected in some of the analyzed soil samples from borings MW-6, MW-8, and MW-9 at concentrations ranging from 1 milligram per kilogram (mg/kg) in the soil sample from boring MW-6 at 20 feet BG, to 14,000 mg/kg in the soil sample from boring MW-8 at 15 feet BG. TPH-D was detected only in two soil samples collected from boring MW-9 (62 mg/kg and 69 mg/kg from the 5- and 15-foot soil samples, respectively), and one soil sample from MW-8 (53 mg/kg at 15 feet BG). Benzene was detected only in borings MW-6 and MW-8. The highest concentration of benzene at 25 mg/kg was detected in the soil sample from boring MW-8 at 15 feet BG.

Figure 5 presents a summary of TPH-G and benzene in soil. Copies of the certified laboratory reports for the soil analysis are presented in Attachment 5. A summary table of the laboratory results for soil samples is presented as Table 1 in Attachment 2.

Groundwater Monitoring

Groundwater monitoring data were used to construct potentiometric surface map (Figure 3). A thickness of 0.01 foot of SPH was detected in two of the ten monitoring wells during the November 7, 1996 monitoring event. The local groundwater gradient ranged from 0.001 to 0.004 foot per foot (ft/ft) directed radially toward the north, south, and east. Groundwater monitoring data are presented in (Table 2).

Laboratory Analysis of Groundwater Samples

Groundwater samples were collected from the wells MW-1 and MW-4 during the Second Quarter 1996 monitoring and sampling task conducted on June 28, 1996. Groundwater samples from wells MW-2 and MW-3 were not collected during this sampling event due to the presence of SPH in these wells. No detectable concentrations of TPH-G and BTEX were found in either groundwater sample. Additionally, the groundwater sample from well MW-1 was screened for TPH-D and for TPH-L (lubricating oil); neither TPH-D nor TPH-L was detected in the groundwater sample.

→ i.e. MW1 & MW4

Groundwater samples were also collected from all 10 monitoring wells on October 10, 1996, and were analyzed by NEI/GTEL, a California-certified laboratory. TPH-G was detected in all of the groundwater samples, except the groundwater sample collected from well MW-10, at concentrations ranging from 80 micrograms per liter (ug/l) in well MW-9 to 110,000 ug/l in well MW-3. TPH-D was detected only in the groundwater samples from wells MW-2, MW-3, MW-6, MW-8, and MW-9, at concentrations ranging from 110 ug/l to 1,800 ug/l. In the sample collected from well MW-1, 1,500 ug/l of TPH-L was also detected.

Benzene was detected in all of the groundwater samples, except well MW-10, at concentrations ranging from 0.6 ug/l in well MW-7 to 8,300 ug/l in well MW-6.

MTBE was detected in five of the ten groundwater samples using EPA method 8020, but the presence of MTBE was confirmed in only the groundwater sample from well MW-1, which contained a concentration of 16 ug/l.

A summary table of the laboratory results for groundwater samples is presented as Table 2, and copies of the laboratory reports for the groundwater analysis are presented in Attachment 5. A dissolved benzene concentration map (Figure 4) was constructed using data collected on October 10, 1996

CONCLUSIONS

The findings of this assessment confirmed the presence of fuel-related hydrocarbons beneath the site. The highest concentrations of hydrocarbons in soil were found in the soil samples collected from borings MW-6, MW-8, and MW-9; the highest concentrations of dissolved hydrocarbons in groundwater were found in the samples from wells MW-2 and MW-3. & MW-6 (?)

On June 28, 1996, 1.35 and 1.45 feet of SPH was measured in wells MW-2 and MW-3, respectively. SPH was not detected in any of the wells on October 10, 1996. Because SPH was not detected on October 10, 1996, and because of the history of SPH in the wells, monitoring was rescheduled to confirm groundwater conditions. On November 7, 1996, 0.01 foot of SPH was measured in wells MW-1 and MW-2

The extent of petroleum hydrocarbons in soil is defined. The soil contamination does not extend past off-site wells to the south and west, the site property to the north, and can be inferred not to extend beyond the site boundary to the east. The extent of dissolved petroleum hydrocarbons in the groundwater has also been defined. ← Why? This should be confirmed! ←

If you have any questions or comments concerning this report, please call Brian Garber at our West Sacramento office at (916) 372-4700.

Sincerely,

Fluor Daniel GTI, Inc.
Prepared/Submitted by:

Brian H. Garber
Project Manager

Fluor Daniel GTI, Inc.
Reviewed/Approved by:

Ed K. Simonis
Senior Geologist

EDWARD K. SIMONIS
No. 4422
REGISTERED GEOLOGIST
STATE OF CALIFORNIA

c: Ms. Susan Hugo - Alameda County Department of Environmental Health
Mr. Marvin Katz - Texaco Refining and Marketing, Inc.

Attachments
1. Figures
2. Tables
3. Permits
4. Drilling Logs
5. Laboratory Analytical Reports and Chain-of-Custody Manifests

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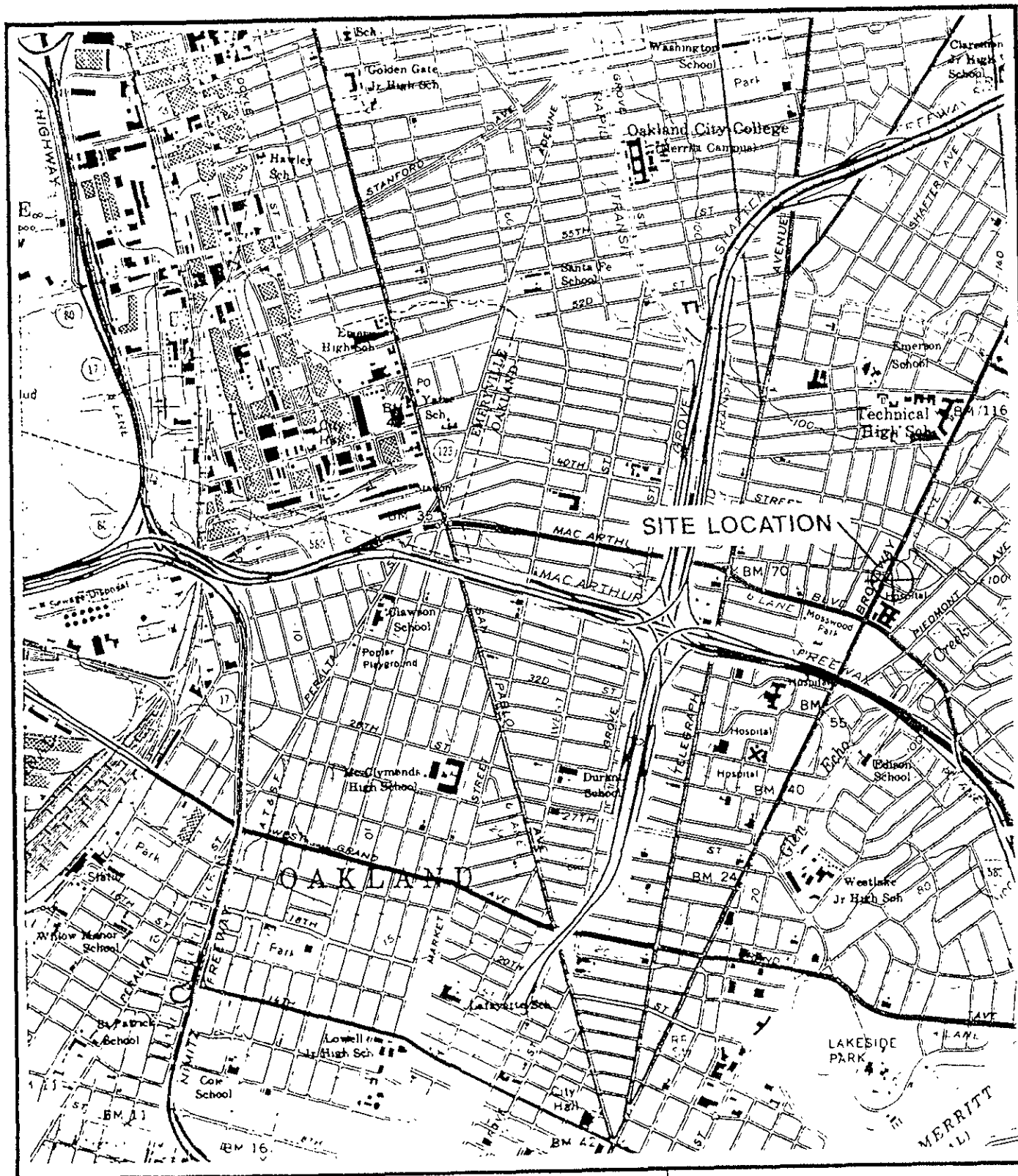
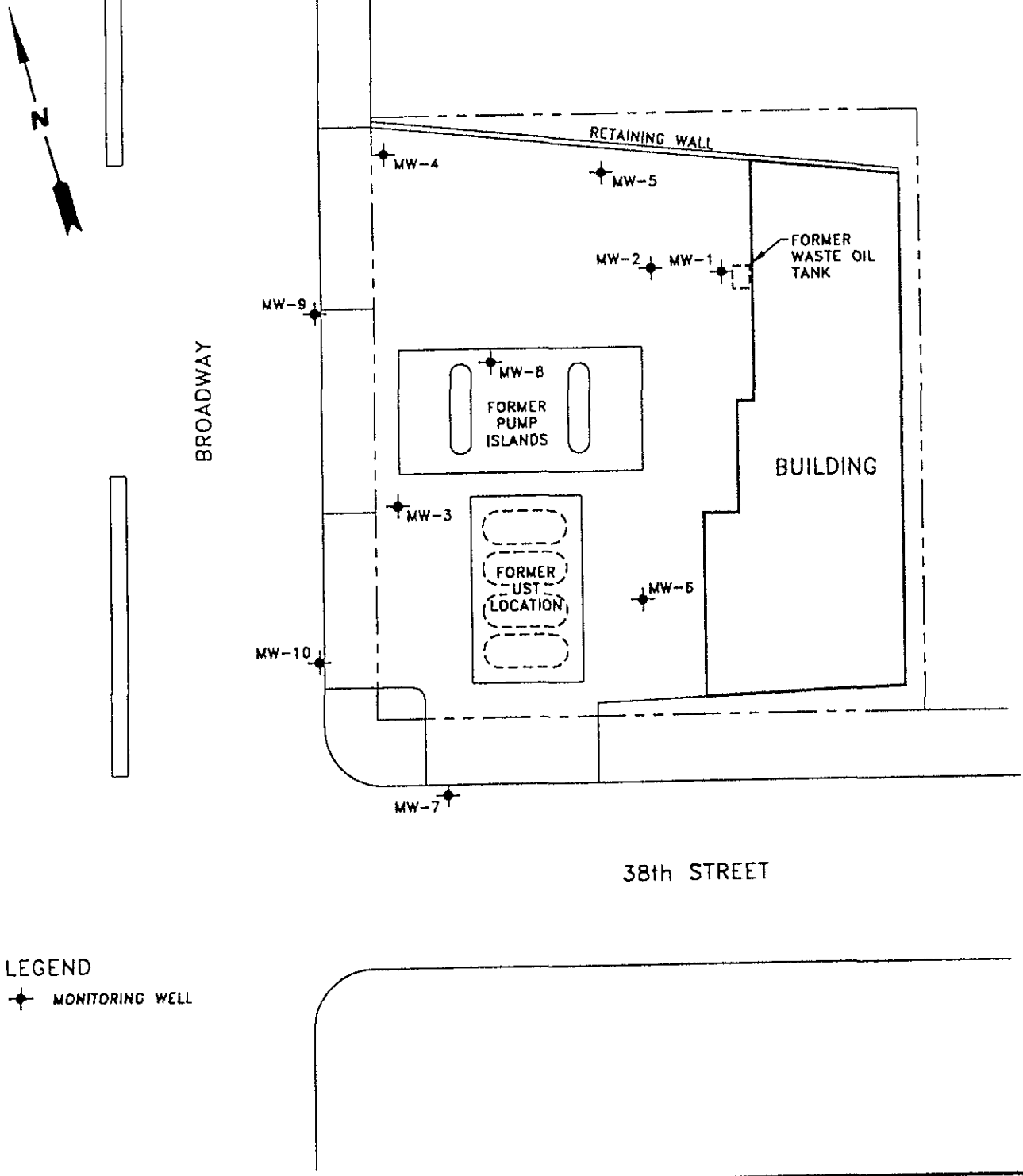
Attachment 1

Figures

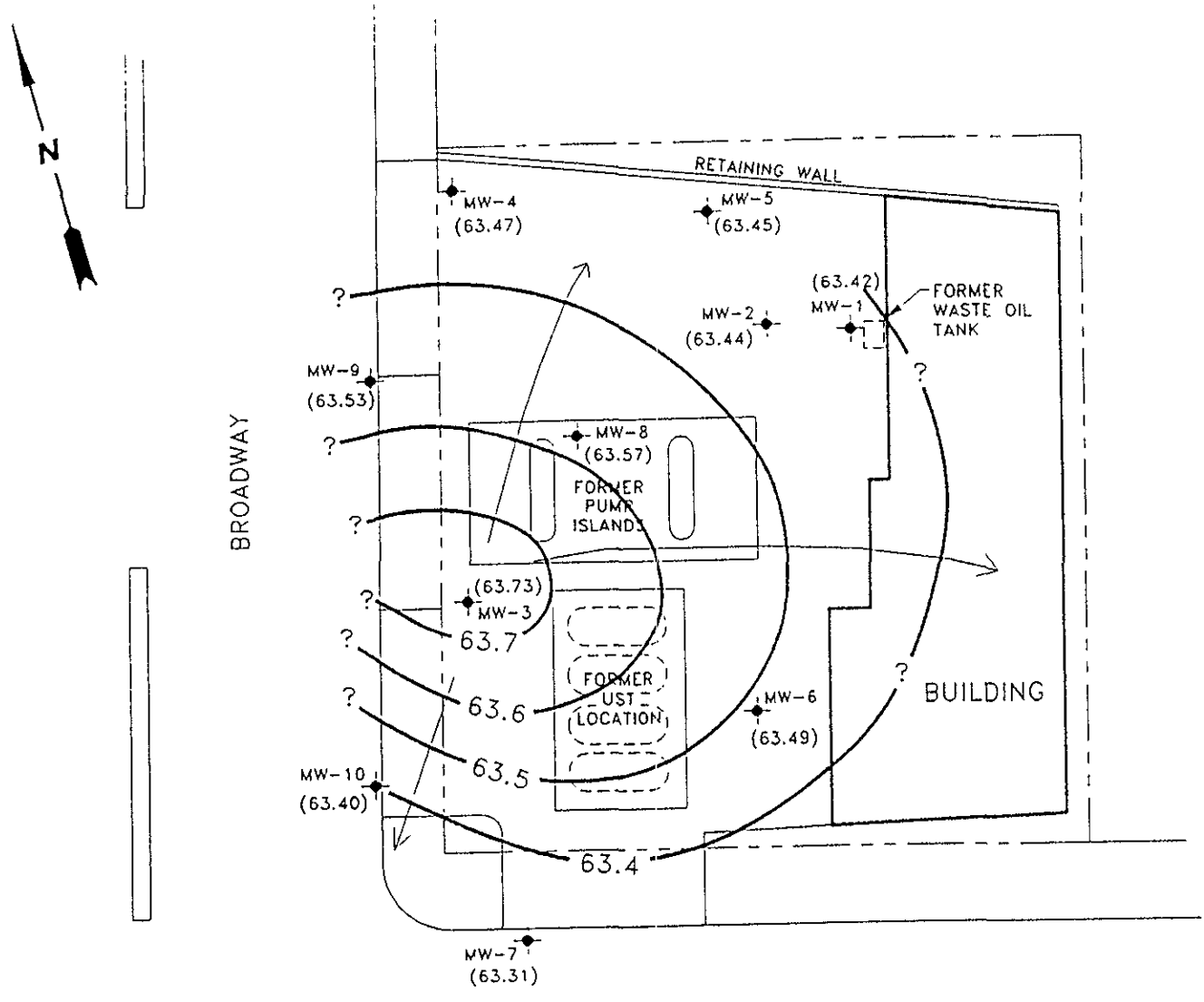
1. Site Location Map
2. Site Plan Showing Monitoring Well Locations
3. Potentiometric Surface Map
4. Dissolved Benzene Concentration Map
5. Concentration of TPH-G and Benzene in Soil (mg/kg)



FLUOR DANIEL GTI		SCALE: 0 FEET 2000	**SITE LOCATION MAP**
		CLIENT: MARY HABER	DATE: 11/7/96
SOURCE: U.S.G.S. 7.5' QUAD SHEET OAKLAND WEST, CALIFORNIA PHOTOREVISED 1980	N	LOCATION: 3810 BROADWAY OAKLAND, CALIFORNIA	FIGURE: 1



FLUOR DANIEL GTI	0 FEET 30 SCALE	**SITE PLAN SHOWING MONITORING WELL LOCATIONS**			
CLIENT: MARY HABER	FILE: SP1196	PROJECT NO: 020700324	PM BC	RG/PE EOS	
	REV: 1			FIGURE: 2	
LOCATION: 3810 BROADWAY OAKLAND, CALIFORNIA	DES: BG	DET: ML	DATE: 11/7/96		



LEGEND

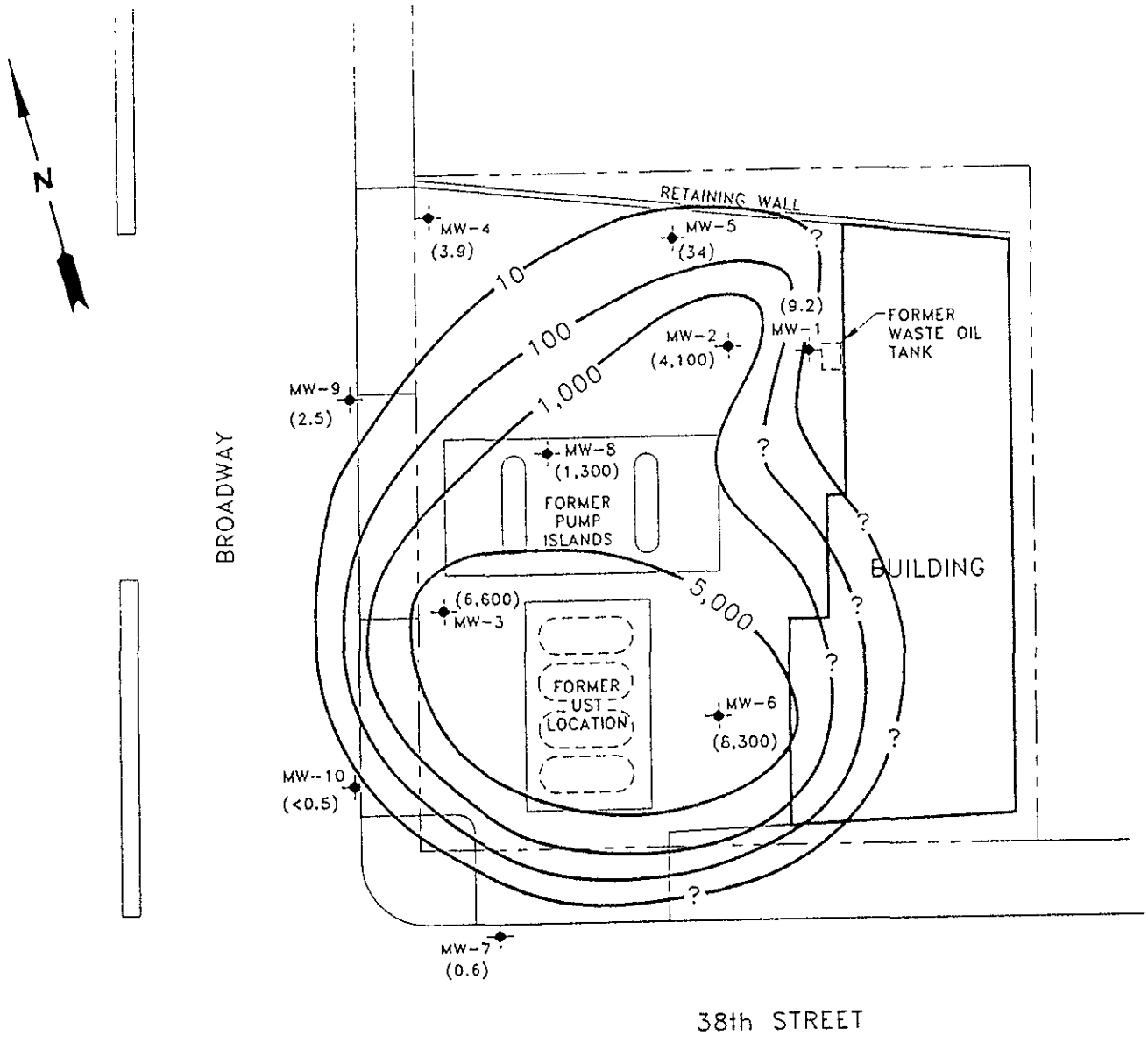
- MONITORING WELL
- ( ) POTENTIOMETRIC SURFACE ELEVATION (MSL)
- POTENTIOMETRIC SURFACE CONTOUR
- GROUNDWATER FLOW DIRECTION

FLUOR DANIEL GTI

0 FEET 30
SCALE

POTENTIOMETRIC SURFACE MAP (11/7/96)

CLIENT: MARY HABER	FILE: PSMN796/SP1196	PROJECT NO.: 020700324	PM	RG/PE
	REV: 1			FIGURE: 3
LOCATION: 3810 BROADWAY OAKLAND, CALIFORNIA	DES: BG	DET: ML	DATE: 11/7/96	



LEGEND

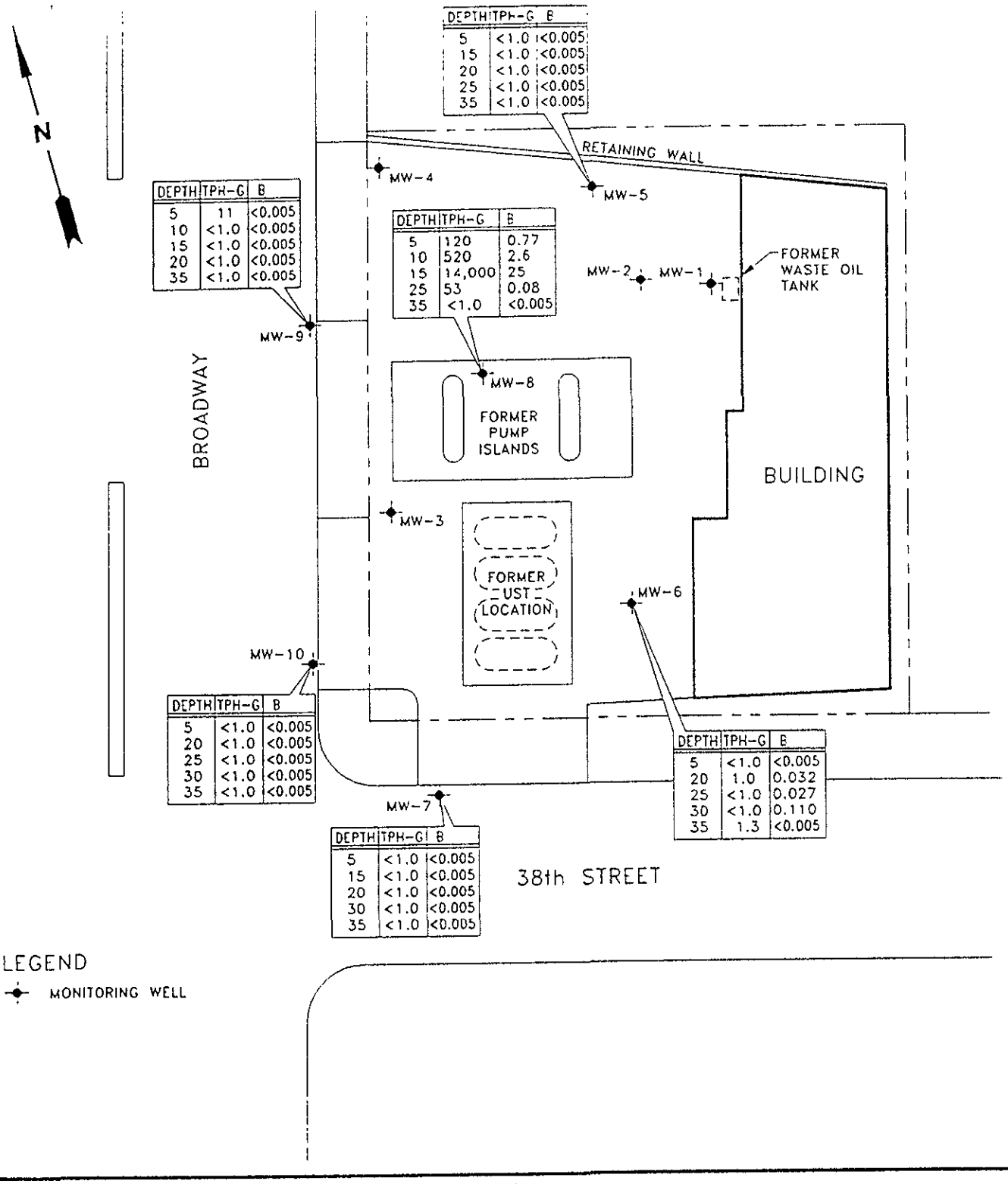
- MONITORING WELL
- ( ) BENZENE CONCENTRATION (ug/L)
- CONCENTRATION CONTOUR

FLUOR DANIEL GTI

SCALE

DISSOLVED BENZENE CONCENTRATION MAP

CLIENT: MARY HABER	FILE: BNZGW/SP1196	PROJECT NO: 020700324	PM: RG/PE: EJ
	REV: 1		FIGURE: 4
LOCATION: 3810 BROADWAY OAKLAND, CALIFORNIA	DES: BG	DET: ML	DATE: 11/7/96



FLUOR DANIEL GTI

0 FEET 30
SCALE

CONCENTRATION OF TPH-G AND BENZENE IN SOIL (mg/kg)

CLIENT: MARY HABER	FILE: TPHSOIL/SP1196	PROJECT NO: 020700324	PM	RG/PE: EWS
LOCATION: 3810 BROADWAY OAKLAND, CALIFORNIA	REV: 1			FIGURE: 5
	DES.: BG	DET.: ML	DATE: 11/7/96	

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Attachment 2

Tables

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Table 1
SOIL SAMPLE ANALYSES RESULTS

Former Texaco Facility
3810 Broadway
Oakland, California

SAMPLE I.D.	DEPTH (feet)	DATE	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL-BENZENE (mg/kg)	XYLENES (mg/kg)	TPH-G (mg/kg)	TPH-D (mg/kg)
MW-5								
	5	09/19/96	<0 005	<0 005	<0 005	<0.005	<1	<10
	15		<0 005	<0.005	<0.005	<0.005	<1	<10
	20		<0 005	<0.005	<0.005	<0.005	<1	<10
	25		<0 005	<0.005	<0.005	<0.005	<1	<10
	35		<0.005	<0.005	<0.005	<0.005	<1	<10
MW-6								
	5	09/20/96	<0.005	<0.005	<0.005	<0.005	<1	<10
	20		0.032	<0.005	<0.005	0.0075	1	<10
	25		0.027	<0.005	<0.005	<0.005	<1	<10
	30		0.110	0.0053	0.0058	0.0094	<1	<10
	35		<0.005	0.010	0.014	0.120	1.3	<10
MW-7								
	5	09/20/96	<0.005	<0 005	<0 005	0.0089	<1	<10
	15		<0.005	<0.005	<0.005	<0.005	<1	<10
	20		<0 005	<0.005	<0 005	<0.005	<1	<10
	30		<0.005	<0.005	<0 005	<0 005	<1	<10
	35		<0.005	<0.005	<0.005	<0.005	<1	<10
MW-8*								
	5	09/23/96	0.77	3.5	1.2	7.3	120	<10
	10		2.6	0.66	5.6	10	520	<10
	15		25	7.1	160	840	14,000	53a
	25		0.08	0.63	0.20	1.1	53	<10
	35		<0 005	<0 005	<0 005	<0 005	<1	<10
MW-9								
	5	09/19/96	<0 005	<0 005	<0 005	<0.005	11	62
	10		<0 005	<0 005	<0 005	<0 005	<1	<10
	15		<0 005	<0 005	<0.005	<0 005	<1	69
	20		<0 005	<0 005	<0 005	<0.005	<1	<10
	35		<0 005	<0 005	<0 005	<0.005	<1	<10
MW-10								
	5	09/19/96	<0.005	<0.005	<0 005	<0.005	<1	<10
	20		<0 005	<0.005	<0 005	<0 005	<1	<10
	25		<0 005	<0 005	<0.005	0.025	<1	<10
	30		<0 005	<0 005	<0 005	<0.005	<1	<10
	35		<0.005	<0 005	<0 005	<0 005	<1	<10
SP1-2								
		09/23/96	0.47	7.3	3.7	20	340	<10

NOTES:
TPH-G = Total petroleum hydrocarbons-as-gasoline
TPH-D = Total petroleum hydrocarbons-as-diesel
mg/kg = Milligrams per kilogram
- - = Not analyzed
a = Quantitation of diesel is uncertain due to matrix interferences from gasoline hydrocarbons
* = Methanol extraction necessary due to high levels of target or non-target analytes

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Table 2
GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA
Former Texaco Facility
3810 Broadway
Oakland, California

SAMPLE I.D.	DATE	BENZENE (µg/l)	TOLUENE (µg/l)	ETHYL-BENZENE (µg/l)	XYLENES (µg/l)	TPH-G (µg/l)	TPH-D (µg/l)	MTBE 8020 (µg/l)	MTBE 8240 (µg/l)	DTW (feet)	SPT (feet)	WTE (feet)
MW-1	06/28/96	<0.5	<1.0	<1.0	<2.0	<100	<50	--	--	21.77	0.00	64.92
	10/10/96	9.2	53	17	70	520	<400c	22	16	23.26	0.00	63.43
	11/07/96	--	--	--	--	--	--	--	--	23.27	0.01	63.42
MW-2	06/28/96	--	--	--	--	--	--	--	--	22.10	1.35	63.73
	10/10/96	4,100	9,400	2,300	9,900	99,000	1,800d	390	<25a	22.36	0.00	63.47
	11/07/96	--	--	--	--	--	--	--	--	22.39	0.01	63.44
MW-3	06/28/96	--	--	--	--	--	--	--	--	19.04	1.43	64.14
	10/10/96	6,600	16,000	2,200	12,000	110,000	1,200d	<250	--	19.51	0.00	63.67
	11/07/96	--	--	--	--	--	--	--	--	19.40	0.00	19.84
MW-4	06/28/96	<0.5	<1.0	<1.0	<2.0	<100	<50	--	--	18.83	0.00	64.48
	10/10/96	3.9	65	22	120	650	<50	<5.0	--	19.84	0.00	63.47
	11/07/96	--	--	--	--	--	--	--	--	19.84	0.00	63.47
MW-5	10/10/96	34	4.7	11	44	1,800	<50e	21	<5.0b	21.93	0.00	63.48
	11/07/96	--	--	--	--	--	--	--	--	21.96	0.00	63.45
MW-6	10/10/96	8,300	2,900	810	3,100	45,000	500d	190	<10ab	22.44	0.00	63.65
	11/07/96	--	--	--	--	--	--	--	--	22.60	0.00	63.49
MW-7	10/10/96	0.6	<0.5	<0.5	<0.5	<50	<50	<5.0	--	20.78	0.00	63.33
	11/07/96	--	--	--	--	--	--	--	--	20.80	0.00	63.31
MW-8	10/10/96	1,300	1,200	64	1,300	17,000	110	110	<5.0	20.82	0.00	63.19
	11/07/96	--	--	--	--	--	--	--	--	20.44	0.00	63.57

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Table 2
GROUNDWATER ANALYTICAL RESULTS AND MONITORING DATA

Former Texaco Facility
3810 Broadway
Oakland, California

SAMPLE I.D.	DATE	BENZENE (µg/l)	TOLUENE (µg/l)	ETHYL-BENZENE (µg/l)	XYLENES (µg/l)	TPH-G (µg/l)	TPH-D (µg/l)	MTBE 8020 (µg/l)	MTBE 8240 (µg/l)	DTW (feet)	SPT (feet)	WTE (feet)
MW-9	10/10/96	2.5	13	2.2	13	80	520de	<5.0	--	18.62	0.00	63.55
	11/07/96	--	--	--	--	--	--	--	--	63.53	0.00	63.53
MW-10	10/10/96	<0.5	<0.5	<0.5	<0.5	<50	<50	<5.0	--	18.40	0.00	63.43
	11/07/96	--	--	--	--	--	--	--	--	18.43	0.00	63.40

NOTES:

TPH-G = Total petroleum hydrocarbons-as-gasoline
TPH-D = Total petroleum hydrocarbons-as-diesel
MTBE = Methyl-tert-butyl-ether
DTW = Depth to water
SPT = Separate-phase product thickness
WTE = Water table elevation
µg/l = Micrograms per liter
-- = Not analyzed
a = The sample was diluted due to high concentration of non-target compounds
b = GC/MS data indicate the presence of non-target hydrocarbons
c = *The reporting limit for diesel fuel was elevated because of matrix interferences from other hydrocarbons.*
Lubricating oil cannot be qualitatively identified by type of oil because of chromatographic likeness of different oil types
Due to non-volatility of certain oils, much of the oil present may not be quantified by this method Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate This method quantifies lubricating oil against 10-W-30 standards
d = Qualitative identification of diesel fuel is uncertain because the material present does not match laboratory standards
Quantitation of diesel fuel is uncertain due to matrix interferences
e = Chromatographic data indicate the presence of material which is heavier than diesel fuel in this sample

FLUOR DANIEL GTI

Attachment 3

Permits

Oakland
All-America City
1993

CITY OF OAKLAND

OFFICE OF PLANNING & BUILDING • 1330 BROADWAY • OAKLAND, CALIFORNIA 94612

Administration	238-7200	Building Services	238-3587	Planning	238-3941
Engineering Services	238-2110	Operations	238-3443	Zoning	238-7206

Gerald S. and Miriam M. Friedkin
C/O Mr. Brian Garber
Flour Daniel GTI, Inc.
1401 Halyard Drive, Suite 140
West Sacramento, CA 95691

September 6, 1996

Dear Mr. and Mrs. Friedkin:

RE: MINOR ENCROACHMENT PERMIT FOR MONITORING WELLS IN BROADWAY, OAKLAND

Enclosed are the Minor Encroachment Permit and Agreement and the Conditions For Granting a Minor Encroachment Permit allowing you to place two monitoring wells within the public right-of-way area of Broadway and one monitoring well in the public right-of-way of 38th Street.

Before the permit will become effective, however, it must be signed by the person(s) having the legal authority to do so, properly notarized with notary acknowledgement slip(s) attached, and returned to this office to the attention of Albert Hall for recordation.

You must also obtain a street excavation permit from the Engineering Information Counter, 2nd Floor, 1330 Broadway, prior to the start of the proposed work in the City right of way. For questions regarding the street excavation permit, call the Engineering Information Counter at (510) 238-4777 between 8 a.m. and 4 p.m., Monday through Friday.

If you have any other questions regarding this minor encroachment permit, please call Albert Hall at (510) 238-3238.

Very truly yours,

CALVIN N. WONG
Chief of Building Services

By Philip A. Grubstick
PHILIP A. GRUBSTICK
Engineering Services Manager

Enclosures

:ah

RECEIVED
SEP 09 1996

Recording requested by:
City of Oakland

When Recorded Mail to:
City of Oakland
Community & Econ. Develop. Agency
Building Services, Eng. info.
1330 Broadway, 2nd Floor
Oakland, CA 94612

TAX ROLL PARCEL NUMBER
(ASSESSOR'S REFERENCE NUMBER)

012	983	14	1
MAP	BLOCK	PARCEL	SUB

SPACE ABOVE FOR RECORDER'S USE ONLY

Address: 3810 Broadway, Oakland

MINOR ENCROACHMENT PERMIT AND AGREEMENT

Gerald S. Friedkin and Miriam M. Friedkin, owners of that certain property described in the Grant Deed recorded November 19, 1987, Series No. 87-312353, in the Office of the Recorder, Alameda County, California and commonly known as 3810 Broadway are hereby granted a Conditional Revocable Permit to encroach into the public right-of-way areas of Broadway and 38th Street, Oakland with three monitoring wells. The location of said encroachments shall be as delineated in Exhibit 'A' attached hereto and made a part hereof.

The permittees agree to comply with and be bound by the conditions for granting an Encroachment Permit attached hereto and made a part hereof.

This agreement shall be binding upon the permitees described above, and their successors in interest thereof.

In witness whereof, we have set our signature this day of , 1996.

Gerald S. Friedkin

Miriam M. Friedkin

-- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- -- --

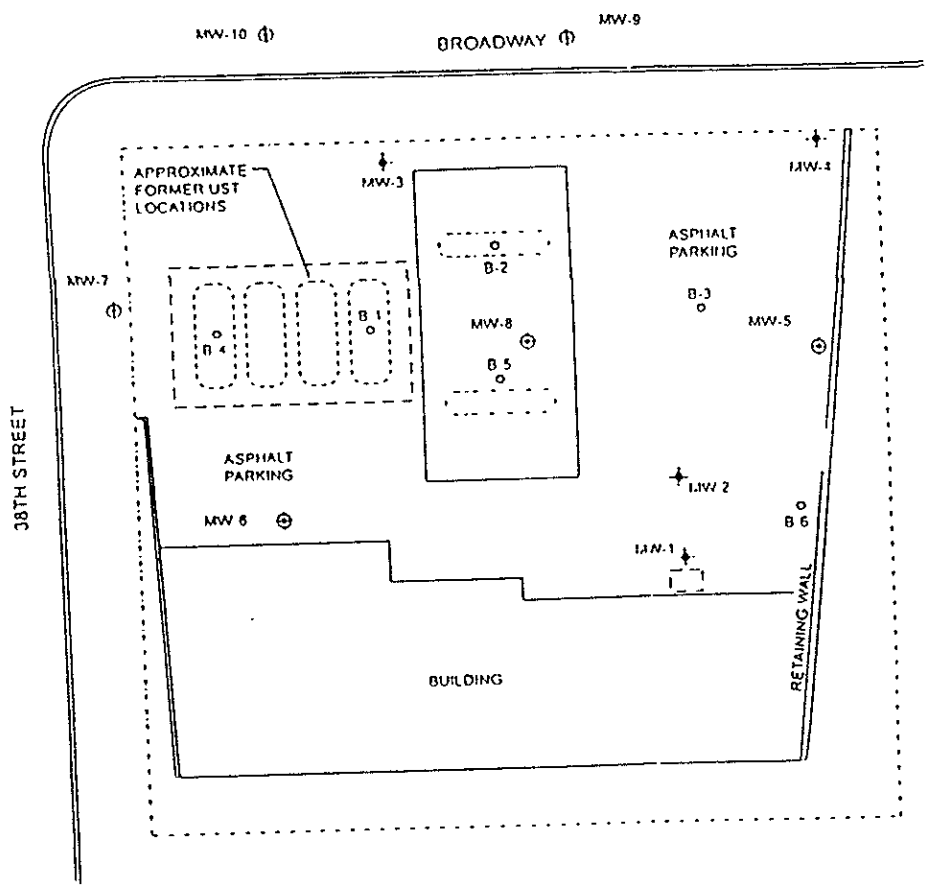
BELOW FOR OFFICIAL USE ONLY

CITY OF OAKLAND

Dated_____

By:_____
CALVIN N. WONG
Chief of Building Services
For
KOFI BONNER
Director, Community &
Economic Development Agency

file: minenc.2)



FLUOR DANIEL GTI

EXPLANATION

- PROPOSED MONITORING WELL LOCATION
- LW-2 MONITORING WELL
- B-6 SOIL BORING LOCATION
- APPROXIMATE TANK EXCAVATION AREA
- PROPERTY LINE
- APPROXIMATE FORMER PUMP ISLAND LOCATION

N

0 20 40

APPROX. SCALE IN FEET

CLIENT: MARY HABER

3810 BROADWAY
OAKLAND, CALIFORNIA
02070 0324

SITE PLAN SHOWING PROPOSED MONITORING WELL LOCATIONS

FIGURE 2

EXHIBIT "A"

TO: Gerald and Miriam Friedkin
(APN: 12-983-14-1)

Address: 3810 Broadway

RE: Minor Encroachment Permit for Monitoring Wells in Broadway, Oakland

CONDITIONS FOR GRANTING A MINOR ENCROACHMENT PERMIT

1. That this permit shall be revocable at the pleasure of the Chief of Building Services.

2. That the permittee, by the acceptance, either expressed or implied, of the minor encroachment permit hereby disclaims any right, title, or interest in or to any portion of the public sidewalk or street area, and agrees that said temporary use of said area does not constitute an abandonment on the part of the City of Oakland of any of its rights for street purposes and otherwise.

3. The permittee shall maintain in force and effect at all times that said encroachment occupies said public sidewalk or street area, good and sufficient public liability insurance in the amount of $300,000 for each occurrence, and property damage insurance in the amount of $50,000 for each occurrence, both including contractual liability insuring the City of Oakland against any and all claims arising out of the existence of said encroachment in said public sidewalk or street area, and that a certificate of such insurance and subsequent notices of the renewal thereof, shall be filed with the Chief of Building Services of the City of Oakland, and that such certificate shall state that said insurance coverage shall not be canceled or be permitted to lapse without thirty (30) days written notice to said Chief of Building Services. The Permittee also agrees that the City may review the type and amount of insurance required of the Permittee every five (5) years and may require the permittee to increase the amount of and/or change the type of insurance coverage required.

4. That the permittee, by the acceptance, either expressed or implied, of this revocable permit shall be solely and fully responsible for the repair or replacement of any portion or all of said improvements in the event that said improvements shall have failed or have been damaged to the extent of creating a menace or of becoming a hazard to the safety of the general public; and that the permittee shall be liable for the expenses connected therewith.

5. That upon the termination of the permission herein granted, permittee shall immediately remove said encroachment from the sidewalk and street area, and any damage resulting therefrom shall be repaired to the satisfaction of the Chief of Building Services.

6. That the permittee shall file with the City of Oakland for recordation a Minor Encroachment Permit and Agreement, and shall be bound by and comply with all the terms and conditions of said permit.

7. That said permittee shall obtain an excavation permit prior to the construction and a separate excavation permit prior to the removal of the ground water monitoring wells.

8. That said permittee shall provide to the City of Oakland an AS BUILT plan showing the actual location of the ground water monitoring wells and the results of all data collected from the monitoring wells.

9. That said permittee shall remove the monitoring wells and repair any damage to the sidewalk or street area in accordance with City standards two (2) years after construction or as soon as monitoring is complete.

10. That said permittee shall notify the Office of Planning & Building after the monitoring well(s) is/are removed and the sidewalk or street area restored to initiate the procedure to rescind the minor encroachment permit.

11. That monitoring well covers installed within the sidewalk area shall have a skidproof surface. A precast concrete utility box may be used in conjunction with the bolted cast iron cover with City approval.

12. That the ground water monitoring well casting and cover shall be cast iron and shall meet H-20 load rating. The cover shall be secured with a minimum of two stainless steel bolts. Bolts and cover shall be mounted flush with the surrounding surface.

13. That the permittee acknowledges that the City makes no representations or warranties as to the conditions beneath said encroachment. By accepting this revocable permit, permittee agrees that it will use the encroachment area at its own risk, is responsible for the proper coordination of its activities with all other permittees, underground utilities, contractors, or workmen operating within the encroachment area and for the safety of itself and any of its personnel in connection with its entry under this revocable permit.

14. That the permittee acknowledges that the City is unaware of the existence of any hazardous substances beneath the

encroachment area, and hereby waives and fully releases and forever discharges the City and its officers, director, chiefs, employees, agents, servants, representatives, assigns and successors from any and all claims, demands, liabilities, damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs), whether direct or indirect, known or unknown, foreseen or unforeseen, that may arise out of or in any way connected with the physical condition, or required remediation of the excavation area or any law or regulation applicable thereto, including, without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended (42 U.S.C. Sections 9601 et seq.), the Resource Conservation and Recovery Act of 1976 (42 U.S.C. Section 6901 et seq.), the Clean Water Act (33 U.S.C. Section 466 et Seq.), the Safe Drinking Water Act (14 U.S.C. Sections 1401-1450), the Hazardous Materials Transportation Act (49 U.S.C. Section 1801 et seq.), the Toxic Substance Control Act (15 U.S.C. Sections 2601-2629), the California Hazardous Waste Control Law (California Health and Safety Code Sections 25100 et seq.), the Porter-Cologne Water Quality Control Act (California Health and Safety Code Section 13000 et seq.), the Hazardous Substance Account Act (California Health and Safety Code Section 25300 et seq.), and the Safe Drinking Water and Toxic Enforcement Act (California Health and Safety Code Section 25249.5 et seq.).

15. Permittee further acknowledges that it understands and agrees that it hereby expressly waives all rights and benefits which it now has or in the future may have, under and by virtue of the terms of California Civil Code Section 1542, which reads as follows: "A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM MUST HAVE MATERIALLY AFFECTED HIS SETTLEMENT WITH THE DEBTOR."

16. Permittee recognizes that by waiving the provisions of this section, permittee will not be able to make any claims for damages that may exist, and to which, if known, would materially affect his/her decision to execute this encroachment agreement, regardless of whether permittee's lack of knowledge is the result of ignorance, oversight, error, negligence, or any other cause.

17. (a) That the permittee, by the acceptance of this revocable permit, agrees and promises to indemnify, defend, and hold harmless the City of Oakland, its officers, agents, and employees, to the maximum extent permitted by law, from any and all claims, demands, liabilities, damages, actions, causes of action, penalties, fines, liens, judgments, costs, or expenses whatsoever (including, without limitation, attorneys' fees and costs;

collectively referred to as "claims"), whether direct or indirect, known or unknown, foreseen or unforeseen, to the extent that such claims were caused by the permittee, its agents, employees, contractors or representatives.

(b) That, if any contamination is discovered below or in the immediate vicinity of the encroachment, and the contaminants found are of the type used, housed, stored, processed or sold on or from the Broadway, Oakland, California site, such shall amount to a rebuttable presumption that the contamination below, or in the immediate vicinity of, the encroachment was caused by the permittee, its agents, employees, contractors or representatives.

(c) That the permittee shall comply with all applicable federal, state, county and local laws, rules, and regulations governing the installation, maintenance, operation and abatement of the encroachment.

(d) That the permittee hereby does remise, release, and forever discharge, and agree to defend, indemnify and save harmless, the City, its officers, agents and employees and each of them, from any and all actions, claims, and demands of whatsoever kind or nature, and any damage, loss or injury which may be sustained directly or by the undersigned and any other person or persons, and arising out of, or by reason of, the occupation of said public property, and the future removal of the above-mentioned encroachment.

18. That the hereinabove conditions shall be binding upon the permittee and the successive owners and assigns thereof.

19. That said Minor Encroachment Permit and Agreement shall take effect when all the conditions hereinabove set forth shall have been complied with to the satisfaction of the Chief of Building Services, and shall become null and void upon the failure of the permittee to comply with all conditions hereinabove set forth.

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PERMIT NUMBER X9600748	SITE ADDRESS/LOCATION 300 38th St
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS 434343	CITY BUSINESS TAX #

ATTENTION:

1) State law requires that the contractor/owner call *Underground Service Alert (USA)* two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1 (800) 642-2444. UNDERGROUND SERVICE ALERT (USA) #: _____

2) 48 hours prior to starting work, YOU MUST CALL (510) 238-3651 TO SCHEDULE AN INSPECTION.

OWNER/BUILDER

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5 Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License law Chapter 9 (commencing with Sec. 7000) of Division 3 of the Business and Professions Code, or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than $500):

☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

WORKER'S COMPENSATION

☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Chapter 6, Article 2 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

X _____ 9-16-96

Signature of Permittee ☐ Agent for ☐ Contractor ☐ Owner — Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ISSUED BY Thomas Lee		DATE ISSUED 9-16-96	

CITY OF OAKLAND
Office of Planning and Building

EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

PERMIT NUMBER X9600747	SITE ADDRESS/LOCATION 3810 Broadway
APPROX. START DATE / APPROX. END DATE	24-HOUR EMERGENCY PHONE NUMBER (Permit not valid without 24-Hour number)
CONTRACTOR'S LICENSE # AND CLASS 434343	CITY BUSINESS TAX #

ATTENTION:

1) State law requires that the contractor/owner call *Underground Service Alert (USA)* two working days before excavating. This permit is not valid unless applicant has secured an inquiry identification number issued by USA. The USA telephone number is 1 (800) 642-2444. UNDERGROUND SERVICE ALERT (USA) #: _____

2) 48 hours prior to starting work, YOU MUST CALL (510) 238-3651 TO SCHEDULE AN INSPECTION.

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☐ I, as an owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale).

☐ I, as owner of the property, am exempt from the sale requirements of the above due to: (1) I am improving my principal place of residence or appurtenances thereto, (2) the work will be performed prior to sale, (3) I have resided in the residence for the 12 months prior to completion of the work, and (4) I have not claimed exemption on this subdivision on more than two structures more than once during any three-year period. (Sec. 7044 Business and Professions Code).

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project, (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License law).

☐ I am exempt under Sec. _____, B&PC for this reason _____.

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☐ I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3700, Labor Code).

Policy # _____ Company Name _____

☐ I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Worker's Compensation Laws of California (not required for work valued at one hundred dollars ($100) or less).

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Worker's Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked. This permit is issued pursuant to all provisions of Chapter 6, Article 2 of the Oakland Municipal Code. It is granted upon the express condition that the permittee shall be responsible for all claims and liabilities arising out of work performed under the permit or arising out of permittee's failure to perform the obligations with respect to street maintenance. The permittee shall, and by acceptance of the permit agrees to defend, indemnify, save and hold harmless the City, its officers and employees, from and against any and all suits, claims, or actions brought by any person for or on account of any bodily injuries, disease or illness or damage to persons and/or property sustained or arising in the construction of the work performed under the permit or in consequence of permittee's failure to perform the obligations with respect to street maintenance. This permit is void 90 days from the date of issuance unless an extension is granted by the Director of the Office of Planning and Building.

I hereby affirm that I am licensed under provisions of Chapter 9 of Division 3 of the Business and Professions Code and my license is in full force and effect (if contractor), that I have read this permit and agree to its requirements, and that the above information is true and correct under penalty of law.

x _____ 9-16-96

Signature of Permittee ☐ Agent for ☒ Contractor ☐ Owner — Date

DATE STREET LAST RESURFACED	SPECIAL PAVING DETAIL REQUIRED? ☐ YES ☐ NO	HOLIDAY RESTRICTION? (NOV 1 - JAN 1) ☐ YES ☐ NO	LIMITED OPERATION AREA? (7AM-9AM & 4PM-6PM) ☐ YES ☐ NO
ISSUED BY _____		DATE ISSUED 9-16-96	

ZONE 7 WATER AGENCY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588 VOICE (510) 454-2600 FAX (510) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 3810 Broadway Oakland California

CLIENT
Name Haber, Mary
Address 353 Sacramento Suite 600 Voice 415-989-7107
City San Francisco Ca Zip 94111

APPLICANT
Name Brian Gorder Fax (916) 372-8781
Flour Daniel GTI Voice 916-372-4700
Address 1401 Halyard Drive Zip 95691
City West Sacramento

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	___	General	___
Water Supply	___	Contamination	___
Monitoring	X	Well Destruction	___

PROPOSED WATER SUPPLY WELL USE
Domestic ___ Industrial ___ Other ___
Municipal ___ Irrigation ___

DRILLING METHOD:
Mud Rotary ___ Air Rotary ___ Auger X
Cable ___ Other ___

DRILLER'S LICENSE NO. C57 - #552198

WELL PROJECTS
Drill Hole Diameter 8 in. Maximum Depth 35 ft.
Casing Diameter 2 in. Number 9
Surface Seal Depth ~12 ft.

GEOTECHNICAL PROJECTS
Number of Borings ___ Maximum Depth ___ ft.
Hole Diameter ___ in.

ESTIMATED STARTING DATE 9/17/96
ESTIMATED COMPLETION DATE 9/20/96

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

FOR OFFICE USE

PERMIT NUMBER 96662
LOCATION NUMBER ___

PERMIT CONDITIONS

Circled Permit Requirements Apply

(A.) GENERAL
1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well Projects, or drilling logs and location sketch for geotechnical projects.
3. Permit is void if project not begun within 90 days of approval date.

(B.) WATER WELLS, INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.

C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.

D. CATHODIC. Fill hole above anode zone with concrete placed by tremie.

E. WELL DESTRUCTION. See attached.

Approved Wyman Hong Date 17 Sep 96
Wyman Hong

FLUOR DANIEL GTI

Attachment 4

Drilling Logs

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-5

Project Former Texaco Facility Owner Enegxip
Location 3810 Broadway Avenue, Oakland, CA Proj. No. 020700324
Surface Elev. ____ Total Hole Depth 35 ft. Diameter 8.5 in
Top of Casing ____ Water Level Initial 19 ft Static ____
Screen: Dia 2 in Length 25 ft. Type/Size 0.020 in.
Casing: Dia 2 in Length 10 ft Type PVC Riser
Fill Material Lonestar 2/12 Rig/Core Mobile B-61
Drill Co. Westex Method Hollow Stem Auger
Driller Mike Noble Log By Bob Fehr Date 09/19/96 Permit # X9600747
Checked By Ed Simonis License No. RG #4422

See Site Map For Boring Location

COMMENTS.

Soil cuttings stored on-site on top of and covered with plastic pending proper disposal.

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ x Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0						Asph	Asphalt
4		0	MW-5 (5)	15 40 40			Sandy Silty CLAY, brown, stiff, moist, no odor
8				15 30 45		CL	
10		0					Grades to Silty CLAY, light greenish gray, hard, damp
14		7		20 23 45			Grades with trace dark brown spots and medium brown mottling
18						SP	Groundwater encountered at 1515
		0		20			Grades to a fine, well sorted SAND with some Clay, brown, dense, saturated, no odor
20							CLAY with some Silt, hard, damp
22						CL	
24				19 20			Grades to trace Silt, brown with trace dark brown spots, medium stiff, plastic, no odor

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-5

Project Former Texaco Facility Owner Friedkin

Location 3810 Broadway Avenue, Oakland, CA Proj. No. 020700324

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24		0	MW-5 (25)	20 35			Brown CLAY (Continued)
26							
28				20 20 45		CL	
30		0					
32						SC	Grades to Clayey SAND, brown, loose, saturated
				12			Silty CLAY, brown, stiff, plastic
34		0	MW-5 (35)	25 44		CL	
							End of boring. Installed monitoring well.
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-6

Project Former Texaco Facility Owner Friedman

Location 3511 Broadway Avenue, Oakland, CA Proj. No. 020700324

Surface Elev. ____ Total Hole Depth 35 ft. Diameter 8.5 in

Top of Casing ____ Water Level Initial 23 ft Static ____

Screen: Dia 2 in Length 25 ft. Type/Size 0.020 in

Casing: Dia 2 in Length 10 ft. Type PVC Riser

Fill Material Lonestar 2/12 Rig/Core Mobile B-61

Drill Co. Westex Method Hollow Stem Auger

Driller Mike Noble Log By Bob Fehr Date 09/20/96 Permit # X9600747

Checked By Ed Simonis License No. RG #4422

See Site Map For Boring Location

COMMENTS

Soil cuttings stored on-site on top of and covered with plastic pending proper disposal

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ x Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0						Asph	Asphalt
4		8	MW-6 (5)	10 20 40			Silty CLAY, greenish gray, medium stiff, plastic, damp, no odor
8				10 30 35			Grades to CLAY with Silt, brown with trace dark greenish gray, mottling, hard, plastic, damp, slight odor
10		11				CL	
14		5					Grades greenish gray/greenish brown, stiff, no odor
18							Grades hard
20		35	MW-6 (20)				
22						SC	Grades to Clayey fine SAND, medium brown, loose, saturated
							Groundwater encountered at 1050
24				25		CL	

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-6

Project Former Texaco Facility Owner Friedkin
Location 3810 Broadway Avenue Oakland, CA Proj. No. 020700324

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24		27	MW-6 (25) 25 40			CLAY, brown, hard, plastic, moist, no odor
26						
28			12		CL	Grades to CLAY with Silt, light brown with greenish gray mottling, medium stiff, plastic, wet, no odor
30		50	MW-6 (30) 30 50=4"			
32					SC	Grades to a Clayey fine SAND, brown, loose, saturated, no odor
34		0	10 MW-6 (35) 30 50=5"		CL	Silty CLAY, brown with trace dark brown spots, plastic, wet, no odor
36						End of boring. Installed monitoring well.
38						
40						
42						
44						
46						
48						
50						
52						
54						
56						

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-7

Project Former Texaco Facility Owner Friedkin
Location 3810 Broadway Avenue, Oakland, CA Proj. No. 020700324
Surface Elev. ____ Total Hole Depth 35 ft. Diameter 8.5 in.
Top of Casing ____ Water Level Initial 33 ft. Static ____
Screen: Dia 2 in. Length 25 ft. Type/Size 0.020 in
Casing: Dia 2 in. Length 10 ft Type PVC Riser
Fill Material Lonestar 2/12 Rig/Core Mobile B-61
Drill Co. Westex Method Hollow Stem Auger
Driller Mike Noble Log By Bob Fehr Date 09/20/96 Permit # X9600747
Checked By Ed Simonis License No. RG #4422

See Site Map For Boring Location

COMMENTS:

Soil cuttings stored on-site on top of and covered with plastic pending proper disposal

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0					Asph		Asphalt
2						SP	Fine SAND, well sorted, light brown with gray mottling, medium dense, damp, no odor
4		0	MW-7 (5)	10 20 25			
6							CLAY with trace Silt, brown with trace dark brown spots and trace gray mottling, medium stiff, plastic, damp, no odor
8							
10		0		10 30 35			
12							
14		0		13 38 50-5"		CL	Grades to Silty CLAY with trace Sand, light brown with some light gray mottling, medium stiff, plastic, damp, no odor
16							
18				8			Grades to less Silt, no sand, moist
20		0		20 25			
22							
24				20 36			

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-7

Project Former Texaco Facility Owner Friedkin

Location 3810 Broadway Avenue, Oakland, CA Proj. No. 020700324

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24		0		38 50=4"		CL	Silty CLAY, brown with trace dark brown spots, no mottling, hard.
26							
28				20 50			
30		0	MW-7 (30)	50=4"			
32						SC	*Groundwater encountered at 0830* Grades to Clayey fine SAND, brown, loose, saturated
34		0	MW-7 (35)	10 20 50		CL	CLAY, greenish gray, stiff, plastic, moist, no odor End of boring. Installed monitoring well.
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-8

Project Former Texaco Facility Owner Friedkin
Location 3810 Broadway Avenue, Oakland CA Proj. No. 020700324
Surface Elev. ____ Total Hole Depth 35 ft Diameter 8.5 in
Top of Casing ____ Water Level Initial 33 ft Static ____
Screen: Dia 2 in Length 25 ft Type/Size 0.020 in
Casing: Dia 2 in. Length 10 ft. Type PVC Riser
Fill Material Lonestar 2/12 Rig/Core Mobile B-61
Drill Co. Wester Method Hollow Stem Auger
Driller Chris Miner Log By Bob Fehr Date 09/23/96 Permit # X9600747
Checked By Ed Simonis License No. RG #4422

See Site Map For Boring Location

COMMENTS:

Soil cuttings stored on-site on top of and covered with plastic pending proper disposal

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0						Asph	Concrete
4		729		13 28 30			Silty CLAY, brown with trace dark brown spots, stiff, plastic, damp, moderate odor
8		698		8 20 28			Grades with greenish gray mottling, strong hydrocarbon odor
12						CL	
14		341		14 24 34			
18				13 24 35			Grades to less silt, greenish gray with olive green mottling, plastic, stiff, moist, no hydrocarbon odor
20		167					
24				17 30			CLAY, brown, hard, plastic, no odor

FLUOR DANIEL GTI

Drilling Log

Monitoring Well MW-8

Project Former Texaco Facility Owner Friedkin
Location 3810 Broadway Avenue, Oakland CA Proj. No. 020700324

Depth (ft.)	Well Completion	PID (ppm)	Sample ID / Blow Count / % Recovery	Graphic Log	USCS Class	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24		244	30 38			Brown CLAY (Continued)
26						
28			15 20		CL	Grades with trace silt, light to medium brown, stiff, plastic, moist, no odor
30		14	36			
32						*Groundwater encountered at 1205*
					SC	Grades to Clayey Sandy GRAVEL, medium brown, loose, saturated
34			15		CL	Silty CLAY, medium brown, hard, wet, no odor
		14	50=5"			End of boring. Installed monitoring well.
36						
38						
40						
42						
44						
46						
48						
50						
52						
54						
56						

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-9

Project Former Texaco Facility Owner Friedkin
Location 3910 Broadway Avenue, Oakland, CA Proj. No. 020700324
Surface Elev. ____ Total Hole Depth 35 ft Diameter 8.5 in
Top of Casing ____ Water Level Initial 33 ft Static ____
Screen: Dia 2 in. Length 25 ft Type/Size 0.020 in
Casing: Dia 2 in Length 10 ft. Type PVC Riser
Fill Material Lonestar 2/12 Rig/Core Mobile B-61
Drill Co. Westex Method Hollow Stem Auger
Driller Mike Noble Log By Bob Fehr Date 09/19/96 Permit # X9600747
Checked By Ed Simonis License No. RG #4422

See Site Map For Boring Location

COMMENTS.

Soil cuttings stored on-site on top of and covered with plastic pending proper disposal

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count / % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
0						Conc	Concrete
4		23	MW-9 (5)	12 16 25			Silty CLAY, brown with greenish gray mottling, stiff, plastic, damp, no odor
8		2	MW-9 (10)	18 33 40			Grades to Sandy CLAY, light to medium brown with greenish mottling, hard, damp, no odor
12						CL	
14		0	MW-9 (15)	27 29 33			Grades to Silty CLAY, brown with very dark brown and light greenish gray mottling, stiff, plastic, damp, no odor
18							Grades to light brown with very light gray mottling, medium stiff, moist
20		0	MW-9 (20)	50/6			
22							Silty CLAY, brown with no mottling, hard, moist, plastic, no odor
24				33			

FLUOR DANIEL GTI

Drilling Log

Monitoring Well MW-9

Project Former Texaco Facility Owner Friedkin

Location 3810 Broadway Avenue, Oakland CA Proj. No. 020700324

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count / x Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24		0		33 50=6"			Brown Silty CLAY (Continued)
26							
28				15		CL	
30		0		33 40			
32							Grades to Sandy, Gravelly CLAY, soft, plastic, saturated *Groundwater encountered at 0955* CLAY with Silt, hard, moist, plastic
34		0	MW-9 (35)	30 40 50=6"		SC/CL CL	End of boring. Installed monitoring well.
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							

Drilling Log

FLUOR DANIEL GTI

Monitoring Well MW-10

Project Former Texaco Facility Owner Friedkin
Location 3810 Broadway Avenue Oakland CA Proj. No. 020700324
Surface Elev. ____ Total Hole Depth 35 ft Diameter 8.5 in
Top of Casing ____ Water Level Initial 28 ft Static ____
Screen: Dia 2 in Length 25 ft Type/Size 0.020 in.
Casing: Dia 2 in Length 10 ft Type PVC Riser
Fill Material Lonestar 2/12 Rig/Core Mobile B-61
Drill Co. Wester Method Hollow Stem Auger
Driller Mike Noble Log By Bob Fehr Date 09/19/96 Permit # X9600747
Checked By Ed Simonis License No. RG #4422

See Site Map For Boring Location

COMMENTS:

Soil cuttings stored on-site on top of and covered with plastic pending proper disposal

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count/ % Recovery	Graphic Log	USCS Class.	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
-2							
0						ASPH	Concrete
2							
4		0	MW-10 (5)	10 30 50-6"			Sandy CLAY, light grayish brown, stiff, damp, no odor
6						CL	
8				10 25 35			Grades to CLAY with Silt, brown with trace dark brown mottling, hard, plastic, no odor
10		0					
12							
14		0		50-6"			Clayey SILT, greenish gray, stiff, plastic, damp, no odor
16						ML	
18							Grades to Silty CLAY, trace greenish gray mottling, hard, plastic, moist, no odor
20		0				CL	
22							
24							

FLUOR DANIEL GTI

Drilling Log

Monitoring Well MW-10

Project Former Texaco Facility Owner Friedkin
Location 3810 Broadway Avenue, Oakland CA Proj. No. 020700324

Depth (ft.)	Well Completion	PID (ppm)	Sample ID	Blow Count / % Recovery	Graphic Log	USCS Class	Description (Color, Texture, Structure) Trace < 10%, Little 10% to 20%, Some 20% to 35%, And 35% to 50%
24		0	MW-10 (25)	38 50=6"		CL	Mottled greenish gray CLAY
26							
28						GC	Grades to Clayey Sandy Gravel, loose, saturated *Groundwater encountered at 1305*
30		0	MW-10 (30)	10 30 50=4"		CL SC	Silty CLAY, brown, stiff, plastic, wet, no odor Clayey, Gravelly, SAND, dense
32						CL	Grades to CLAY with Silt, hard, plastic, wet
34		0	MW-10 (35)	13 30 50=5"			End of boring. Installed monitoring well.
36							
38							
40							
42							
44							
46							
48							
50							
52							
54							
56							

FLUOR DANIEL GTI

Attachment 5

Laboratory Analytical Reports
and
Chain-of-Custody Manifests

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

July 17, 1996

Brian Garber
FLUOR DANIEL GTI
757 Arnold Dr
Martinez, CA 94553

RE: GTEL Client ID: 020700324
Login Number: W6070107
Project ID (number): 020700324
Project ID (name): 3810 BROADWAY/OAKLAND/CA

Dear Brian Garber:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 07/08/96 under Chain-of-Custody Number(s) 35126.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Terry R. Voucks
Laboratory Director

Customer Service Manager

Project Number: 020700324
Project Name: (030504)
3810 Broadway
Oakland, CA
Work Order Number: W6-07-0107
Date Reported: 07-17-96

ANALYTICAL RESULTS

Total Petroleum Hydrocarbons as Diesel Fuel In Water
GC/FID[a]

Sample Identification		Date Sampled	Date Extracted	Date Analyzed	Concentration, ug/L	Reporting Limit, ug/L
GTEL No.	Client ID					
02	MW-4	06-28-96	07-09-96	07-10-96	<50	50

a ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods For Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction by EPA Method 3510. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

Project ID (Number): 020700324
Project ID (Name): (030504)
3810 Broadway
Oakland, CA
Work Order Number: W6-07-0107
Date Reported: 07-17-96

ANALYTICAL RESULTS

Hydrocarbon Screen in Water
GC/FID[a]

GTEL Sample Number		01			
Client Identification		MW-1			
Date Sampled		06-28-96			
Date Extracted		07-09-96			
Date Analyzed		07-10-96			
Analyte	Reporting Limit ug/L	Concentration, ug/L			
TPH as Diesel Fuel	50	<50			
TPH as Lubricating Oil[c]	200	<200			
Dilution Multiplier		1			

a ASTM Method D3328 (modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in EPA's publication, Test Methods for Evaluating Solid Waste, SW846, Third Edition, Revision 0, November 1986. Extraction per EPA 3510.This method is equivalent to the California LUFT manual DHS method for diesel fuel.

b Due to potential loss of volatile components during sample extraction and concentration, quantitation of gasoline by this method should be treated as an estimate. For the most accurate gasoline analysis, a purge-and-trap procedure is recommended.

c Lubricating oil can not be qualitatively identified by type of oil because of chromatogrpahic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may never be quantified by this gas chromatographic method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-40 standards. For the most accurate analysis of lubricating oil, an infrared method is recommended.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6070107
Project ID (number): 020700324
Project ID (name): 3810 BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Aqueous

GTEL Sample Number	W6070107-01	W6070107-02	--	--
Client ID	MW-1	MW-4	--	--
Date Sampled	06/28/96	06/28/96	--	--
Date Analyzed	07/09/96	07/09/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
Benzene	0.5	ug/L	< 0.5	< 0.5	--	--
Toluene	1.0	ug/L	< 1.0	< 1.0	--	--
Ethylbenzene	1.0	ug/L	< 1.0	< 1.0	--	--
Xylenes (total)	2.0	ug/L	< 2.0	< 2.0	--	--
TPH as Gas	100	ug/L	< 100	< 100	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

- Wichita, KS
70107

GTEL Environmental Laboratories Inc
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

35126

Company Name: Ehur Daniel GTI Phone #: (510) 370-3990
FAX #: (510) 370-3991
Company Address: 757 Arnold Dr. Martinez Site Location: 3810 Broadway Oakland Ca.
Project Manager: Brian Gerber Client Project ID: (#) 020270324 (NAME)
I attest that the proper field sampling procedures were used during the collection of these samples Sampler Name (Print): Bruce Thompson

ANALYSIS REQUEST: BTEX 602 ☐ 8020 ☐ with MTBE ☐; BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐; Hydrocarbons GC/FID Gas ☐ Diesel ☒ Screen ☐; Hydrocarbon Profile (SIMDIS) ☐; Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐; TPH/IR 418.1 ☐ SM 503 ☐; EDB by 504 ☐ DBCP by 504; EPA 503.1 ☐ EPA 502.2; EPA 601 ☐ EPA 8010 ☐; EPA 602 ☐ EPA 8020 ☐; EPA 608 ☐ 8080 ☐ PCB only ☐; EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐; EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐; EPA 610 ☐ 8310 ☐; EP TOX Metals ☐ Pesticides ☐ Herbicides ☐; TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐; EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐; CAM Metals TTLC ☐ STLC ☐; Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐; Organic Lead; Corrosivity; Flash Point; Reactivity; OTHER

Field Sample ID	GTEL Lab # (Lab Use only)	# Containers	Water	HCl	Ice	Date	Time	BTEX 602/8020 with MTBE	BTEX/Gas Hydrocarbons PID/FID with MTBE	Other
MW-1	01	8	X	X	X	6/28/96	12:00	X	X	
MW-4	02	5	X	X	X	6/28/96	12:15	X	X	X

TAT: Priority (24 hr) / Expedited (48 hr) / Business Days X / Business Days

Special Handling: GTEL Contact / Quote/Contract # / Confirmation # / P.O. #

QA/QC Level: CLP / Other

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX☐

REMARKS:

Lab Use Only Lot #: No Seals 16°C Storage Location

Work Order #:

CUSTODY RECORD

Relinquished by	Date	Time	Received by
Relinquished by Sampler: [signature]	7/3/96	16:10	[signature]
Relinquished by: Bruce Thompson GTEL	7/5/96	12:30P	Received by:
Relinquished by:	7.8.96	07:12	Received by Laboratory: [signature]

Waybill # 7026501176

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

October 25, 1996

Brian Garber
Fluor Daniel GTI
1401 Halyard Drive
Suite 140
Sacramento, CA 95691

RE: GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Dear Brian Garber:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 10/12/96 under Chain-of-Custody Number(s) 41997.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Weiss, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Method: EPA 8240B
Matrix: Aqueous

GTEL Sample Number	W6100264-01	W6100264-02	W6100264-05	W6100264-06
Client ID	MW-1	MW-2	MW-5	MW-6
Date Sampled	10/10/96	10/10/96	10/10/96	10/10/96
Date Analyzed	10/18/96	10/18/96	10/18/96	10/18/96
Dilution Factor	1.00	5.00	1.00	2.00

Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	16.	< 25.	< 5.0	< 10.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8240B:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846, Third Edition including promulgated Update II.

W6100264-02:

The sample was diluted due to high concentration of non-target compounds.

W6100264-05:

GC/MS data indicates the presence of non-target hydrocarbons.

W6100264-06:

The sample was diluted due to high concentration of non-target compounds. GC/MS data indicates the presence of non-target hydrocarbons.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Method: EPA 8240B
Matrix: Aqueous

GTEL Sample Number	W6100264-08	--	--	--
Client ID	MW-8	--	--	--
Date Sampled	10/10/96	--	--	--
Date Analyzed	10/18/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	< 5.0	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

EPA 8240B:

"Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Method: GC
Matrix: Aqueous

GTEL Sample Number	W6100264-01	W6100264-02	W6100264-03	W6100264-04
Client ID	MW-1	MW-2	MW-3	MW-4
Date Sampled	10/10/96	10/10/96	10/10/96	10/10/96
Date Prepared	10/14/96	10/14/96	10/14/96	10/14/96
Date Analyzed	10/22/96	10/23/96	10/23/96	10/23/96
Dilution Factor	1.00	20.0	10.0	1.00

Analyte	Reporting Limit	Units	Concentration:			
TPH as Lubricating Oil	200	ug/L	1500	--	--	--
TPH as Diesel	50.	ug/L	< 400	1800	1200	< 50.

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3510 (liquid/liquid). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to California State Water Resources Board LUFT Manual protocols, May 1988 revision.

W6100264-01:

The reporting limit for diesel fuel was elevated because of matrix interferences from other hydrocarbons Lubricating oil can not be qualitatively identified by type of oil because of chromatographic likeness of different oil types. Due to non-volatility of certain oils, much of the oil present may not be quantified by this method. Quantitation obtained for lubricating oil by this method should, therefore, be treated as an estimate. This method quantifies lubricating oil against 10-W-30 standards.

W6100264-02:

Qualitative identification of diesel fuel is uncertain because the material present does not match laboratory standards. Quantitation of diesel fuel is uncertain due to matrix interferences.

W6100264-03:

Qualitative identification of diesel fuel is uncertain because the material present does not match laboratory standards. Quantitation of diesel fuel is uncertain due to matrix interferences.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324 Method: GC
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA Matrix: Aqueous

GTEL Sample Number	W6100264-05	W6100264-06	W6100264-07	W6100264-08
Client ID	MW-5	MW-6	MW-7	MW-8
Date Sampled	10/10/96	10/10/96	10/10/96	10/10/96
Date Prepared	10/14/96	10/14/96	10/14/96	10/14/96
Date Analyzed	10/23/96	10/23/96	10/23/96	10/23/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:			
TPH as Diesel	50.	ug/L	< 50.	500	< 50.	110

Notes

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

GC:

Extraction by EPA Method 3510 (liquid/liquid). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to California State Water Resources Board LUFT Manual protocols, May 1988 revision.

W6100264-05:

Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

W6100264-06:

Qualitative identification of diesel fuel is uncertain because the material present does not match laboratory standards. Quantitation of diesel fuel is uncertain due to matrix interferences.

W6100264-08:

Qualitative identification of diesel fuel is uncertain because the material present does not match laboratory standards. Quantitation of diesel fuel is uncertain due to matrix interferences.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Method: GC
Matrix: Aqueous

GTEL Sample Number	W6100264-09	W6100264-10	--	--
Client ID	MW-9	MW-10	--	--
Date Sampled	10/10/96	10/10/96	--	--
Date Prepared	10/14/96	10/14/96		
Date Analyzed	10/23/96	10/23/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
TPH as Diesel	50.	ug/L	520	< 50.	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

GC:

Extraction by EPA Method 3510 (liquid/liquid). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to California State Water Resources Board LUFT Manual protocols, May 1988 revision.

W6100264-09:

Qualitative identification of diesel fuel is uncertain because the material present does not match laboratory standards. Quantitation of diesel fuel is uncertain due to matrix interferences. Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Aqueous

GTEL Sample Number	W6100264-01	W6100264-02	W6100264-03	W6100264-04
Client ID	MW-1	MW-2	MW-3	MW-4
Date Sampled	10/10/96	10/10/96	10/10/96	10/10/96
Date Analyzed	10/16/96	10/16/96	10/16/96	10/16/96
Dilution Factor	1.00	20.0	50.0	1.00

Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	22.	390	< 250	< 5.0
Benzene	0.5	ug/L	9.2	4100	6600	3.9
Toluene	0.5	ug/L	53.	9400	16000	65.
Ethylbenzene	0.5	ug/L	17.	2300	2200	22.
Xylenes (total)	0.5	ug/L	70.	9900	12000	120
BTEX (total)	--	ug/L	150	26000	37000	210
TPH as Gasoline	50	ug/L	520	99000	110000	650

Notes

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Aqueous

	GTEL Sample Number	W6100264-05	W6100264-06	W6100264-07	W6100264-08
	Client ID	MW-5	MW-6	MW-7	MW-8
	Date Sampled	10/10/96	10/10/96	10/10/96	10/10/96
	Date Analyzed	10/16/96	10/16/96	10/17/96	10/17/96
	Dilution Factor	1.00	25.0	1.00	10.0
Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	21.	190	< 5.0	110
Benzene	0.5	ug/L	34.	8300	0.6	1300
Toluene	0.5	ug/L	4.7	2900	< 0.5	1200
Ethylbenzene	0.5	ug/L	11.	810	< 0.5	64.
Xylenes (total)	0.5	ug/L	44.	3100	< 0.5	1300
BTEX (total)	--	ug/L	94.	15000	0.6	3900
TPH as Gasoline	50	ug/L	1800	45000	< 50	17000

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6100264
Project ID (number): 020700324
Project ID (name): MARY HABER: FORMER TEXACO/3810 BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Aqueous

GTEL Sample Number	W6100264-09	W6100264-10	--	--
Client ID	MW-9	MW-10	--	--
Date Sampled	10/10/96	10/10/96	--	--
Date Analyzed	10/17/96	10/17/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:			
MTBE	5.0	ug/L	< 5.0	< 5.0	--	--
Benzene	0.5	ug/L	2.5	< 0.5	--	--
Toluene	0.5	ug/L	13.	< 0.5	--	--
Ethylbenzene	0.5	ug/L	2.2	< 0.5	--	--
Xylenes (total)	0.5	ug/L	13.	< 0.5	--	--
BTEX (total)	--	ug/L	31.	--	--	--
TPH as Gasoline	50	ug/L	80	< 50	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. Analyte list modified to include additional compounds. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

41997

Company Name: FLUOR DANIEL GTI

Phone #: (916) 372-4700

FAX #: (916) 993-5214

Company Address: W. SACRAMENTO CA 95691 / 71 HALYARD DR

Site Location: 3810 BROADWAY OAKLAND CA

Project Manager: RIAN GARBER

Client Project ID: (#) 020700324

(NAME) MARY HARBER

I test that the proper field sampling procedures were used during the collection of these samples.

Sampler Name (Print): STEVEN STROM

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO3	H2SO4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME
W-1	01	7	X						X			X			10-10-96	1745
W-2	02	5	X						X			X				1735
W-3	03	5	X						X			X				1805
W-4	04	5	X						X			X				1715
W-5	05	5	X						X			X				1725
W-6	06	5	X						X			X				1815
W-7	07	5	X						X			X				1610
W-8	08	5	X						X			X				1835
W-9	09	5	X						X			X				1659
W-10	10	5	X						X			X			10-9-96	1638

Analysis Request	
BTEX 602 ☐ 8020 ☐ with MTBE ☐	
BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	
Hydrocarbons GC/FID Gas ☐ Diesel ☐ Screen ☐	
Hydrocarbon Profile (SIMDIS) ☐	
Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐	
TPH/IR 418.1 ☐ SM 503 ☐	
EDB by 504 ☐ DBCP by 504 ☐	
EPA 503.1 ☐ EPA 502.2 ☐	
EPA 601 ☐ EPA 8010 ☐	
EPA 602 ☐ EPA 8020 ☐	
EPA 608 ☐ 8080 ☐ PCB only ☐	
EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	
EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	
EPA 610 8310 ☐	
EP TOX Metals Pesticides Herbicides ☐	
TCLP Metals VOA ☐ Semi-VOA ☐ Pest Herb ☐	
EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	
CAM Metals TTLC ☐ STLC ☐	
Lead 239.2 ☐ 200.7 ☐ 7420 7421 6010	
Organic Lead	
Corrosivity Flash Point Reactivity	
OTHER	
BTEX/TPH-G w/MTBE	X X X X X X X X X X
TPH-D	X X X X X X X X X X
TPH - as Motor Oil	X

TAT
- (24 hr) [ ]
- ted (48 hr) [ ]
- ness Days [ ]
- ss Days [ ]

Special Handling
- GTEL Contact ____
- Quote/Contract # ____
- Confirmation # ____
- P O # ____

QA/QC Level
CLP [ ] Other [ ] ____

SPECIAL DETECTION LIMITS

REMARKS: RUN SAMPLES CONTAINING MTBE FOR EPA 8260

SPECIAL REPORTING REQUIREMENTS

FAX ☐

Lab Use Only Lot #: No seals 1°C

Storage Location

Work Order #

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	10-11-96	13 00	Received by: Joan Weber
Relinquished by: Joan Weber	10-11-96	16:30	Received by:
Relinquished by:	10/12/96	0825	Received by Laboratory: Waybill # 1109127176

NEI/GTEL
ENVIRONMENTAL
LABORATORIES, INC

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

October 3, 1996

Brian Garber
Fluor Daniel GTI
1401 Halyard Drive
Suite 140
Sacramento, CA 95691

RE: GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Dear Brian Garber:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 09/21/96 under Chain-of-Custody Number(s) 35148, 35149 & 35150.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Ware, Project Coordinator for
Terry R. Loucks
Laboratory Director

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090380-01	W6090380-02	W6090380-03	W6090380-04
Client ID	MW-9 (5')	MW-9 (10')	MW-9 (15')	MW-9 (20')
Date Sampled	09/19/96	09/19/96	09/19/96	09/19/96
Date Prepared	09/29/96	09/29/96	09/29/96	09/29/96
Date Analyzed	10/03/96	10/03/96	10/03/96	10/03/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	62.	< 10.	69.	< 10.
Percent Solids	--	%	83.9	85.6	81.4	80.4

Notes

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090380-05	W6090380-06	W6090380-07	W6090380-08
Client ID	MW-9 (35')	MW-10 (5')	MW-10 (20')	MW-10 (25')
Date Sampled	09/19/96	09/19/96	09/19/96	09/19/96
Date Prepared	09/29/96	09/29/96	09/29/96	09/29/96
Date Analyzed	10/03/96	10/04/96	10/04/96	10/04/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	< 10.	< 10.	< 10.
Percent Solids	--	%	83.3	90.1	78.4	79.5

Notes.

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090380-09	W6090380-10	W6090380-11	W6090380-12
Client ID	MW-10 (30')	MW-10 (35')	MW-5 (5')	MW-5 (15')
Date Sampled	09/19/96	09/19/96	09/19/96	09/19/96
Date Prepared	09/29/96	09/29/96	09/29/96	09/29/96
Date Analyzed	10/04/96	10/04/96	10/04/96	10/04/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	< 10.	< 10.	< 10.
Percent Solids	--	%	80.5	78.9	82.5	83.6

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090380-13	W6090380-14	W6090380-15	W6090380-16
Client ID	MW-5 (20')	MW-5 (25')	MW-5 (35')	MW-7 (5')
Date Sampled	09/19/96	09/19/96	09/19/96	09/20/96
Date Prepared	09/29/96	09/29/96	09/29/96	09/29/96
Date Analyzed	10/04/96	10/04/96	10/04/96	10/04/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	< 10.	< 10.	< 10.
Percent Solids	--	%	78.0	81.7	78.9	76.8

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090380-17	W6090380-18	W6090380-19	W6090380-20
Client ID	MW-7 (15')	MW-7 (20')	MW-7 (30')	MW-7 (35')
Date Sampled	09/20/96	09/20/96	09/20/96	09/20/96
Date Prepared	09/29/96	09/29/96	09/29/96	09/29/96
Date Analyzed	10/04/96	10/03/96	10/03/96	10/03/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	< 10.	< 10.	< 10.
Percent Solids	--	%	84.0	77.6	39.6	76.2

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1 This method is equivalent to the California LUFT manual DHS method for diesel fuel.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090380-21	W6090380-22	W6090380-23	W6090380-24
Client ID	MW-6 (5')	MW-6 (20')	MW-6 (25')	MW-6 (30')
Date Sampled	09/20/96	09/20/96	09/20/96	09/20/96
Date Prepared	09/29/96	09/29/96	09/29/96	09/29/96
Date Analyzed	10/04/96	10/04/96	10/04/96	10/04/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	< 10.	< 10.	< 10.
Percent Solids	--	%	83.2	79.8	77.9	79.9

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication) ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090380-25	--	--	--
Client ID	MW-6 (35')	--	--	--
Date Sampled	09/20/96	--	--	--
Date Prepared	09/29/96			
Date Analyzed	10/04/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	--	--	--
Percent Solids	--	%	77.8	--	--	--

Notes.

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1. This method is equivalent to the California LUFT manual DHS method for diesel fuel.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

	GTEL Sample Number	W6090380-01	W6090380-02	W6090380-03	W6090380-04
	Client ID	MW-9 (5')	MW-9 (10')	MW-9 (15')	MW-9 (20')
	Date Sampled	09/19/96	09/19/96	09/19/96	09/19/96
	Date Analyzed	09/27/96	09/27/96	09/28/96	09/28/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit / Units	Concentration:Wet Weight			
Benzene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
BTEX (total)	-- ug/kg	--	--	--	--
TPH as Gasoline	1000 ug/kg	11000	< 1000	< 1000	< 1000
Percent Solids	-- %	83.9	85.6	81.4	80.4

Notes.

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

	GTEL Sample Number	W6090380-05	W6090380-06	W6090380-07	W6090380-08
	Client ID	MW-9 (35')	MW-10 (5')	MW-10 (20')	MW-10 (25')
	Date Sampled	09/19/96	09/19/96	09/19/96	09/19/96
	Date Analyzed	09/28/96	09/28/96	09/28/96	09/28/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0	< 5.0	25.
BTEX (total)	--	ug/kg	--	--	--	25.
TPH as Gasoline	1000	ug/kg	< 1000	< 1000	< 1000	< 1000
Percent Solids	--	%	83.3	90.1	78.4	79.5

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

	GTEL Sample Number	W6090380-09	W6090380-10	W6090380-11	W6090380-12
	Client ID	MW-10 (30')	MW-10 (35')	MW-5 (5')	MW-5 (15')
	Date Sampled	09/19/96	09/19/96	09/19/96	09/19/96
	Date Analyzed	09/28/96	09/28/96	09/28/96	09/28/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit / Units	Concentration:Wet Weight			
Benzene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
BTEX (total)	-- ug/kg	--	--	--	--
TPH as Gasoline	1000 ug/kg	< 1000	< 1000	< 1000	< 1000
Percent Solids	-- %	80.5	78.9	82.5	83.6

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

GTEL Sample Number	W6090380-13	W6090380-14	W6090380-15	W6090380-16
Client ID	MW-5 (20')	MW-5 (25')	MW-5 (35')	MW-7 (5')
Date Sampled	09/19/96	09/19/96	09/19/96	09/20/96
Date Analyzed	09/28/96	09/28/96	09/28/96	09/28/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0	ug/kg	< 5.0	< 5.0	< 5.0	8.9
BTEX (total)	--	ug/kg	--	--	--	8.9
TPH as Gasoline	1000	ug/kg	< 1000	< 1000	< 1000	< 1000
Percent Solids	--	%	78.0	81.7	78.9	76.8

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

	GTEL Sample Number	W6090380-17	W6090380-18	W6090380-19	W6090380-20
	Client ID	MW-7 (15')	MW-7 (20')	MW-7 (30')	MW-7 (35')
	Date Sampled	09/20/96	09/20/96	09/20/96	09/20/96
	Date Analyzed	09/28/96	09/28/96	09/28/96	09/28/96
	Dilution Factor	1.00	1.00	1.00	1.00
Analyte	Reporting Limit / Units	Concentration:Wet Weight			
Benzene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
Xylenes (total)	5.0 ug/kg	< 5.0	< 5.0	< 5.0	< 5.0
BTEX (total)	-- ug/kg	--	--	--	--
TPH as Gasoline	1000 ug/kg	< 1000	< 1000	< 1000	< 1000
Percent Solids	-- %	84.0	77.6	39.6	76.2

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

GTEL Sample Number	W6090380-21	W6090380-22	W6090380-23	W6090380-24
Client ID	MW-6 (5')	MW-6 (20')	MW-6 (25')	MW-6 (30')
Date Sampled	09/20/96	09/20/96	09/20/96	09/20/96
Date Analyzed	09/28/96	09/28/96	09/28/96	09/28/96
Dilution Factor	1.00	1.00	1.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	5.0	ug/kg	< 5.0	32.	27.	110
Toluene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	5.3
Ethylbenzene	5.0	ug/kg	< 5.0	< 5.0	< 5.0	5.8
Xylenes (total)	5.0	ug/kg	< 5.0	7.5	< 5.0	9.4
BTEX (total)	--	ug/kg	--	40.	27.	130
TPH as Gasoline	1000	ug/kg	< 1000	1000	< 1000	< 1000
Percent Solids	--	%	83.2	79.8	77.9	79.9

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update II.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090380
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

GTEL Sample Number	W6090380-25	--	--	--
Client ID	MW-6 (35')	--	--	--
Date Sampled	09/20/96	--	--	--
Date Analyzed	09/28/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	5.0	ug/kg	< 5.0	--	--	--
Toluene	5.0	ug/kg	10.	--	--	--
Ethylbenzene	5.0	ug/kg	14.	--	--	--
Xylenes (total)	5.0	ug/kg	120	--	--	--
BTEX (total)	--	ug/kg	140	--	--	--
TPH as Gasoline	1000	ug/kg	1300	--	--	--
Percent Solids	--	%	77.8	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

GTEL ENVIRONMENTAL LABORATORIES INC

4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

35148

Company Name: FDGTI
Phone #: (916) 372-4700
FAX #:
Company Address: W. Sacramento CA
Site Location: Broadway Oakland
Project Manager: [illegible] Garner
Client Project ID: (#) 020700324
(NAME) Texaco
I attest that the proper field sampling procedures were used during the collection of these samples
Sampler Name (Print): Bob Fehr

ANALYSIS REQUEST | OTHER

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME	BTEX 602 ☐ 8020 ☒ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☒ Diesel ☒ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010 ☐	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐	
MW-9 (5')	01	1		X								X			9/18	0845	X		X																			
MW-9 (10')	02	1		↓								↓				0855	↓		↓																			
MW-9 (15')	03	1		↓								↓				0905	↓		↓																			
MW 9 (20')	04	1		↓								↓				0915	↓		↓																			
MW9 (35')	05	1		↓								↓				0955	↓		↓																			
MW-10 (5')	06	1		↓								↓				1130	↓		↓																			
MW-10 (20')	07	1		↓								↓			9/16	1155	↓		↓																			
MW-10 (25')	08	1		↓								↓				1220	↓		↓																			
MW-10 (30')	09	1		↓								↓				1305	↓		↓																			
MW 10 (35')	10	1		↓								↓				1315	↓		↓																			
MW-5 (5')	11	1		↓								↓				1440	↓		↓																			

TAT
Priority (24 hr)
Expedited (48 hr)
7 Business Days
Other STD Business Days

Special Handling
GTEL Contact
Quote/Contract #
Confirmation #
P.O. #

SPECIAL DETECTION LIMITS

REMARKS

QA/QC Level
Blue ☐ CLP ☐ Other ☐

SPECIAL REPORTING REQUIREMENTS
FAX ☒

Lab Use Only Lot #: [illegible] 1°C
Storage Location
Work Order #:

CUSTODY RECORD

Relinquished by	Date	Time	Received by
Relinquished by Sampler: Bob Fehr	9.20.96	1406	Received by: John Weber
Relinquished by: John Weber	9-20-96	1520	Received by
Relinquished by	9.21.96	1540	Received by Laboratory: Waybill # [illegible]

GTEL ENVIRONMENTAL LABORATORIES, INC.
4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

35149

Company Name: FDGTI
Phone #: (916) 372-4700
FAX #:
Company Address: W. Sacramento CA
Site Location: Broadway Oakland
Project Manager: Brian GARBER
Client Project ID: (#) 0207003241
(NAME) Texaco
I attest that the proper field sampling procedures were used during the collection of these samples
Sampler Name (Print): Bob FEHIC

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME
MW-5(15')	12	1		X								X			9/	1505
MW-5(20')	13	1													19/	1515
MW-5(25')	14	1														1525
MW-5(35')	15	1													9/	1545
MW-7 (5')	16	1														0730
MW-7 (15')	17	1													9/	0750
MW-7 (20')	18	1														0800
MW-7 (30')	19	1													20/	0820
MW-7 (35')	20	1													/	0830
MW-6 (5')	11															1005
MW-6(20')	22														19/	1035

ANALYSIS REQUEST — OTHER

BTEX 602 □ 8020 □ with MTBE □	BTEX Gas Hydrocarbons PID/FID □ with MTBE □	Hydrocarbons GC FID Gas □ Diesel □ Screen □	Hydrocarbon Profile (SIMDIS) □	Oil and Grease 413.1 □ 413.2 □ SM-503 □	TPH IR 418.1 □ SM 503 □	EDB by 504 □ DBCP by 504 □	EPA 503.1 □ EPA 502.2 □	EPA 601 □ EPA 8010 □	EPA 602 EPA 8020 □	EPA 608 □ 8080 □ PCB only □	EPA 624/PPL 8240/TAL □ NBS (+15) □	EPA 625/PPL □ 8270/TAL □ NBS (+25) □	EPA 610 □ 8310 □	EP TOX Metals □ Pesticides □ Herbicides □	TCLP Metals □ VOA □ Semi-VOA □ Pest □ Herb □	EPA Metals - Priority Pollutant □ TAL □ RCRA □	CAM Metals TTLC □ STLC □	Lead 239.2 □ 200.7 □ 7420 □ 7421 □ 6010 □	Organic Lead □	Corrosivity □ Flash Point □ Reactivity				
X		X																						

TAT
Priority (24 hr)
Expedited (48 hr)
7 Business Days
Other 5TD Business Days

Special Handling
GTEL Contact
Quote/Contract #
Confirmation #
P O #

QA/QC Level
Blue CLP Other

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS
FAX ☒

REMARKS:

Lab Use Only Lot #: N.O Seals 19
Storage Location
Work Order #:

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler:	9.20.96	1405	Received by: Helen Weber
Relinquished by: Helen Weber	9-20-96	15:40	Received by:
Relinquished by	9.21.96	0840	Received by Laboratory. Waybill # 7026571 1073

GTEL ENVIRONMENTAL LABORATORIES, INC.

4080 PIKE LANE, SUITE C
CONCORD, CA 94520
(510) 685-7852
(800) 423-7143

CHAIN-OF-CUSTODY RECORD AND ANALYSIS REQUEST

35150

Company Name: ETI

Phone #: (916) 372-4700

FAX #:

Company Address: W. Sacramento CA

Site Location: Broadway Oakland

Project Manager: Brian GARBER

Client Project ID: (#) 020700324

(NAME) Texaco

I attest that the proper field sampling procedures were used during the collection of these samples

Sampler Name (Print): Rob Fehr

Field Sample ID	GTEL Lab # (Lab Use only)	# CONTAINERS	Matrix: WATER	SOIL	AIR	SLUDGE	PRODUCT	OTHER	Method Preserved: HCl	HNO_3	H_2SO_4	ICE	UNPRESERVED	OTHER (Specify)	Sampling: DATE	TIME
MW-6(25)	23	1		X								X			9/	1050
MW-6(30)	24	1		↓								↓			9/20/96	1105
MW-6(35)	25	1		↓								↓			9/20/96	1115

ANALYSIS REQUEST — OTHER

BTEX 602 ☐ 8020 ☐ with MTBE ☐	BTEX/Gas Hydrocarbons PID/FID ☐ with MTBE ☐	Hydrocarbons GC/FID Gas ☒ Diesel ☒ Screen ☐	Hydrocarbon Profile (SIMDIS) ☐	Oil and Grease 413.1 ☐ 413.2 ☐ SM-503 ☐	TPH/IR 418.1 ☐ SM 503 ☐	EDB by 504 ☐ DBCP by 504 ☐	EPA 503.1 ☐ EPA 502.2 ☐	EPA 601 ☐ EPA 8010	EPA 602 ☐ EPA 8020 ☐	EPA 608 ☐ 8080 ☐ PCB only ☐	EPA 624/PPL ☐ 8240/TAL ☐ NBS (+15) ☐	EPA 625/PPL ☐ 8270/TAL ☐ NBS (+25) ☐	EPA 610 ☐ 8310 ☐	EP TOX Metals ☐ Pesticides ☐ Herbicides ☐	TCLP Metals ☐ VOA ☐ Semi-VOA ☐ Pest ☐ Herb ☐	EPA Metals - Priority Pollutant ☐ TAL ☐ RCRA ☐	CAM Metals TTLC ☐ STLC ☐	Lead 239.2 ☐ 200.7 ☐ 7420 ☐ 7421 ☐ 6010 ☐	Organic Lead ☐	Corrosivity ☐ Flash Point ☐ Reactivity ☐
X		X																	
↓		↓																	
↓		↓																	

TAT
Priority (24 hr)
Expedited (48 hr)
7 Business Days
Other Std Business Days

Special Handling
GTEL Contact
Quote/Contract #
Confirmation #
P O #

QA/QC Level
Blue CLP Other

SPECIAL DETECTION LIMITS

SPECIAL REPORTING REQUIREMENTS

FAX ☐

REMARKS:

Lab Use Only Lot #: N/S grabs

Storage Location: 1°C

Work Order #:

CUSTODY RECORD

	Date	Time	
Relinquished by Sampler	9.20.96	1406	Received by:
Relinquished by:	9-20-96	15:15	Received by:
Relinquished by	9-21-96	0840	Received by Laboratory

Waybill # 7026572073

NEI/GTEL
ENVIRONMENTAL LABORATORIES, INC.

Midwest Region
4211 May Avenue
Wichita, KS 67209
(316) 945-2624
(800) 633-7936
(316) 945-0506 (FAX)

October 8, 1996

Brian Garber
Fluor Daniel GTI
1401 Halyard Drive
Suite 140
Sacramento, CA 95691

RE: GTEL Client ID: 020700324
Login Number: W6090411
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Dear Brian Garber:

Enclosed please find the analytical results for the samples received by GTEL Environmental Laboratories, Inc. on 09/25/96 under Chain-of-Custody Number(s) 35152.

A formal Quality Assurance/Quality Control (QA/QC) program is maintained by GTEL, which is designed to meet or exceed the EPA requirements. Analytical work for this project met QA/QC criteria unless otherwise stated in the footnotes. This report is to be reproduced only in full.

NEI/GTEL is certified by the California Department of Health Service under Certification Number 1845.

If you have any questions regarding this analysis, or if we can be of further assistance, please call our Customer Service Representative.

Sincerely,
GTEL Environmental Laboratories, Inc.

Justin Wart, Project Coordinator for
Terry R. Loucks
Laboratory Director

RECEIVED
OCT 15 1996

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090411
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090411-01	W6090411-02	W6090411-03	W6090411-04
Client ID	MW-8 (5)	MW-8 (10)	MW-8 (15)	MW-8 (25)
Date Sampled	09/23/96	09/23/96	09/23/96	09/23/96
Date Prepared	10/03/96	10/03/96	10/03/96	10/03/96
Date Analyzed	10/08/96	10/08/96	10/08/96	10/08/96
Dilution Factor	1.00	1.00	5.00	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	< 10.	53.	< 10.
Percent Solids	--	%	86.4	80.9	81.6	80.6

Notes.

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1 This method is equivalent to the California LUFT manual DHS method for diesel fuel.

W6090411-03:

Quantitation of diesel fuel is uncertain due to matrix interferences from gasoline hydrocarbons.

ANALYTICAL RESULTS
Total Petroleum Hydrocarbons By GC

GTEL Client ID: 020700324
Login Number: W6090411
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: GC
Matrix: Solids

GTEL Sample Number	W6090411-05	W6090411-06	--	--
Client ID	MW-8 (35)	SP-1 THRU SP-2	--	--
Date Sampled	09/23/96	09/23/96	--	--
Date Prepared	10/03/96	10/03/96		
Date Analyzed	10/08/96	10/08/96	--	--
Dilution Factor	1.00	1.00	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
TPH as Diesel	10.	mg/kg	< 10.	< 10.	--	--
Percent Solids	--	%	79.7	88.0	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

GC:

Extraction by EPA Method 3550 (sonication). ASTM Method D3328(modified) is used for qualitative identification of fuel patterns. The method has been modified to include quantitation by applying calibration and quality assurance guidelines outlined in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition including promulgated Update 1 This method is equivalent to the California LUFT manual DHS method for diesel fuel

W6090411-06:

Chromatographic data indicates the presence of material, which is heavier than diesel fuel, in this sample.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090411
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Solids

	GTEL Sample Number	W6090411-01	W6090411-02	W6090411-03	W6090411-04
	Client ID	MW-8 (5)	MW-8 (10)	MW-8 (15)	MW-8 (25)
	Date Sampled	09/23/96	09/23/96	09/23/96	09/23/96
	Date Analyzed	10/01/96	10/01/96	10/02/96	10/02/96
*	Dilution Factor	1.00	1.00	10.0	1.00

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	0.05	mg/kg	0.77	2.6	25.	0.08
Toluene	0.10	mg/kg	3.5	0.66	7.1	0.63
Ethylbenzene	0.10	mg/kg	1.2	5.6	160	0.20
Xylenes (total)	0.20	mg/kg	7.3	10.	840	1.1
TPH as Gasoline	10.	mg/kg	120	520	14000	53.
Percent Solids	--	%	86.4	80.9	81.6	80.6

Notes

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II.

W6090411-01:

Methanol extraction necessary due to high levels of target or non-target analytes.

W6090411-02:

Methanol extraction necessary due to high levels of target or non-target analytes.

W6090411-03:

Methanol extraction necessary due to high levels of target or non-target analytes.

W6090411-04:

Methanol extraction necessary due to high levels of target or non-target analytes.

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090411
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Low Soil

GTEL Sample Number	W6090411-05	--	--	--
Client ID	MW-8 (35)	--	--	--
Date Sampled	09/23/96	--	--	--
Date Analyzed	10/02/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	5.0	ug/kg	< 5.0	--	--	--
Toluene	5.0	ug/kg	< 5.0	--	--	--
Ethylbenzene	5.0	ug/kg	< 5.0	--	--	--
Xylenes (total)	5.0	ug/kg	< 5.0	--	--	--
TPH as Gasoline	1000	ug/kg	< 1000	--	--	--
Percent Solids	--	%	79.7	--	--	--

Notes:

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods". SW-846. Third Edition including promulgated Update II

ANALYTICAL RESULTS
Volatile Organics

GTEL Client ID: 020700324
Login Number: W6090411
Project ID (number): 020700324
Project ID (name): TEXACO/BROADWAY/OAKLAND/CA

Method: EPA 8020A
Matrix: Solids

GTEL Sample Number	W6090411-06	--	--	--
Client ID	SP-1 THRU SP-2	--	--	--
Date Sampled	09/23/96	--	--	--
Date Analyzed	10/02/96	--	--	--
Dilution Factor	1.00	--	--	--

Analyte	Reporting Limit	Units	Concentration:Wet Weight			
Benzene	0.05	mg/kg	0.47	--	--	--
Toluene	0.10	mg/kg	7.3	--	--	--
Ethylbenzene	0.10	mg/kg	3.7	--	--	--
Xylenes (total)	0.20	mg/kg	20.	--	--	--
TPH as Gasoline	10.	mg/kg	340	--	--	--
Percent Solids	--	%	88.0	--	--	--

Notes

Dilution Factor:

Dilution factor indicates the adjustments made for sample dilution.

EPA 8020A:

Gasoline range hydrocarbons (TPH) quantitated by GC/FID with purge and trap and modified EPA Method 8015. "Test Methods for Evaluating Solid Waste. Physical/Chemical Methods", SW-846. Third Edition including promulgated Update II

W6090411-06:

Methanol extraction necessary due to high levels of target or non-target analytes