

ENVIRONMENTAL INVESTIGATIONS

December 20, 1999

Mr. Ted Walbey 7402 Hillview Court Pleasanton, CA 94588



OFFSITE GROUNDWATER INVESTIGATION

RE: Former Fiesta Beverage, 966 89th Avenue, Oakland, CA 94621

Dear Mr. Walbey:

Thank you for contracting with Allcal Property Services, Inc. (ALLCAL) to write this letter report of an offsite groundwater investigation at the above referenced property. The investigation consisted of drilling four soil borings on the north side of 89th Avenue (see attached SITE PLAN) to explore the down-gradient extent of a groundwater, gasoline, contaminant plume associated with the property's former underground gasoline tanks. The investigation was conducted under an ALLCAL February 18, 1999, work plan which was approved by the Alameda County Health Care Services Agency (ACHCSA) in a March 15, 1999, letter (attached).

BACKGROUND

The following background regarding tank closures and groundwater monitoring is summarized from information provided by you (Client).

In August, 1990, a 500-gallon and 1,000-gallon, underground, gasoline storage tanks were removed from the site (see attached SITE PLAN). Gasoline from the tanks had contaminated the underlying soil and groundwater. In April, 1991, contaminated soil was excavated from the area of the tanks and aerated for offsite disposal. The soil was disposed of at a recycling facility in April, 1993. In July, 1993, a soil and groundwater investigation was conducted by installing three groundwater monitoring wells (MW-1, MW-2, and MW-3).

The above monitoring wells have been sampled six times during the period of August 1993 through December 1998. Well MW-1 has always detected the highest concentration of gasoline contamination. At the last sampling event (12/15/98), well MW-1 detected total petroleum hydrocarbons as gasoline (TPHG) and benzene, toluene, ethylbenzene, and xylenes (BTEX) at

concentrations of 10,000 parts per billion (ppb), 1,800 ppb, 520 ppb, 270 ppb, and 1,100 ppb. Analysis for methyl tert-butyl ether (MTBE) was also conducted at this event; none was detected. For a summary of all analyses for all wells, see ALLCAL's January 13, 1998, report, *Fourth Quarter Groundwater Monitoring, Former Fiesta Beverage*, 966 89th Avenue, Oakland, CA 94621.

RESULTS OF OFFSITE GROUNDWATER INVESTIGATION

On November 30, 1999, as a further investigation of the groundwater, gasoline, contaminant plume, ALLCAL supervised the drilling of four soil borings on the north side of 89th Avenue for the collection of "grab" groundwater samples.

The following work was conducted:

- A February 18, 1999, work plan was submitted to the Client and the ACHCSA for their comment and approval.
- A soil boring permit was obtained from the Alameda County Public Works Agency
 (ACPWA); an excavation permit was obtained from the City of Oakland; the
 locations of the proposed soil borings were marked on the ground; and Underground
 Service Alert (USA) was notified.
- Four exploratory soil borings were drilled to depths of 16 feet below grade.
- A "grab" groundwater sample was collected from each boring and analyzed for TPHG, BTEX, and MTBE.
- All borings were sealed with neat Portland cement.
- Prepared this letter report.

Details of the above work are presented below.

Pre-field Activities

Prior to drilling soil borings, ALLCAL: (1) obtained approval of a February 18, 1999, work plan from the ACHCSA (see attached March 15, 1999, letter), (2) obtained a soil boring permit (attached) from the ACPWA and an excavation permit (attached) from the City of Oakland, (3) visited the site to mark the locations of the proposed soil borings and notified USA, (4) subcontracted a "direct push" driller having a C57 license to drill the soil borings, and (5) gave 48 hours notice to the ACHCSA and the City of Oakland prior to drilling the borings.

Locations of Soil Borings

Four soil borings (SB-1 through SB-4) were drilled on the north side of 89th Avenue, at the approximate locations shown in the attached SITE PLAN, to further evaluate down-gradient groundwater contamination by gasoline. The boring locations were chosen based on the site's historical range of groundwater flow direction (northwest to north-northwest, see attached SITE PLAN) and based on the size and location of the City of Oakland's easement. Soil borings SB-1 and SB-2 were drilled at locations immediately on the north side of 89th Avenue. Soil borings SB-3 and SB-4 were drilled at locations at the northerly extent of the City of Oakland's easement.

Soil and Groundwater Assessment Methodology

The following discusses soil boring and soil and groundwater sampling procedures. See Attachments A, B, and C for ALLCAL's sample handling procedures, quality assurance and quality control procedures, and waste handling and decontamination procedures.

Soil Boring and Soil and Groundwater Sampling Procedures

The exploratory borings were drilled to a depth of 16 feet (the depth at which groundwater was present) with the Geoprobe System, small diameter (about 2-inch) drill casing, direct-push technology. In borings SB-1 and SB-2, soil samples were continuously collected as core into a polyethylene terephthalate glycol (PETG) liner in 4 foot depth intervals. The liner was contained within the 2-inch drill casing. After driving each 4 foot interval, the drill casing and enclosed liner were retrieved and the soil core was examined for apparent contamination (inspected visually for discoloration and sniffed for odor) and construction of lithologic logs. To minimize the potential for cross-contamination, a clean drill shoe was used for each sampling event.

Soil core was not collected from borings SB-3 and SB-4.

No soil samples were collected for chemical analysis. When apparent contamination was present; it was noted on boring logs (attached).

In borings SB-1 and SB-2, after drilling to the depth of groundwater, a "grab" groundwater sample was collected by using a Geoprobe, stainless-steel, discrete water sampler. "Grab" samples were obtained by using an expendable drive point to drive the sampler from 16 feet to 18 feet in depth, exposing an internal screen to allow water to enter the sampler, and collecting a sample with a stainless-steel bailer. In borings SB-3 and SB-4, since no soil core was collected, the discrete sampler was driven from ground surface to 18 feet and the internal screen was exposed from 16 to 18 feet in depth and a water sample collected with the stainless steel bailer.

After all groundwater samples were collected, each boring was be sealed with neat Portland cement.

Boring logs were prepared for borings SB-1 and SB-2. The soil was logged according to the Unified

Soil Classification System by a California Registered Geologist. See attached EXPLORATORY BORING LOGS.

Drill cuttings are stored on site in labeled, 5-gallon pails. The labels show contents, date stored, suspected contaminant, expected date of removal, company name, contact person, and telephone number.

Sample Handling Methods

"Grab" groundwater samples were decanted into laboratory provided, 40-milliliter, HCL-preserved VOAs having Teflon-lined plastic caps. The samples were labeled to show site name, project number, date, time, sample name, depth collected, and sampler name; and stored in an iced-cooler.

Chemical Analyses

All groundwater samples were delivered under chain-of-custody to California Department of Health Services certified McCampbell Analytical Inc. laboratory, located in Pacheco, California for chemical analysis for TPHG, BTEX, and MTBE by EPA Methods GCFID, 5030/8015, 8020, and 8020, respectively.

A trip blank sample, used as a test for cross-contamination as a result of sample collection and handling activities, accompanied the above "grab" samples and was analyzed by the same EPA Methods.

Results of Groundwater Chemical Analyses

All groundwater samples, were nondetectable for MTBE, and all analytes were nondetectable for the water sample collected from boring SB-4 and for the trip blank sample.

TPHG was detected in the groundwater samples from borings SB-1, SB-2, and SB-3 at concentrations of 850 ppb, 3,200 ppb, and 90 ppb, respectively. The laboratory noted the following descriptions of the chromatograms: (1) TPHG detected in boring SB-1 had significant heavier gasoline range compounds and may be aged gasoline; also, there was no recognizable pattern, (2) TPHG detected in boring SB-2 had significant unmodified or weakly modified gasoline, (3) TPHG detected in boring SB-3 had no recognizable pattern, and (4) the samples from borings SB-2 and SB-3 contained greater than 5% sediment.

All BTEX chemicals were present in the samples from borings SB-1 and SB-2; benzene was detected at concentrations of 0.94 ppb and 94 ppb, respectively. Xylenes were the only BTEX chemicals detected in the sample from boring SB-3; xylenes were detected at a concentration of 0.52 ppb.

The reader is referred to the attached certified analytical report for detailed results of chemical analyses.

CONCLUSIONS

Soil Profile and Occurrence of Groundwater

The observed soil profile (see attached **EXPLORATORY BORING LOGS**) consisted of clay from grade to a depth of about 13 to 14 feet. The clay was underlain by silt to the depth of 16 feet. In boring SB-1, sand was in the shoe of the sampler, indicating that the above silt is underlain by sand. In borings SB-1 and SB-2, a gasoline odor was detected in the soil beginning at a depth of about 6 feet below grade and extending to the bottom of the borings. No soil core was collected from the borings of SB-3 and SB-4.

Groundwater was encountered in all borings at a depth of 15 to 16 feet below grade. The groundwater had a gasoline odor in borings SB-1 and SB-2.

The soil profile and depth to groundwater is similar to the observed profiles and depth to groundwater in onsite wells MW-1 through MW-3.

Dissolved Gasoline Plume

The down-gradient limit of the dissolved gasoline plume appears to be approximately defined by borings SB-3 and SB-4.

RECOMMENDATION

It is recommended that an offsite, down-gradient, groundwater monitoring well be constructed midway between borings SB-2 and SB-3 (see attached SITE PLAN). The purpose of this well is to monitor stability of the down-gradient edge of the dissolved gasoline plume. Groundwater samples collected from the proposed well may assist in evaluating if the plume is shrinking, expanding, or stable. Upon treatment of the dissolved plume, the proposed well may be useful in evaluating the effect of treatment on the plume.

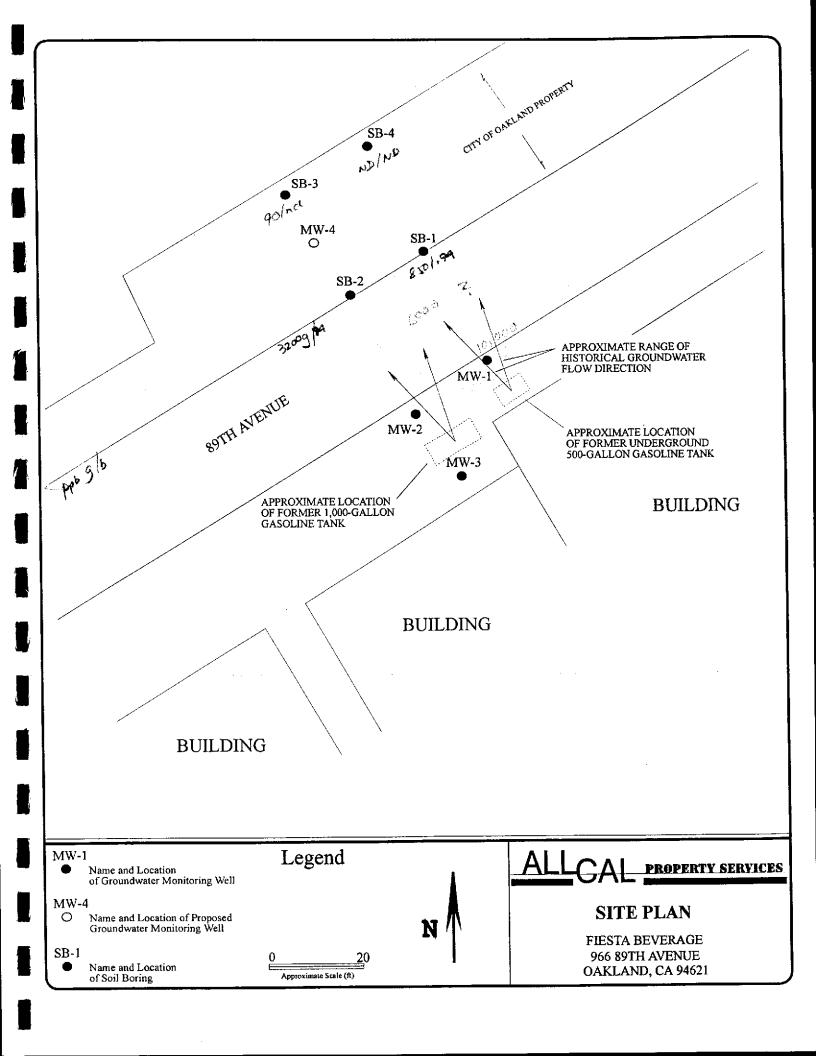
It is recommended that after construction of the proposed well, and a sampling event of all four wells, remedial alternatives be explored, such as, injection of hydrogen peroxide to degrade the plume to acceptable concentrations to obtain site closure.

If you have any questions, please call me.

Sincerely,

John V. Mrakovich, Ph.D.

Registered Geologist No. 4665



HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION (LOP) 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

March 15, 1999 StID # 4241

Mr. Ted Walbey 7402 Hillview Court Pleasanton, CA 94588

Re: Work Plan for Offsite Groundwater Investigation at 966 89th Ave., Oakland CA 94621 Former Fiesta Beverage

Dear Mr. Walbey:

Thank you for the submission of the February 19, 1999 work plan from AllCall Property Services, Inc. As previously discussed with your consultant, the work plan proposes the advancement of four borings down-gradient of the former underground fuel tanks at this site. A "grab" groundwater sample will be collected from each boring and analyzed for the following parameters; total petroleum hydrocarbons as gasoline, BTEX (benzene, toluene, ethyl-benzene and xylenes) and MTBE (methyl tertiary-butyl ether). The results of this investigation will be used to determine the extent and potential mass of the contaminant plume.

After this investigation, your consultant can determine if the addition of oxygen releasing compound (ORC) is appropriate and if so how much and where it should be applied.

This work plan is approved. Please notify me prior to this investigation and implement as soon as possible.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan Hazardous Materials Specialist

C B. Chan, files
Mr. J. Mrakovich, AllCal Property Services, Inc., 27973 High Country Drive, Hayward,
CA, 94542-2530
Wpap966-89th



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

951 TURNER COURT, SUITE 300, HAYWARD, CA 94545-2651

PHONE (510) 670-5576 ANDREAS GODFREY

(510) 670-5248 ALVIN KAN

DRILLING PERMIT APPLICATION

for applicant to complete	FOR OFFICE USE
OCATION OF PROJECT 966 89 & AVENUE	PERMIT NUMBER 99 WC 1013
OAKLAN CA	WELL NUMBER
	APN
elifornia Coordinates Sourceft. Accuracy ± ft.	PERMIT CONDITIONS
n.	Principal Bounds Bounds — se Applie
APN	Circled Permit Requirements Apply
CLIENT	(a) GENERAL
Name TED LUALBEY	A permit application should be submitted so as to
Address 7402 HILLYIGH CT. Phone 925 846640	errive at the ACPWA office five days prior to
in <u>Pleasanton, ca</u> zip <u>94588</u>	proposed starting date.
. 44.1 1.8 1.1 Pm	(2) Submit to ACPWA within 60 days after completion of
APPLICANT Name <u>ALLCAL PROPERTY SERVICES</u> INC.	permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for
Fax STO SOL 8490	well projects, or drilling logs and location elected for
Address 27973 464 CIXMTRE Phone 58/2320	Restectuing has no partial to be seen present and
City HAVWARD Zip 94(42	3. Pennit is void if project not begun within 90 days of
- V <u> </u>	approval date.
type of project	E. WATER SUPPLY WELLS
Well Construction Geotechnical Investigation	1. Minimum surface seal thickness is two inches of
Cathodic Protection D General D	coment grout placed by tronic.
Water Supply D Confamination X	2. Minimum seal depth is 50 feet for municipal and
Monitoring D Well Destruction D	industrial wells or 20 feet for domestic and intigation
	wells unless a lesser depth is appointly approved.
PROPOSED WATER SUPPLY WELL USE	C. CROUNDWATER MONITORING WELLS
New Domestic D Replacement Domestic D	including fiezometers
Municipal B Irrigation D	1. Minimum surface seal thickness is two inches of
Industrial D Other D	erment grout placed by Femile.
	Minimum seel depth for monitoring wells is the
drilling method:	maximum depth practicable on 20 feet.
Mud Rotary D Air Rotary D Augus D	D. GEOTECHNICAL
Cable D Other X GEOPABLE	Backfill bore hole with compacted cuttings or heavy
	bentonite and upper two feet with compacted material.
driller's license no. <u>C\$7</u> 589008	in areas of known or suspected contamination, remied
WELL PROJECTS	sement growt shall be used in place of compacted auttings. E. CATHODIC
Drift Hole Diameter in Maximum	Fill hale above anode zone with concrete placed by tremic.
Casing Diameterin. Depth ft.	F. WELL DESTRUCTION
Surface Seal Depthft. Number	See attached.
	G.) SPECIAL CONDITIONS SEE AT TEXT HEN
GEOTECHNICAL PROJECTS	INFONATION
Number of Borings Maximum	in octation of
Hole Diameter 2 in. Depth 20 n.	4 4 6
ESTIMATED STARTING DATE 17/30/89	H. 1. 160 11 1100
ESTIMATED COMPLETION DATE 11/30/99	APPENVED NOME & CUBB BATE 1797
2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ter ten to the ten and the ten
	510 670 5783
I hereby agree to comply with all requirements of this permit and	, 5.2 270 0 70 5

APPLICANT'S



EXCAVATION PERMIT

TO EXCAVATE IN STREETS OR OTHER SPECIFIED WORK

CIVIL ENGINEERING

DACE 2 AC 2

PERMIT NUMBER	3900869	SITE ADDRESS/LOCATION	966	8974	ave.
APPROX. START DATE	APPROX. END DATE	24-HOUR EMERGENCY PHONI	E NUMBER		
		(Permit not valid without 24-Hour	number)	- <u></u> .	
CONTRACTOR'S LICENSE # AN	D CLASS	CITY BUSINESS TAX #			
ATTENTION:	·				
State law requires that the inquiry identification number of the control of	te contractor/owner call Underground S mber issued by USA. The USA teleph	Service Alers (USA) two working days be one number is 1 (800) 642-2444. UND	FOR excavating. The	is permit is not valid unle ICE ALERT (USA) #: _	as applicant has secured an
2) 48 hours prior (to starting work, YOU M	TUST CALL (510) 238-365	51 TO SCHE	DULE AN INSP	ECTION.
OWNER/BUILDER					
alleged exemption. Any violation of \[\sum_{1} \] as an owner of the property, or \[\text{Professions Code: The Contractor's provided that such improvements are \[\sum_{1} \] to did not bu \[\sum_{2} \] I, as owner of the property, and \[\text{be performed prior to sale, (3) I have structures more than once during any \[\sum_{1} \] I, as owner of the property, and \[\text{does not apply to an owner of property.} \]	Section 7031.5 by any applicant for a r my employees with wages as their so a License Law does not apply to an own e not intended or offered for sale. If he idd or improve for the purpose of sale), exempt from the sale requirements of the resided in the residence for the 12 me y three-year period. (Sec. 7044 Busines exclusively contracting with licensed co	the above due to: (1) I am improving my ouths prior to completion of the work, as as and Professions Code). otractors to construct the project, (Sec. I ad who contracts for such projects with a	enalty of not more the the structure is not in thereon, and who do sold within one year principal place of re- ad (4) I have not claim 7044, Business and F a contractor(s) licenses	an \$500): tended or offered for sale tes such work himself or the feompletion, the owner- sidence or appurtenances med exemption on this su trofessions Code: The Co	(Sec. 7044, Business hrough his own employees, builder will have the thereto, (2) the work will belivision on more than two outractor's License Law stor's License law).
WORKER'S COMPENSATION					
		ertificate of Worker's Compensation Insu		• •	Labor Code).
Policy #	Company N	AUTC			
1 certify that in the performance of California (not required for work	of the work for which this permit is is valued at one hundred dollars (\$100) o	sued, I shall not employ any person in ar or less).	ny manner so as to be	ecome subject to the World	ker's Compensation Laws
comply with such provisions or this granted upon the express condition t perform the obligations with respect and employees, from and against an sustained or arising in the constructi	permit shall be deemed revoked. This that the permittee shall be responsible for to street maintenance. The permittee by and all suits, claims, or actions broug ion of the work performed under the permittee.	, you should become subject to the Worl permit is issued pursuant to all provision of all claims and liabilities arising out of shall, and by acceptance of the permit agent by any person for or on account of a sermit or in consequence of permittee's fanted by the Director of the Office of Planter of of the Office of P	as of Title 12 Chapte work performed und rees to defend, indee ny bodily injuries, di ilure to perform the	er 12.12 of the Oakland he for the permit or arising on nnify, save and hold harm sease or illness or damag	Nunicipal Code. It is not of permittee's failure to aless the City, its officers e to persons and/or property
I hereby affirm that I am licensed us this permit and agree to its requirem	nder provisions of Chapter 9 of Division tents, and that the above information is Approved Appendix of B. Contractor One		te and my license is i	in full force and effect (if	contractor), that I have rea
date street last 90	SPECIAL PAVING DETAIL REQUIRED? PYES ANO	HOLDAY RESTRICTION?	YES KNO	LIMITED OPERATIO	
ISSUED BY ,	Mule	DATE ISSUED	'/	/	

EXPLORATORY BORING LOG

Project Number:

133

Boring Number:

Project Name:

966 89th Street

Oakland, CA 94621

Page Number:

1 of 1

SB-1

By: ALLCAL PROPERTY SERVICES, INC

Date: 11/30/99

Surface Elevation: NA

/APORS (ppm)	PENETRATION (blows/ft.)	GROUND- WATER LEVEL	DEPTH (ft.)	SAMPLES	SOIL TYPE	DESCRIPTION
·						033 FT,: AGGREGATE BASE
:					CL	.33 - 4.0 FT.: CLAY (CL), BROWN, SOFT TO MEDIUM-FIRM, DAMP, NO ODOR.
			5			
					CL	4.0 - 12.0 FT.: CLAY (CL), GREY, SOFT, DAMP, SLIGHT GASOLINE ODOR BEGINNING AT 6 FEET.
,			10			@ 10 FT.: STAINED GREEN
				_	CL	12.0 - 14.0 FT.: CLAY (CL), BROWN, SOFT, DAMP, SLIGHT ODOR.
			15	_	ML	14.0 - 16.0 FT.: CLAYEY SILT (ML), GREEN, MOIST TO SATURATED GASOLINE ODOR.
				_		@ 16.0 FT.: SAND (SP), GREEN-BROWN, SATURATED, GASOLINE ODOR AND SHEEN.
				_		CONTINUOUSLY CORED TO 16 FT. DISCRETE WATER SAMPLER PUSHED FROM 16 TO 18 FEET.
				_		
				_		
				_		
				_		
				_		
				_		
				_		
		[1			1
		I	(ppm) (blowsht.)	10	5	(ppm) (blows/ft.) WATER LEVEL (ft.) TYPE CL 5 CL 10 CL

Remarks:

BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN .1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH NEAT CEMENT.

EXPLORATORY BORING LOG

Project Number: 133

Boring Number: SB-2

Project Name:

966 89th Street Oakland, CA 94621 Page Number:

1 of 1

By: ALLCAL PROPERTY SERVICES, INC

Date: 11/30/99

Surface Elevation: NA

مصد و د		TENTI BENANC	LO, IIIC	Dail	7, I	1/30/	Surface Elevation, NA
RECOVERY (in/in.)	VAPORS (ppm)	PENETRATION (blows/ft.)	GROUND- WATER LEVEL	DEPTH (ft.)	SAMPLES ANAI YZED	SOIL TYPE	DESCRIPTION
					_		05 FT.; AGGREGATE BASE
48/48					_	CL	.5 - 4.0 FT.: CLAY (CL), BROWN, SOFT TO MEDIUM-FIRM, DAMP, NO ODOR.
48/48			-	5			4.0 - 13.0 FT.: CLAY (CL), GREY, SOFT, MEDIUM-FIRM, GASOLINE ODOR BEGINNING AT 6 FEET.
48/48				10		CL	@ 9 FT.: 3-INCH GRAVELLY LAYER. @ 10 FT.: SHELL FRAGMENTS.
48/48				15		ML	13.0 - 16.0 FT.: CLAYEY SILT (ML), GREEN, MOIST TO SATURATED GASOLINE ODOR.
							CONTINUOUSLY CORED TO 16 FT. DISCRETE WATER SAMPLER PUSHED FROM 16 TO 18 FEET.
					_		

Remarks:

BORING CONTINUOUSLY CORED WITH 2.0 - INCH O. D., DIRECT-PUSH, GEOPROBE SYSTEM. SAMPLES COLLECTED IN .1.75- BY 48 - INCH PETG LINER. BORING SEALED TO GROUND SURFACE WITH NEAT CEMENT.

EXPLORATORY BORING LOG

Project Number:

133

Boring Number:

SB-3 & 4

Project Name:

966 89th Street Oakland, CA 94621 Page Number:

1 of 1

By: ALLCAL PROPERTY SERVICES, INC

Date: 11/30/99

Surface Elevation: NA

	JILKII OLKVIC			• •	170070	5 Darrace Elevation: 1471
RECOVERY VAPOR: (in/in.) (ppm)	PENETRATION (blows/ft.)	GROUND- WATER LEVEL	DEPTH (ft.)	SAMPLES ANALYZED	SOIL TYPE	DESCRIPTION
			5 .			NO SOIL LOGGED. DISCRETE WATER SAMPLER PUSHED TO 18 FEET BELOW GRADE. SCREEN EXPOSED FROM 16 TO 18 FEET FOR COLLECTION OF WATER SAMPLES.
			10			
			15			
				- - -		
Remarks:						

Remarks:

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

ALLCAL Property Services	Client Project ID: #133; Fiesta Beverage	Date Sampled: 11/30/99		
27973 High Country Drive		Date Received: 12/01/99		
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 12/01/99		
	Client P.O:	Date Analyzed: 12/01/99		

12/08/99

Dear John:

Enclosed are:

- 1). the results of 5 samples from your #133; Fiesta Beverage project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Strenkly Chil Edward Hamilton, Lab Director

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

ALLCAL Property Services	Client Project ID: #133; Fiesta Beverage	Date Sampled: 11/30/99			
27973 High Country Drive		Date Received: 12/01/99			
Hayward, CA 94542-2530	Client Contact: John Mrakovich	Date Extracted: 12/02-12/07/99			
	Client P.O:	Date Analyzed: 12/02-12/07/99			

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) ⁺	мтве	Benzene	Toluene	Ethylben- zene	Xylenes	% Recovery Surrogate
26586	Trip Blank	w	ND	ND	ND	ND	ND	ND	96
26587	B-1	w	850,b,j	ND	0.94	3.0	0.70	5.7	118
26588	B-2	w	3200,a,i	ND<10	94	210	79	370	101
26589	B-3	w	90.j,i	ND	ND	ND	ND	0.52	99
26590	B-4	w	ND	ND	ND	ND	ND	ND	108
					 				
-		<u> </u>	1						
-									
									
		_							_
		-							
Reportin	ng Limit unless ise stated; ND	w	50 ug/L	5.0	0.5	0.5	0.5	0.5	
means no	ot detected above porting limit	S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	1

^{*} water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

^{*}The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; c) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.



^{*} cluttered chromatogram; sample peak coelutes with surrogate peak

110 2nd Ave. South, #D7, Pacheco, CA 94553-5560 Telephone: 925-798-1620 Fax: 925-798-1622 http://www.mccampbell.com E-mail: main@mccampbell.com

QC REPORT

Date:

12/02/99

Matrix:

Water

Extraction:

N/A

		Concen	tration:	%Re		
	Sample	MS	MSD	Amount Spiked	MS	MSD

SampleID: 26128

Instrument: GC-3	3
------------------	---

Xylenes	0.000	302.0	318.0	300.00	101	106	5.2
Ethyl Benzene	0.000	103.0	110.0	100.00	103	110	6.6
Toluene	0.000	103.0	110.0	100.00	103	110	6.6
Benzene	0.000	114.0	111.0	100.00	114	111	2.7
MTBE	0.000	101.0	97.0	100.00	101	97	4.0
GAS	0.000	885.5	870.7	1000.00	89	87	1.7

SampleID: 12299		Instru	ment GC-6	B	<u>-</u> -
TPH (diesel)	0.000 265.0 272.0	300.00	88	91	2.6

% Re covery =
$$\frac{\text{(MS-Sample)}}{\text{AmountSpiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2.100$$

17882ZAC9 CHAIN OF CUSTODY RECORD McCAMBELL ANALYTICAL INC. X TURN AROUND TIME 110 2nd AVENUE SOUTH, #D7 PACHECO, CA 94553 RUSH 24 HOUR 48 HOUR 5 DAY Fax: (510) 798-1622 Telephone: (510) 798-1620 Analysis Request Other Comments Report To: ALLCAL PRODUTTY SIS, INC Bill To: SAME Company: 27973 HIGH COUNTRY DR Total Petroleum Oil & Grease (5520 E&F/B&F) HAKWAED, CA 94542 + 8015y MTBE EPA 625 / 8270 / 8310 Total Petroleum Hydrocarbons (418.1) Fax: (50) 5818490 Tele: (510) 58/ 2320 Project Name: FIESTA BEVOLUGE BTEX ONLY (EPA 602 / 8020) Project #: /33 EPA 608 / 8080 PCB's ONLY Lead (7240/7421/239.2/6010) Project Location: 966 82 STREET CAKLAND BTEX & TPH as Gas (602/8020 Sampler Signature John Merkoner EPA 624 / 8240 / 8260 METHOD TPH as Diesel (8015) MATRIX SAMPLING PAH's / PNA's by PRESERVED Type Comtainers CAM-17 Metals EPA 601 / 8010 EPA 625 / 8270 LUFT 5 Metals EPA 608 / 8080 # Containers LOCATION SAMPLE ID Sludge Time Date HNO Other Other HCI S Soil ĄĖ 3 26586 WAX X 11/34/99 9:00 TRIP BLANK 26587 10:25 B-1W 13-1 26588 11:25 B-2 B-2W 12:05 13-3 26589 12:55 13-4 B-4W 26590 Remarks: Received By Time: PRESERVATION OAG METALS OTHER 11/30/99 1525 Received By: Date: 12.0 **APPROPRIATE** Relinquished By:

ATTACHMENT A

SAMPLE HANDLING PROCEDURES

Soil and groundwater samples will be packaged carefully to avoid breakage or contamination and will be delivered to the laboratory in an iced-cooler. Sample bottle/sleeve lids will not be mixed. All sample lids will stay with the original containers.

Samples will be stored in iced-coolers to maintain custody, control temperature, and prevent breakage during transportation to the laboratory. Ice, blue ice, or dry ice will be used to cool samples during transport to the laboratory. Water samples will be cooled with crushed ice.

Each sample will be identified by affixing a label on the container(s). This label will contain the site identification, sample identification number, date and time of sample collection, and the collector's initials.

Soil samples collected in brass or stainless-steel tubes or PETG liners will be preserved by covering the ends with Teflon tape and capping with plastic end-caps. The tubes and liners will be labeled, sealed in quart-size bags, and placed in an iced-cooler for transport to the laboratory.

All groundwater sample containers will be precleaned and will be obtained from a State Department of Health Services certified analytical laboratory.

A chain-of-custody form will be completed for all samples and accompany the sample cooler to the laboratory. All sample transfers will be documented in the chain-of-custody. All field personnel are personally responsible for sample collection and the care and custody of collected samples until the samples are transferred or properly dispatched.

The custody record will be completed by the field technician or professional who has been designated as being responsible for sample shipment to the appropriate laboratory. The custody record will include the following information: site identification, name of person collecting the sample(s), date and time sample(s) were collected, type of sampling conducted (composite/grab), location of sampling station, number and type of containers used, and signature of the person relinquishing samples to another person with the date and time of transfer noted.

ATTACHMENT B

QUALITY ASSURANCE AND QUALITY CONTROL PROCEDURES

The overall objectives of the field sampling program include generation of reliable data that will support development of a remedial action plan. Sample quality will be checked by the use of proper sampling, handling, and testing methods. Additional sample quality control methods may include the use of background samples, equipment rinsate samples, and trip and field blanks. Chain-of-custody forms, use of a qualified laboratory, acceptable detection limits, and proper sample preservation and holding times also provide assurance of accurate analytical data.

A quality assurance and quality control (QA/QC) program may be conducted in the field to ensure that all samples collected and field measurements taken are representative of actual field and environmental conditions and that data obtained are accurate and reproducible. These activities and laboratory QA/QC procedures are described below.

<u>Field Samples</u>: Additional samples may be taken in the field to evaluate both sampling and analytical methods. Three basic categories of QA/QC samples that may be collected are trip blanks, field blanks, and duplicate samples.

Trip blanks are a check for cross-contamination during sample collection, shipment, and laboratory analysis. They are water samples that remain with the collected samples during transportation and are analyzed along with the field samples to check for residual contamination. Analytically confirmed organic-free water will be used for organic parameters and deionized water for metal parameters. Blanks will be prepared by the laboratory supplying the sample containers. The blanks will be numbered, packaged, and sealed in the same manner as the other samples. One trip blank will be used for each sample set of less than 20 samples. At least 5% blanks will be used for sets greater than 20 samples. The trip blank is not to be opened by either the sample collectors or the handlers.

The field blank is a water sample that is taken into the field and is opened and exposed at the sampling point to detect contamination from air exposure. The water sample is poured into appropriate containers to simulate actual sampling conditions. Contamination due to air exposure can vary considerably from site to site.

The laboratory will not be informed about the presence of trip and field blanks, and false identifying numbers will be put on the labels.

Duplicate samples are identical sample pairs (collected in the same place and at the same time), placed in identical containers. For soils, adjacent sample liners will be analyzed. For the purpose of data reporting, one is arbitrarily designated the sample, and the other is designated as a duplicate sample. Both sets of results are reported to give an indication of the precision of sampling and analytical methods.

The laboratory's precision will be assessed without the laboratory's knowledge by labeling one of the duplicates with false identifying information. Data quality will be evaluated on the basis of the duplicate results.

<u>Laboratory QA/QC</u>: Execution of a strict QA/QC program is an essential ingredient in high-quality analytical results. By using accredited laboratory techniques and analytical procedures, estimates of the experimental values can be very close to the actual value of the environmental sample. The experimental value is monitored for its precision and accuracy by performing QC tests designed to measure the amount of random and systematic errors and to signal when correction of these errors is needed.

The QA/QC program describes methods for performing QC tests. These methods involve analyzing method blanks, calibration standards, check standards (both independent and the United States Environmental Protection Agency-certified standards), duplicates, replicates, and sample spikes. Internal QC also requires adherence to written methods, procedural documentation, and the observance of good laboratory practices.

ATTACHMENT C

WASTE HANDLING AND DECONTAMINATION PROCEDURES

<u>Decontamination</u>: Any drilling, sampling, or field equipment that comes into contact with soil or groundwater will be decontaminated prior to its use at the site and after each incident of contact with the soil or groundwater being investigated. Decontamination is essential to obtain samples that are representative of environmental conditions and to accurately characterize the extent of soil and groundwater contamination. Hollow-stem auger flights, the drill bit, and all other soil boring devices will be steam-cleaned between the drilling of each boring.

All sample equipment, including the split-spoon sampler and brass or stainless-steel tubes, will be cleaned by washing with trisodium phosphate or Alconox type detergent, followed by rinsing with tap water. Where required by specific regulatory guidelines, a nonphosphate detergent will be used.

Waste Handling: Waste materials generated during site characterization activities will be handled and stored as hazardous waste and will be stored on site in appropriately labeled containers. Waste materials anticipated include: excavated soil, drill cuttings, development and purge water, water generated during aquifer testing, water generated during decontamination, and used personnel protection equipment such as gloves and Tyvek. The site owner will be responsible for providing the storage containers and will be responsible for the disposal of the waste materials. Drill cuttings from individual borings will be stored separately in drums or covered by plastic sheeting, and the appropriate disposal procedure will be determined by the site owner following receipt of the soil sample analytical results. Storage containers will be labeled to show material stored, known or suspected contaminant, date stored, expected removal date, company name, contact, and telephone number.