

Specialists in Site Assessment, Remedial Testing, Design and Operation

September 29, 1999

Ms. Julie Beck-Ball Beck Family Properties 2720 Broderick Street San Francisco, California 94123

Subject:

Semi-Annual Groundwater Monitoring Report

September 1999 Winner Ford

1650 Park Street, Alameda, California

Ms. Beck-Ball:

Horizon Environmental (Horizon) has prepared this Semi-Annual Groundwater Monitoring Report which presents the results of the September 1999 groundwater monitoring for the above-referenced site (Figure 1). This report is intended to comply with the reporting requirements and guidelines set forth by the Alameda County Health Care Services Agency, Department of Environmental Health (ACHCSA-DEH) and the California Regional Water Quality Control Board-San Francisco Bay Region (CRWQCB-SFBR).

Site Description

Winner Ford is an automobile dealership and showroom located on the southeast corner of the intersection of Park Street and Buena Vista Avenue in Alameda, California, as depicted on the Site Vicinity Map (Figure 1). The site is approximately ½-mile south of the Oakland Inner Harbor and approximately one mile north of San Leandro Bay, within a primarily commercial area of Alameda. Site facilities include a building with enclosed offices, an automobile showroom, and an automobile storage warehouse. The remaining portion of the property is used to store automobiles. The site is primarily asphalt-paved with some areas of concrete. A former gasoline underground storage tank (UST) was located beneath the sidewalk between the main building and Buena Vista Avenue, and a former waste-oil UST was located beneath the sidewalk between the main building and Park Street. The locations of these facilities and other pertinent site features are shown on the Site Plan (Figure 2). The waste-oil UST had not been used since the commencement of Winner Ford's lease in 1986. The gasoline UST was last used by Winner Ford in 1993 and was precision tested in January 1994, at which time it was certified "tight".

Site Background/Previous Work

In August 1995, Blymyer Engineers, Inc. (Blymyer) was present on-site to observe the removal of the 500-gallon capacity, single-walled, steel, unleaded gasoline UST, and the

100-gallon capacity, single-walled, steel, waste-oil UST, as well as perform soil sampling related to removal of the USTs, gasoline dispenser, and associated product lines. Piping connecting a former sump drain to the waste-oil tank was removed during the waste-oil tank removal. Soil samples collected and analyzed from beneath the gasoline UST, gasoline dispenser, and product line removal indicated that soil containing elevated concentrations of gasoline hydrocarbons remained after the excavation. Soil samples collected and analyzed from beneath the former waste-oil UST revealed that the soil containing an elevated concentration of Total Recoverable Petroleum Hydrocarbons (TRPH) remained after the excavation of the waste-oil UST basin to a depth of approximately $6\frac{1}{2}$ feet bsg. A summation of the Blymyer work was presented in earlier reports prepared by Horizon in 1996 and 1997. The approximate locations of the former USTs are depicted on Figure 2.

Blymyer reported the soil type observed in both UST basins to be clayey sand (<u>Underground Storage Tank Closure</u> report, November 22, 1995). Blymyer also reported that initial groundwater was encountered in the gasoline-UST basin at a depth of approximately 9 feet below surface grade (bsg). The groundwater flow direction beneath the site was estimated to be toward the north based on surficial topographic contours and data obtained from the ACHCSA-DEH for an adjacent site, Good Chevrolet, dated October 25, 1995.

On July 11, 1996, a Horizon geologist observed the drilling of two exploratory soil borings which were completed as monitoring wells MW-1 and MW-2 (Figure 2). Soil boring SB-1 was hand-augered to the soil-water interface at 7 feet bsg where a soil sample was collected from the auger. Groundwater was encountered in the boring for MW-1 at 6.25 feet bsg. In the boring for MW-2, groundwater was encountered at 14.2 feet bsg. After the wells were developed, groundwater samples were collected on July 16 and July 29, 1996 (Table 1). Results of laboratory analyses of the groundwater samples revealed detectable concentrations of total petroleum hydrocarbons as gasoline (TPHg), the volatile aromatics benzene, toluene, ethylbenzene, and total xylenes (BTEX), and the fuel oxygenate methyl tertiary-butyl ether (MTBE) in groundwater from well MW-1, and very low concentrations of benzene and xylenes in groundwater from well MW-2 (Horizon, Monitoring Well Completion and Preliminary Subsurface Assessment Report at Winner Ford, 1650 Park Street, Alameda, California, November 11, 1996).

In April, August, and December 1997, Horizon performed quarterly groundwater monitoring at the site. Results of laboratory analyses of the groundwater samples confirmed detectable levels of TPHg, BTEX, and MTBE in groundwater from well MW-1, and nondetectable to very low concentrations of benzene in groundwater from well MW-2 (Horizon, *Quarterly Groundwater Monitoring Reports, Winner Ford, 1650 Park Street, Alameda, California*, July 8, 1997, September 22, 1997, and January 18, 1998).

In a June 2, 1998 letter from the ACHCSA-DEH (see Attachment A), the groundwater sampling frequency was reduced to a semi-annual schedule. As per the ACHSA-DEH letter, sampling of well MW-2 was discontinued in 1998.

In June 1998, Horizon began semi-annual groundwater monitoring at the site. Results of laboratory analyses of the groundwater samples collected in June 1998 and February 1999 confirmed detectable levels of TPHg, BTEX, and MTBE in groundwater from well MW-1 (Horizon, <u>Semi-Annual Groundwater Monitoring Report, Winner Ford, 1650 Park Street, Alameda, California</u>, July 8, 1998 and March 5, 1999).

Current Groundwater Monitoring

On September 1, 1999, Horizon personnel were onsite to perform groundwater monitoring following Horizon's Field Methods and Procedures (Attachment B). Prior to sampling, monitoring wells MW-1 and MW-2 were measured for total depth and depth-to-water levels. Utilizing an electronic interface probe, Horizon personnel intercepted the groundwater surface at a depth of 6.27 feet below top of well casing (TOC). Depth to groundwater in monitoring well MW-2 was 7.59 feet below TOC (Table 1 and Attachment C)

After purging, groundwater samples were collected from well MW-1. Each container was properly labeled in the field, placed in an ice chest, and transported to Kiff Analytical in Davis, California (Certificate No. 2236). Analyses performed were for TPHg, BTEX, and MTBE by Environmental Protection Agency (EPA) Method 8260B.

The analytical results are summarized in Table 1, which also includes the historical groundwater data since July 1996. The laboratory analytical reports and the chain-of-custody (COC) record are included as Attachment D.

The groundwater gradient could not be calculated as there are only two wells. ACHCSA-DEH had previously authorized the installation of only two wells, indicating that neighboring wells could be used to evaluate groundwater flow. The adjacent Good Chevrolet site reported a gradient direction to the west toward Park Street on a Gradient Plan Map dated January 1997 and prepared by GeoPlexus Inc.

Summary

On September 1, 1999, monitoring wells MW-1 and MW-2 were sounded and well MW-1 was sampled for the second semi-annual event of 1999.

- Water Levels: The average depth to the water table was 6.93 feet bsg. The average depth to water has decreased approximately 1.08 feet since the water levels measured in the previous semi-annual sampling event on February 9, 1999.
- **TPHg:** The sample collected from well MW-1 indicated a TPHg concentration of 83 parts per billion (ppb). This quantification indicates that TPHg concentrations have decreased approximately 63% since July 1996.

- BTEX: The groundwater sample collected from well MW-1 contained a detectable concentration of benzene at 9.8 ppb. BTEX concentrations have decreased approximately 84% since July 1996. A Benzene Concentration Map is included as Figure 3.
- MTBE: The groundwater sample collected from well MW-1 contained 68 ppb of MTBE by EPA Method 8260B. The MTBE concentrations have decreased approximately 75% since July 1996.

Conclusions and Recommendations

Based on the analytical results since the UST removal and groundwater monitoring was implemented, it appears that hydrocarbons (including MTBE) have attenuated by 75% and greater, and the hydrocarbons continue to attenuate. In addition, it is highly unlikely that the shallow groundwater in the downtown area of Alameda will be utilized. Therefore, Horizon requests the site be granted closure and the existing monitoring wells properly abandoned.

Report Distribution

We recommend a copy of this report be forwarded to:

Ms. eva chu Alameda County Health Care Services Agency Department of Environmental Health 1131 Harbor Bay Parkway Alameda, California 94502-6577

Mr. Chuck Headlee California Regional Water Quality Control Board San Francisco Bay Region 2101 Webster Street, Suite 500 Oakland, California 94612

Limitations

This report was prepared in accordance with the methods and procedures described in the attached field methods, and generally accepted standards for the practice of the environmental and geological sciences in California at the time of the investigation. The investigation was conducted solely for the purpose of evaluating environmental conditions of the groundwater with respect to gasoline hydrocarbons at the site.

No soil engineering or geotechnical references are implied, nor should any be inferred. Evaluation of the geological conditions at the site for the purpose of this investigation is made from a limited number of observation points. Subsurface conditions may vary away

from the available data points. This report is the property of Horizon Environmental Inc. and Winner Ford for their use and distribution.

If you have any questions, please contact Horizon at (916) 939-2170.

Sincerely,

HORIZON ENVIRONMENTAL INC.

Mark Souverville Staff Geologist

Kenny B. Mateik Registered Geologist

C.E.G. No. 1935

Attachments:

Figure 1 Site Vicinity Map

Figure 2 Site Plan Map

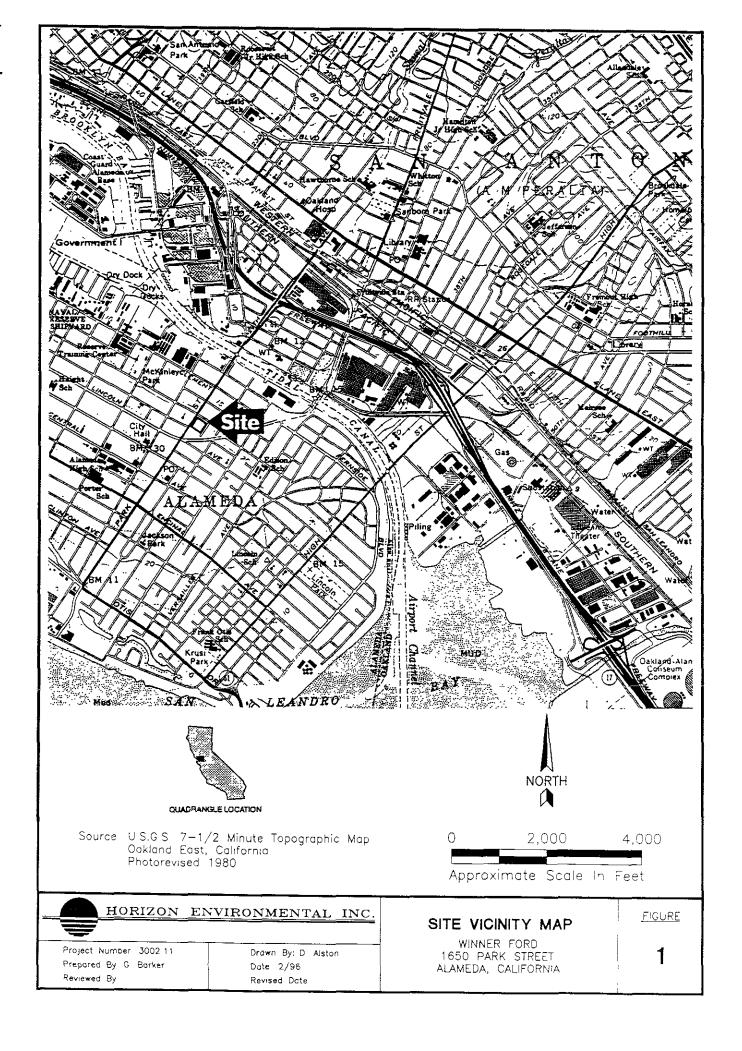
Figure 3 Benzene Concentration Map

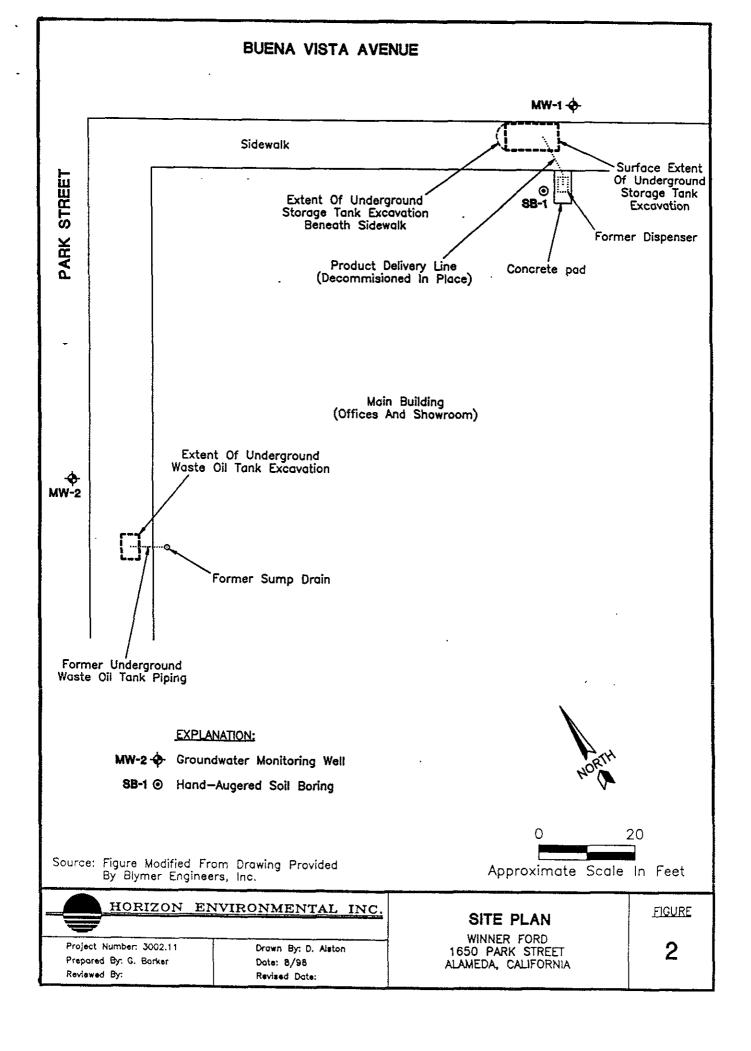
Table I Groundwater Data

Attachment A Alameda County letter dated June 2, 1998 Attachment B Horizon Field Methods and Procedures

Attachment C Horizon Field Data Sheets

Attachment D Laboratory Analytical Reports and Chain-of-Custody





BUENA VISTA AVENUE MW-1 🕈 (9.8) Sidewalk Surface Extent PARK STREET 0 Of Underground Extent Of Underground \$8-1 Storage Tank Storage Tank Excavation Excavation Beneath Sidewalk Former Dispenser Product Delivery Line Concrete pad (Decommisioned in Place) Main Building (Offices And Showroom) Extent Of Underground Waste Oil Tank Excavation MW-2 NS Former Sump Drain EXPLANATION: Former Underground Waste Oil Tank Piping Benzene Concentrations Measured In Ports Per Billion (9.8)NS Not Sampled Wells Sampled 09/01/99 20 0 Source: Figure Modified From Drawing Provided Approximate Scale In Feet By Blymer Engineers, Inc. HORIZON ENVIRONMENTAL INC. FIGURE **BENZENE CONCENTRATION MAP** WINNER FORD 1650 PARK STREET Project Number: 3002.41 Drawn By: D. Alston/C.B. 3 Prepared By: M. Souverville Date: 09/99 ALAMEDA, CALIFORNIA Reviewed By: K. Moteik Revised Date:

TABLE 1

GROUNDWATER DATA Winner Ford 1650 Park Street, Alameda, California

Well No.	Date Sampled	Total Depth (ft.)	Depth to Water (ft.)	TPHg (ppb)	MTBE† (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- Benzene (ppb)	Xylenes (ppb)	TOG (ppm)
MW-1	07/1 6/96			222	267	62.8	34.3	5.75	32.1	NA
	04/2 9/97	22.75	5.89	145	312/260*	53.5	6.1	4.2	9.2	NA
	08/2 0/97	22.69	7.13	65	331	18.0	1.3	1.6	2.5	NA
	12/0 2/97	22.63	5.83	62	213	12.6	< 0.5	0.6	1.2	NA
	06/10 /98	21.92	4.58	280	249	69	4.6	13	35.1	NA
	02/09 /99	22.62	7.71	97	61	8.5	<0.50	3.1	2.2	NA
	09/01 /99	22.59	6.27	83	68	9.8	<0.50	<0.50	<0.50	NA
MW-2‡	07/16 /96			< 50	NA	1.1	< 0.5	< 0.5	1.05	NA
	07/29 /96			NA	NA	NA	NA	NA	NA	< 10
	04/29 /97	24.77	7.62	< 50	< 5.0	0.6	< 0.5	< 0.5	< 0.5	< 10
	08/20 /97	24.74	8.26	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	< 10
!	12/02 /97	24.73	7.37	< 50	< 5.0	< 0.5	< 0.5	< 0.5	< 0.5	< 10
:	06/10 /98	NM	7.12	NS	NS	NS	NS	NS	NS	NS
	02/09 /99	NM	NM	NS	NS	NS	NS	NS	NS	NS
	09/01 /99	NM	7.59	NS	NS	NS	NS	NS	NS	NS

TPHg = Total Petroleum Hydrocarbons as gasoline

MTBE† = Methyl Tertiary-Butyl Ether, by EPA Method 8020

ppb = parts per billion ppm = parts per million

NA = Not Analyzed

NM = Not Measured

NS = Not Sampled

^{‡ =} Sampling of well MW-2 discontinued by ACHCSA-DEH letter effective June 1998.

ATTACHMENT A

ALAMEDA COUNTY

HEALTH CARE SERVICES





DAVID J. KEARS, Agency Director

StID 622

June 2, 1998

Ms. Julie Beck-Ball Beck Family Properties 2720 Broderick Street San Francisco, CA 94123 **ENVIRONMENTAL HEALTH SERVICES**

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

RE: Semi-Annual Groundwater Monitoring at 1650 Park Street, Alameda, CA

Dear Ms. Beck-Ball:

I have completed review of the case file for the above referenced site for possible closure. At this time, case closure cannot be granted because of the elevated Methyl Tertiary-Butly Ether (MTBE) concentrations still present in groundwater monitoring well MW-1. However, because other chemicals of concern are not present at levels which would pose a risk to human health, the sampling frequency of well MW-1 may be reduced to a semi-annual basis. Groundwater should be sampled in June and December of each year and analyzed for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and MTBE. At this time, you may discontinue the sampling of well MW-2.

Be advised that the closure decision is subject to appeal to the Manager of the Underground Storage Tank Cleanup Fund, pursuant to Section 25299.39.2(b) of the Health and Safety Code (Thompson-Richter Underground Storage Tank Reform Act – Senate Bill 562). Please contact the Fund at (800) 813-FUND for information regarding the appeal process.

If you have any questions, I can be reached at (510) 567-6762.

eva chu

Hazardous Materials Specialist

C: Michele Nokes, Antioch Toyota, 1810 Somersville Rd, Antioch, CA 94509 Michael Alfred, Alameda Ford, 1650 Park St, Alameda, CA 94501 Ken Mateik, Horizon Environmental, 5011 Golden Foothill Pkwy, Suite 7, El Dorado Hills, CA 95762

ATTACHMENT B

HORIZON ENVIRONMENTAL INC.

FIELD METHODS AND PROCEDURES

The following section describes field procedures utilized by Horizon Environmental Inc. (Horizon) personnel in performance of the tasks involved with this project.

1.0 HEALTH AND SAFETY PLAN

Field work performed by Horizon and subcontractors at the site will be conducted according to guidelines established in a Site Health and Safety Plan (SHSP). The SHSP is a document that describes the hazards that may be encountered in the field and specifies protective equipment, work procedures, and emergency information. A copy of the SHSP will be at the site and available for reference by appropriate parties during work at the site.

2.0 GROUNDWATER DEPTH EVALUATION

Each monitoring well is opened and allowed to equilibrate to atmospheric pressure prior to measuring depth to groundwater. Depth to groundwater will be measured to the nearest 0.01 foot using an electronic, hand-held, water-level indicator. Depth to groundwater will be measured from the surveyed point on the top of the well casing. The tip of the probe will be examined to assist in the evaluation of the possible presence of a product sheen.

3.0 MONITORING WELL PURGING AND SAMPLING

Prior to purging, a clean, transparent bailer is lowered into the well and a sample of groundwater is hoisted to the surface. The contents are inspected for the presence of product floating on the surface of the sample. Groundwater sampling events conducted subsequent to the initial well development and sampling event will be preceded by purging three to four well-volumes by hand-bailing or use of an electrical purge pump. Purge water will be monitored for the parameters of temperature, pH, and electrical conductivity until stabilized. A well is allowed to recharge to at least 80% of its prepurge volume prior to sampling. If a well dewaters, it will be allowed to recharge for a minimum of one to two hours prior to sampling. After the water level within the well has stabilized, a sample is collected within a dedicated, clean, disposable, plastic bailer lowered into the well and hoisted when filled.

4.0 SAMPLE PREPARATION FOR LABORATORY ANALYSIS

The sample fluid is transferred from the bailer to one or more airtight vials and chilled on ice for transport to a state-certified analytical laboratory. Groundwater samples are analyzed within the EPA-specified holding time for requested analyses.

Each sample container submitted for analysis is appropriately labeled to identify the job number, sample date, time of sample collection, and an individual number unique to that sample.

A chain-of-custody form is used to record possession of the sample from time of collection to its arrival at a California DoHS-certified laboratory. When the sample is shipped, the responsible technician or geologist relinquishes it by signing the chain-of-custody form, also listing the date and time.

The sample control officer at the laboratory:

- verifies sample integrity;
- confirms use of the proper holding container;
- recognizes that an adequate volume of fluid has been collected for the required analysis;
- identifies the method of preservation; and
- accepts custody for the laboratory when these conditions have been satisfied.

ATTACHMENT C

HORIZON ENVIRONMENTAL INC.

Specialists in Site Assessment, Remedial Testing, Design and Operation

MONITORING WELL DATA

Station No.	02.41		Lo	Location Alameda													
Address 1650	Dark	<u>-</u>		Job No. 300 2.41													
Well No. Mb	3 1			Date 9-1-99													
[
	T	- D.T.W	. x *VF	= Casing	Volume												
2259	-6.2	27	×	-17 >	= 11												
		*VF=															
		gal /ft,	2" x 0.17 3" x 0.38		* x 0.66 * x 1.50												
Gals. Purged	3	6	9	12													
Conduct.	2.03 1.53		1.53	1-51													
P/H	8.33	8.53	8.63	8.61													
Temp (°F)		66.3°	68-1°	68.3													
Turbid	no	no	no	n0													
Product/Sheen	no	NO	10	n 0													
Time		, C	.,,	7. 0													
Odor	no	10	no	no													
Total Volume Pui	randi		_		<u> </u>	<u> </u>											
	رع . المالية المالية المالي		Purging Equipment: 12 Un 14 DUMP														
Total Gallons Pur			Sampling Equipment:														
			Boiler														
Sample Containe	ers: 4/		D.T.W. after purging:														
H₂O Stored?			<u>. </u>	.27			 										
Comments.																	
		-															
	-			···		 _											

Technician

ATTACHMENT D



Report Number: 14866

Date: 09/15/99

Gary Barker Horizon Environmental 5011 Golden Foothill Pkwy., Suite 7 El Dorado Hills, CA 95762

Subject: 1 Water Sample Project Name: Alameda Project Number: 3002.41

Dear Mr Barker,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,



Report Number: 14866

Date: 09/15/99

Project Name: Alameda
Project Number: 3002.41

Sample: W-0901-MW1

Matrix: Water

Sample Date :09/01/99

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	9.8	0.50	ug/L	EPA 8260B	09/11/99
Toluene	< 0.50	0.50	ug/L	EPA 8260B	09/11/99
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	09/11/99
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	09/11/99
Methyl-t-butyl ether	68	0.50	ug/L	EPA 8260B	09/11/99
TPH as Gasoline	83	50	ug/L	EPA 8260B	09/11/99
Toluene - d8 (Surr)	97.7		% Recovery	EPA 8260B	09/11/99
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	09/11/99

Approved By:

720 Olive Drive, Suite D. Davis, CA 95616 530-297-4800

KIFF	•	-	Da Lal Fa	vis, b: 5 x: 5	C/ 30 30	Driv 95 297 297	66 16 7 48) 00	e D															Lat	No.	10	48	su.	5		ı	Page		
Project Manager:			Phone No.: 916) 939-2170 FAX No.:									Chain-of-Custody Record and Analysis Request																						
CARTY BATKET CompanyiAddress			FA	XN	<u>2/</u> lo.	<u>.</u>	7:	٠.	4:					· •			~ ~~ ,														<u> </u>	1	For L	.ab
HOY 200 ENU Eldorado HU Project Number: P.O. No.:			9	916) 939-2172										Analysis Request															т_	TAT	Use O	inly		
Project Number: P.O. No.: 360 2 4 Project Location: Alamena			Project Name: Alumeda Sampler Signature: OSh Bloom											BTEX/TPH Gas/MTBE (8020/M8015)	(6	115)	Gas/BTEX (8260)	7 Oxygenates/TPH Ges/BTEX (8260)	8/51EA (020V					AL (X)					hr/1 wk(2 mg					
	Samp		(1)	ype	An	ner Iouni	0			ethe ser	od ved			latri:	<u>-</u>			(M801	EW.	TPHO	THE S	(8260)	(8260)			(2.6	ž					8 hr / 72		
Sample Designation	Date	Time	40 ml VOA	SLEEVE	IL GLASS	500 ml GLASS		HÇI	HNO ₃	5	NONE		MANATERISON!	TICS OF THE STATE	ortey (enough	פובא (פעבע)	BTEX/TPH Ga	TPH as Diesel (M8015)	TPH as Motor	5 Oxygenates/TPH Gas/BTE	7 Oxygenates/	5 Oxygenates	7 Oxygenates (8260)	EPA 8260	EPA 8270	Lead (7421/239.2)	Cd, Cr, Pb, Zn, Ni	2				12 11/24 14/48 14/72 11/1		
w-0901-mw1	9/1	8'00	3									Γ	Š		Τ	1	X											Γ					-01	
	⁻	<u> </u>											Ť		1		•••]									
				_									1	1			:								ļ				1					
		1	1							-	┪	╁╌	1	-	1	+					·	i —	一	1			1							
		- 	 		 -	} 				 - -	 	-	1	-	1	+	\dashv		ļ				<u> </u>	1		 -	1-	 	1	1	- 			
	<u> </u>		-			\vdash					-	 	╁	- -	╁	+	-					-		-	}	-	 		-	 -	 	1	-	
		- 	1			\vdash			<u>-</u>		-	-	十		╁	+	-		<u></u>	-			-	-		1	╁	 	+	 		 - 		
		 	1			\vdash					┼	<u> </u>	+		-	+	\dashv		<u> </u>						 	<u>.</u>	-	+	-	1-	┼-	 -		·
					-					-	┿-	:	-	+	+	+			_		—		-	┼	-	╁-	-	+	 		-	-		
	<u> </u>		 		_	,		 	 	-	 -	-	+		1	+				 				 	ļ	-	+	ļ	-		-			
			11		<u> </u>	;	_				<u>L.</u>		1		\perp	\perp				130	mari				<u>L</u>		L		<u></u>	· 	<u></u>	1		
Reinquished thy	A	9/2			me 34	1 .	celv	ed i	<u>ن ځ</u>	7		_		_	1/6	. P.	£			rse	ardi)	\ 5 .												
Relinquished by Black Relinquished by		Date			TIB	Ret	C6/A	ed t	by:						1	10)				Err	al a	ddre	85	·		,				٠			••••• •	
											············							,] .xis	<u> </u>	<u>.</u> .	ĸŧ	<u></u>	other	·=	<u></u>		:E		
Relinquished by		Date	.0	Tir	110	Rec	ceiv	ed t	y L	abc	rato	ly:			-					Bil	to:													

COC.m8 (9/18)