LETTER OF TRANSMITTAL

BLYMYER ENGINEERS, INC.
1829 Clement Avenue
Alameda, California 94501-1396
(510) 521-3773 FAX: (510) 865-2594

R0314

Alameda County
APR 21 2003
Environmental Health

DATE April 17, 2003	BEI Job No. 203004
ATTENTION: Mr. Amir Gholami	
SUBJECT: Former Fiesta Beverage Facility	
966 89th Avenue	
Oakland, California	
ACHCSA Site # RO0000314	

Alameda County Health Care Services Agency
Environmental Protection Division

1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502-6577

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1	4/17/03		*First Quarter 2003 Groundwater Monitoring Event*; Blymyer Engineers, Inc.

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COPY TO: File
Mr. Ted Walbey, Fiesta Beverage

SIGNED: Mark Detterman

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BLYMYER
ENGINEERS, INC.

April 17, 2003
BEI Job No. 203004

Mr. Ted Walbey
Fiesta Beverage
2871 Friar Rock Ct.
Sparks, NV 89436

Subject: **First Quarter 2003 Groundwater Monitoring Event**
Former Fiesta Beverage Facility
966 89th Avenue
Oakland, California
ACHCSA Site # RO0000314

Dear Mr. Walbey:

This letter documents the First Quarter 2003 groundwater monitoring event at the subject site (Figure 1). This is the first groundwater monitoring event conducted by Blymyer Engineers, Inc. at the former Fiesta Beverage site in Oakland, California.

1.0 Background

In August 1990, one 500-gallon and one 1,000-gallon gasoline underground storage tanks (USTs) were removed from the subject site (Figure 2). Soil and groundwater were reported to be impacted from releases from one or both USTs. Overexcavation of the former UST basins occurred in January 1991. The excavations were reported to have reached approximately 15 feet by 8 feet by 14 feet deep; and 12 feet by 7 feet by 14 feet deep, respectively, on January 14, 1991. Beginning in April 1991, aeration of the soil occurred onsite. In April 1993, 74.28 tons of soil were transported to the Remco recycling facility. In June 1993, groundwater monitoring wells MW-1, MW-2, and MW-3 were installed. In general the wells encountered black to grey to light brown clay to a depth of approximately 15 below grade surface (bgs). At 15 feet bgs the three bores encountered a 0.5- to 2.0-foot thick clayey sand. Below this unit a light brown to grey clay was present to a depth of 18 to 21 feet bgs. Underneath this unit, a 1- to 3-foot thick sand was encountered in bores MW-1 and MW-2, while a clayey silt was encountered in bore MW-3. Below approximately 21 feet bgs, a green-grey or black clay was encountered to the full explored depth of 26.5 feet bgs in bore MW-1 and to 25 feet bgs in bores MW-2 and MW-3. Saturated soil was encountered below a depth of approximately 13 feet bgs (in clay overlaying the uppermost sand unit). The wells were installed with a screened interval between 10 and 25 feet bgs. Groundwater from the three wells was sampled six times between August 1993 and December 1998.

In November 1999, after obtaining appropriate permits, AllCal Property Services, Inc. (AllCal) installed four Geoprobe® soil bores were installed downgradient from the former location of the two USTs. The bores were installed in the public right-of-way across 89th Avenue from the subject site, in an unpaved portion of the roadway. Soil bores SB-1 and SB-2 were logged to a depth of 16 feet

below grade surface (bgs). Silty clay was encountered to a depth of approximately 13 to 14 feet bgs. Below that depth, soil consisted of clayey silt that alternated between moist and saturated for several vertical feet. Bore SB-1 also encountered a poorly graded sand at 16 feet. Hydrocarbon odors were present in both bores at a depth of approximately 6 feet bgs and green discolored soil was present at 10 feet bgs in bore SB-1. Discolored soil and gasoline odors were noted in both bores throughout the clayey silt, while brownish colored clay was present in both bores just above the silt. The groundwater interface appears to have been encountered at an approximate depth of 16 feet bgs in the sand. A sheen was noted at that depth in SB-1. Groundwater was obtained from bores SB-1 and SB-2 after pushing the Geoprobe® system to a total depth of 18 feet bgs. Soil bores SB-3 and SB-4 were directly pushed to a total depth of 18 feet bgs in order to obtain grab groundwater samples. Groundwater samples from bores SB-1 and SB-2 contained elevated concentrations of Total Petroleum Hydrocarbons (TPH) as gasoline, and benzene, toluene, ethylbenzene, and total xylenes (BTEX). Significantly lower concentrations of TPH as gasoline and total xylenes were encountered in the groundwater sample from soil bore SB-3, while all analytes were nondetectable in groundwater collected from soil bore SB-4. No soil samples were submitted for laboratory analysis.

After the review of the January 2001 groundwater monitoring report, the Alameda County Health Care Services Agency (ACHCSA) approved the application of a 7% solution of hydrogen peroxide to the wells in an attempt to remediate dissolved constituents. On March 7, 2001, the solution was applied and on April 25, 2001, a groundwater monitoring event was conducted to determine if a reduction in dissolved constituents had occurred. Based on the analytical data, a reduction was seen in wells MW-1 and MW-2, with some reductions also seen in well MW-3. This sampling event and subsequent interpretation was complicated by the presumed mis-marking of samples from wells MW-1 and MW-3. No further work at the site is known to have occurred between April 2001 and the current groundwater monitoring event.

On January 16, 2003, a new case manager for the project was appointed by the ACHCSA. Mr. Amir Gholami is the current case manger for the ACHCSA.

2.0 Redevelopment of Well MW-1 and Well Maintenance

At the request of the ACHCSA, well MW-1 was scheduled for redevelopment. The wells are reported to be approximately 25 feet in total depth; however, over 7 feet of sediment had apparently accumulated in well MW-1. During the previous groundwater monitoring event in April 2001, the total depth measured in well MW-1 was recorded at 17.85 feet, in contrast to wells MW-2 and MW-3 which were measured at approximately 25 feet. Blaine Tech Services, Inc. (Blaine) attempted to redevelop groundwater monitoring well MW-1 on March 17, 2003. Prior to redevelopment, Blaine measured the total depth of well MW-1 at 17.63 feet. After redeveloping the well with a surge block, the total depth of well MW-1 was measured at 14.43 feet. Blaine also attempted to remove the accumulated sediment with a Middleburg sampling pump. The first pump became clogged and a second pump was then put into service, but a significant amount of sediment could not be

removed. Field notes completed by the Blaine field technician afterward contain references to "large sand particles" and "coarse sand and gravel" in the water column. Additional notes indicate that these particles were too large to be removed by the sampling pump, but that samples of the material were obtained with a Teflon® bailer. Well casing breaks or offsets were not noted by the technician (personal communication, March 17, 2003). However, because well MW-1 is located within the asphalt repair installed after soil overexcavation, it is likely that a shift in the backfill material has decoupled the casing at the joint between the screen and blank portions of the casing. The log for well MW-1 notes only native soil. The well is thus assumed to have been installed immediately outside of the UST excavation. Copies of the *Well Development Data Sheets* generated by Blaine are contained in Appendix A.

Because it had been a period of time since the wells were installed or sampled, several well maintenance issues were also encountered at the time of groundwater sampling. In particular the well expansion caps were found to be aged with poor sealing capabilities and broken bolts which can interfere with well security (locking). Because these conditions compromise the security of the wells, the caps and locks were replaced on wells MW-2 and MW-3. Copies of the *Wellhead Inspection Checklist* generated by Blaine are contained in Appendix A.

3.0 Groundwater Sample Collection and Analytical Methods

Groundwater samples were collected from monitoring wells MW-1, MW-2, and MW-3 on March 17, 2003. The groundwater samples were collected by Blaine in accordance with Blaine *Standard Operating Procedures* for groundwater gauging and sampling. A copy is included as Appendix B. Depth to groundwater was measured in all wells at the site. Temperature, pH, conductivity, and turbidity were measured initially, and then after removal of each of three well casing volumes for each well. The groundwater depth measurements and details of the monitoring well purging and sampling are presented on the *Well Monitoring Data Sheets* and *Well Gauging Data Sheets* generated by Blaine and included as Appendix C. Depth-to-groundwater measurements are presented in Table I. All purge and decontamination water was temporarily stored in a Department of Transportation-approved 55-gallon drum for future disposal by the owner.

The groundwater samples were analyzed by McCampbell Analytical, Inc., a California-certified laboratory, on a 5-day turnaround time. The samples were analyzed for TPH as gasoline by Modified EPA Method 8015; BTEX by EPA Method 8020; and the fuel oxygenates di-isopropyl ether (DIPE), ethyl *tert*-butyl ether (ETBE), methyl *tert*-butyl ether (MTBE), *tert*-amyl methyl ether (TAME), and *tert*-butyl alcohol (TBA) by EPA Method 8260B. Tables II and III summarize current and previous analytical results for groundwater samples. The laboratory analytical report for the current sampling event is included as Appendix D.

4.0 Groundwater Sample Analytical Results and Groundwater Flow Data

Concentrations of TPH as gasoline and BTEX were present in groundwater samples from each well. Groundwater in the wells contained between 2,000 and 2,200 micrograms per liter (μg/L) TPH as gasoline; 26 and 260 μg/L benzene; 3.3 and 78 μg/L toluene; 1.5 and 36 μg/L ethylbenzene; and 3.5 and 280 μg/L total xylenes. TPH as gasoline and BTEX showed significant decline in the groundwater sample from well MW-1, while most analyte concentrations increased in wells MW-2 and MW-3. The decline in well MW-1 BTEX concentrations may in part be the effect of an occluded well screen due to the accumulation of approximately 10.5 feet of sediment in the well. These observations also assume that groundwater samples from wells MW-1 and MW-3 were mis-marked in the field during the April 2001 sampling event (however, they are tabulated in Table II as originally reported).

In all wells the concentration of benzene in groundwater exceeded the drinking water Maximum Contaminant Level (MCL); however, Blymyer Engineers does not believe that groundwater at this location should be considered as drinking water. Consequently, Blymyer Engineers also includes several other "Look-up" Tier 1 Risk-Based Screening Level (RBSL) values promulgated by the City of Oakland and the San Francisco Bay Regional Water Quality Control Board (RWQCB). Only the RWQCB provides a look-up value for TPH, and for a non-drinking water designation of groundwater.

At the request of the ACHCSA groundwater samples were also collected for the first time for the fuel oxygenates DIPE, ETBE, MTBE, TAME, and TBA by EPA Method 8260B. Previous analysis for MTBE by EPA Method 8020 had encountered difficulties due to elevated limits of detection. Additionally, because EPA Method 8020 will produce a false MTBE positive due to the coelution of MTBE with 3-methyl-pentane, another gasoline compound, EPA Method 8260B is required to distinguish between the two compounds by GC/MS analytical methodology. Previously, a one time analysis for MTBE by EPA Method 8260B had confirmed the presence of MTBE in well MW-2. During the current groundwater monitoring event, analysis of groundwater from each well yielded non-detectable results for DIPE and ETBE, while MTBE and TAME were present in each well at concentrations ranging between 10 and 13 μg/L, and 2.1 and 8.3 μg/L, respectively. Additionally TBA was present in wells MW-2 and MW-3 at a concentration of 6.0 and 8.6 μg/L, respectively. The current analysis for MTBE is within the range of previously detected concentrations of MTBE produced using EPA Method 8020. Only MTBE has a MCL, listed at 13 μg/L.

Previously surveyed top-of-casing (TOC) elevations were used to construct a groundwater gradient map (Figure 2). Groundwater depths during this monitoring event ranged between 7.08 to 8.50 feet below the top of the casings. Depth to groundwater decreased in wells MW-1 and MW-2 (0.16 and 0.80 feet, respectively), but increased slightly (0.21 feet) in well MW-3. The direction of groundwater flow appears to be towards the east. Previous sampling reports available for review indicate that the historic groundwater flow direction has been to the northwest to north-northwest.

The reason for the change in flow direction is not known; however, Blaine provided notes (Appendix A) indicating that rainwater was only bailed from the well box for MW-3 and that the well apron was cracked. Infiltration of rainwater to the subsurface is thus a possibility. The average groundwater gradient was calculated to be 0.042 feet/foot for this monitoring event.

5.0 Recommendations

The following recommendations were generated from the available data discussed above:

- The next quarterly groundwater sampling event should occur in June 2003.
- A copy of this letter report should be forwarded to:

  Mr. Amir Gholami
  Alameda County Health Care Services Agency
  Environmental Protection Division
  1131 Harbor Bay Parkway, Suite 250
  Alameda, CA 94502-6577

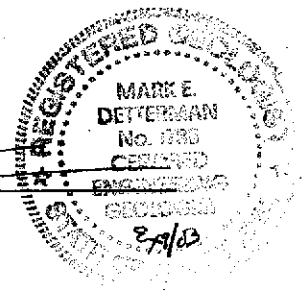
6.0 Limitations

Services performed by Blymyer Engineers have been provided in accordance with generally accepted professional practices for the nature and conditions of the work completed in the same or similar localities, at the time the work was performed. The scope of work for the project was conducted within the limitations prescribed by the client. This report is not meant to represent a legal opinion. No other warranty, expressed or implied, is made. This report was prepared for the sole use of our client.

Please call Mark Detterman at (510) 521-3773 with any questions or comments.

Sincerely,

Blymyer Engineers, Inc.



By: _____
Mark Detterman, C.E.G. 1788
Senior Geologist

And: _____
Michael S. Lewis
Vice President, Technical Services

Enclosures:

Table I:	Summary of Groundwater Elevation Measurements
Table II:	Summary of Groundwater Sample Hydrocarbon Analytical Results
Table III:	Summary of Groundwater Sample Fuel Oxygenate Analytical Results
Figure 1:	Site Location Map
Figure 2:	Site Plan and Groundwater Gradient, March 17, 2003
Appendix A:	*Wellhead Inspection Checklist* and *Well Development Data Sheets*, Blaine Tech Services, Inc., March 17, 2003
Appendix B:	*Standard Operating Procedures*, Blaine Tech Services, Inc.
Appendix C:	*Well Monitoring Data Sheets* and *Well Gauging Data*, Blaine Tech Services, Inc., March 17, 2003
Appendix D:	Analytical Laboratory Report, McCampbell Analytical, Inc., dated March 25, 2003

Tables

Table I, Summary of Groundwater Elevation Measurements
BEI Job No. 203004, Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Surface Elevation (feet)
MW-1	8/6/93	18.72	8.96	9.76
	1/12/96		8.55	10.17
	4/16/96		7.65	11.07
	7/15/96		8.76	9.96
	10/16/96		9.04	9.68
	12/15/98		8.38	10.34
	1/18/01		8.49	10.23
	4/25/01		8.24	10.48
	3/17/03*		8.08	10.64
MW-2	8/6/93	18.44	8.68	9.76
	1/12/96		8.24	10.20
	4/16/96		7.41	11.03
	7/15/96		8.45	9.99
	10/16/96		8.73	9.71
	12/15/98		8.05	10.39
	1/18/01		8.24	10.20
	4/25/01		7.88	10.56
	3/17/03*		7.08	11.36
MW-3	8/6/93	19.01	9.07	9.94
	1/12/96		8.65	10.36
	4/16/96		7.82	11.19
	7/15/96		8.88	10.13
	10/16/96		9.16	9.85
	12/15/98		8.45	10.56
	1/18/01		8.57	10.44
	4/25/01		8.29	10.72
	3/17/03*		8.50	10.51

Table I, Summary of Groundwater Elevation Measurements; continued

Notes: TOC = Top of casing
* = Initial data set collected under direction of Blymyer Engineers, Inc.
NM = Not measured

Elevations in feet above mean sea level

Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results
BEI Job No. 203004, Fiesta Beverage
966 89th Avenue, Oakland, California

Sample ID	Date	Modified EPA Method 8015 (μg/L)	EPA Method 8020 or 8021B (μg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-1	8/6/93	17,000	7.1	8.4	9.2	53	NA
	1/12/96	12,000	1,900	840	370	1,100	NA
	4/16/96	3,500	700	55	100	180	NA
	7/15/96	11,000	2,300	450	350	910	NA
	10/16/96	21,000	4,200	2,200	650	2,600	NA
	12/15/98	10,000	1,800	520	270	1,100	<350
	1/18/01	11,000 [a]	2,000	320	320	1,100	<120
	4/25/01	2,100 [a, c]	270	46	59	130	<5.0
	3/17/03*	2,200 [a]	260	19	36	54	NA [d]
MW-2	8/6/93	2,700	1.3	1.7	2.0	8.1	NA
	1/12/96	2,700	600	310	94	220	NA
	4/16/96	190	39	11	10	14	NA
	7/15/96	700	160	33	34	48	NA
	10/16/96	190	48	8.2	10	13	NA
	12/15/98	200	62	17	4.9	14	4.4 [b]
	1/18/01	300 [a]	74	26	7.3	21	7.3
	4/25/01	<50	4.5	2.2	0.57	1.9	<5.0
	3/17/03*	78 [a]	26	3.3	1.5	3.5	NA [d]
MW-3	8/6/93	5,200	2.1	2.9	3.6	17	NA
	1/12/96	4,500	280	180	120	470	NA
	4/16/96	5,400	370	340	160	580	NA
	7/15/96	1,800	200	220	66	250	NA
	10/16/96	2,000	340	140	100	300	NA
	12/15/98	1,400	200	39	72	150	<22

Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results
BEI Job No. 203004, Fiesta Beverage
966 89th Avenue, Oakland, California

Sample ID	Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-3 (cont.)	1/18/01	**1,800** [a]	**240**	**41**	**86**	**120**	<10
	4/25/01	**8,300** [a, c]	**300**	**330**	**200**	**1,100**	<20
	3/17/03*	**2,100** [a]	**240**	**78**	**10**	**280**	NA [d]
MCL		N/A	1.0	150	700	1,750	13
City of Oakland RBSL; Commercial / Industrial Land Use; Clayey Silt Default; Groundwater a Potential Source of Drinking Water; (Groundwater Ingestion)		N/A	1.0	150	700	1,000	20
RWQCB RBSL Commercial / Industrial Land Use; Groundwater Not a Potential Source of Drinking Water		500	46	130	290	13	1,800

Notes:
- µg/L = Micrograms per liter
- TPH = Total Petroleum Hydrocarbons
- MTBE = Methyl *tert*-butyl ether
- NA = Not analyzed
- <x = Less than the analytical detection limit (x)
- EPA = Environmental Protection Agency
- N/A = Not applicable
- MCL = Maximum Contaminant Level
- >Sol. = Greater than the solubility of pure product in water
- RWQCB = Regional Water Quality Control Board
- RBSL = Risk Based Screening Level
- [a] = Laboratory note indicates the unmodified or weakly modified gasoline is significant.
- [b] = Confirmed with EPA Method 8260.
- [c] = Groundwater samples for MW-1 and MW-3 suspected to have been switched (mismarked) in field.
- [d] = Analysis conducted by EPA Method 8260. See Table III.
- * = Initial data set collected under direction of Blymyer Engineers, Inc.

Bold results indicate detectable analyte concentrations.
Shaded results indicate analyte concentrations above the MCL.

Table III, Summary of Groundwater Sample Fuel Oxygenate Analytical Results
BEI Job No. 203004, Fiesta Beverage
966 89th Avenue, Oakland, California

Sample ID	Date	EPA Method 8260B				
		DIPE (μg/L)	ETBE (μg/L)	MTBE (μg/L)	TAME (μg/L)	TBA (μg/L)
MW-1	3/17/03	<0.50	<0.50	**10**	**8.3**	<5.0
MW-2	3/17/03	<0.50	<0.50	**13**	**2.1**	**6.0**
MW-3	3/17/03	<0.50	<0.50	**10**	**4.3**	**8.6**

Notes: DIPE = Di-isopropyl ether
ETBE = Ethyl *tert*-Butyl ether
MTBE = Methyl *tert*-butyl ether
TAME = *tert*-Amyl methyl ether
TBE = *tert*-Butyl alcohol
(μg/L) = Milligrams per liter

Figures

UNITED STATES GEOLOGICAL SURVEY 7.5' QUADS. "OAKLAND EAST, CA & SAN LEANDRO, CA", BOTH PHOTOREVISED 1981.

BLYMYER ENGINEERS, INC.

BEI JOB NO. 203004

DATE 3-19-03

0 1000 2000

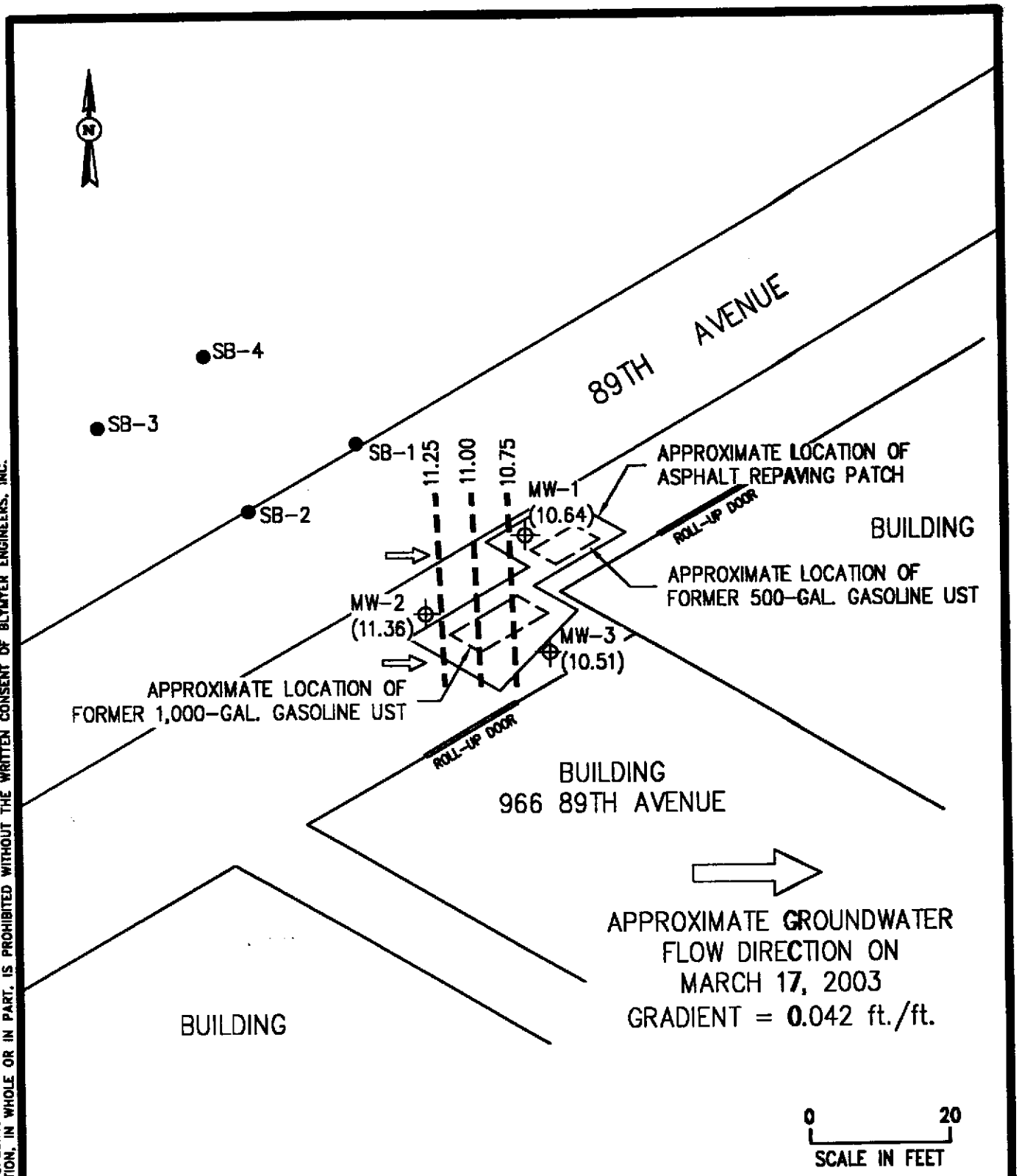
SCALE IN FEET

N

SITE LOCATION MAP

FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE 1



REFERENCE: "ALLCAL ENVIRONMENTAL GROUNDWATER GRADIENT MAP 08-23-01"

BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
203004	3-19-03

LEGEND

UST UNDERGROUND STORAGE TANK

GROUNDWATER MONITORING WELL

SOIL BORE LOCATION

SITE PLAN & GROUNDWATER GRADIENT MAP
MARCH 17, 2003
FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE 2

Appendix A

Wellhead Inspection Checklist
and *Well Development Data Sheets*
dated March 17, 2003
Blaine Tech Services, Inc.

WELL DEVELOPMENT DATA SHEET

Project #: 030317-BA1	Client: BLYMYER ENGINEERS, INC
Developer: BRIAN ALLGRAN	Date Developed: 3/17/03
Well I.D. MW-1	Well Diameter: (circle one) (2) 3 4 6 ___
Total Well Depth: Before 17.63 After 14.43	Depth to Water: Before 8.08 After 8.41
Reason not developed:	If Free Product, thickness:
Additional Notations:	

Volume Conversion Factor (VCF):	Well dia.		VCF
$(12 \times (d^2/4) \times \pi) / 231$	2"	=	0.16
where	3"	=	0.37
12 = in / foot	4"	=	0.65
d = diameter (in.)	6"	=	1.47
π = 3.1416	10"	=	4.08
231 = in 3/gal	12"	=	6.87

1.5	X	10	=	15
1 Case Volume		Specified Volumes		gallons

Purging Device: Bailer ☐ Electric Submersible ☐
Middleburg ☒ Suction Pump ☐

Type of Installed Pump _____
Other equipment used _____

TIME	TEMP (F)	pH	Cond. (mS or (µS))	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
0958	BEGAN	SURGING	WELL			
1017	SURGED	10 MIN	- BEGAN	PURGE W/	MIDDLEBURG	PUMP
1027	59.7	6.8	771.9	>1000	1.5	silty gray / coarse sand
1030	59.3	7.6	772.1	>1000	3.0	"
1036	REMOVED PUMP -	PUMP CLOGGED + BROKEN -				PREPARED BACKUP PUMP
1045	RESUMED PURGE					
1049	59.6	7.2	767.1	>1000	4.5	silty gray / coarse sand
1051	59.9	7.1	774.0	>1000	6.0	very cloudy gray w/ coarse sand
1053	59.6	7.1	787.0	>1000	7.5	"
1056	59.2	7.2	773.9	>1000	9.0	very cloudy gray / mild odor w/ sand particles
1059	59.9	7.1	766.1	>1000	10.5	"
1059	OBSERVATION - PUMP SINKS INTO 14 INCHES OF LARGE SAND PARTICLES - TOO LARGE					
	TO ENTER SCREEN W/ PUMP CHECK VALVE - HARD BOTTOM MAY NOT BE ACHIEVABLE					
Did Well Dewater? NO	If yes, note above.			Gallons Actually Evacuated:		Total 15 gallons

WELL DEVELOPMENT DATA SHEET

Well I.D. MW-1	PAGE 2 OF 2
Project #: 030317-BA1	Client: BLYMYER ENGINEERS, INC

TIME	TEMP (F)	pH	Cond. (mS or (µS))	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1103	60.4	7.1	763.5	>1000	12.0	very cloudy gray / mild odor w/ sand particles
1106	60.7	7.1	766.4	>1000	13.5	"
1109	60.0	7.3	764.3	926	15.0	cloudy gray / mild odor w/ sand particles
1120	UNABLE TO ACHIEVE HARD BOTTOM - WELL APPEARS TO HAVE FILLED W/ COARSE					
	SAND + GRAVEL 1-3 mm IN DIAMETER, TOO LARGE TO ENTER MB					
	CHECK VALVE. CONFIRMED W/ TEFLON BAILER.					

WELLHEAD INSPECTION CHECKLIST

Client Blymyer Engineers, Inc Date 3/17/03

Site Address 966 89th St, Oakland CA

Job Number 030317-BA1 Technician Brian Allord

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)	Repair Order Submitted
MW-1				~~X~~ No	~~X~~ No	X		
MW-2		X	X	X	X	X		
MW-3				X	X			

NOTES: (MW-2) Bolt tab broken / Bolt missing / Bolt/Tab stripped / Toc too close to annular seal / Apron cracked (MW-1) Well possibly damaged at screen - small gravel entering well - unable to find hard bottom during development / Apron cracked / No Lock - cap should be replaced if needed.

Appendix B

Standard Operating Procedures

Blaine Tech Services, Inc.

SUMMARY OVERVIEW OF

STANDARD OPERATING PROCEDURES

FOR THE ROUTINE MONITORING OF GROUNDWATER WELLS

APPLIES TO WELLS WHICH ARE SAMPLED AND ANALYZED
FOR COMPOUNDS ASSOCIATED WITH
PETROLEUM FUELS,
HEAVY METALS,
CHLORINATED SOLVENTS AND
PRIORITY POLLUTANTS
AND OTHER COMMON CONTAMINANTS
RELATED TO INDUSTRY, AGRICULTURE, COMMERCE AND LANDFILL OPERATIONS

REVISED AND REISSUED SEPTEMBER 10, 1995

1. OBJECTIVE INFORMATION

Blaine Tech Services, Inc. performs specialized environmental sampling and documentation as an independent third party. We intentionally limit the scope of our activities and are primarily engaged in the execution of technical assignments which generate objective information. To avoid conflicts of interest which might compromise our impartiality, Blaine Tech Services, Inc. makes no recommendations, does not participate in the interpretation of analytical results and performs no consulting of any kind.

2. SPECIFIC ASSIGNMENTS

All work is performed in accordance with the specific request, authorization and informed consent of the client who may be the property owner, the responsible party or the professional consultant overseeing work at the particular site. The scope of services is defined in individual one-time work orders or in contracts which reference compliance with regulatory requirements, particular client specifications and conformance with our own Standard Operating Procedures. Decisions about what work will be done, how the work will be done and the sequence of events are established in advance of sending personnel to the site. Except where particular procedures and equipment are specified in advance, the determination of how to best complete the individual tasks which comprise the assignment is left to the discretion of our field personnel.

3. INSPECTION AND GAUGING

Wells are inspected prior to evacuation and sampling. The condition of the wellhead will be checked and noted in the degree of detail requested by the client. Measurements include the depth to water

and the total well depth obtained with industry standard electronic sounders which are graduated in increments of tenths of a foot and hundredths of a foot. The surface of the water in each well is further inspected for the presence of immiscibles and any separate phase hydrocarbon layer is measured in situ with an electronic interface probe and confirmed by visual inspection of the separate phase material in a clear acrylic bailer.

Notations are entered in blank areas on forms provided for the collection of instrument readings and included in the specially prepared field notebook. Data collected in the course of our work may be presented in a TABLE OF WELL MONITORING DATA prepared by our personnel or passed to the client or consultant in their original form on the field data sheets.

4. ADEQUATE PURGE STANDARD

Minimum purge volumes and purge completion standards are established by the interested regulatory agency controlling groundwater monitoring in each particular jurisdiction and by the consultant reviewing technical work performed on the project for submission to the interested regulatory agency. Depth to water measurements are collected by our personnel prior to purging and minimum purge volumes are calculated anew for each well based on the height of the water column and the diameter of the well. Expected purge volumes are never less than three case volumes and are set at no less than four case volumes in several jurisdictions.

5. STABILIZED PARAMETERS

Completion standards include minimum purge volumes, but additionally require stabilization of normal groundwater parameters. Normal groundwater parameter readings include electrical conductivity (EC), pH, and temperature which are obtained at regular intervals during the evacuation process (no less than once per case volume) and at the time of sample collection.

Temperature is considered to have stabilized when successive readings do not fluctuate more than +/- 1 degree Celsius. Electrical conductivity is considered stable when successive readings are within 10%. pH is thought to be stable when successive readings remain constant or vary no more than 0.2 of a pH unit.

Additional completion standards are used in some jurisdictions. Turbidity of <50 NTU is such a completion standard.

6. DEWATERED WELLS

Normal evacuation removes no less than three case volumes of water from the well. However, less water may be removed in cases where the well dewaters and does not recharge.

In a typical accommodation procedure worked out between the consultants and the regulatory agency, a well which does not recharge to 80% of its original volume within two hours (and any additional time our personnel have reason to remain at the site) will require our personnel to return to the site within twenty four hours to sample the well. In such cases, our personnel return to the site within the prescribed time limit and collect sample material from the water which has flowed back into the well case

without regard to what percentage of the original volume this recharge represents.

There are also instances in which the client, consultant and regulators agree that it is better to collect certain types of water samples (for volatile constituents) from the available water remaining in a dewatered well rather than let the water stand for prolonged periods of times and risk the loss of volatile constituents. These arrangements are client specific and are contained in client directives to our personnel. These are carried as printed directives in reference binders in the sampling vehicle and are on file at our office for use by our project coordination personnel.

7. PURGEWATER CONTAINMENT

All purgewater evacuated from each groundwater monitoring well is captured and contained as are all fluids form the on-site decontamination of reusable apparatus (sounders, electric pumps and hoses etc.). Hazardous materials are placed in appropriately labeled DOT drums and left at the site for handling by a licensed hazardous waste hauler who will move the material to a TSDF. Non-hazardous purgewater will be drummed or discharged into an on-site treatment system. Non-hazardous effluent from petroleum industry sites is typically collected in vehicle mounted tanks and transported to the nearest refinery operated by the client.

8. EVACUATION

Wells are purged prior to sampling with a variety of evacuation devices. Small diameter wells which contain a relatively small volume of water are often hand bailed. Larger volumes of water found in deeper wells and larger diameter wells are removed with down hole electric submersible pumps or pneumatic purge pumps.

In a typical evacuation, the well is pumped with a Grundfos brand electrical pump deployed into the well on a long section of hose which is paid out form a reel assembly mounted on the sampling vehicle.

Specialized evacuation devices such as USGS Middleburg bladder pumps can be used in response to special circumstances, but unless specifically dictated by the client, consultant or regulator, the type of device used to evacuate the well will be selected based on its appropriateness and efficiency.

9. SAMPLE COLLECTION DEVICES

Irrespective of the type of device used to evacuate the well, samples are always collected with a specialized sampling bailer. Standard sampling bailers are constructed of either stainless steel or PTFE (Teflon®). Some clients request that their samples be obtained with disposable bailers which are made from a variety of materials (PTFE, polyethylene, PVC etc.) which are represented by the manufacturer to be adequate and appropriate for one time use applications after which the disposable bailer is discarded.

Regardless of the type of bailer used to collect sample material, the number of check valves the bailer contains or the presence or absence of a bottom emptying device, the water which is the sample material is promptly decanted into new sample containers in a manner which reduces the loss of volatile constituents and follows the applicable EPA standard for handling volatile organic and semi-volatile compounds.

The exceptions to this rule are samples which must be field filtered (i.e. for metals) prior to preservation or those that must be fixed or manipulated in the field (e.g. Winkler titration). Such samples are handled according to procedures described in STANDARD METHODS, the SW-846 and other texts.

10. SAMPLE CONTAINERS

Sample material is decanted directly from the sampling bailer into sample containers provided by the laboratory which will analyze the samples. The transfer of sample material from the bailer to the sample container conforms to specifications contained in the USEPA T.E.G.D. The type of sample container, material of construction, method of closure and filling requirements are specific to intended analysis. Chemicals needed to preserve the sample material are commonly already placed inside the sample containers by the laboratory or glassware vendor. The number of replicates is set by the laboratory.

11. QC BLANKS

QC blanks are collected in accordance with the regimen agreed upon by the interested parties and typically include trip blanks, duplicates and equipment blanks.

12. CHAIN OF CUSTODY RECORDS

All samples are labeled and logged on a standardized Chain of Custody form. The Blaine Tech Services, Inc., preprinted Chain of Custody form is a multi-page carbonless form, whereas client and laboratory forms are usually single pages which are replicated by making photocopies. All Chain of Custody forms follow standard EPA conventions set forth in USEPA SW-846 for recording the time, date and signature of the person collecting the samples, and go further to require paired time, date and responsible party entries each time the samples change hands.

According to this convention, each time the samples move from the custody of one person to another person, the Chain of Custody form must record the time, date and signature of the person relinquishing custody of the samples and the time data and signature of the person accepting custody of the samples.

In practice, all samples are continuously maintained in an appropriate cooled container while in our custody and until delivered to the laboratory under a standard Chain of Custody form. If the samples are taken charge of by a different party (such as another person from our office, or a courier who will transport the samples to the laboratory) prior to being delivered to the laboratory, appropriate release and acceptance entries must be made on the Chain of Custody form (time, date, and signature of the person releasing the samples followed by the time, date and signature of the person taking possession of the samples).

13. SAMPLE STORAGE

All sample containers are promptly placed in food grade ice chests for storage in the field and transport (direct or via our facility) to the analytical laboratory which will perform the intended analytical procedures. These ice chests contain quantities of ice as a refrigerant material. The samples are maintained in either an ice chest or a refrigerator until relinquished into the

custody of the laboratory or laboratory courier.

14. ICE

Temperature in the ice chest is lowered and maintained with ice. Our firm produces ice in a restaurant grade commercial ice maker which is supplied with deionized water which has been filtered and polished and is the same grade of water tanked on our sampling vehicles for use in decontamination procedures.

15. DOCUMENTATION CONVENTIONS

All sample containers are identified with a site designation and a discrete sample identification number specific to that particular groundwater well. Additional standard notations (e.g. time, date, sampler) are also made on the label.

Each and every sample container has a label affixed to it. In most cases these labels are generated by our office personnel and are partially preprinted. Labels can also be hand written by our field personnel. The site is identified (usually with a code specified by the client), as is the particular groundwater well from which the sample is drawn (e.g. MW-1, MW-2, S-1, etc.). The time at which the sample was collected and the initials of the person collecting the sample are handwritten onto the label.

Our representative adds the Blaine Tech Services, Inc. Sampling Event Number. This Sampling Event Number also appears on the Chain of Custody form and all other notebook pages and papers associated with the work done at the site on the particular day by this particular technician. The Sampling Event Number also becomes the number of the Blaine Tech Services, Inc. Sampling Report.

The Sampling Event Number is derived form the date on which the work was done, the specific employee who did the work and what the relationship of this particular assignment was to any other assignments performed on that day by this specific employee.

An example Sampling Event Number is 950910-B-2.

The first six digits indicate the date (yymmdd) which is 950910 for September 10, 1995. The alpha character indicates the letter assigned to the specific employee doing the work (e.g. the letter B is assigned to Mr. Richard Blaine). The final digit indicates that this was the second sampling assignment performed by Mr. Blaine on that particular date.

16. DECONTAMINATION

All equipment is brought to the site in clean and serviceable condition and is cleaned after use is each well and before subsequent use in any other well. Equipment is decontaminated before leaving the site.

The primary decontamination device is a commercial steam cleaner. Because high temperature water retains heat better than does a jet of steam and poses fewer hazards to the operator, we have our steam cleaners detuned by the manufacturer to produce hot water several degrees below the transition to live steam.

The steam cleaner / hot pressure washer is operated with high quality deionized water which is produced at our facility and tanked

on our sampling vehicle for use at remote sites.

Decontamination effluent is collected in the same onboard effluent tanks as are used to contain the effluent from purging the groundwater wells at the site. The decon effluent is handled in the same manner as groundwater from the well.

17. FREE PRODUCT SKIMMERS

A skimmer is a free product recovery device sometimes installed in wells with a free product zone on the surface of the water. The presence of the skimmer in the well often prevents normal well gauging and free product zone measurements. The Petro Trap brand 2.0" and 3.0" diameter skimmers which are used on some petroleum industry sites fall into the category of devices that obstruct the well to the extent of preventing normal gauging. Gauging at such sites is performed in accordance with specific directions from the professional consulting firm overseeing work at the site on behalf of the property owner or responsible party.

In cases where the consultant elects to have our personnel pull the skimmers out of the well and gauge the well, our personnel perform the additional task of draining the accumulated free product out of the Petro Trap before putting it back into the well. The recovered free product is measured and recorded. The notation on the amount of free product will subsequently be entered in the VOLUME OF IMMISCIBLES REMOVED column on the TABLE OF WELL GAUGING DATA in the next Blaine Tech Services, Inc. Sampling Report.

18. CERTIFIED LABORATORY

Samples are directed to analytical laboratories which have been certified by the California Department of Health Services as an authorized Hazardous Materials Testing Laboratory and that laboratory's name and DOHS HMTL number should be noted on the Chain of Custody form.

18. REPORTAGE

A typical groundwater monitoring assignment involves the work of several different firms and a series of reports are generated, beginning with a Blaine Tech Services, Inc. Sampling Report. The Sampling Report (whether in extended or abbreviated form) details the particulars of the work that was performed and either presents directly or references descriptions of the methodologies which were used.

An attachment to the Sampling Report is the Chain of Custody form which is a legal document which records that transfer of the samples from Blaine Tech Services, Inc. to the analytical laboratory which will analyze the samples. The laboratory completes its work and issues its own Certified Analytical Report presenting the results of the analyses they conducted. Both our Sampling Report and the laboratory's Analytical Report deal with the objective information. Neither the Sampling Report nor the Analytical Report interprets the data being reported.

Interpretations are provided by professional geologists and engineers who are working as environmental consultants. The consultant reviews the measurements made by our field personnel and plots an updated groundwater gradient map. The most recent analytical results are compared to earlier results to establish trends and information about the presence of various compounds in the groundwater. Anomalous data are examined

with reference to our field data sheets to see if our notes indicate changed site conditions.

In general, the consultant is charged with making sense of the objective information and deciding what it may mean to the property owner and to the people to the State of California. The consultant signs off on is or her review of the objective information, makes whatever recommendations are appropriate and submits the assembled package of related documents to the regulatory agency on behalf of the property owner or responsible party.

The individual reports from Blaine Tech Services, Inc. and the analytical laboratory are distinct objective information documents, linked together by the Chain of Custody. In contrast, groundwater gradient maps require professional judgements and adjustments and are, therefore, within the domain of the professional consultant. Any professional evaluations or recommendation are always made by the consultant under separate cover.

20. FIELD PERSONNEL

All Blaine Tech Services, Inc. field personnel are required to have 40 hours of initial training in Hazardous Waste Operations and Emergency Response per 29 CFR 1910. 120 with 8-hour annual refresher courses. They are also given an 8-hour BATT course in refinery safety orientation. They receive several days of on-the-job-training and are given additional in-house training which included study of all the applicable Codes of Safe Practices form our Injury and Illness Prevention Program, review of the written Hazard Communication Program, familiarization with our written Drug Alcohol Free Work Place Policy and orientation on the Blaine Tech Services, Inc. Comprehensive Quality Assurance Program.

Field personnel also receive 29 CFR 1910 Supervisor Training to better prepare them to establish safe work sites at remote locations and supervise their own work, including compliance with site specific Site Safety Plans (SSP). Client requirement binders and Standard Operating Procedures are also provided. Blaine Tech Services, Inc. Policies and extensive in house training materials covering Basics and Diverse Sampling Assignments are included in advance employee training.

Blaine Tech Services, Inc. field personnel routinely commence work at OSHA level D and can upgrade to appropriate levels of additional protection as needed. They maintain their personal protective equipment in accordance with OSHA requirements and the specific mandates of our Respiratory Protection Program. All field personnel are trained and expected to comply with the requirements of any site specific Safety Plan which is in effect at any given site. Our personnel are prepared and able to follow the directions of any Site Safety Officer (SSO) administering the Site Safety Plan and, in the absence of an SSO, can apply the pertinent provisions of the SSP to themselves and to other Blaine Tech Services, Inc. personnel.

21. WORK ORIENTATION

Blaine Tech Services, Inc. field personnel are chosen from applicants who usually have bachelors' degrees in the sciences, environmental studies or related fields. People from the observational sciences (like botanists) often do better field sampling than young engineers who want to learn consulting (and are encouraged to find work

with a good consulting firm). We notice that we employ a disproportionate number of people with degrees in fire science.

The academic concentration, however, has proven less important than the broader aptitude, durability and willingness of the applicant to deal with the range of problems which attend executing exacting procedures in a noisy workplace largely unprotected from sun, wind and rain.

Put simply, there is a lot of physical work that surrounds the science. Those who succeed at field sampling are those who can manage the physical work, handle emergencies and make field repairs without losing track of the particular requirements of the procedure they are performing.

22. PLAIN BUT IMPORTANT

Blaine Tech Services, Inc. has concentrated on providing high quality environmental sampling and documentation for well over a decade. During that time we have contributed mechanical and procedural innovations, helped establish higher quality and performance standards and have assisted in the replacement of inefficient sole-source-vendor monopolies with the new practice of separating projects into identifiable modules in which professional, technical and contractor functions are evaluated, bid and awarded individually – on the basis of price and actual performance.

Real as these advances are, sampling remains unglamorous and even misunderstood. Some engineers have expressed the view that field sampling is such a menial activity that it may as well be performed by their newest employees who are paying their dues before being allowed to do *real* work such as data interpretation, computer modeling, and the design of remediation systems.

We assert the contrary view, that sample collection is at least as important as sample analysis in the laboratory. This is based on the fact that no amount of care in the laboratory can – retroactively – put back into a sample, the integrity and quality that has been lost by indifferent sample collection. It can even be argued that objective scientific information is ***more credible*** when it is produced by people who are wholly impartial and really have no interest in any particular outcome.

Blaine Tech Services, Inc. exists because there is technical work which needs to be done that is neither glamorous nor highly remunerative, but is still important enough that it needs to be done correctly.

Any questions can be directed to our senior project coordinator, Mr. Kent Brown who can be reached at: (408) 573-0555.

Select voice mail extension number 203.

WELL GAUGING DATA

Project # 030317-BA1 Date 3/17/03 Client BLYMYER ENGINEERS, INC

Site FORMER FIESTA BEVERAGE 966 89th St, OAKLAND CA

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC	
MW-1	2					8.08	17.63	TOC	
MW-2	2					7.08	21.75	"	
MW-3	2					8.50	24.97	"	

WELL MONITORING DATA SHEET

Project #: 030317-BA1	Client: BLYMYER ENGINEERS INC
Sampler: BRIAN ALLORD	Start Date: 3/17/03
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 14.43	Depth to Water: 8.08 AT SAMPLING
Before: 17.63 After: 14.43	Before: 8.08 After: 8.41
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

Bailer
Disposable Bailer
(Middleburg)
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other ____

Sampling Method: Bailer
(Disposable Bailer)
Extraction Port
Dedicated Tubing
Other: ____

TO STABILIZATION
____(Gals.) X MW. 3 = ____
Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or µS)	Turbidity (NTU)	Gals. Removed	Observations
	SAMPLED AFTER RE-DEVELOPMENT - NO ADDITIONAL					
	CASE VOLUMES TAKEN - SEE DEVELOPMENT DATA					
		SHEET FOR PARAMETERS				

Did well dewater? Yes (No) Gallons actually evacuated: 15

Sampling Time: 1253 Sampling Date: 3/17/03

Sample I.D.: MW-1 Laboratory: McCAMPBELL

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Other: FUEL OXYGENATES (8260)

Equipment Blank I.D.: @ Time Duplicate I.D.:

Analyzed for: TPH-G BTEX MTBE TPH-D Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 030317-BA1	Client: BLYMYER ENGINEERS, INC
Sampler: BRIAN ALLORN	Start Date: 3/17/03
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth: 21.75	Depth to Water: 7.08
Before: After:	Before: After:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): YSI HACH

Purge Method:

- Bailer
- Disposable Bailer
- (Middleburg)
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other_____

Sampling Method: Bailer

- (Disposable Bailer)
- Extraction Port
- Dedicated Tubing
- Other: _____

TO STABILIZATION
2.3 (Gals.) X MW. 3 = 6.9
Gals.

Well Diameter	Multiplier	Well Diameter	Multiplier
1"	0.04	4"	0.65
2"	0.16	6"	1.47
3"	0.37	Other	radius² * 0.163

Time	Temp. (°F or °C)	pH	Conductivity (mS or (µS))	Turbidity (NTU)	Gals. Removed	Observations
1200	66.0	7.4	691.3	646	2.5	cloudy gray
1203	64.1	8.0	665.8	>1000	5.0	very cloudy gray
1209	64.2	7.9	672.3	856	7.5	cloudy gray

Did well dewater? Yes (No)	Gallons actually evacuated: 7.5
Sampling Time: 1212	Sampling Date: 3/17/03
Sample I.D.: MW-2	Laboratory: McCAMPBELL
Analyzed for: (TPH-G BTEX) MTBE TPH-D	Other: FUEL OXYGENATES (8260)
Equipment Blank I.D.: @ Time	Duplicate I.D.:
Analyzed for: TPH-G BTEX MTBE TPH-D	Other:

D.O. (if req'd):	Pre-purge:	mg/L	Post-purge:	mg/L
ORP (if req'd):	Pre-purge:	mV	Post-purge:	mV

Appendix D

Analytical Laboratory Report
dated March 25, 2003
McCampbell Analytical, Inc.

McCampbell Analytical Inc.
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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: #030317-BAI; Former Fiesta Beverage	Date Sampled: 03/17/03
		Date Received: 03/18/03
	Client Contact: Mark Detterman	Date Reported: 03/25/03
	Client P.O.:	Date Completed: 03/25/03

WorkOrder: 0303291

March 25, 2003

Dear Mark:

Enclosed are:

1). the results of 3 analyzed samples from your **#030317-BAI; Former 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,

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
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Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: #030317-BAI; Former Fiesta Beverage	Date Sampled: 03/17/03
		Date Received: 03/18/03
	Client Contact: Mark Detterman	Date Extracted: 03/20/03-03/21/03
	Client P.O.:	Date Analyzed: 03/20/03-03/21/03

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0303291

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	2200,a	---	260	19	36	54	10	102
002A	MW-2	W	78,a	---	26	3.3	1.5	3.5	1	97.9
003A	MW-3	W	2100,a	---	240	78	110	280	10	97.2
Reporting Limit for DF =1; ND means not detected at or above the reporting limit		W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
		S	NA	NA	NA	NA	NA	NA	1	mg/Kg

*water and vapor samples are reported in µg/L, soil and sludge samples in mg/kg, wipe samples in µg/wipe, and TCLP extracts in µg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+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?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical Inc.
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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: #030317-BAI; Former Fiesta Beverage	Date Sampled: 03/17/03
		Date Received: 03/18/03
	Client Contact: Mark Detterman	Date Extracted: 03/22/03-03/25/03
	Client P.O.:	Date Analyzed: 03/22/03-03/25/03

Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0303291

Lab ID	0303291-001B	0303291-002B	0303291-003B		Reporting Limit for DF =1	
Client ID	MW-1	MW-2	MW-3			
Matrix	W	W	W			
DF	1	1	1		S	W
Compound	**Concentration**				**ug/kg**	**µg/L**
Diisopropyl ether (DIPE)	ND	ND	ND		NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND		NA	0.5
Methyl-t-butyl ether (MTBE)	10	13	10		NA	0.5
tert-Amyl methyl ether (TAME)	8.3	2.1	4.3		NA	0.5
t-Butyl alcohol (TBA)	ND	6.0	8.6		NA	5.0
Surrogate Recoveries (%)						
%SS:	93.4	109	109			
Comments						

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~2 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Cm

Matrix: W WorkOrder: 0303291

EPA Method: SW8021B/8015Cm	Extraction: SW5030B			BatchID: 6212			Spiked Sample ID: N/A			
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
TPH(gas)	N/A	60	N/A	N/A	N/A	103	103	0.179	80	120
MTBE	N/A	10	N/A	N/A	N/A	86.5	83.9	3.13	80	120
Benzene	N/A	10	N/A	N/A	N/A	97.3	103	5.93	80	120
Toluene	N/A	10	N/A	N/A	N/A	96.6	102	5.53	80	120
Ethylbenzene	N/A	10	N/A	N/A	N/A	98	103	5.29	80	120
Xylenes	N/A	30	N/A	N/A	N/A	100	103	3.28	80	120
%SS:	N/A	100	N/A	N/A	N/A	88.4	91.9	3.90	80	120

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

McCampbell Analytical Inc.
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

QC SUMMARY REPORT FOR SW8260B

Matrix: W WorkOrder: 0303291

EPA Method: SW8260B	Extraction: SW5030B				BatchID: 6203			Spiked Sample ID: N/A		
Compound	Sample	Spiked	MS*	MSD*	MS-MSD*	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	Low	High
tert-Amyl methyl ether (TAME)	N/A	10	N/A	N/A	N/A	101	100	0.701	70	130
Methyl-t-butyl ether (MTBE)	N/A	10	N/A	N/A	N/A	99.8	94.8	5.08	70	130
Diisopropyl ether (DIPE)	N/A	10	N/A	N/A	N/A	101	98.1	2.69	70	130
Ethyl tert-butyl ether (ETBE)	N/A	10	N/A	N/A	N/A	92.8	91.9	0.914	70	130
%SS1:	N/A	100	N/A	N/A	N/A	98.3	97.2	1.09	70	130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.
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% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS – MSD) / (MS + MSD) * 2.

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McCampbell Analytical Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0303291

Client:
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395

TEL: (510) 521-3773
FAX: (510) 865-2594
ProjectNo: #030317-BAI; Former Fiesta Beverage
PO:

Date Received: **3/18/03**
Date Printed: **3/18/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests <>	8021B/8015	SW8260B
0303291-001	MW-1	Water	3/17/03 12:53:00 PM		B	A	B
0303291-002	MW-2	Water	3/17/03 12:12:00 PM			A	B
0303291-003	MW-3	Water	3/17/03 12:42:00 PM			A	B

Prepared by: Maria Venegas

Comments:

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.

DEIA

0303241

BLAINE
TECH SERVICES, INC.

1680 ROGERS AVENUE
SAN JOSE, CALIFORNIA 95112-1105
FAX (408) 573-7771
PHONE (408) 573-0555

CHAIN OF CUSTODY BTS # 030317-BAI

CLIENT: Blymyer Engineers, Inc.

SITE: Former Fiesta Beverage
966 89th Avenue
Oakland, CA

C = COMPOSITE ALL CONTAINERS

CONDUCT ANALYSIS TO DETECT

LAB: McCampbell DHS #

ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA ☐ RWQCB REGION ____
☐ LIA
☐ OTHER

SPECIAL INSTRUCTIONS

Invoice and Report to : Blymyer Engineers, Inc.
Attn: Mark Detterman
EDF Format Required.

SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL	TPH-G (8015)	BTEX (8020)	Oxygenates (8260)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
+ MW-1	3/17	1253	W	6	X	X	X				
+ MW-2	"	1212	"	"	X	X	X				
+ MW-3	"	1242	"	"	X	X	X				

ICE/T ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____
PRESERVATION APPROPRIATE ✓
CONTAINERS ✓
PRESERVED IN LAB ____

VOAS | O&G | METALS | OTHER

RESULTS NEEDED NO LATER THAN: As contracted

SAMPLING COMPLETED	DATE	TIME
	3/17/03	1330

SAMPLING PERFORMED BY: Brian Allgaw

	DATE	TIME		DATE	TIME
RELEASED BY			RECEIVED BY		
				3-18-03	1100
RELEASED BY			RECEIVED BY		
	3-18-03	1130	Matilda #251	03/18/03	14:00 PM
RELEASED BY			RECEIVED BY		
Matilda #251	3-18-03	15:50 PM		3/18/03	

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	