LETTER OF TRANSMITTAL

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

RO 314

DATE January 16, 2004	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

Alameda County
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COPY TO: File
Mr. Ted Walbey, Fiesta Beverage

SIGNED: Mark Detterman

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BLYMYER
ENGINEERS, INC.

January 6, 2004
BEI Job No. 203004

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

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

Dear Mr. Walbey:

This letter documents the Fourth Quarter 2003 groundwater monitoring event at the subject site (Figure 1). This is the fourth 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.

1829 CLEMENT AVENUE ALAMEDA, CA 94501•1395 PHONE 510•521•3773 FAX 510•865•2594

In November 1999, after obtaining appropriate permits, AllCal Property Services, Inc. (AllCal) installed four Geoprobe® soil bores 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 samples were 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 from the four Geoprobe® bores.

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 March 2003 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. On September 17, 2003, a workplan for a Geoprobe® investigation of the site was submitted to the ACHCSA. The intent is to attempt to determine the lateral and vertical extent of impacted soil and groundwater in order to better target the residual contamination in future remedial actions to be determined. A response has not been received to date.

2.0 Redevelopment of Well MW-1 and Well Maintenance

At the request of the ACHCSA, an attempt to redevelop well MW-1 was undertaken by Blaine Tech Services, Inc. (Blaine), on March 17, 2003. The wells are 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. 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 may have 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.

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 March 2003. 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. The well cap and lock for well MW-1 were replaced in September 2003.

3.0 Groundwater Sample Collection and Analytical Methods

Groundwater samples were collected from monitoring wells MW-1, MW-2, and MW-3 on December 15, 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 A. 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. Additionally Dissolved Oxygen (DO) was measured prior to purging groundwater. The measurement of DO can be useful in determining if an adequate supply of oxygen is present in groundwater to allow microbial growth. 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 B. 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 C.

4.0 Groundwater Sample Analytical Results and Groundwater Flow Data

Concentrations of some or all of the chemical compounds related to gasoline were present in each well this quarter. Well MW-1 contained TPH as gasoline, benzene, toluene, and total xylenes, all at concentrations significantly below the previous quarter's results. TPH as gasoline, benzene, toluene, ethylbenzene, and total xylenes were present in well MW-3 this quarter, all at concentrations significantly higher than the previous quarter's results. A similar significant change in analyte concentrations was also observed in wells MW-1 and MW-3 in April 2001, and at the time it was assumed that the groundwater samples were inadvertently switched. This again may have occurred, although this is now judged to be less likely. Conversely, the results may be indicative of the mobilization of residual contamination from soil to groundwater at the site. Only benzene was present in groundwater from well MW-2, at a moderately higher concentration than the previous quarter's result. All other analytes were non-detect in well MW-2, at good limits of detection.

The concentration of TPH as gasoline ranged from non-detect (well MW-2) to 2,400 micrograms per liter (μg/L) in well MW-3. Benzene ranged between a concentration of 12 μg/L (well MW-2) and 300 μg/L (well MW-3). Toluene was present up to a concentration of 120 μg/L, ethylbenzene up to 140 μg/L, and total xylenes to up 260 μg/L (all in well MW-3).

The concentration of benzene in groundwater exceeded the drinking water Maximum Contaminant Level (MCL) in all wells this quarter; 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 again analyzed 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 12 and 13 µg/L, and 2.7 and 9.0 µg/L, respectively. TBA was present just above the limits of detection in one well (MW-2; 5.2 µg/L). The analysis for MTBE is within the range of previously detected concentrations of MTBE produced using EPA Method 8020. Only MTBE has an MCL, listed at 13 µg/L. These concentrations also represent both increases and decreases in analyte concentrations from the previous quarter.

Microbial use of petroleum hydrocarbons as a food source is principally affected by the concentration of dissolved oxygen (DO) in the groundwater present at a site; it is the preferable electron acceptor for the biodegradation of hydrocarbons. DO was present in pre-purge groundwater in concentrations ranging from 1.1 milligrams per liter (mg/L) in monitoring well MW-1 to 1.6 mg/L in wells MW-2 and MW-3. During previous quarters it has ranged from 0.4 to 1.3 mg/L. Currently there does not appear to be a good correlation between the concentration of DO and the concentration of contaminants (lower concentrations of DO would be expected with higher contaminant concentrations as the DO is utilized by existing microbes, and visa versa). At present the variations in DO may perhaps be best explained as a seasonal variation in the concentration of DO, with higher DO concentrations in the winter months due to the infiltration of rainwater into the subsurface.

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 7.97 to 8.15 feet below the top of the casings. Depth to groundwater decreased an average of 0.82 feet. The direction of groundwater flow appears to be towards the northwest. Except for the First Quarter of 2003, previous sampling reports available for review indicate that the historic groundwater flow direction has been to the northwest to north-northwest. During the First Quarter of 2003 an unusual eastward directed gradient was documented. Blaine noted that rainwater was present and bailed only from the well box for MW-3 and that the well apron was cracked. Infiltration of rainwater to the subsurface was thus a possibility. The average groundwater gradient was calculated to be 0.038 feet/foot for the current 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 March 2004.

- Fuel oxygenate analysis by EPA Method 8260B should be eliminated. The data generated to date has been very consistent, and further quantification will not significantly add to the level of understanding at the site. Additionally, the concentration of MTBE can be

monitored using EPA Method 8021B for no additional cost, and the resultant concentration of MTBE can be used as a proxy for the approximate concentration of the remaining fuel oxygenates.

- 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

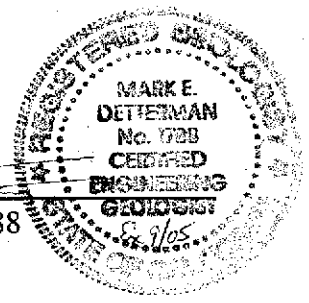
6.0 Limitations

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, December 15, 2003
Appendix A:	*Standard Operating Procedures*, Blaine Tech Services, Inc.
Appendix B:	*Well Monitoring Data Sheets* and *Well Gauging Data*, Blaine Tech Services, Inc., December 15, 2003
Appendix C:	Analytical Laboratory Report, McCampbell Analytical, Inc., dated December 23, 2003

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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
	6/23/03		8.63	10.09
	9/18/03		8.90	9.82
	12/15/03		8.15	10.57
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
	6/23/03		8.90	9.54
	9/18/03		8.61	9.83
	12/15/03		7.97	10.47

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-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
	6/23/03		9.05	9.96
	9/18/03		9.11	9.90
	12/15/03		8.03	10.98

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)					Field Measurement (mg/L)
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	DO
MW-1	8/6/93	17,000	7.1	8.4	9.2	53	NA	NA
	1/12/96	12,000	1,900	840	370	1,100	NA	NA
	4/16/96	3,500	700	55	100	180	NA	NA
	7/15/96	11,000	2,300	450	350	910	NA	NA
	10/16/96	21,000	4,200	2,200	650	2,600	NA	NA
	12/15/98	10,000	1,800	520	270	1,100	<350	NA
	1/18/01	11,000 [a]	2,000	320	320	1,100	<120	NA
	4/25/01	2,100 [a, c]	270	46	59	130	<5.0	NA
	3/17/03*	2,200 [a]	260	19	36	54	NA [d]	NA
	6/23/03	6,100 [a]	930	53	99	200	NA	0.4
	9/18/03	3,800 [a]	660	13	24	34	NA	0.4
	12/15/03	260 [a]	19	1.1	<0.5	1.5	NA	1.1
MW-2	8/6/93	2,700	1.3	1.7	2.0	8.1	NA	NA
	1/12/96	2,700	600	310	94	220	NA	NA
	4/16/96	190	39	11	10	14	NA	NA
	7/15/96	700	160	33	34	48	NA	NA
	10/16/96	190	48	8.2	10	13	NA	NA
	12/15/98	200	62	17	4.9	14	4.4 [b]	NA
	1/18/01	300 [a]	74	26	7.3	21	7.3	NA
	4/25/01	<50 [c]	4.5	2.2	0.57	1.9	<5.0	NA
	3/17/03*	78 [a]	26	3.3	1.5	3.5	NA [d]	NA
	6/23/03	160 [a]	51	1.6	1.2	1.8	NA	0.6
	9/18/03	<50	2.1	<0.5	<0.5	<0.5	NA	1.3
	12/15/03	<50	12	<0.5	<0.5	<0.5	NA	1.6

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)					Field Measurement (mg/L)
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE	DO
MW-3	8/6/93	**5,200**	**2.1**	**2.9**	**3.6**	**17**	NA	NA
	1/12/96	**4,500**	**280**	**180**	**120**	**470**	NA	NA
	4/16/96	**5,400**	**370**	**340**	**160**	**580**	NA	NA
	7/15/96	**1,800**	**200**	**220**	**66**	**250**	NA	NA
	10/16/96	**2,000**	**340**	**140**	**100**	**300**	NA	NA
	12/15/98	**1,400**	**200**	**39**	**72**	**150**	<22	NA
	1/18/01	**1,800** [a]	**240**	**41**	**86**	**120**	<10	NA
	4/25/01	**8,300** [a, c]	**300**	**330**	**200**	**1,100**	<20	NA
	3/17/03*	**2,100** [a]	**240**	**78**	**10**	**280**	NA [d]	NA
	6/23/03	<50	**2.5**	**0.60**	**0.69**	**1.4**	NA	0.7
	9/18/03	<50	<0.5	<0.5	<0.5	<0.5	NA	0.4
	12/15/03	**2,400**	**300**	**120**	**140**	**260**	NA	1.6
MCL		N/A	1.0	150	700	1,750	13	N/A
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	N/A
RWQCB RBSL Commercial / Industrial Land Use; Groundwater Not a Potential Source of Drinking Water		500	46	130	290	13	1,800	N/A

Table II, Summary of Groundwater Sample Analytical Results; continued

Notes:	µg/L	=	Micrograms per liter
	mg/L	=	Milligrams per liter
	TPH	=	Total Petroleum Hydrocarbons
	MTBE	=	Methyl *tert*-butyl ether
	DO	=	Dissolved oxygen
	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. First collection of groundwater samples after application of Hydrogen Peroxide on March 7, 2001.
	[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
	6/23/03	<2.5	<2.5	**8.0**	**6.4**	<25
	9/18/03	<2.5	<2.5	**8.5**	**5.3**	<25
	12/15/03	<0.5	<0.5	**12**	**9.0**	<5.0
MW-2	3/17/03	<0.50	<0.50	**13**	**2.1**	**6.0**
	6/23/03	<0.50	<0.50	**11**	**4.5**	<5.0
	9/18/03	<2.5	<2.5	**5.0**	**0.74**	<25
	12/15/03	<0.5	<0.5	**13**	**3.2**	**5.2**
MW-3	3/17/03	<0.50	<0.50	**10**	**4.3**	**8.6**
	6/23/03	<0.50	<0.50	**5.6**	**2.6**	<5.0
	9/18/03	<2.5	<2.5	**10**	**3.6**	<25
	12/15/03	<0.5	<0.5	**13**	**2.7**	<5.0

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

Figures

QUADRANGLE LOCATION

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

BLYMYER ENGINEERS, INC.

0 1000 2000

SCALE IN FEET

N

SITE LOCATION MAP

FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE 1

BEI JOB NO. 203004

DATE 3-19-03

89TH AVENUE

MW-1
(10.57')

MW-2
(10.47')

APPROXIMATE LOCATION OF
FORMER 1,000-GAL. GASOLINE UST

10.50'

10.75'

MW-3
(10.98')

APPROXIMATE LOCATION OF
FORMER 500-GAL.
GASOLINE UST

APPROXIMATE LOCATION OF
ASPHALT REPAVING PATCH

OOR

ROLL-UP DOOR

BUILDING

BUILDING
966 89TH AVENUE

APPROXIMATE GROUNDWATER
FLOW DIRECTION ON
DECEMBER 15, 2003
GRADIENT = 0.038 ft./ft.

0 20
SCALE IN FEET

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

BLYMYER ENGINEERS, INC.

LEGEND
UST UNDERGROUND STORAGE TANK
GROUNDWATER MONITORING WELL
GROUNDWATER FLOW DIRECTION

SITE PLAN & GROUNDWATER GRADIENT MAP
DECEMBER 15, 2003
FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE 2

BEI JOB NO.	DATE
203004	12-31-03

L:\Acad\2003dwg\203004\203004fig2c.dwg December 31, 2003 - 1:48PM LWITSIO

Appendix A

Standard Operating Procedures

Blaine Tech Services, Inc.

Blaine Tech Services, Inc.
Standard Operating Procedure

WATER LEVEL AND TOTAL WELL DEPTH MEASUREMENTS (GAUGING)

Routine Water Level Measurements

1. Establish that water or debris will not enter the well box upon removal of the cover.
2. Remove the cover using the appropriate tools.
3. Inspect the wellhead (see Wellhead Inspections).
4. Establish that water or debris will not enter the well upon removal of the well cap.
5. Unlock and remove the well cap lock (if applicable). If lock is not functional cut it off.
6. Loosen and remove the well cap. CAUTION: DO NOT PLACE YOUR FACE OR HEAD DIRECTLY OVER WELLHEAD WHEN REMOVING THE WELL CAP. WELL CAP MAY BE UNDER PRESSURE AND/OR MAY RELEASE ACCUMULATED AND POTENTIALLY HARMFULL VAPORS.
7. Verify and identify survey point as written on S.O.W.
   TOC: If survey point is listed as Top of Casing (TOC), look for the exact survey point in the form of a notch or mark on the top of the casing. If no mark is present, use the north side of the casing as the measuring point.
   TOB: If survey point is listed as Top of Box (TOB), the measuring point will be established manually. Place the inverted wellbox lid halfway across the wellbox opening and directly over the casing. The lower edge of the inverted cover directly over the casing will be the measuring point.
8. Put new Latex or Nitrile gloves on your hands.
9. Slowly lower the Water Level Meter probe into the well until it signals contact with water with a tone and/or flashing a light.
10. Gently raise the probe tip slightly above the water and hold it there. Wait momentarily to see if the meter emits a tone, signaling rising water in the casing. Gently lower the probe tip slightly below the water. Wait momentarily to see if the meter stops emitting a tone, signaling dropping water in the casing. Continue process until water level stabilizes indicating that the well has equilibrated.
11. While holding the probe at first contact with water and the tape against the measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on Well Gauging Sheet under Depth to Water column.
12. Recover probe, replace and tighten well cap, replace lock (if applicable), replace well box cover and tighten hardware (if applicable)

Routine Total Well Depth Measurements

1. Lower the Water Level Meter probe into the well until it lightens in your hands, indicating that the probe is resting at the bottom of well.
2. Gently raise the tape until the weight of the probe increases, indicating that the probe has lifted off the well bottom.

3. While holding the probe at first contact with the well bottom and the tape against the well measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on Well Gauging Sheet under Total Well Depth column.
4. Recover probe, replace and tighten well cap, replace lock (if applicable), replace well box cover and tighten hardware (if applicable).

Blaine Tech Services, Inc.
Standard Operating Procedure

WELL WATER EVACUATION (PURGING) WITH BTS 1.75" BLADDERLESS STAINLESS STEEL POSITIVE DISPLACEMENT PUMP

The BTS 1.75" Bladderless Stainless Steel Positive Displacement Purge Pump is modeled after the EPA approved USGS/Middleburg Positive Displacement Sampling Pump. It is suitable for purging wells with diameters greater than 2" at depths up to several hundred feet.

The pump is accuated with compressed air from an electric, oil-less air compressor mounted on the Sampling Vehicle. The air travels to the pump via a single hose. Water is pushed out of the pump and up a second hose to the surface. The rate of water removal is relatively slow and loss of volatiles is almost non-existent. There is only positive pressure on the water being purged. There is no impeller cavitation or suction acting on the water. The pump can be placed at any location in the well and can draw water from the very bottom of the well. The pump is virtually immune to the erosive effects of silt or lack of water that can destroy other types of pumps.

Purging with the BTS 1.75" Stainless Steel Positive Displacement Pump

1. Position pump hose reel over the top of the well.
2. Start the air compressor so that it can build pressure.
3. Connect the influent air hose and effluent water hose of the reel to the pump.
4. Gently unreel and lower the pump into the well to the desired depth, typically several feet off the well bottom. Use caution when contacting the well bottom.
5. Secure the hose reel.
6. Connect the effluent water line extension to the hose reel. Attach the extension to a graduated 5-gallon bucket or other receptacle.
7. Connect the control box air-line to the hose reel.
8. Turn the switch on the control box to the "on" position to commence purging.
9. Adjust water recharge duration and air pulse duration for maximum efficiency. Expect not more than 1.0 GPM when pumping from 0 – 100 feet below grade and not more than 0.5 GPM when pumping from depths greater than 100 feet below grade.
10. Upon removal of first casing volume, fill clean parameter cup with water.
11. Use the water in the cup to collect and record the required parameter measurements.
12. Continue purging until second casing volume is removed.
13. Collect parameter measurements.
14. Continue purging until third casing volume is removed.

15. Collect parameter measurements. If parameters are stable, stop purging. If parameters remain unstable, continue purging until stabilization occurs or the fifth casing volume is removed.
16. Upon completion of purging, disconnect the control box air-line and effluent water line extension from the hose reel, gently recover the pump and secure the reel. Sample the well as required.

Blaine Tech Services, Inc.
Standard Operating Procedure

SAMPLE COLLECTION FROM GROUNDWATER WELLS USING BAILERS

Sampling with a Bailer (Stainless Steel, Teflon or Disposable)

1. Put new Latex or Nitrile gloves on your hands.
2. Determine required bottle set.
3. Fill out sample labels completely and attach to bottles.
4. Arrange bottles in filling order and loosen caps (see Determine Collection Order below).
5. Attach bailer cord or string to bailer. Leave other end attached to spool.
6. Gently lower empty bailer into well until water is reached.
7. As bailer fills, cut cord from spool and tie end of cord to hand.
8. Gently raise full bailer out of well and clear of well head. Do not let the bailer or cord touch the ground. If a set of parameter measurements is required, go to step 9. If no additional measurements are required, go to step 11.
9. Fill a clean parameter cup, empty the remainder contained in the bailer into the sink, lower the bailer back into the well and secure the cord on the Sampling Vehicle. Use the water in the cup to collect and record parameter measurements.
10. Fill bailer again and carefully remove it from the well.
11. Slowly fill and cap sample bottles. Fill and cap volatile compounds first, then semi-volatile, then inorganic. Return to the well as needed for additional sample material.

    Fill 40-milliliter vials for volatile compounds as follows: Slowly pour water down the inside on the vial. Carefully pour the last drops creating a convex or positive meniscus on the surface. Gently screw the cap on eliminating any air space in the vial. Turn the vial over, tap several times and check for trapped bubbles. If bubbles are present, repeat process.

    Fill 1 liter amber bottles for semi-volatile compounds as follows: Slowly pour water into the bottle. Leave approximately 1 inch of headspace in the bottle. Cap bottle.

    Field filtering of inorganic samples using a stainless steel bailer is performed as follows: Attach filter connector to top of full stainless steel bailer. Attach 0.45 micron filter to connector. Flip bailer over and let water gravity feed through the filter and into the sample bottle. If high turbidity level of water clogs filter, repeat process with new filter until bottle is filled. Leave headspace in the bottle. Cap bottle.

    Field filtering of inorganic samples using a disposable bailer is performed as follows: Attach 0.45 micron filter to connector plug. Attach connector plug to bottom of full disposable bailer. Water will gravity feed through the filter and into the sample bottle. If high turbidity level of water clogs filter, repeat process with new filter until bottle is filled. Leave headspace in the bottle. Cap bottle.

12. Bag samples and place in ice chest.
13. Note sample collection details on well data sheet and Chain of Custody.

Appendix B

Well Monitoring Data Sheets* and *Well Gauging Data,
dated December 15, 2003
Blaine Tech Services, Inc.

WELLHEAD INSPECTION CHECKLIST

Client Blymyer Engineers Date 12-15-03

Site Address 966 89th St. Oakland

Job Number 031215-AC1 Technician AC

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							
* MW-2		X				*		
MW-3	X							

NOTES: * MW-2 missing 1 of 2 bolts

WELL GAUGING DATA

Project # 03215-Ac1 Date 12-15-03 Client Blymyer Engineers

Site 966 89th St. Oakland

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					8.15	14.50	TOC	
MW-2	2					7.97	24.10	↓	
MW-3	2					8.03	24.95	↓	

WELL MONITORING DATA SHEET

Project #: 031215-Acl	Client: Blymyer Engineers
Sampler: AC	Date: 12-15-03
Well I.D.: MW-1	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 14.50	Depth to Water (DTW): 8.15
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.42	

Purge Method: Bailer; (Disposable Bailer); Positive Air Displacement; Electric Submersible; Waterra; Peristaltic; Extraction Pump; Other_____

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

1 (Gals.) X 3 = 3 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
1006	13.1	6.8	809	761	1	cloudy
1008	13.0	6.7	765	>1000	2	cloudy/odor
1012	13.4	6.7	772	>1000	3	"

Did well dewater? Yes (No) Gallons actually evacuated: 3

Sampling Date: 12-15-03 Sampling Time: 1015 Depth to Water: 9.22

Sample I.D.: MW-1 Laboratory: Kiff CalScience Other (McCampbell)

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Oxygenates (5) Other: Fuel oxy's (8260)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	(Pre-purge):	1.1 mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 031215-Ac1	Client: Blymyer Engineers
Sampler: AC	Date: 12-15-03
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ____
Total Well Depth (TD): 24.10	Depth to Water (DTW): 7.97
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.19	

Purge Method: Bailer / (Disposable Bailer) / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other_____

Sampling Method: Bailer / (~~Disposable Bailer~~) / Extraction Port / Dedicated Tubing / Other: _____

3	(Gals.) X	3	=	9	Gals.
1 Case Volume		Specified Volumes		Calculated Volume	

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	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0939	13.2	6.6	801	168	3	clear/slight odor
0943	13.2	6.6	782	143	6	"
0946	13.4	6.6	752	150	9	"

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Date: 12-15-03 Sampling Time: 0950 Depth to Water: 10.95

Sample I.D.: MW-2 Laboratory: Kiff CalScience Other (McCampbell)

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Oxygenates (5) Other: Fuel oxy's (8260)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	1.6 mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

WELL MONITORING DATA SHEET

Project #: 031215-Acl	Client: Blymyer Engineers
Sampler: AC	Date: 12.15.03
Well I.D.: MW-3	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth (TD): 24.95	Depth to Water (DTW): 8.03
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	D.O. Meter (if req'd): (YSI) HACH
DTW with 80% Recharge [(Height of Water Column x 0.20) + DTW]: 11.41	

Purge Method: Bailer / (Disposable Bailer) / Positive Air Displacement / Electric Submersible / Waterra / Peristaltic / Extraction Pump / Other ____

Sampling Method: Bailer / ~~Disposable Bailer~~ / Extraction Port / Dedicated Tubing / Other: ____

3 (Gals.) X 3 = 9 Gals.
1 Case Volume | Specified Volumes | Calculated Volume

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	Cond. (mS or (µS))	Turbidity (NTUs)	Gals. Removed	Observations
0915	14.7	6.5	1051	96	3	clear/odor
0918	14.9	6.5	979	151	6	"
0921	15.1	6.4	968	118	9	"

Did well dewater? Yes (No) Gallons actually evacuated: 9

Sampling Date: 12.15.03 Sampling Time: 0925 Depth to Water: 10.29

Sample I.D.: MW-3 Laboratory: Kiff CalScience Other (McCampbell)

Analyzed for: (TPH-G) (BTEX) MTBE TPH-D Oxygenates (5) Other: Fuel oxy's (8260)

EB I.D. (if applicable): @ Time Duplicate I.D. (if applicable):

Analyzed for: TPH-G BTEX MTBE TPH-D Oxygenates (5) Other:

D.O. (if req'd):	Pre-purge:	1.6 mg/L	Post-purge:	mg/L
O.R.P. (if req'd):	Pre-purge:	mV	Post-purge:	mV

Appendix C

Analytical Laboratory Report
dated December 23, 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: #031215-ACI	Date Sampled: 12/15/03
		Date Received: 12/17/03
	Client Contact: Mark Detterman	Date Reported: 12/23/03
	Client P.O.:	Date Completed: 12/23/03

WorkOrder: 0312342

December 23, 2003

Dear Mark:

Enclosed are:

1). the results of 3 analyzed samples from your **#031215-ACI 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.
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.	Client Project ID: #031215-ACI	Date Sampled: 12/15/03
		Date Received: 12/17/03
1829 Clement Avenue	Client Contact: Mark Detterman	Date Extracted: 12/19/03-12/21/03
Alameda, CA 94501-1395	Client P.O.:	Date Analyzed: 12/19/03-12/21/03

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0312342

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1	W	260,a	---	19	1.1	ND	1.5	1	---#
002A	MW-2	W	ND	---	12	ND	ND	ND	1	111
003A	MW-3	W	2400,a	---	300	120	140	260	5	106
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 and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/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.	Client Project ID: #031215-ACI	Date Sampled: 12/15/03
1829 Clement Avenue		Date Received: 12/17/03
Alameda, CA 94501-1395	Client Contact: Mark Detterman	Date Extracted: 12/19/03
	Client P.O.:	Date Analyzed: 12/19/03

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

Extraction Method: SW5030B | Analytical Method: SW8260B | Work Order: 0312342

Lab ID	0312342-001B	0312342-002B	0312342-003B	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
tert-Amyl methyl ether (TAME)	9.0	3.2	2.7	NA	0.5
t-Butyl alcohol (TBA)	ND	5.2	ND	NA	5.0
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)	12	13	13	NA	0.5
Surrogate Recoveries (%)					
%SS:	101	101	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.

surrogate diluted out of range or surrogate coelutes with another peak.

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: 0312342

EPA Method: SW8021B/8015Cm Extraction: SW5030B BatchID: 9740 Spiked Sample ID: 0312335-001A

	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(btex)£	ND	60	106	105	0.904	99.6	103	3.48	70	130
MTBE	ND	10	95.9	112	15.2	96.9	99.3	2.49	70	130
Benzene	ND	10	101	102	1.15	100	100	0	70	130
Toluene	ND	10	98.1	99.8	1.74	96.4	96.4	0	70	130
Ethylbenzene	ND	10	106	107	0.643	105	105	0	70	130
Xylenes	ND	30	100	100	0	95.7	96	0.348	70	130
%SS:	106	100	95.9	97.1	1.25	98.9	97.6	1.24	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.

% 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.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

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.

McCampbell Analytical Inc.
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QC SUMMARY REPORT FOR SW8260B

Matrix: W WorkOrder: 0312342

EPA Method: SW8260B	Extraction: SW5030B	BatchID: 9750	Spiked Sample ID: 0312336-011A

	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)	ND	10	84.8	83.8	1.14	97.1	99.9	2.84	70	130
t-Butyl alcohol (TBA)	ND	50	82.3	79.3	3.77	99.4	100	0.935	70	130
Diisopropyl ether (DIPE)	ND	10	115	113	1.79	100	101	0.659	70	130
Ethyl tert-butyl ether (ETBE)	ND	10	101	101	0	96.5	97	0.476	70	130
Methyl-t-butyl ether (MTBE)	ND	10	103	102	0.406	94.3	95.4	1.14	70	130
%SS1:	106	100	102	103	0.167	99.5	99.1	0.447	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.

% 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.

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.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0312342

Report to:
Mark Detterman
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395
TEL: (510) 521-3773
FAX: (510) 865-2594
ProjectNo: #031215-ACI
PO:

Bill to:
Consolidated Freightways c/o: Blymye
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395

Requested TAT: **5 days**
Date Received: **12/17/03**
Date Printed: **12/17/03**

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0312342-001	MW-1	Water	12/15/03 10:15:00		B	A	A												
0312342-002	MW-2	Water	12/15/03 9:50:00		B	A													
0312342-003	MW-3	Water	12/15/03 9:25:00		B	A													

Test Legend:

1	5-OXYS_W	2	G-MBTEX_W	3	PREDF REPORT	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Melissa Valles

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.

Blaine

0312342

BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY BTS # 031215-AC1

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.

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SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H_2O	CONTAINERS TOTAL		C	TPH-G (8015)	BTEX (8020)	Oxygenates (8260)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
MW-1	12/15	1015	W	6	40 mL HCl		X	X	X				
MW-2	↓	0950	↓	↓	↓		X	X	X				
MW-3	↓	0925	↓	↓	↓		X	X	X				

ICE/t ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB
PRESERVATION: VOAs ✓ | O&G | METALS | OTHER

SAMPLING COMPLETED	DATE	TIME
	12-15-03	1030

SAMPLING PERFORMED BY: Aaron Costa

RESULTS NEEDED NO LATER THAN: As contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
Aaron Costa	12/17/03	0810	RCB dbt	12-17-03	0810
RCB dbt	12-17-03	0855		12/17/03	1450
	12/17	1300		12/17	13:00

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #