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Alameda County
Environmental Health

Fiesta Beverages
7150 Island Queen Dr.
Sparks, NV 89436

3/25, 2008

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

Re: Perjury Statement
Former Fiesta Beverages Facility
966 89th Avenue
Oakland, California
ACDEH Fuel Leak Site # RO0000314

Dear Mr Chan,

"I declare under penalty of perjury, that the information and / or recommendations contained in the attached proposal or report is true and correct to the best of my knowledge."

Ted Walbey, Owner

First Quarter 2008 Groundwater Monitoring Event

Former Fiesta Beverages Facility
966 89th Avenue
Oakland, California 94621
ACHCSA Fuel Leak Site # RO0000314

March 11, 2008
BEI Job No. 203004

Prepared for:

Mr. Ted Walbey
Fiesta Beverages
7150 Island Queen Dr.
Sparks, NV 89436

Prepared by:

Blymyer Engineers, Inc.
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Limitations

Services performed by Blymyer Engineers, Inc. have been provided in accordance with generally accepted professional practices for the nature and conditions of similar 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 the client, Fiesta Beverages.

Blymyer Engineers, Inc.

By:____________________________
Mark E. Detterman, CEG
Senior Geologist

PROFESSIONAL GEOLOGIST
MARK E. DETTERMAN
No. 1788
CERTIFIED ENGINEERING GEOLOGIST
8-9-09
STATE OF CALIFORNIA

And:____________________________
Michael S. Lewis, REA
Vice President, Technical Services

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1.0 Introduction and Background

In August 1990, one 500-gallon and one 1,000-gallon gasoline underground storage tanks (USTs) were removed from the subject site (Figures 1 and 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[7] 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 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 bgs. 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[7] 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[7] 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 by AllCal 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, Mr. Amir Gholami, was appointed by the ACHCSA. On September 17, 2003, a workplan for a Geoprobe[7] investigation of the site was submitted to the ACHCSA. The intent was 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. Due to the lack of a response from the ACHCSA, on February 17, 2004, Blymyer Engineers issued a *Letter of Intent to Proceed: Geoprobe[7] Investigation*.

The *Fourth Quarter 2003 Groundwater Monitoring Event* report, dated January 6, 2004, recommended that analysis for fuel oxygenates by EPA Method 8260B be eliminated from the analytical program. It was reasoned that the data generated to date had been very consistent, and further quantification would not significantly add to the level of understanding at the site. Additionally, the concentration of methyl *tert*-butyl ether (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. Based on the lack of response from the ACHCSA, it has been presumed that this was found reasonable and acceptable.

On March 15, 2004, Blymyer Engineers issued a letter entitled *Recommendation for Reduction of Groundwater Monitoring* that provided additional rationale for decreasing the groundwater sampling interval from quarterly to semi-annually. It argued that generation of quarterly analytical data would not significantly improve the level of understanding of impacts to the subsurface at the site, and recommended a reduction of the sampling interval to semi-annual. Based on the lack of response from the ACHCSA, it has been presumed that this was found reasonable and acceptable.

On December 14, 2004, Blymyer Engineers issued to the ACHCSA the *Report on a Geoprobe® Subsurface Investigation* which documented the installation of nine Geoprobe® soil bores at the site. The work further refined the known lateral and vertical extent of soil impacted by the petroleum release at the site. Grab groundwater samples in the upgradient and the eastern cross-gradient directions defined all petroleum compounds in groundwater to concentrations below the San Francisco Bay Regional Water Quality Control Board (RWQCB) Environmental Screening Levels (ESLs). Grab groundwater samples in the downgradient and western cross-gradient directions were unable to define most petroleum compounds to concentrations below the RWQCB ESLs. The installation of additional permanent groundwater monitoring wells was recommended as appropriate at the site in order to allow for groundwater sampling from a "repeatedly accessed location". It was reasoned that data generated from these locations will assist in determining appropriate remedial actions, and in monitoring remedial progress.

On July 6, 2005, the new case manager for the ACHCSA, Mr. Barney Chan, issued the letter *Fuel Leak Case RO0000314* commenting on the December 14, 2004 report. The ACHCSA determined that the collection of additional data is needed to progress the site towards closure. The letter requested a workplan to clear well MW-1 of several feet of sediment due to the potential for groundwater gradient biasing, requested further definition of the groundwater and soil plumes through the installation of additional wells and soil bores, requested a conduit study, and requested a Feasibility Study and Remedial Action Plan.

Blymyer Engineers submitted the *Workplan for Remedial Investigation / Feasibility Study*, on October 10, 2005. The Workplan detailed the procedures for the collection of Remediation by Natural Attenuation (RNA) analytical parameters from existing wells as an initial phase of a Remedial Investigation / Feasibility Study (RI/FS), as well as the installation of four additional groundwater monitoring wells, and the destruction and reinstallation of groundwater monitoring well MW-1. On November 18, 2005, the ACHCSA issued the letter *Fuel Leak Case RO0000314* commenting on the Workplan. The ACHCSA requested the following:

- The addition of two wells at specified locations for further plume characterization,
- Use of a maximum of 10 feet of screen in the wells,
- Confirmation of the presence of MTBE by EPA Method 8260 if MTBE concentrations rose significantly, and
- Collection of the RNA parameters.

The ACHCSA requested confirmation that the additional wells would be added by December 19, 2005, and that a RI/FS report would be submitted by February 19, 2006. Confirmation that the additional wells would be included was provided by telephone in December 2005; however, permitting issues delayed installation of the wells. The *Remedial Investigation / Feasibility Study Report* (RI/FS Report), dated September 8, 2006, was submitted to ACHCSA on October 6, 2006.

The RI/FS report documented the destruction of well MW-1, the installation of replacement well MW-1R, and the installation of wells MW-4 through MW-9. The soil and groundwater data collected in the effort achieved vertical delineation, as well as upgradient, lateral, and downgradient delineation of all hydrocarbon compounds in soil and groundwater, with the exception of MTBE in groundwater. MTBE was delineated to below the MCL and the *non-drinking water* ESL goal for the compound, but was slightly above the *drinking water* goal. Because the site is in an area that is not known to extensively use groundwater as a drinking water source, the numeric remedial goals were predominantly compared to the *non-drinking water* ESL goals; however, the ACHCSA may ultimately apply *drinking water* ESL goals to remedial efforts at the site.

Higher concentrations of TPH as gasoline appear to be relatively isolated near the former source (MW-1, MW-1R, GP-5, and GP-2; the latter based on PID results only). The presence of slightly higher concentrations at GP-6 or GP-8 likely indicates lateral migration through the clay units in the vadose zone in very thin, interbedded coarser grained deposits with more permeability and porosity. A conduit survey indicated that, due to depth of burial, the utility corridors do not appear to be acting as significant conduits in the site vicinity for groundwater movement and therefore contaminant migration. A notable decrease in analyte concentrations in soil is apparent with increasing depth. Generic *non-drinking water* ESL goals for soil were not exceeded for any compound beneath approximately 12 feet bgs.

The distribution of nitrate, methane and dissolved oxygen indicate that the TPH as gasoline groundwater plume is undergoing anaerobic degradation. Specifically, the elevated concentrations of nitrate observed in perimeter wells MW-4 through MW-9, in comparison to the concentration of nitrate in plume core wells MW-1/1R, MW-2 and MW-3, where the concentration is reduced to essentially one-half of its perimeter levels, and the correspondingly high methane concentrations in the plume core area suggest that active anaerobic degradation is occurring. The source of nitrate is likely leaking sewer lines located along 89th Avenue.

For the site as a whole, the limited area of hydrocarbon degradation suggested by the RNA data, collectively with the laboratory notes indicating relatively unmodified gasoline range hydrocarbons are present in soil and groundwater samples, and the continued recontamination of groundwater documented by graphs depicted on Figures 10 through 13 of the *RI/FS Report*, appear to document a release that is undergoing anaerobic microbial degradation, that RNA is oxygen limited, has reached stability with the surrounding area, and will not progress significantly further without remedial efforts.

Six potential remedial options were evaluated for appropriateness at the site; monitored natural attenuation (MNA), groundwater pump and treat, enhanced insitu bioremediation (EIB), air sparging-vapor recovery (ASVR), dual phase extraction, and insitu chemical oxidation (ISCO). A combination of EIB and ISCO was selected as the most appropriate remedial technology for the site due to multiple factors. ISCO was selected for the vicinity of the former tank excavation and would consist of the injection of the commercial oxidation product RegenOx. Chemical oxidation of residual source soil and groundwater containing higher hydrocarbon concentrations is anticipated to eliminate potential residual free-phase hydrocarbons in the tank vicinity. EIB using Oxygen Releasing Compound Advanced (ORC Advanced) was selected for the larger area around and downgradient of the former tank location. Petroleum hydrocarbon compounds are recognized to degrade favorably and rapidly under aerobic (oxygen rich) conditions. To stimulate aerobic bacterial activity and increase the rate of biodegradation within the hydrocarbon plume, non-toxic inorganic chemicals (bionutrients) can be added to the groundwater that release oxygen, nitrogen and phosphate, such as ORC Advanced and bionutrient compounds (typically, nitrogen/phosphorus/potassium (NPK) fertilizer). At sites where stagnant hydrocarbon plumes are present, one or more of the essential bio-nutrient elements is commonly depleted, and natural attenuation of the hydrocarbon plume due to microbial activity ceases. By determining a site's "bio-needs," the missing elements can be injected into the hydrocarbon plume to boost bioactivity.

At the site, dissolved oxygen in groundwater is depleted to less than 1 mg/L, and based on available information the lack of dissolved oxygen is the limiting factor retarding current biological activity. For EIB, the supply of bio-nutrients is assessed prior to and during remediation. During the course of remediation, if nutrient concentrations are found to be inadequate, then further nutrient addition is performed.

On December 18, 2006, the ACHCSA issued a letter indicating that it was in agreement with the proposed plan of action, namely EIB with localized ISCO, using a combination of ORC Advanced and RegenOx, respectively. The December 18, 2006 letter requested an interim corrective action plan (ICAP) by January 19, 2007, and quarterly monitoring reports by January 30, and April 30, 2007. A request for deadline extension was later submitted to, and approved by, the ACHCSA. The *Interim Corrective Action Plan* was submitted on February 7, 2007, and was approved by the ACHCSA on May 4, 2007. A pre-remedial groundwater sampling event to determine pre-remedial bacterial populations in groundwater, in the event of a bacterial die-off related to remedial injections, occurred on April 27, 2007. Remedial activities began on May 22, 2007 with a volume test injection. The first injection of RegenOx occurred between June 4 and June 7, 2007, and the second event occurred on June 26 and 27, 2007. It was not possible to inject the entire volume of RegenOx specified by Regenesis due to resurfacing of the injected material. On August 9, 2007, an abbreviated interim round of sampling occurred on selected wells (MW-1R, MW-2, MW-3, and MW-5) to help determine the progress of the remedial actions at the site. Elevated concentrations of hydrocarbons were detected in plume core wells MW-1R and MW-3. As a consequence, an additional round of RegenOx injection occurred on September 12 and 13, 2007. These events will be reported under separate cover.

On August 28, 2007, twenty-three 55-gallon drums of soil and fifteen 55-gallon drums of purge water, development water, and groundwater were removed from the subject site. The drums were transported by NRC Environmental to Crosby and Overton in Long Beach, California. The drums of soil represented soil cuttings from the installation of all soil bores and wells since 1993. The drums of water had accumulated since the installation of wells MW-1R, and MW-4 through MW-9, as well as water return flow to the surface during remedial injection activities.

2.0 Groundwater Sample Collection and Analytical Methods

This report documents the interim sampling of groundwater conducted for the First Quarter 2008 groundwater monitoring event at the subject site (Figure 1). Quarterly groundwater samples were collected from monitoring wells MW-1R and MW-2 through MW-9 on February 28, 2008. The groundwater samples were collected by Blaine Tech Services, Inc. (Blaine) in accordance with Blaine *Standard Operating Procedures* for groundwater gauging, purging, and sampling. A copy is included as Appendix A. Depth to groundwater was measured in all wells during the sampling event. Temperature, pH, conductivity, and turbidity were measured initially, and then after removal of each of three well casing volumes for each well. Dissolved Oxygen (DO), Oxygen-Reduction Potential (ORP), and Ferrous Iron were measured post-purge. These measurements are generally 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 for each event 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. Groundwater samples from all wells were analyzed for TPH as gasoline by Modified EPA Method 8015; and BTEX and MTBE by EPA Method 8021B. Tables II to V summarize current and previous analytical results for groundwater samples. The laboratory analytical report is included as Appendix C.

3.0 Groundwater Flow Data and Groundwater Sample Analytical Results

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 7.20 to 9.90 feet below the top of the casings. Depth to groundwater in general has decreased an average of 0.79 feet since the November 2007 sampling event; however, in well MW-6 the depth to water increased 0.32 feet. A slightly higher groundwater elevation in well MW-2 than well MW-3 (or MW-1R) is suggestive of rainwater infiltration in the vicinity of this well. The integrity of pavement in the area of the well has decreased as a result of the vigorousness of remedial chemical oxidation of hydrocarbons in the vicinity of the well. As a consequence, groundwater flow has a localized radial component in the vicinity of well MW-2. On the whole, groundwater predominately flows towards the north and west during this event. Flows to the west are generally consistent with historical data. Conversely, southern and eastern flow directions have been observed previously. It should be noted that potential historic northerly flow directions would help explain impacted soil north of the former UST locations (see soil bore GP8 in the *Remedial Investigation / Feasibility Study Report*, dated September 8, 2006). The average gradient was calculated to range between approximately 0.022 to 0.037 feet/foot for the current event.

Between the November and February sampling events, concentrations of TPH as gasoline and BTEX decreased sharply in well MW-1R, decreased markedly in well MW-2, and either decreased (TPH as gasoline) or increased very slightly (BTEX) in well MW-3. This is the first quarter in which all contaminants in all wells were below their respective non-drinking water ESL. These are notable changes since the previous sampling event when concentrations had generally increased markedly. This was generally anticipated as the previous observed increases were suspected to be related to the mobilization of hydrocarbons from soil to groundwater and no additional RegenOx injections occurred between the two quarterly sampling events. The last (third) injection occurred in September 2007 and was selectively concentrated in the vicinity of wells MW-1R, MW-2, and upgradient of MW-3, and likely mobilized contaminants from soil to groundwater at these locations.

Concentrations of MTBE were not detected any of the wells sampled during the February 2008 sampling event; however, the limits of detection in well MW-3 were slightly elevated. There were also no detectable concentrations of TPH as gasoline, BTEX, or MTBE in all downgradient or cross gradient wells (MW-4 through MW-9), all at good limits of detection.

Data gathered prior to remedial injections have provided evidence at the site for recontamination of groundwater upon rise up into contaminated soil (MW-3; Figures 3 and 4) as well as drainage from soil to groundwater as groundwater drops in elevation at the site (MW-1 / MW-1R; Figures 5 and 6). The February data for well MW-3 are the second departure in a row from the general trend, as the concentration of TPH as gasoline decreased while the concentration of benzene only modestly increased with a rise in groundwater elevation. This is likely due to the injection activities, and may be partial documentation of potential progress in the remedial treatment. The data for well MW-1R are partially suggestive of a continuation of trends previously seen at destroyed well MW-1; however the decrease in concentrations in groundwater from this well were notable and marked. It is currently suspected that granular backfill and soil immediately adjacent and beneath the 6-inch-diameter gas main located approximately 5 feet to the north of well MW-1R (and former MW-1) is providing a reservoir for hydrocarbons which cannot be easily and effectively reached. (For consistency all groundwater elevations in Figures 3 to 6 utilized the GeoTracker wellhead survey elevations to determine the groundwater elevation.)

Four quarters of groundwater samples have been analyzed for the fuel oxygenates di-isopropyl ether (DIPE), ethyl *tert*-butyl ether (ETBE), MTBE, *tert*-amyl methyl ether (TAME), and *tert*-butyl alcohol (TBA), by EPA Method 8260B. Ethanol and methanol have also been analyzed and were nondetectable. Due to the consistency of the data, fuel oxygenate analysis was eliminated. Only MTBE and TAME have been detected in groundwater (June 2003; Table III). Only MTBE has an MCL; listed at 13 Fg/L.

4.0 Intrinsic Bioremediation Groundwater Sample Analytical Results

Intrinsic bioremediation laboratory analytical parameters were not collected during the February sampling event; however, post-purge field parameters were collected. RNA parameters were collected near the bottom of the well, within the screened interval, to collect representative values of vicinity groundwater and to minimize the effect of standard purging on the parameters. Tables IV and V present the analytical results of current and previous RNA indicator parameters. Microbial use of petroleum hydrocarbons as a food source is affected by the concentration of a number of chemical compounds dissolved in groundwater at a site. RNA monitoring parameters were established by research conducted by the Air Force Center for Environmental Excellence. The research results were used to develop a technical protocol for documenting RNA in groundwater at petroleum hydrocarbon release sites (Wiedemeier, Wilson, Kampbell, Miller and Hansen, 1995, *Technical Protocol for Implementing the Intrinsic Remediation with Long Term Monitoring for Natural Attenuation of Fuel Contamination Dissolved in Groundwater, Volumes I and II*, U.S. Air Force Center for Environmental Excellence, Brooks Air Force Base, Texas). The protocol focuses on documenting both aerobic and anaerobic degradation processes whereby indigenous subsurface bacteria use various dissolved electron acceptors to degrade dissolved petroleum hydrocarbons.

In the order of preference, the following electron acceptors and metabolic by-products are used and generated, respectively, by the subsurface microbes (aerobes, Mn – Fe reducers, and methanogens) to degrade petroleum hydrocarbons: oxygen to carbon dioxide, nitrate to nitrogen, insoluble manganese (Mn^{4+}) to soluble manganese (Mn^{2+}), insoluble ferric iron (Fe^{3+}) to soluble ferrous iron (Fe^{2+}), sulfate to hydrogen sulfide, and carbon dioxide to methane. With the exception of oxygen, the use of all other electron acceptor pathways by microbes indicates increasingly anaerobic degradation. Aerobic degradation takes place first, and oxygen inhibits anaerobic degradation. As oxygen is consumed and an anoxic zone develops, the Mn – Fe reducers and methanogens begin to grow and release dissolved Mn, dissolved Fe, and methane (Commission on Geosciences, Environment and Resources, *Natural Attenuation for Groundwater Remediation*, 2000). Investigation of each of these electron acceptor pathways was conducted in selected wells at the site as part of the evaluation of RNA chemical parameters. Previous analytical results appear to have documented oxygen and nutrient (nitrate) limited natural biodegradation at the site.

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 preferred electron acceptor for the biodegradation of hydrocarbons. DO was present in a very tight concentration range in post-purge groundwater (ranging from 0.26 milligrams per liter (mg/L) to 0.32 mg/L). The concentrations are very similar to previous data, although marginally lower. As seen previously at the site, there has not been a good correlation between plume core and plume perimeter wells with respect to DO with the pre-purge readings; however, based on available information the lack of dissolved oxygen has been identified as a limiting factor retarding current biological activity. It continues to appear to be so.

ORP is another measure of the supply and use of oxygen at a site. The higher the reading in millivolts (mV), the more oxygenated the subsurface environment is, and the lower the readings, the more anaerobic or reducing the subsurface environment is. In general, plume core wells (MW-1R, MW-2, and MW-3) contain increasing or modestly decreasing ORP values, while most other wells, both upgradient as well as downgradient, document a modest decrease in ORP values. The exception to these statements is the ORP value in well MW-6, which increased substantially. Previously the highest ORP values were located outside the plume core and suggested that the strongest demand for oxygen was located in the plume core. The ORP trend this quarter may suggest residual benefit from the injection of the RegenOx remedial product.

For a more in-depth review of recent RNA parameters, please refer to the *Remedial Investigation / Feasibility Study Report*, dated September 8, 2006.

5.0 Conclusions and Recommendations

The following summary and conclusions were generated from the available data discussed above:

- Between the November and February sampling events concentrations of TPH as gasoline and BTEX decreased sharply in well MW-1R, decreased markedly in well MW-2, and either decreased (TPH as gasoline) or increased very slightly (BTEX) in well MW-3. These are notable changes since the previous sampling event when concentrations had generally increased markedly.
- The most recent RegenOx injection event in September 2007 was selectively concentrated in the vicinity of wells MW-1R, MW-2, and upgradient of MW-3, and is suspected to have mobilized contaminates from soil to groundwater at these locations at the time.
- Concentrations of MTBE were not detected in any of the nine wells, including plume core wells; however, the limit of detection was slightly high in well MW-3.
- There were no detectable concentrations of TPH as gasoline, BTEX, or MTBE in all downgradient or cross gradient wells (MW-4 through MW-9), at good limits of detection.
- This is the first quarter in which all contaminants in all wells were below their respective non-drinking water ESL.
- Data gathered prior to remedial injections provided evidence at the site for recontamination of groundwater upon rise up into contaminated soil (MW-3) as well as drainage from soil to groundwater as groundwater drops in elevation at the site (MW-1 / MW-1R). The February data for well MW-3 are the second departure in a row from the general trend, as the concentration of TPH as gasoline decreased while the concentration of benzene only modestly increased with a rise in groundwater elevation. This is likely due to the injection activities, and may be partial documentation of potential progress in the remedial treatment. The data for well MW-1R are partially suggestive of a continuation of trends previously seen at destroyed well MW-1; however the decrease in concentrations in groundwater this well was notable and marked. It is currently suspected that granular backfill and soil immediately adjacent and beneath the 6-inch-diameter gas main located approximately 5 feet to the

north of well MW-1R (and former MW-1) is providing a reservoir for hydrocarbons which cannot be easily and effectively reached.

- DO was present in a very tight concentration range in post-purge groundwater this quarter. The concentrations are very similar to previous data, although marginally lower. There has not been a good correlation between plume core and plume perimeter wells with respect to DO with the pre-purge readings. Based on available information the lack of dissolved oxygen has been identified as a limiting factor retarding current biological activity.
- In general, plume core wells contain increasing or modestly decreasing ORP values, while most other wells, both upgradient as well as downgradient, document a modest decrease in ORP values. The exception to these statements is the ORP value in well MW-6, which increased substantially. Previously the highest ORP values were located outside the plume core and suggested that the strongest demand for oxygen was located in the plume core. The ORP trend this quarter may suggest residual benefit from the injection of the RegenOx remedial product.
- Depth to groundwater in general has decreased an average of 0.79 feet since the November 2007 sampling event. A slightly higher groundwater elevation in well MW-2 than other plume core wells suggests rainwater infiltration in the vicinity of the well due to a decrease in pavement integrity as a result of the vigorousness of remedial reactions near the well. Consequently, groundwater flow has a localized radial component in the vicinity of well MW-2. On the whole, groundwater predominately flows towards the north and west during this event. Flows to the west are generally consistent with historical data, although southern and eastern flow directions have been observed. Historic northerly flows may explain impacted soil north of the former UST locations. The average gradient was calculated to range between approximately 0.022 to 0.037 feet/foot for the current event.

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

- The next quarterly groundwater sampling event should occur in May 2008.
- Collection of limited RNA indicator data should be continued as a modest cost saving measure. The collection of DO and ORP data may help contribute to the understanding of biodegradation beneath

the site. Collection of additional laboratory RNA indicator data can be resumed if a need is documented.

- Interim corrective actions should be continued in accordance with the approved ICAP. Future quarterly monitoring events can be used to gauge the effectiveness of corrective actions.

- A copy of this letter report will be forwarded to:

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

Tables

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

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-1	8/6/1993	18.72	8.96	9.76
	1/12/1996		8.55	10.17
	4/16/1996		7.65	11.07
	7/15/1996		8.76	9.96
	10/16/1996		9.04	9.68
	12/15/1998		8.38	10.34
	1/18/2001		8.49	10.23
	4/25/2001		8.24	10.48
	3/17/03*		8.08	10.64
	6/23/2003		8.63	10.09
	9/18/2003		8.90	9.82
	12/15/2003		8.15	10.57
	6/15/2004		8.67	10.05
	12/15/2004		7.99	10.73
	6/29/2005		7.88	10.84
	5/8/2006	21.70	Destroyed	Destroyed
	2/19/2007		Destroyed	Destroyed
	6/21/2007		Destroyed	Destroyed
	11/8/2007		Destroyed	Destroyed
	2/28/2008		Destroyed	Destroyed
MW-1R	6/12/2006	21.73	8.49	13.24
	2/19/2007		7.94	13.79
	6/21/2007		8.71	13.02
	8/9/2007		8.83	12.90
	11/8/2007		9.80	11.93
	2/28/2008		8.74	12.99

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

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-2	8/6/1993	18.44	8.68	9.76
	1/12/1996		8.24	10.20
	4/16/1996		7.41	11.03
	7/15/1996		8.45	9.99
	10/16/1996		8.73	9.71
	12/15/1998		8.05	10.39
	1/18/2001		8.24	10.20
	4/25/2001		7.88	10.56
	3/17/03*		7.08	11.36
	6/23/2003		8.90	9.54
	9/18/2003		8.61	9.83
	12/15/2003		7.97	10.47
	6/15/2004		8.42	10.02
	12/15/2004		8.00	10.44
	6/29/2005		9.51	8.93
	6/12/2006	21.45	8.25	13.20
	2/19/2007		8.12	13.33
	6/21/2007		9.00	12.45
	8/9/2007		8.62	12.83
	11/8/2007		8.60	12.85
	2/28/2008		7.20	14.25

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

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-3	8/6/1993	19.01	9.07	9.94
	1/12/1996		8.65	10.36
	4/16/1996		7.82	11.19
	7/15/1996		8.88	10.13
	10/16/1996		9.16	9.85
	12/15/1998		8.45	10.56
	1/18/2001		8.57	10.44
	4/25/2001		8.29	10.72
	3/17/03*		8.50	10.51
	6/23/2003		9.05	9.96
	9/18/2003		9.11	9.90
	12/15/2003		8.03	10.98
	6/15/2004		8.85	10.16
	12/15/2004		8.84	10.17
	6/29/2005		9.00	10.01
	6/12/2006	22.02	8.62	13.40
	2/19/2007		8.12	13.90
	6/21/2007		9.86	12.16
	8/9/2007		9.60	12.42
	11/8/2007		8.83	13.19
	2/28/2008		7.99	14.03
MW-4	6/12/2006	21.34	8.37	12.97
	2/19/2007		7.77	13.57
	6/21/2007		8.48	12.86
	11/8/2007		8.61	12.73
	2/28/2008		7.73	13.61

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

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-5	6/12/2006	22.53	8.75	13.78
	2/19/2007		8.61	13.92
	6/21/2007		9.05	13.48
	8/9/2007		9.17	13.36
	11/8/2007		9.11	13.42
	2/28/2008		8.18	14.35
MW-6	6/12/2006	21.97	8.59	13.38
	2/19/2007		7.93	14.04
	6/21/2007		9.83	12.14
	11/8/2007		9.58	12.39
	2/28/2008		9.90	12.07
MW-7	6/12/2006	21.21	8.31	12.90
	2/19/2007		7.85	13.36
	6/21/2007		8.51	12.70
	11/8/2007		8.68	12.53
	2/28/2008		7.81	13.40
MW-8	6/12/2006	20.97	8.37	12.60
	2/19/2007		7.99	12.98
	6/21/2007		8.53	12.44
	11/8/2007		8.61	12.36
	2/28/2008		7.79	13.18
MW-9	6/12/2006	20.98	8.50	12.48
	2/19/2007		8.08	12.90
	6/21/2007		8.55	12.43
	11/8/2007		8.67	12.31
	2/28/2008		8.02	12.96

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

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)

Notes:

TOC = Top of Casing
* = Initial data set collected under direction of Blymyer Engineers, Inc.
NM = Not measured
[1] = Resurveyed on February 7, or June 22, 2006 by CSS Environmental Services, In

Elevations in feet above mean sea level

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

Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		500	46	130	290	100	1,800
MW-1	8/6/1993	**17,000**	**7.1**	**8.4**	**9.2**	**53**	NA
	1/12/1996	**12,000**	**1,900**	**840**	**370**	**1,100**	NA
	4/16/1996	**3,500**	**700**	**55**	**100**	**180**	NA
	7/15/1996	**11,000**	**2,300**	**450**	**350**	**910**	NA
	10/16/1996	**21,000**	**4,200**	**2,200**	**650**	**2,600**	NA
	12/15/1998	**10,000**	**1,800**	**520**	**270**	**1,100**	<350
	1/18/2001	**11,000** [a]	**2,000**	**320**	**320**	**1,100**	<120
	4/25/2001	**2,100** [a, c]	**270**	**46**	**59**	**130**	<5.0
	3/17/2003*	**2,200** [a]	**260**	**19**	**36**	**54**	NA [d]
	6/23/2003	**6,100** [a]	**930**	**53**	**99**	**200**	NA
	9/18/2003	**3,800** [a]	**660**	**13**	**24**	**34**	NA
	12/15/2003	**260** [a]	**19**	**1.1**	<0.5	**1.5**	NA
	6/15/2004	**5,200** [a]	**520**	**13**	**38**	**39**	<50
	12/15/2004	**2,400** [a]	**370**	**8.2**	**13**	**14**	<15
	6/29/2005	**5,500** [a]	**750**	**27**	**94**	**140**	<100
	5/8/2006	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/19/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	6/21/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	11/8/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/28/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed

Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California							
Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		500	46	130	290	100	1,800
MW-1R	6/13/2006	**90** [a]	**24**	<0.5	<0.5	**1.9**	**7.0**
	2/19/2007	**200** [a]	**8**	**0.80**	**12**	**8.7**	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/9/2007	**870** [a]	**140**	**6.30**	**23**	**22**	<10
	11/8/2007	**3,800** [a]	**330**	**22**	**140**	**130**	<30
	2/28/2008	**150** [a]	**5.5**	<0.5	**3.9**	**2.2**	<5.0

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

Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		500	46	130	290	100	1,800
MW-2	8/6/1993	**2,700**	**1.3**	**1.7**	**2.0**	**8.1**	NA
	1/12/1996	**2,700**	**600**	**310**	**94**	**220**	NA
	4/16/1996	**190**	**39**	**11**	**10**	**14**	NA
	7/15/1996	**700**	**160**	**33**	**34**	**48**	NA
	10/16/1996	**190**	**48**	**8.2**	**10**	**13**	NA
	12/15/1998	**200**	**62**	**17**	**4.9**	**14**	**4.4**[b]
	1/18/2001	**300**[a]	**74**	**26**	**7.3**	**21**	**7.3**
	4/25/2001	<50[c]	**4.5**	**2.2**	**0.6**	**1.9**	<5.0
	3/17/2003*	**78**[a]	**26**	**3.3**	**1.5**	**3.5**	NA[d]
	6/23/2003	**160**[a]	**51**	**1.6**	**1.2**	**1.8**	NA
	9/18/2003	<50	**2.1**	**<0.5**	**<0.5**	**<0.5**	NA
	12/15/2003	<50	**12**	<0.5	**<0.5**	**<0.5**	NA
	6/15/2004	**95**[a]	**15**	**1.3**	**1.8**	**1.2**	<30
	12/15/2004	**<50**	**11**	**0.97**	**0.6**	**0.9**	**7.8**
	6/29/2005	**130**	**29**	**2.000**	**3.3**	**3.4**	**6.7**
	6/13/2006	**150**[a]	**59**	**3.0**	**3.4**	**2.7**	**11**
	2/19/2007	**51**[a]	**8**	**1.6**	**1.0**	**2.8**	**7.1**
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	8/9/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/8/2007	**160**[a]	**23**	**5.0**	**5.3**	**14**	<10
	2/28/2008	<50	**1.3**	<0.5	<0.5	<0.5	<5.0

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

Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		500	46	130	290	100	1,800
MW-3	8/6/1993	**5,200**	**2.1**	**2.9**	**3.6**	**17**	NA
	1/12/1996	**4,500**	**280**	**180**	**120**	**470**	NA
	4/16/1996	**5,400**	**370**	**340**	**160**	**580**	NA
	7/15/1996	**1,800**	**200**	**220**	**66**	**250**	NA
	10/16/1996	**2,000**	**340**	**140**	**100**	**300**	NA
	12/15/1998	**1,400**	**200**	**39**	**72**	**150**	<22
	1/18/2001	**1,800** [a]	**240**	**41**	**86**	**120**	<10
	4/25/2001	**8,300** [a, c]	**300**	**330**	**200**	**1,100**	<20
	3/17/2003*	**2,100** [a]	**240**	**78**	**10**	**280**	NA [d]
	6/23/2003	<50	**2.5**	**0.6**	**0.69**	**1.4**	NA
	9/18/2003	<50	<0.5	<0.5	<0.5	<0.5	NA
	12/15/2003	**2,400**	**300**	**120**	**140**	**260**	NA
	6/15/2004	<50	**1.1**	<0.5	<0.5	<0.5	**6.2**
	12/15/2004	**1,600** [a]	**140**	**83**	**83**	**230**	<15
	6/29/2005	**230** [a]	**27**	**6.1**	**7.2**	**15**	<15
	6/13/2006	**68** [a]	**3.1**	**1.8**	<0.5	<0.5	<5.0
	2/19/2007	**280** [a]	**49**	**11**	**18**	**23**	<5.0
	6/21/2007	**1,500** [a]	**120**	**64**	**62**	**250**	<50
	8/9/2007	**2,400** [a]	**140**	**19**	**100**	**110**	<65
	11/8/2007	**440** [a]	**7.2**	**3.3**	**8.6**	**26**	<15
	2/28/2008	**320** [a]	**10**	**5.8**	**9.6**	**32**	<12

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

Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		500	46	130	290	100	1,800
MW-4	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	**5.7**
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.9**
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-5	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.6**
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.4**
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-6	6/13/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-7	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0

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

Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		500	46	130	290	100	1,800
MW-8	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0
MW-9	6/12/2006	<50	<0.5	<0.5	<0.5	<0.5	**5.6**
	2/19/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/21/2007	<50	<0.5	<0.5	<0.5	<0.5	**5.6**
	11/8/2007	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	2/28/2008	<50	<0.5	<0.5	<0.5	<0.5	<5.0

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

Well ID	Sample Date	Modified EPA Method 8015 (µg/L)	EPA Method 8020 or 8021B (µg/L)				
		TPH as Gasoline	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MCL		N/A	1	150	700	1,750	13
Drinking Water Source [1]		100	1	40	30	20	5
Non-Drinking Water Source [2]		500	46	130	290	100	1,800

Notes:

ug/L = micrograms per liter
TPH = Total Petroleum Hydrocarbons
EPA = Environmental Protection Agency
MTBE = Methyl *tert*-Butyl Ether
[1] = From Table A; RWQCB Environmental Screening Levels (ESLs); Groundwater IS a Current or Potential Source of Drinking Water
[2] = From Table B; RWQCB Environmental Screening Levels (ESLs); Groundwater IS NOT a Current or Potential Source of Drinking Water
RWQCB = California Regional Water Quality Control Board, San Francisco Bay Region
ESL = Environmental Screening Level
N/A = Not applicable
NA = Not analyzed
RBSL = Risk Based Screening Level
<*x* = Analyte not detected at reporting limit *x*
* = Initial data set collected under direction of Blymyer Engineers, Inc.
[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.

Bold results indicate detectable analyte concentrations.

▨ Note: Shaded cell indicates that detected concentration exceeds *Non-Drinking Water* ESL

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

Well ID	Sample Date	EPA Method 8260B (ug/L)								
		TAME	TBA	EBD	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	MTBE
Drinking Water Source [1]		NV	12	0.05	0.5	NV	50,000	NV	NV	5
Non-Drinking Water Source [2]		NV	18,000	152	204	NV	50,000	NV	NV	1,800
MW-1	3/17/2003	**8.3**	<5.0	NA	NA	<0.50	NA	<0.50	NA	**10.0**
	6/23/2003	**6.4**	<25	NA	NA	<2.5	NA	<2.5	NA	**8.0**
	9/18/2003	**5.3**	<25	NA	NA	<2.5	NA	<2.5	NA	**8.5**
	12/15/03[3]	**9.0**	<5.0	NA	NA	<0.5	NA	<0.5	NA	**12.0**
MW-2	3/17/2003	**2.1**	**6.0**	NA	NA	<0.50	NA	<0.50	NA	**13.0**
	6/23/2003	**4.5**	<5.0	NA	NA	<0.50	NA	<0.50	NA	**11.0**
	9/18/2003	**0.7**	<25	NA	NA	<2.5	NA	<2.5	NA	**5.0**
	12/15/03[3]	**3.2**	**5.2**	NA	NA	<0.5	NA	<0.5	NA	**13.0**
	6/13/2006	**4.5**	**6.5**	<5.0	<5.0	<5.0	<50	<0.5	<500	**7.6**
MW-3	3/17/2003	**4.3**	**8.6**	NA	NA	<0.50	NA	<0.50	NA	**10.0**
	6/23/2003	**2.6**	<5.0	NA	NA	<0.50	NA	<0.50	NA	**5.6**
	9/18/2003	**3.6**	<25	NA	NA	<2.5	NA	<2.5	NA	**10.0**
	12/15/03[3]	**2.7**	<5.0	NA	NA	<0.5	NA	<0.5	NA	**13.0**
MW-4	6/12/2006	NA	NA	NA	NA	NA	NA	NA	NA	**6.1**

Table III, Summary of Groundwater Sample Fuel Oxygenate Analytical Results BEI Job No. 203004, Former Fiesta Beverage 966 89th Avenue, Oakland, California										
Well ID	Sample Date	EPA Method 8260B (ug/L)								
		TAME	TBA	EBD	1,2-DCA	DIPE	Ethanol	ETBE	Methanol	MTBE
Drinking Water Source [1]		NV	12	0.05	0.5	NV	50,000	NV	NV	5
Non-Drinking Water Source [2]		NV	18,000	152	204	NV	50,000	NV	NV	1,800

Notes:

TAME = Methyl tert-Amyl Ether
TBA = tert-Butyl Alcohol
EDB = 1,2-Dibromoethane
1,2-DCA = 1,2-Dichloroethane
DIPE = Di-isopropyl ether
ETBE = Ethyl tert-butyl ether
MTBE = Methly tert-butyl ether
(µg/L) = Micrograms per liter
NV = No value
NA = Not analyzed

[1] = From Table A; Environmental Screening Levels (ESLs); Groundwater IS a Current or Potential Source of Drinking Water

[2] = From Table B; RWQCB Environmental Screening Levels (ESLs); Groundwater IS NOT a Current or Potential Source of Drinking Water

[3] = In general after this date, fuel oxygenates were monitored using MTBE detected by EPA Method 8020B, as a proxy for the approximate concentration of the remaining fuel oxygenates.

Bold results indicate detectable analyte concentrations.
Note: Shaded cell indicates that detected concentration exceeds ESL

Table IV, Summary of Groundwater Intrinsic Bioremediation Field Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	Field Meter	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	Field pH pH units
MW-1	3/17/2003	NA	NA	NA	60.4 / 60.0 *	7.1 / 7.3
	6/23/2003	0.4	NA	NA	61.0 / 61.0 *	6.9 / 6.9
	9/18/2003	0.4	NA	NA	65.1 / 62.9 *	7.1 / 6.9
	12/15/2003	1.1	NA	NA	13.1 / 13.4	6.8 / 6.7
	6/15/2004	0.1	NA	NA	64.5 / 63.4 *	6.9 / 7.0
	12/15/2004	NA	NA	NA	15.4 / 17.5	7.0 / 6.9
	6/29/2005	0.24 / 0.17	1.0	4.5	19.78 / 21.63	7.15 / 7.08
	5/8/2006	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/19/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	6/21/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	11/8/2007	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
	2/28/2008	Destroyed	Destroyed	Destroyed	Destroyed	Destroyed
MW-1R	6/13/2006	0.87 / 0.37	172.9 / 172.9	0 / 0	17.31 / 17.36	6.90 / 6.92
	2/19/2007	0.48	8.0	NA	12.2 / 15.8	6.95 / 6.86
	6/21/2007	0.62	22.0	NA	19.6	7.1
	11/8/2007	0.3	-60	NA	64.4	6.9
	2/28/2008	0.28	156	0.0	63.2	6.98

Table IV, Summary of Groundwater Intrinsic Bioremediation Field Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	Field Meter	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	Field pH pH units
MW-2	3/17/2003	NA	NA	NA	66.0 / 64.2 *	7.4 / 7.9
	6/23/2003	0.6	NA	NA	62.1 / 61.8 *	6.8 / 7.1
	9/18/2003	1.3	NA	NA	66.7 / 63.7 *	6.7 / 6.9
	12/15/2003	1.6	NA	NA	13.2 / 13.4	6.6 / 6.6
	6/15/2004	0.1	NA	NA	64.5 / 65.0 *	6.3 / 7.1
	12/15/2004	NA	NA	NA	16.9 / 17.0	7.1 / 7.1
	6/29/2005	0.19 / 0.24	0.7	0.7	18.58 / 21.18	7.12 / 7.13
	6/13/2006	0.80 / 0.42	168.0 / 168.0	0 / 0	17.49 / 17.70	6.97 / 6.98
	2/19/2007	0.2	80	NA	13.6 / 16.3	7.24 / 7.06
	6/21/2007	0.18	46	NA	18.3	7.1
	11/8/2007	0.4	209	NA	64.0	7.07
	2/28/2008	0.29	191	0.0	63.1	6.98

Table IV, Summary of Groundwater Intrinsic Bioremediation Field Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	Field Meter	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	Field pH pH units
MW-3	3/17/2003	NA	NA	NA	63.3 / 60.9 *	7.4 / 7.6
	6/23/2003	0.7	NA	NA	66.4 / 66.9 *	7.3 / 7.2
	9/18/2003	0.4	NA	NA	63.7 / 62.6 *	7.1 / 7.1
	12/15/2003	1.6	NA	NA	14.7 / 15.1	6.5 / 6.4
	6/15/2004	0.0	NA	NA	63.1 / 62.3 *	7.5 / 7.1
	12/15/2004	NA	NA	NA	15.4 / 16.7	7.2 / 7.0
	6/29/2005	0.72 / 0.78	141.7 / -67.6	0.9	17.65 / 18.79	6.94 / 7.02
	6/13/2006	1.01 / 0.41	170.0 / 168.5	0 / 0	17.30 / 17.15	7.02 / 6.98
	2/19/2007	0.08	81	NA	13.7 / 15.6	7.10 / 6.95
	6/21/2007	0.10	39	NA	18.1	7.2
	11/8/2007	0.30	-30	NA	62.5	7.04
	2/28/2008	0.32	132	0.0	61.2	5.45

Table IV, Summary of Groundwater Intrinsic Bioremediation Field Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	Field Meter	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	Field pH pH units
MW-4	6/12/2006	0.67 / 0.33	164.3 / 161.0	0.5 / 0	16.90 / 16.79	6.82 / 6.79
	2/19/2007	0.21	98	NA	13.7 / 15.0	7.14 / 7.03
	6/21/2007	0.31	118	NA	16.4	7.0
	11/8/2007	0.30	222	NA	62.7	6.96
	2/28/2008	0.28	173	0.0	61.6	7.01
MW-5	6/12/2006	0.61 / 0.31	175.2 / 169.0	0 / 0	18.40 / 18.01	7.01 / 6.94
	2/19/2007	1.98	-114	NA	12.7 / 14.1	6.93 / 6.73
	6/21/2007	1.23	99	NA	16.8	7.1
	11/8/2007	0.30	211	NA	63.9	6.85
	2/28/2008	0.26	213	0.0	62.6	7.14
MW-6	6/13/2006	3.10 / 0.81	181.2 / 174.8	0 / 0	17.25 / 17.32	6.94 / 6.83
	2/19/2007	0.21	-30	NA	14.6 / 15.6	6.58 / 6.74
	6/21/2007	0.26	102	NA	16.2	7.1
	11/8/2007	0.60	-8	NA	63.5	6.99
	2/28/2008	0.37	212	0.0	60.8	6.93
MW-7	6/12/2006	0.59 / 0.27	172.5 / 171.8	0.5 / 0.2	18.14 / 18.00	6.90 / 6.87
	2/19/2007	0.10	110	NA	16.2 / 17.2	7.69 / 7.21
	6/21/2007	0.14	123	NA	17.3	7.0
	11/8/2007	0.30	227	NA	64.5	6.90
	2/28/2008	0.27	142	0.0	64.2	7.00

Table IV, Summary of Groundwater Intrinsic Bioremediation Field Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	Field Meter	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissoved Oxygen (mg/L)	Oxidation Reduction Potential (mV)	Ferrous Iron (Fe 2+)	Field Temperature (o F / o C)	Field pH pH units
MW-8	6/12/2006	0.37 / 0.33	186.1 / 180.4	0 / 0	18.55 / 18.39	6.85 / 6.85
	2/19/2007	0.11	102	NA	15.2 / 16.6	7.23 / 7.07
	6/21/2007	0.12	111	NA	17.2	7.1
	11/8/2007	0.30	232	NA	64.3	7.01
	2/28/2008	0.26	206	0.0	63.1	7.08
MW-9	6/12/2006	2.01 / 1.87	206.0 / 191.0	0 / 0	16.88 / 16.91	6.63 / 6.66
	2/19/2007	0.08	101	NA	15.8 / 16.3	7.56 / 7.23
	6/21/2007	0.12	112	NA	16.5	7.1
	11/8/2007	0.40	230	NA	65.1	6.94
	2/28/2008	0.26	208	0.0	62.1	7.01

Notes:
mV = Millivolts
mg/L = Milligrams per liter
^{o} F / ^{o} C = degrees Fahrenheit / degrees Centigrade
* = degrees Fahrenheit
2.6 / 2.2 = Initial reading (pre-purge) / Final reading (post-purge)
NA = Not analyzed

Table V, Summary of Groundwater Intrinsic Bioremediation Analytical Results
BEI Job No. 203004, Former Fiesta Beverage
966 89th Avenue, Oakland, California

Well ID	Sample Date	Method SM 5310B	Method E300.1		Method RSK 174
		CO_2	Nitrate (as N)	Sulfate	Methane
		mg/L			µg/L
MW-1	6/29/2005	490	<0.1	5	5,900
	5/8/2006	Destroyed	Destroyed	Destroyed	Destroyed
MW-1R	6/13/2006	290	4.3	46	24
MW-2	6/29/2005	250	4.1	42	68
	6/13/2006	290	3.2	44	45
MW-3	6/29/2005	230	3.5	33	370
	6/13/2006	220	3.5	33	55
MW-4	6/12/2006	260	8.6	44	1.1
MW-5	6/12/2006	240	6.8	45	1.5
MW-6	6/13/2006	290	7.2	50	<0.5
MW-7	6/12/2006	260	6	51	<0.5
MW-8	6/12/2006	330	7.3	46	<0.5
MW-9	6/12/2006	240	8.3	44	1.1

Notes:
SM = Standard Method
mg/L = Milligrams per liter
µg/L = Micrograms per liter
CO_2 = Carbon Dioxide

Figures

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

QUADRANGLE LOCATION

BLYMYER
ENGINEERS, INC.

BEI JOB NO. 203004

DATE 3-19-03

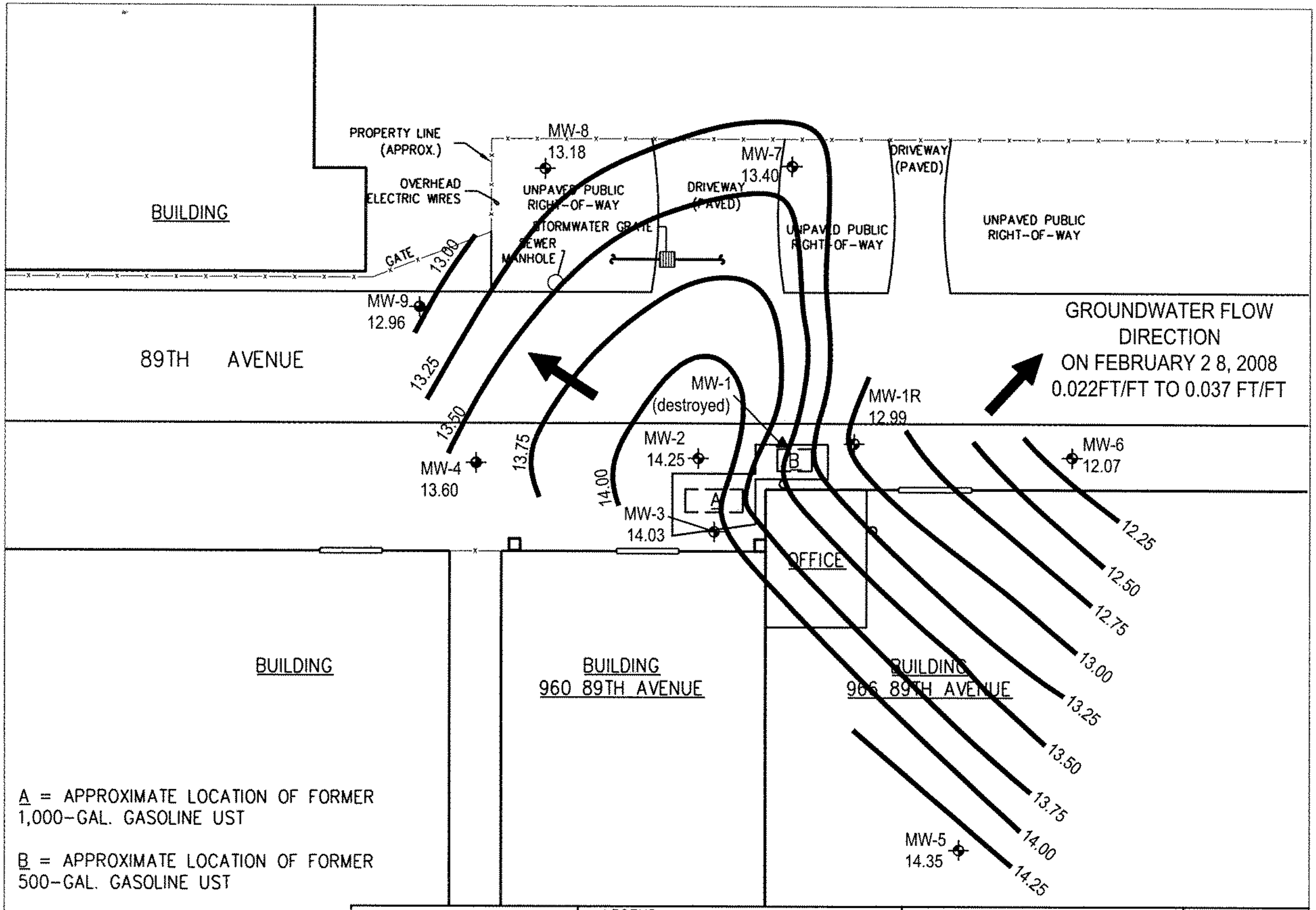
0 1000 2000
SCALE IN FEET

N

SITE LOCATION MAP

FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE
1



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

B = APPROXIMATE LOCATION OF FORMER 500-GAL. GASOLINE UST

N

0 25
SCALE IN FEET

BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
203004	03-12-08

LEGEND
UST UNDERGROUND STORAGE TANK
⌖ GROUNDWATER MONITORING WELL
▲ DESTROYED GW MONITORING WELL

GROUNDWATER GRADIENT
FEBRUARY 28, 2008

FORMER FIESTA BEVERAGE
966 89TH AVE.
OAKLAND, CA

FIGURE
2

Appendix A

Standard Operating Procedures

Blaine Tech Services, Inc.

Blaine Tech Services, Inc.
Standard Operating Procedure

WATER LEVEL, SEPARATE PHASE 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)

Water Level and Separate Phase Thickness Measurements in Wells Suspected of Containing Separate Phase

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 well box lid halfway across the well box 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 Nitrile gloves on your hands.
9. Slowly lower the tip of the Interface Probe into the well until it emits either a solid or broken tone.
   BROKEN TONE: Separate phase layer is not present. Go to Step 8 of Routine Water Level Measurements shown above to complete gauging process using the Interface probe as you would a Water Level Meter.
   SOLID TONE: Separate phase layer is present. Go to the next step.
10. Gently raise the probe tip slightly above the separate phase layer 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 separate phase layer. 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 the separate phase layer and the tape against the measuring point, note depth. Repeat twice to verify accuracy. Write down measurement on Well Gauging Sheet under Depth to Product column.
12. Gently lower the probe tip until it emits a broken tone signifying contact with water. 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.
13. 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)

Purpose

Evacuation of a predetermined minimum volume of water from a well (purging) while *simultaneously* measuring water quality parameters is typically required prior to sampling. Purging a minimum volume guarantees that actual formation water is drawn into the well. Measuring water quality parameters either verifies that the water is stable and suitable for sampling or shows that the water remains unstable, indicating the need for continued purging. Both the minimum volume and the stable parameter qualifications need to be met prior to sampling. This assures that the subsequent sample will be representative of the formation water surrounding the well screen and not of the water standing in the well.

Defining Casing Volumes

The predetermined minimum quantity of water to be purged is based on the wells' casing volume. A casing volume is the volume of water presently standing within the casing of the well. This is calculated as follows:

$$\text{Casing Volume} = (\text{TD} - \text{DTW})\ \text{VCF}$$

1. Subtract the wells' depth to water (DTW) measurement from its total depth (TD) measurement. This is the height of the water column in feet.
2. Determine the well casings' volume conversion factor (VCF). The VCF is based on the diameter of the well casing and represents the volume, in gallons, that is contained in one (1) foot of a particular diameter of well casing. The common VCF's are listed on our Well Purge Data Sheets.
3. Multiply the VCF by the calculated height of the water column. This is the casing volume, the amount of water in gallons standing in the well.

Remove Three to Five Casing Volumes

Prior to sampling, an attempt will be made to purge all wells of a minimum of three casing volumes and a maximum of five casing volumes except where regulations mandate the minimum removal of four casing volumes.

Choose the Appropriate Evacuation Device Based on Efficiency

In the absence of instructions on the SOW to the contrary, selection of evacuation device will be based on efficiency.

Measure Water Quality Parameters at Each Casing Volume

At a minimum, water quality measurements include pH, temperature and electrical conductivity (EC). Measurements are made and recorded at least once every casing volume. They are considered stable when all parameters are within 10% of their previous measurement.

Note: The following instructions assume that well has already been properly located, accessed, inspected and gauged.

Prior to Purging a Well

1. Confirm that the well is to be purged and sampled per the SOW.
2. Confirm that the well is suitable based on the conditions set by the client relative to separate phase.
3. Calculate the wells' casing volume.
4. Put new Latex or Nitrile gloves on your hands.

Purging With a Bailer (Stainless Steel, Teflon or Disposable)

1. Attach bailer cord or string to bailer. Leave other end attached to spool.
2. Gently lower empty bailer into well until well bottom is reached.
3. Cut cord from spool. Tie end of cord to hand.
4. Gently raise full bailer out of well and clear of well head. Do not let the bailer or cord touch the ground.
5. Pour contents into graduated 5-gallon bucket or other graduated receptacle.
6. Repeat purging process.
7. Upon removal of first casing volume, fill clean parameter cup with purgewater, empty the remainder of the purgewater into the bucket, lower the bailer back into the well and secure the cord on the Sampling Vehicle.
8. Use the water in the cup to collect and record parameter measurements.
9. Continue purging until second casing volume is removed.
10. Collect parameter measurements.
11. Continue purging until third casing volume is removed.
12. 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.

Purging With a Pneumatic Pump

1. Position Pneumatic pump hose reel over the top of the well.
2. Gently unreel and lower the pump into the well. Do not contact the well bottom.
3. Secure the hose reel.
4. Begin purging into graduated 5-gallon bucket or other graduated receptacle.
5. Adjust water recharge duration and air pulse duration for maximum efficiency.
6. Upon removal of first casing volume, fill clean parameter cup with water.
7. Use the water in the cup to collect and record parameter measurements.
8. Continue purging until second casing volume is removed.

9. Collect parameter measurements.
10. Continue purging until third casing volume is removed.
11. 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.
12. Upon completion of purging, gently recover the pump and secure the reel.

Purging With a Fixed Speed Electric Submersible Pump

1. Position Electric Submersible hose reel over the top of the well.
2. Gently unreel and lower the pump to the well bottom.
3. Raise the pump 5 feet off the bottom.
4. Secure the hose reel.
5. Begin purging.
6. Verify pump rate with flow meter or graduated 5-gallon bucket
7. Upon removal of first casing volume, fill clean parameter cup with water.
8. Use the water in the cup to collect and record parameter measurements.
9. Continue purging until second casing volume is removed.
10. Collect parameter measurements.
11. Continue purging until third casing volume is removed.
12. 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.
13. Upon completion of purging, gently recover the pump and secure the reel.

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 February 28, 2008
Blaine Tech Services, Inc.

SPH or Purge Water Drum Log

Client: Blymer

Site Address: 966 89th Ave. Oakland CA

STATUS OF DRUM(S) UPON ARRIVAL

Date	6/21/07	8/09/07	11/8/07	2/28/08		
Number of drum(s) empty:						
Number of drum(s) 1/4 full:		1		1		
Number of drum(s) 1/2 full:			1			
Number of drum(s) 3/4 full:						
Number of drum(s) full:	4		~~5~~ 4	4		
Total drum(s) on site:	4 (non BTS)	4	5	5		
Are the drum(s) properly labeled?	Y	Y	Y	Y		
Drum ID & Contents:	[illegible]	purge H2O	purge H2O	Purge H2O		
If any drum(s) are partially or totally filled, what is the first use date:	injection	06/02/06		NO DATE		

- If you add any SPH to an empty or partially filled drum, drum must have at least 20 gals. of Purgewater or DI Water.

-If drum contains SPH, the drum MUST be steel AND labeled with the appropriate label.

-All BTS drums MUST be labeled appropriately.

STATUS OF DRUM(S) UPON DEPARTURE

Date	6/21/07	08/09/07	11/8/07	2/28/08		
Number of drums empty:						
Number of drum(s) 1/4 full:	1			1		
Number of drum(s) 1/2 full:		1	1			
Number of drum(s) 3/4 full:						
Number of drum(s) full:	5 1 BTS 4 Non	5 1 BTS 4 NON	5 1 BTS 4 NON	5		
Total drum(s) on site:	6	6	6	6		
Are the drum(s) properly labeled?	Y	Y	Y	Y		
Drum ID & Contents:	Purge H2O	Purge H2O	purgewater	Purge H2O		

LOCATION OF DRUM(S)

Describe location of drum(s): Behind building through ~~Roll up door~~ SLIDING DOOR - DON'T LET DOGS OUT

FINAL STATUS

Number of new drum(s) left on site this event	2	~~8/10/07~~ 0	1	1		
Date of inspection:	6/21/07	8/09/07	11/8/07	2/28/08		
Drum(s) labelled properly:	Y	N/A	Y	Y		
Logged by BTS Field Tech:	DR	WW	KF	IW		
Office reviewed by:			MDW			

TEST EQUIPMENT CALIBRATION LOG

PROJECT NAME 966 89th Ave, Oakland

PROJECT NUMBER 080228-1W-1

EQUIPMENT NAME	EQUIPMENT NUMBER	DATE/TIME OF TEST	STANDARDS USED	EQUIPMENT READING	CALIBRATED TO: OR WITHIN 10%:	TEMP.	INITIALS
ULTRAMETER 6P II	6215747	2/28/08 0839	PH = 4.0 = 7.0 = 10.0	= 3.99 = 7.00 = 9.96	YES	61.5°	DW
ULTRAMETER 6P II	6215747	2/28/08 0842	3900 uS/cm	3906 uS	YES	61.4°	DW
YSI 550A	05B2350AD	2/28/08 0850	100%	101.1%	YES	62.0	DW

WELL GAUGING DATA

Project # 080228-IW-1 Date 2/28/08 Client BLYMYER ENGINEERS

Site 966 89th AVENUE, OAKLAND

Well ID	Time	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]	Notes
MW-1R	0843	2					8.74	21.48		
MW-2	1055	2					7.20	23.78		UNDER METAL PLATE/GRAVEL NEEDED TO DIG
MW-3	0847	2					7.99	24.86		
MW-4	1122	2					7.73	21.83		UNDER METAL PLATE
MW-5	0912	2					8.18	19.69		
MW-6	0839	2					9.90	19.81		
MW-7	0859	2					7.81	21.77		
MW-8	0855	2					7.99	20.02		
MW-9	0852	2					8.02	22.10		

WELLHEAD INSPECTION CHECKLIST

Page 1 of 1

Date 2/28/08 Client BLYMYER ENGINEERS

Site Address 966 89th AVENUE, OAKLAND

Job Number 080228-IW-1 Technician IW

Well ID	Well Inspected - No Corrective Action Required	Water Bailed From Wellbox	Wellbox Components Cleaned	Cap Replaced	Debris Removed From Wellbox	Lock Replaced	Other Action Taken (explain below)	Well Not Inspected (explain below)
MW-1R	X							
MW-2		X	BURIED IN GRAVEL, UNDER METAL PLATE NO BOLT					
MW-3	X						ASK GARY TO MOVE	
MW-4		X	UNDER METAL PLATE					
MW-5	X		INSIDE SHOP - FIRST WELL DONE FOR SHOPS CONVIENEN					
MW-6	X							
MW-7	X							
MW-8	X							
MW-9	X							

NOTES:

L MONITORING DATA SH

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-1R	Well Diameter: [✓ 2] 3 4 6 8 ____
Total Well Depth (TD): 21.48	Depth to Water (DTW): 8.74
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]: 11.29	

Purge Method:
- Bailer
- X Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other________

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: ________

2.0 (Gals.) X 3 = 6.0 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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1342	63.3	7.20	808.8	306	2.0	cloudy
1345	63.1	6.97	825.3	739	4.0	|
1348	63.2	6.98	819.4	561	6.0	|
*POST-PURGE PARAMETERS			TAKEN@ 18.0 bgs			*Fe^{+2} = 0.0

Did well dewater? Yes [✓ No] Gallons actually evacuated: 6.0

Sampling Date: 2/28/08 Sampling Time: 1355 Depth to Water: 9.03

Sample I.D.: MW-1R Laboratory: Kiff CalScience Other McCambell

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

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:	mg/L	*Post-purge:	.28 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	*Post-purge:	156 mV

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Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-2	Well Diameter: [✓ 2] 3 4 6 8 ____
Total Well Depth (TD): 23.78	Depth to Water (DTW): 7.20
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]: 10.52	

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: ____________

2.6 (Gals.) X 3 = 7.8 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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1121	62.1	6.66	794.5	329	2.6	DARK, CLOUDY
1126	62.6	7.02	763.6	299	5.2	"
1131	63.1	6.98	771.7	241	7.8	
						DTW=15.02
*POST-PURGE PARAMETERS TAKEN@20.5' bgs						*Fe+2 = 0 3/3/08

Did well dewater? Yes [✓ No]	Gallons actually evacuated: 7.8
Sampling Date: 2/28/08 Sampling Time: 1210	Depth to Water: 10.18 WAITED
Sample I.D.: MW-2	Laboratory: Kiff CalScience Other McCambell
Analyzed for: TPH-G BTEX MTBE TPH-D	Oxygenates (5) Other: See COC
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: mg/L	*Post-purge: 0.29 mg/L
O.R.P. (if req'd): Pre-purge: mV	*Post-purge: 191 mV

W L MONITORING DATA SH

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-3	Well Diameter: [✓ 2] 3 4 6 8 ____
Total Well Depth (TD): 24.86	Depth to Water (DTW): 7.99
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]: 11.36	

Purge Method: Bailer
X Disposable Bailer
Positive Air Displacement
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other____________

Sampling Method: Bailer
X Disposable Bailer
Extraction Port
Dedicated Tubing
Other: ____________

2.7 (Gals.) X	3	=	8.1	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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1056	60.7	7.04	1190	91.3	2.7	Clear
1100	61.6	5.35	1081	92.6	5.4	↓
1104	61.2	5.45	1062	202	8.1	Cloudy
					DTW= 14.21@	1105
*POST-PURGE	PARAMETERS		TAKEN@ 21.5' bgs			*Fe^{+2} = 0.0

Did well dewater? Yes [✓ No]		Gallons actually evacuated: 8.1	
Sampling Date: 2/28/08	Sampling Time: 1140	Depth to Water: WAITED 8.96	
Sample I.D.: MW-3		Laboratory: Kiff CalScience Other McCambell	
Analyzed for: TPH-G BTEX MTBE TPH-D		Oxygenates (5) Other: See COC	
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:	mg/L	* Post-purge:	0.32 mg/L
O.R.P. (if req'd): Pre-purge:	mV	* Post-purge:	132 mV

Blaine Tech Services, Inc. 1680 Rogers Ave., San Jose, CA 95112 (800) 545-7558

V L MONITORING DATA SH

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-4	Well Diameter: [✓ 2] 3 4 6 8 ____
Total Well Depth (TD): 21.83	Depth to Water (DTW): 7.73
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]: 10.55

Purge Method: Bailer
X Disposable Bailer
Positive Air Displacement
Electric Submersible
Waterra
Peristaltic
Extraction Pump
Other________

Sampling Method: Bailer
X Disposable Bailer
Extraction Port
Dedicated Tubing
Other: ________

2.2 (Gals.) X 3 = 6.6 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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1129	61.9	6.97	686.6	194	2.2	CLEAR
1131	61.8	7.07	686.7	202	4.4	″
1133	61.6	7.01	684.5	306	6.6	CLOUDY
*POST-PURGE PARAMETERS			TAKEN@ 18.5 bgs			*Fe^{+2} = 0.0

Did well dewater? Yes [✓ No] Gallons actually evacuated: 6.6

Sampling Date: 2/28/08 Sampling Time: 1139 Depth to Water: 7.70

Sample I.D.: MW-4 Laboratory: Kiff CalScience Other McCambell

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

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: ____ mg/L *Post-purge: 0.28 mg/L

O.R.P. (if req'd): Pre-purge: ____ mV *Post-purge: 173 mV

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W L MONITORING DATA SHI

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-5	Well Diameter: 2 3 4 6 8 ____
Total Well Depth (TD): 19.69	Depth to Water (DTW): 8.18
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]: 10.48	

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: ____________

1.8 (Gals.) X 3 = 5.4 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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
0932	61.3	7.52	837.8	211	1.8	cloudy
0934	62.4	7.19	691.5	265	3.6	|
0936	62.6	7.14	684.5	228	5.4	|
*POST-PURGE PARAMETERS		TAKEN @ 16.5 bgs				*Fe^{+2} = 0.0

Did well dewater? Yes [✓ No] Gallons actually evacuated: 5.4

Sampling Date: 2/28/08 Sampling Time: 0944 Depth to Water: 7.88

Sample I.D.: MW-5 Laboratory: Kiff CalScience Other McCambell

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

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:	mg/L	*Post-purge:	0.26 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	*Post-purge:	213 mV

Y L MONITORING DATA SH

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-6	Well Diameter: 2 3 4 6 8 ____
Total Well Depth (TD): 19.81	Depth to Water (DTW): 9.90
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]: 11.88	

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: ________

1.5 (Gals.) X 3 = 4.5 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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1001	59.8	7.25	766.2	91.3	1.5	clear
1003	60.6	6.99	769.5	89.7	3.0	|
1005	60.8	6.93	767.2	90.3	4.5	|
*POST-PURGE PARAMETERS		TAKEN @ 16.5 bgs				*Fe^{+2} = 0.0

Did well dewater? Yes [✓ No] Gallons actually evacuated: 4.5

Sampling Date: 2/28/08 Sampling Time: 1010 Depth to Water: 10.03

Sample I.D.: MW-6 Laboratory: Kiff CalScience Other McCambell

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

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:	mg/L	*Post-purge:	0.37 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	*Post-purge:	212 mV

W[illegible]L MONITORING DATA SH[illegible]

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-7	Well Diameter: [✓ 2] 3 4 6 8 ____
Total Well Depth (TD): 21.77	Depth to Water (DTW): 7.81
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]: 10.60

Purge Method:
- Bailer
- X Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other________

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: ________

2.2 (Gals.) X 3 = 6.6 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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1345	63.9	7.01	756.2	806	2.2	CLOUDY GRAY
1348	64.0	6.99	746.6	911	4.4	"
1351	64.2	7.00	757.2	>1000	6.6	"
*POST-PURGE PARAMETERS		TAKEN@ 18.5' bgs				*Fe+2 = 0.0

Did well dewater? Yes [✓ No] Gallons actually evacuated: 6.6

Sampling Date: 2/28/08 Sampling Time: 1358 Depth to Water: 7.83

Sample I.D.: MW-7 Laboratory: Kiff CalScience Other McCambell

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

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:	mg/L	*Post-purge:	0.27 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	*Post-purge:	142 mV

W L MONITORING DATA SH

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-8	Well Diameter: [✓ 2] 3 4 6 8 ____
Total Well Depth (TD): 20.02	Depth to Water (DTW): 7.79
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]: 10.23

Purge Method:
- Bailer
- X Disposable Bailer
- Positive Air Displacement
- Electric Submersible
- Waterra
- Peristaltic
- Extraction Pump
- Other________

Sampling Method:
- Bailer
- X Disposable Bailer
- Extraction Port
- Dedicated Tubing
- Other: ________

1.9 (Gals.) X 3 = 5.7 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	radius^2 * 0.163

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1258	63.3	7.46	753.5	>1000	1.9	brown
1301	62.8	7.04	745.7	>1000	3.8	|
1304	63.1	7.08	743.6	>1000	5.7	
*POST-PURGE PARAMETERS		TAKEN@ 17.0 bgs				*Fe^{+2} = 0.0

Did well dewater? Yes [✓ No] Gallons actually evacuated: 5.7

Sampling Date: 2/28/08 Sampling Time: 1318 Depth to Water: 8.02

Sample I.D.: MW-8 Laboratory: Kiff CalScience Other McCambell

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

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:	mg/L	*Post-purge:	0.26 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	*Post-purge:	206 mV

W L MONITORING DATA SH

Project #: 080228-IW-1	Client: BLYMYER ENGINEERS
Sampler: IW	Date: 2/28/08
Well I.D.: MW-9	Well Diameter: [✓ 2] 3 4 6 8 ____
Total Well Depth (TD): 22.10	Depth to Water (DTW): 8.02
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]: 10.84

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: ________

2.2 (Gals.) X 3 = 6.6 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	$radius^2 * 0.163$

Time	Temp ([✓ °F] or °C)	pH	Cond. (mS or [✓ µS])	Turbidity (NTUs)	Gals. Removed	Observations
1257	62.1	7.10	689.7	115	2.2	CLEAR
1300	62.0	7.03	689.5	362	4.4	CLOUDY
1303	62.1	7.01	691.7	306	6.6	"
*POST-PURGE PARAMETERS		TAKEN @ 19.0' bgs				*Fe^{+2} = 0.0

Did well dewater? Yes [✓ No]	Gallons actually evacuated: 6.6

Sampling Date: 2/28/08 Sampling Time: 1310 Depth to Water: 8.04

Sample I.D.: MW-9 Laboratory: Kiff CalScience Other McCambell

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

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:	mg/L	*Post-purge:	0.26 mg/L
O.R.P. (if req'd):	Pre-purge:	mV	*Post-purge:	208 mV

Appendix C

Analytical Laboratory Report

Dated March 6, 2008
McCampbell Analytical, Inc.

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: Former Fiesta Beverage	Date Sampled: 02/28/08 Date Received: 02/29/08
	Client Contact: Mark Detterman	Date Reported: 03/06/08
	Client P.O.:	Date Completed: 03/06/08

WorkOrder: 0802732

March 06, 2008

Dear Mark:

Enclosed within are:

1) The results of the **9** analyzed samples from your project: **Former Fiesta Beverage,**
2) A QC report for the above samples,
3) A copy of the chain of custody, and
4) An invoice 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 or concerns, please feel free to give me a call. Thank you for choosing McCampbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McCampbell Analytical, Inc.

0802732

BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY
BTS #

CLIENT: Blymyer Engineers, Inc.
SITE: Former Fiesta Beverage
966 89th Avenue
Oakland, CA

LAB: McCampbell
DHS #
ALL ANALYSES MUST MEET SPECIFICATIONS AND DETECTION LIMITS SET BY CALIFORNIA DHS AND
☐ EPA
☐ LIA
☐ OTHER
☐ RWQCB REGION

SPECIAL INSTRUCTIONS

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

CONDUCT ANALYSIS TO DETECT

	SAMPLE I.D.	DATE	TIME	MATRIX S= SOIL W=H$_2$0	CONTAINERS TOTAL		C = COMPOSITE ALL CONTAINERS	TPH-G (8015M)	BTEX & MTBE (8021B)							ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
+	**MW-1R**	2/28/08	1355	W	3	HCL Voa		X	X										
+	**MW-2**	2/28/08	1210	W	3	HCL Voa		X	X										
+	**MW-3**	2/28/08	1140	W	3	HCL Voa		X	X										
+	**MW-4**	2/28/08	1139	W	3	HCL Voa		X	X										
+	**MW-5**	2/28/08	0944	W	3	HCL Voa		X	X										
+	**MW-6**	2/28/08	1010	W	3	HCL Voa		X	X										
+	**MW-7**	2/28/08	1358	W	3	HCL Voa		X	X										
+	**MW-8**	2/28/08	1318	W	3	HCL Voa		X	X										
+	**MW-9**	2/28/08	1310	W	3	HCL Voa		X	X										

ICE / t° 12.1
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ____
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ____

	VOAS	O & G	METALS	OTHER
PRESERVATION				

SAMPLING COMPLETED — DATE 2/28/08 — TIME 1451
SAMPLING PERFORMED BY Ian Williams, Will Lampe
RESULTS NEEDED NO LATER THAN As contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
	2/28/08	1614	SAMPLE CUSTODIAN	2/28/08	1615
	2/29/08	1508		2-29-08	1600
	2-29-08	1830	K. Burks	2-29-08	643

SHIPPED VIA	DATE SENT	TIME SENT	COOLER #	

McCampbell Analytical, Inc.
1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

WorkOrder: 0802732 **ClientCode: BEIA**

☐ WriteOn ☑ EDF ☐ Excel ☐ Fax ☑ Email ☐ HardCopy ☐ ThirdParty ☐ J-flag

Report to:
Mark Detterman
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395

Email: MDetterman@blymyer.com
TEL: (510) 521-3773 FAX: (510) 865-2594
PO:
ProjectNo: Former Fiesta Beverage

Bill to:
Accounts Payable
Blymyer Engineers, Inc.
1829 Clement Avenue
Alameda, CA 94501-1395

Requested TAT: **5 days**

Date Received: **02/29/2008**
Date Printed: **03/03/2008**

					Requested Tests (See legend below)											
Lab ID	**Client ID**	**Matrix**	**Collection Date**	**Hold**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
0802732-001	MW-1R	Water	2/28/2008 13:55	☐	A	A										
0802732-002	MW-2	Water	2/28/2008 12:10	☐	A											
0802732-003	MW-3	Water	2/28/2008 11:40	☐	A											
0802732-004	MW-4	Water	2/28/2008 11:39	☐	A											
0802732-005	MW-5	Water	2/28/2008 9:44	☐	A											
0802732-006	MW-6	Water	2/28/2008 10:10	☐	A											
0802732-007	MW-7	Water	2/28/2008 13:58	☐	A											
0802732-008	MW-8	Water	2/28/2008 13:18	☐	A											
0802732-009	MW-9	Water	2/28/2008 13:10	☐	A											

Test Legend:

1	**G-MBTEX_W**	**2**	**PREDF REPORT**	**3**		**4**		**5**	
6		**7**		**8**		**9**		**10**	
11		**12**							

Prepared by: Kimberly Burks

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.

Sample Receipt Checklist

Client Name: **Blymyer Engineers, Inc.**

Date and Time Received **02/29/2008 6:46:40 PM**

Project Name: **Former Fiesta Beverage**

Checklist completed and reviewed by: Kimberly Burks

WorkOrder N°: **0802732** Matrix Water

Carrier: Derik Cartan (MAI Courier)

Chain of Custody (COC) Information

Chain of custody present?	Yes ☑	No ☐	
Chain of custody signed when relinquished and received?	Yes ☑	No ☐	
Chain of custody agrees with sample labels?	Yes ☑	No ☐	
Sample IDs noted by Client on COC?	Yes ☑	No ☐	
Date and Time of collection noted by Client on COC?	Yes ☑	No ☐	
Sampler's name noted on COC?	Yes ☑	No ☐	

Sample Receipt Information

Custody seals intact on shipping container/cooler?	Yes ☐	No ☐	NA ☑
Shipping container/cooler in good condition?	Yes ☑	No ☐	
Samples in proper containers/bottles?	Yes ☑	No ☐	
Sample containers intact?	Yes ☑	No ☐	
Sufficient sample volume for indicated test?	Yes ☑	No ☐	

Sample Preservation and Hold Time (HT) Information

All samples received within holding time?	Yes ☑	No ☐	
Container/Temp Blank temperature	Cooler Temp: 9.9°C		NA ☐
Water - VOA vials have zero headspace / no bubbles?	Yes ☑	No ☐	No VOA vials submitted ☐
Sample labels checked for correct preservation?	Yes ☑	No ☐	
TTLC Metal - pH acceptable upon receipt (pH<2)?	Yes ☐	No ☐	NA ☑

Client contacted: Date contacted: Contacted by:

Comments:

McCampbell Analytical, Inc.
"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mccampbell.com E-mail: main@mccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: Former Fiesta Beverage	Date Sampled: 02/28/08 Date Received: 02/29/08
	Client Contact: Mark Detterman	Date Extracted: 03/03/08
	Client P.O.:	Date Analyzed 03/03/08

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

Extraction method SW5030B Analytical methods SW8021B/8015Cm Work Order: 0802732

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1R	W	150,a	ND	5.5	ND	3.9	2.2	1	95
002A	MW-2	W	ND	ND	1.3	ND	ND	ND	1	93
003A	MW-3	W	320,a	ND<12	10	5.8	9.6	32	1	96
004A	MW-4	W	ND	ND	ND	ND	ND	ND	1	93
005A	MW-5	W	ND	ND	ND	ND	ND	ND	1	89
006A	MW-6	W	ND	ND	ND	ND	ND	ND	1	93
007A	MW-7	W	ND	ND	ND	ND	ND	ND	1	103
008A	MW-8	W	ND	ND	ND	ND	ND	ND	1	115
009A	MW-9	W	ND	ND	ND	ND	ND	ND	1	72

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 ~1 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; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request; p) see attached narrative.

DHS ELAP Certification N° 1644

Angela Rydelius, Lab Manager

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0802732

EPA Method SW8021B/8015Cm **Extraction SW5030B** **BatchID: 34096** **Spiked Sample ID: 0802726-002B**

Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex)£	ND	60	93.4	78	17.9	99.3	95.9	3.53	70 - 130	20	70 - 130	30
MTBE	ND	10	94.6	92.5	2.34	101	102	1.51	70 - 130	20	70 - 130	30
Benzene	ND	10	97.3	99.1	1.79	102	99	2.81	70 - 130	20	70 - 130	30
Toluene	0.51	10	89.3	90.8	1.56	113	110	3.22	70 - 130	20	70 - 130	30
Ethylbenzene	ND	10	95	96.1	1.14	109	106	2.80	70 - 130	20	70 - 130	30
Xylenes	ND	30	86.1	87.6	1.67	117	114	2.44	70 - 130	20	70 - 130	30
%SS:	91	10	106	111	4.80	98	100	1.94	70 - 130	20	70 - 130	30

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

NONE

BATCH 34096 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0802732-001A	02/28/08 1:55 PM	03/03/08	03/03/08 12:42 PM	0802732-002A	02/28/08 12:10 PM	03/03/08	03/03/08 1:17 PM
0802732-003A	02/28/08 11:40 AM	03/03/08	03/03/08 1:51 PM	0802732-004A	02/28/08 11:39 AM	03/03/08	03/03/08 2:26 PM
0802732-005A	02/28/08 9:44 AM	03/03/08	03/03/08 3:00 PM	0802732-006A	02/28/08 10:10 AM	03/03/08	03/03/08 3:35 PM
0802732-007A	02/28/08 1:58 PM	03/03/08	03/03/08 4:10 PM	0802732-008A	02/28/08 1:18 PM	03/03/08	03/03/08 4:45 PM
0802732-009A	02/28/08 1:10 PM	03/03/08	03/03/08 4:43 PM				

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 / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

DHS ELAP Certification N° 1644

QA/QC Officer