BLYMYER
ENGINEERS, INC.

1829 Clement Avenue

Alameda, California 94501-1396

(510) 521-3773 FAX: (510) 865-2594

LETTER OF TRANSMITTAL

DATE December 16, 2005	BEI Job No. 202016
ATTENTION:	Mr. Barney Chan
SUBJECT:	Dolan Property
	Scarlett Ct.
	Dublin, CA
	Fuel Leak Case No. RO0000210

Alameda County Health Care Services Agency

Environmental Protection Division

1131 Harbor Bay Parkway, Suite 250

Alameda, CA 94502-6577

Alameda County
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REMARKS: The attached report has been distributed as noted below.

The next quarterly event will likely occur in January 2005, after final installation of new wells MW-8 and MW-9

If you have questions, please contact me.

COPY TO: File
Mr. Michael Fitzpatrick, Trustee
Mr. Peter MacDonald, Esquire
Mr. John S Steinbuch, Colliers International

SIGNED: Mark Detterman

If enclosures are not as noted, kindly notify Blymyer Engineers, Inc. at once.

BLYMYER
ENGINEERS, INC.

November 23, 2005
BEI Job No. 202016

Mr. Michael Fitzpatrick, Trustee
Estate of Michael Dolan
P.O. Box 31654
Walnut Creek, CA 94598

Subject: **Third Quarter 2005 Groundwater Monitoring Event**
Dolan Trust Property
6393 Scarlett Court
Dublin, California
ACHCSA Fuel Leak Case No. R[redacted]310

Dear Mr. Fitzpatrick:

This letter documents the Third Quarter 2005 groundwater monitoring event at the subject site (Figure 1). This is the seventh groundwater monitoring event conducted by Blymyer Engineers, Inc. at the Dolan Property in Dublin, California.

1.0 Background

A 600-gallon underground storage tank (UST) was removed in February 1990 from the subject site (Figure 2). Although the UST had reportedly stored diesel more recently, soil and groundwater samples collected for laboratory analysis indicated that the contaminant of concern at the site was gasoline. Files maintained by the Alameda County Health Care Service Agency (ACHCSA) do not contain waste manifests for the disposal of soil, although a *Uniform Hazardous Waste Manifest* is present documenting the disposal of a 600-gallon UST. This suggests that contaminated soil may not have been removed from the site. In October 1990, five soil bores were installed at the site, and soil and grab groundwater samples were collected. Additional delineation work was conducted in November 1991, when groundwater monitoring wells MW-1 through MW-4 were installed to a depth of 20 feet below grade surface (bgs). Soil and groundwater samples were collected. In November 1992, 14 additional soil bores were installed, and soil and grab groundwater samples were collected from selected bore locations. Although there were several data gaps in the perimeter zone of soil and groundwater delineation, the soil and groundwater plumes were largely defined as a result of this investigation. The groundwater plume did not appear to extend offsite; however, a thin free-phase layer was present immediately adjacent to the former UST basin, and at a location approximately 40 feet to the east. Additional wells were proposed to fill the existing data gaps and to monitor the lateral extent of impacted groundwater and free-phase. As a consequence, in March 1995, wells MW-5 and MW-6 were installed to a depth of 10 feet bgs. Intermittent groundwater sample collection or groundwater monitoring has occurred at the facility since 1991. In an August 1998 letter, the ACHCSA suggested that a health risk analysis or the installation of an oxygen

releasing compound (ORC) might be appropriate for the site. Also in the August 1998 letter, the ACHCSA stated that groundwater sampling of wells MW-1, MW-3, MW-5, and MW-6 could be discontinued, stated that the sampling interval could be decreased to a semiannual basis, and requested resumption of groundwater monitoring.

In May 2002, Blymyer Engineers was retained by Mr. Michael Fitzpatrick, on behalf of Mr. Michael Dolan, to conduct semiannual groundwater sampling of wells MW-2 and MW-4, and to conduct a file review to help determine the next appropriate step at the site.

In May 2002, Blymyer Engineers located and rehabilitated the wells at the site. Well MW-5 required the most extensive rehabilitation work, and required resurveying due to a change in well casing elevation. In June 2002, wells MW-2 and MW-4 were sampled, while depth to groundwater was measured all of the wells. Except for a slight increase in benzene in groundwater from well MW-4, the concentration of all analytes in the two wells decreased from the August 1997 sampling event. Based upon a review of the results, the ACHCSA recommended that well MW-5 be incorporated into the sampling program and that quarterly groundwater monitoring resume in order that contaminant concentrations and contaminant trends could be quickly generated for the recommended health risk assessment.

Two additional quarters were completed prior to the death of Mr. Dolan. Groundwater monitoring was on hold after January 2003 due to the Estate becoming established. During the groundwater monitoring event in December 2002, analysis for the fuel oxygenates was conducted by EPA Method 8260B. All fuel oxygenates were found to be non-detectable at good limits of detection. Consequently, all sporadic occurrences of methyl tert-butyl ether (MTBE) previously detected at the site have been attributed to 3-methyl-pentane, another gasoline related compound. This suggests that the release predates the use of MTBE and other fuel oxygenates as gasoline additives. All previously available data from the site has been tabulated on Tables I through III.

On June 13, 2003, a workplan was submitted to the ACHCSA in order to allow further subsurface delineation of impacted soil at the site. In a telephone conversation on June 16, 2003, Mr. Scott Seery mentioned that it was unlikely that he would be able to respond in a timely manner due to the work load at the ACHCSA, and noted that if a response was not issued 60 days after receipt, regulations stated that the workplan should be considered approved. Consequently, field work commenced on September 13, 2003. Nine Geoprobe® soil bores were installed at the site to augment existing soil data. The data indicated that the lateral and vertical extent of impacted soil at the site had been adequately delineated to relatively low concentrations, and the limits further refined for the purposes of determining appropriate remedial actions (*Geoprobe® Subsurface Investigation*, dated October 10, 2003).

Based on these data, and a lack of further comments by the ACHCSA, a *Remedial Action Plan* (RAP), dated April 6, 2004, was issued. The plan detailed overexcavation and construction dewatering, as the principal method of remedial action. Introduction of ORC into the resulting excavation as an additional measure of insurance, should residual contamination be intentionally or unintentionally left in place, was also proposed. Use of ORC was proposed based on general knowledge that biodegradation of petroleum hydrocarbons is generally an oxygen limited process. A Request for Proposal (RFP) was generated in early May 2004 for contractor bidding purposes; however, it was not released due to a change in the timeline for sale closure. On September 2, 2004, Blymyer Engineers contacted Mr. Seery in order to determine the status of the RAP review. At that time, Mr. Seery notified Blymyer Engineers that Mr. Robert Schultz was the new case manager for the site. Mr. Schultz required time to review and become familiar with the file. On November 15, 2004, the ACHCSA issued a 5-page response letter (*Fuel Leak Case No. RO0000210*) requesting extensive further work and containing several deadlines. A December 31, 2004 deadline was established for a workplan for additional site characterization. The *Workplan for Additional Investigation and Letter Report*, dated December 23, 2004, was submitted to the ACHCSA on January 3, 2005.

In a letter dated January 24, 2005, the ACHCSA approved the workplan provided four conditions were met:

- A pilot hole was to be used to identify lithology prior to collection of a groundwater sample from a deeper water-bearing zone,
- Should additional groundwater wells be required, the ACHCSA would be consulted regarding well construction details,
- Should additional soil or groundwater samples be required, the ACHCSA would be kept informed of planned changes and consistent dynamic investigation procedures, and
- A 72-hour written advanced warning would be provided.

On February 18, 2005, Blymyer Engineers mobilized to the site to install two to three dual-tube direct-push soil bores in an attempt to collect the approved soil and groundwater samples. As a precursor to the mobilization, a conduit survey was conducted. However, due to poor soil recovery an additional mobilization to the site was required. After notifying, and obtaining approval from, the ACHCSA 72 hours in advance, a Cone Penetrometer Test (CPT) direct-push rig was mobilized to the site on March 28, 2005. Prior to the March 28, 2005 mobilization, the ACHCSA approved a reduction in the quarterly analytical program, based on historical analytical trends. Specifically, hydrocarbon analysis of groundwater samples from wells MW-1, MW-3, and MW-6 was eliminated.

On April 13, 2005, CCS Environmental resurveyed all wells at the site. As of April 30, 2005, all tenant operations at the site ceased. This includes the batch plant used by Dublin Concrete.

On May 10, 2005, Blymyer Engineers submitted the *Additional Site Investigation Data Transmittal* to the ACHCSA providing a brief summary of the results of the CPT bore installations. Based on the detection of hydrocarbon compounds in groundwater between 30 and 40 feet bgs, the letter proposed the installation of groundwater well MW-7 across a deeper water-bearing zone in a downgradient position. Shortly thereafter, the ACHCSA reported that Mr. Schultz had left the employ of the agency and that the case had not been assigned to a new case worker yet. The ACHCSA was apprised that due to the sale of the parcel, work would proceed, pending agency review.

As a part of another related project, Blymyer Engineers oversaw the permitted destruction of two old water production wells between May 16 and May 24, 2005. According to Zone 7, both wells appear to have dated from the 1940s or 1950s. Well "3S/1E 6F 1", located on the subject parcel was constructed of 8-inch-diameter steel casing and was 95 feet in total depth. Well "3S/1E 6F 2" was located on the adjacent parcel, also owned by Dolan Properties, and was constructed of 13-inch-diameter riveted steel casing and was 38 feet in total depth. All Zone 7 permit conditions were observed; however, the upper 6 to 7.5 feet of each well casing was removed by excavation seven days after it had been filled to the surface with cement grout. An approximately 6- to 12-inch-thick concrete mushroom cap was placed over and around the remaining casing at depths of 6 and 7.5 feet bgs, respectively (where the casing broke during removal). The excavation was backfilled with native soil, and track rolled.

On July 5 and July 8, 2005, Blymyer Engineers oversaw the installation of downgradient groundwater monitoring well MW-7 (Figure 2). The well was installed into the second water-bearing zone beneath the site due to the detection of hydrocarbon contamination in groundwater in both CPT bores at depths of approximately 30 to 40 feet bgs. A conductor casing was installed to a depth of 30 feet in order to exclude upper water-bearing zones, and to prevent cross-contamination of deeper water-bearing zones. A 2-inch-diameter PVC casing was installed through the conductor casing and the well was screened between 30 and 40 feet bgs.

On October 7, 2005, Blymyer Engineers issued the *Remedial Investigation / Feasibility Study* report documenting all field work conducted since January 2005, and the results of a feasibility study. The report evaluated three remedial alternatives, including monitored natural attenuation, dual-phase extraction, and source soil excavation and dewatering. It was found that, under monitored natural attenuation, benzene would require approximately 33 years to reach the Maximum Contaminant Level (MCL) and that the remedial cost was the highest of the three options. Remedial costs were the second highest under the dual-phase extraction scenario, and would be more intrusive with respect to the future owner's land use. Remedial costs were lowest, and the site presence was least intrusive in the longer term under the remedial overexcavation and dewatering scenario. This

scenario additionally introduces oxygen releasing compound (ORC) into the remedial excavation to stimulate biodegradation of the residual hydrocarbon contamination by indigenous microbes; previously shown to be oxygen-limited at the site. This scenario additionally treats soil and groundwater outside the plume core with ORC injected through Geoprobe bores on an approximately 10-foot spacing interval. Principally because remedial costs were lowest, remedial excavation was selected as the most appropriate remedial technology for the site. On October 26, 2005, Blymyer Engineers issued the *Corrective Action Plan For Source Soil Excavation and Dewatering*. On November 2, 2005, the ACHCSA issued the letter *Fuel Leak Case No. RO0000210,* that concurred with the recommended remedial plan, but contained six technical comments for clarification. On November 9, 2005, Blymyer Engineers issued the *Response to November 2, 2005 Letter*, that addressed the technical comments contained in the ACHCSA letter.

2.0 Well Survey

At the request of the ACHCSA, Blymyer Engineers contacted the Zone 7 Water Agency (Zone 7) in October 2002 and requested a 1/4-mile-radius well survey be conducted for the site. A copy of the well survey is attached as Appendix A. Five water supply wells were originally located within the 1/4-mile radius and a sixth was located east of the site, but outside the search radius. These wells are indicated by solid (functioning) or open (destroyed) triangles on the figure in Appendix A. According to Zone 7 (Mr. Wyman Hong, personal communication, October 2002), these wells are screened in a lower water-bearing zone than site wells. Additionally, approximately eight contamination investigation sites were located in the vicinity of the site (one was located just outside the search radius). Monitoring wells at these sites are indicated by filled (functioning wells) or open (destroyed wells) diamonds. One of these sites is the subject site. Additional wells, in a miscellaneous or unknown category, were located by the Zone 7 search. These wells are indicated by a filled circle on the figure in Appendix A. These wells can include cathodic protection anode installations according to Mr. Hong.

In November 2002, the ACHCSA requested that copies of the water supply well bore logs be forwarded to the ACHCSA to verify the screening interval reported by Zone 7. Due to restrictions placed on the dissemination of private well information by state laws, the bore logs can only be forwarded directly to ACHCSA. However, pertinent data for the wells, as reported verbally by Zone 7, has been assembled in Table A-1, attached in Appendix A. Table A-1 has also been updated to reflect the destruction of the two water supply wells mentioned above.

3.0 Groundwater Sample Collection and Analytical Methods

Groundwater samples were collected from four monitoring wells (MW-2, MW-4, MW-5, and MW-7) on September 6, 2005. 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 B. Remediation by Natural Attenuation

parameters were not collected this quarter. Depth to groundwater was measured in all wells at the site. Temperature, pH, conductivity, and turbidity were measured initially, and then after removal of each purge volume. The groundwater depth measurements and details of the monitoring well purging and sampling are presented on the *Well Monitoring Data Sheets* and *Well Gauging Data* sheet generated by Blaine and included as Appendix C. Depth-to-groundwater measurements are presented in Table I. All purge and decontamination water was temporarily stored in Department of Transportation-approved 55-gallon drums 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 wells MW-2, MW-4, MW-5, and MW-7 were analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline and as diesel by Modified EPA Method 8015; and benzene, toluene, ethylbenzene, and total xylenes (BTEX) and MTBE by EPA Method 8021B. Tables II to V summarize current and previous analytical results for groundwater samples. The laboratory analytical report for the current sampling event is included as Appendix D.

4.0 Petroleum Hydrocarbon Groundwater Sample Analytical Results

Hydrocarbon analysis of groundwater samples from perimeter wells MW-1, MW-3, and MW-6 was not conducted during the current sampling event due to the lack of detectable results during the December 2004 quarterly event. These data were consistent with all previous analytical data over an 11 to 13 year period for those wells. Except for the detection of MTBE at a concentration of 32 μg/L in well MW-5, this perimeter well also yielded a nondetectable concentration of petroleum hydrocarbons, consistent with the majority of historic groundwater analytical results at this location.

Only wells MW-2 and MW-4 have generally yielded consistent concentrations of petroleum hydrocarbons previously. During the current event, well MW-4 did not contain detectable concentrations of petroleum hydrocarbons. Plume core well MW-2 yielded concentrations of all analytes at significantly higher concentrations in comparison to the previous groundwater sampling event conducted in June 2005. The June concentrations were historic lows for all analytes. This may be the result of the change in purge techniques, from micropurge to standard three well volume purge; however, the micropurge technique is generally accepted to yield higher analyte concentrations in comparison to standard purge techniques. A copy of the groundwater petroleum hydrocarbon analytical results can be found in Appendix D, and the results are summarized in Table II and Table III. Well MW-7 contained trace detectable concentrations of benzene and ethylbenzene at 0.70 mg/L and 1.2 mg/L, respectively. These concentrations are below the respective MCLs; however, this is the first detection of contaminants in this well, set in a lower water-bearing zone.

Analysis for MTBE was not conducted by EPA Method 8260B this quarter. Because EPA Method 8021B produces false MTBE positives due to the coelution of MTBE with 3-methyl-pentane, another gasoline compound, EPA Method 8260B is required to distinguish between the two

chemicals. MTBE has previously been confirmed in well MW-5 with Method 8260B and that analysis yielded results very consistent with the results produced by EPA Method 8021B. It was detected in well MW-5 again this quarter at a concentration of 32 μg/L, a slight increase since the previous quarterly event.

Well MW-2 yielded a detectable concentration of 1, 2-DCA (5.4 μg/L) during the first quarterly groundwater monitoring event of 2005. All other oxygenates and lead scavengers were not detected, sometimes at elevated limits of detection due to the dilutions required because of the elevated hydrocarbon compound concentrations in the sample. However, the lack of MTBE in groundwater collected from well MW-2 at that time, at good limits of detection, is consistent with previous analysis for fuel oxygenates conducted in December 2002. These results again suggest that there may be potentially two separate releases at the site, a non-MTBE-bearing release as detected in well MW-2 (screened between 5 and 20 feet bgs) and a MTBE-bearing release detected in well MW-5 (screened between 3 and 10 feet bgs). Of note is that EDB, 1, 2-DCA, ethanol, and methanol were not detected at good limits of detection in well MW-5. This suggests that portions of the release predate the use of fuel oxygenates as gasoline fuel additives.

The laboratory has previously included a note that the hydrocarbon quantified as TPH as diesel in wells MW-2 and MW-5 was present in the requested quantitation range (diesel), but that it did not resemble the fuel pattern requested. A review of the chromatograms from wells during the September 2002 quarterly event indicated that the hydrocarbon detected in the diesel range in groundwater from well MW-2 is associated with the heavy end of gasoline (carbon range C4 to C12) which overlaps into the typical carbon range occupied by diesel (carbon range C10 to C22). However, the compound previously detected in well MW-5 suggests that it may be an aged diesel product as the smooth curve lay between carbon ranges C10 to C22.

5.0 Intrinsic Bioremediation Groundwater Sample Analytical Results

Intrinsic bioremediation parameters were not collected during the current quarter; however, Tables IV and V present the previous analytical results of the 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 to degrade petroleum hydrocarbons: oxygen to carbon dioxide, nitrate to nitrogen, manganese (Mn^{4+} to Mn^{2+}), ferric iron (Fe^{3+}) to ferrous iron (Fe^{2+}), sulfate to hydrogen sulfide, and carbon dioxide to methane. With the exception of oxygen, use of all other electron acceptor pathways indicate anaerobic degradation. Investigation of each of these electron acceptor pathways, with the exception of the manganese pathway, has been conducted at the site as part of the evaluation of RNA chemical parameters. In general, natural biodegradation appears to be occurring at the site; however, it also appears to be oxygen and nutrient (nitrate) limited. Please see the *Second Quarter 2005 Groundwater Monitoring Event* report, dated July 27, 2005, for a more complete discussion of these RNA results.

6.0 Groundwater Flow Data

Recently surveyed top-of-casing (TOC) elevations were used to construct a groundwater gradient map (Figure 2). Wells MW-5, MW-6, and MW-7 were not used to construct the map as the wells are screened at a shallower level (MW-5 and MW-6) or a deeper level (MW-7) than wells MW-1 through MW-4. Based on a review of the case file at the ACHCSA, groundwater elevations in wells MW-5 and MW-6 appear to have been historically consistently different than wells MW-1 through MW-4 at the site. Groundwater depths during this monitoring event ranged between 3.30 to 6.78 feet below the top of the casings. On average, depth to groundwater increased by approximately 0.40 feet across the site since the June 2005 monitoring and sampling event; however, depth to groundwater in well MW-5 decreased by 0.32 feet. The direction of groundwater flow appears to be trending southeast to east. Historically, groundwater has generally flowed to the south to southwest at the site (see for example the Rose Diagram of historic groundwater flow directions included in the *Additional Site Investigation Data Transmittal*); however, during the previous quarter, and in November 1993, groundwater was documented to have flowed to the east. The average groundwater gradient was calculated to be at approximately 0.013 feet/foot for this monitoring event.

7.0 Conclusions and Recommendations

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

- Hydrocarbon analysis of groundwater samples from perimeter wells MW-1, MW-3, and MW-6 was not conducted during the current sampling event due to the lack of detectable results during the December 2004 quarterly event. This is consistent with over 11 to 13 years of analytical results.

- Except for the detection of MTBE at a concentration of 32 μg/L in well MW-5, this well again yielded nondetectable concentrations of petroleum hydrocarbons, consistent with the majority of historic groundwater analytical results from this perimeter well.

- Plume core well MW-2 yielded concentrations of all analytes at significantly higher concentrations in comparison to the previous groundwater sampling event conducted in June 2005. The June concentrations were historic lows for all analytes. This may be the result of the sampling methodology.

- Fuel oxygenates 1, 2-DCA (well MW-2), and MTBE (well MW-5) were not confirmed by EPA Method 8260B this quarter; however, they are presumed to be present in these wells.

- In a cost savings measure, RNA chemical parameters were not investigated this quarter. Previously DO, ORP, carbon dioxide, nitrate, ferrous iron, sulfate, and methane have been analyzed to help determine the level of biological degradation of the petroleum hydrocarbons at the site. Based on the data, microbial use of petroleum hydrocarbons as a food source appears to be principally affected by the concentration of DO in the groundwater; it is the preferred electron acceptor for the biodegradation of hydrocarbons. Because each of the other electron acceptors, in the listed order, is preferred less by microbes to degrade hydrocarbons, and because each parameter was apparently fully utilized by microbes beneath the site, it appears that biological degradation of hydrocarbons is occurring in groundwater beneath the investigation area, and that the process is oxygen-limited. This was the conclusion generated from data collected during each of the three quarters in which RNA was monitored (December 2004, March 2005, and June 2005 events).

- Based on previous data, groundwater beneath the site appears to be naturally low in nitrate.

- During the current quarter, groundwater flow again appears to be towards the south-southeast and the average groundwater gradient was calculated at 0.013 feet/foot.

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

- The next quarterly groundwater sampling event is scheduled to occur in December 2005; however, remedial activities should be completed prior to sampling in order to capture any initial changes resulting from the activities.

- The site should be incorporated into the state GeoTracker program now that site wells have been resurveyed.

- Collection of RNA indicator data should be resumed on a semi-annual basis beginning with the December 2005 groundwater monitoring event in order to capture any initial changes resulting from the remedial activities. The collection of additional data will help in the understanding of post-remedial biodegradation beneath the site.

- A copy of this letter report should 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

8.0 Limitations

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

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

Sincerely,

Blymyer Engineers, Inc.

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

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

Enclosures:

Table I:	Summary of Groundwater Elevation Measurements
Table II:	Summary of Groundwater Sample Hydrocarbon Analytical Results
Table III:	Summary of Groundwater Sample Fuel Additive Analytical Results
Table IV:	Summary of Groundwater Intrinsic Bioremediation Field Results
Table V:	Summary of Groundwater Intrinsic Bioremediation Analytical Results
Figure 1:	Site Location Map
Figure 2:	Site Plan and Groundwater Gradient, September 6, 2005
Appendix A:	Zone 7 Water Agency Well Search and Table A-1
Appendix B:	*Standard Operating Procedures*, Blaine Tech Services, Inc.
Appendix C:	*Purge Drum Inventory Log, Wellhead Inspection Checklist, Well Gauging Data,* and *Well Monitoring Data Sheets,* Blaine Tech Services, Inc., Dated September 6, 2005
Appendix D:	Analytical Laboratory Report, McCampbell Analytical, Inc., Dated September 14, 2005

Tables

Table I, Summary of Groundwater Elevation Measurements BEI Job No. 202016, Dolan Rentals 6393 Scarlett Court, Dublin, California				
Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-1	11/27/91	326.61	4.82	321.79
	9/30/92		5.34	321.27
	4/7/94		3.38	323.23
	8/12/94		4.23	322.38
	11/29/94		3.44	323.17
	3/21/95		1.00	325.61
	5/22/95		2.20	324.41
	8/24/95		3.45	323.16
	2/12/96		1.95	324.66
	2/5/97		Data	Missing
	8/6/97		3.60	323.01
	6/6/02*		2.89	323.72
	9/23/02		3.48	323.13
	12/13/02		3.18	323.43
	12/14/04		2.76	323.85
	3/23/05		1.14	325.47
	6/22/05	329.41 [1]	2.58	326.83
	7/18/05		2.21	327.20
	9/6/05		3.30	326.11

Table I, Summary of Groundwater Elevation Measurements
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-2	11/27/91	326.67	4.92	321.75
	9/30/92		5.42	321.25
	4/7/94		3.48	323.19
	8/12/94		4.18	322.49
	11/29/94		3.76	322.91
	3/21/95		1.25	325.42
	5/22/95		2.20	324.47
	8/24/95		3.57	323.10
	2/12/96		2.60	324.07
	2/5/97		1.72	324.95
	8/6/97		3.72	322.95
	6/6/02*		3.46	323.21
	9/23/02		4.14	322.53
	12/13/02		3.45	323.22
	12/14/04		2.96	323.71
	3/23/05		1.83	324.84
	6/22/05	329.46 [1]	3.82	325.64
	7/18/05		3.55	325.91
	9/6/05		3.70	325.76

Table I, Summary of Groundwater Elevation Measurements
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Water Surface Elevation (feet)
MW-3	11/27/91	326.58	4.96	321.62
	9/30/92		5.46	321.12
	4/7/94		3.66	322.92
	8/12/94		4.37	322.21
	11/29/94		3.60	322.98
	3/21/95		1.62	324.96
	5/22/95		2.73	323.85
	8/24/95		3.76	322.82
	2/12/96		2.45	324.13
	2/5/97		1.99	324.59
	8/6/97		3.83	322.75
	6/6/02*		3.66	322.92
	9/23/02		4.66	321.92
	12/13/02		3.66	322.92
	12/14/04		3.52	323.06
	3/23/05		1.83	324.75
	6/22/05	329.37 [1]	3.99	325.38
	7/18/05		3.60	322.98
	9/6/05		4.42	324.95

Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Sample ID	Date	Modified EPA Method 8015 (μg/L)		EPA Method 8020 or 8021B (μg/L)				
		TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-3	11/27/91	<50	NA	<0.3	<0.3	<0.3	<0.3	NA
	9/30/92	<50	NA	<0.3	<0.3	<0.3	<0.3	NA
	4/7/94	<50	NA	**2.5**	**5.5**	**0.9**	**5.1**	NA
	8/12/94	<50	NA	<0.5	<0.5	<0.3	<2	NA
	11/29/94	<50	NA	<0.5	<0.5	<0.5	<2	NA
	3/21/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	5/22/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	8/24/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	2/12/96	<50	NA	<0.5	<0.5	<0.5	<2	NA
	2/5/97	<50	NA	<0.5	<0.5	<0.5	<0.5	<5
	6/6/02*	NA	NA	NA	NA	NA	NA	NA
	9/23/02	NA	NA	NA	NA	NA	NA	NA
	12/13/02	NA	NA	NA	NA	NA	NA	NA
	12/14/04	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/23/05	NA	NA	NA	NA	NA	NA	NA
	6/22/05	NA	NA	NA	NA	NA	NA	NA
	9/6/05	NA	NA	NA	NA	NA	NA	NA

Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Sample ID	Date	Modified EPA Method 8015 (μg/L)		EPA Method 8020 or 8021B (μg/L)				
		TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-4	11/27/91	11,000	NA	100	0.7	250	330	NA
	9/30/92	380	NA	3.5	2.4	8.9	3.4	NA
	4/7/94	1,100	NA	61	5.5	17	12	NA
	8/12/94	1,000	NA	3	1	8	4	NA
	11/29/94	1,100	NA	2	<0.5	10	6	NA
	3/21/95	1,400	NA	200	5	66	18	NA
	5/22/95	1,200	NA	60	1	12	8	NA
	8/24/95	400	NA	1	<0.5	1	<2	NA
	2/12/96	1,500	NA	130	<0.5	120	51	NA
	2/5/97	1,200	NA	250	4.9	94	12	16
	8/6/97	330	NA	1.5	<0.5	<0.5	<0.5	<5
	6/6/02*	<50	NA	1.7	<0.5	<0.5	<0.5	<2.5
	9/23/02	<50	<48	<0.5	1.3	<0.5	<0.5	<2.5
	12/13/02	<50	86 [c]	<0.5	<0.5	<0.5	<1.5	<0.5
	12/14/04	95 [h]	<50	2.6	<0.5	<0.5	<0.5	<5.0
	3/23/05	120 [h]	<50	<0.5	5.0	<0.5	<0.5	<5.0
	6/22/05	180 [e]	<50	1.7	7.5	<0.5	<0.5	<5.0
	9/6/05	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0

Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Sample ID	Date	Modified EPA Method 8015 (μg/L)		EPA Method 8020 or 8021B (μg/L)				
		TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-5	3/21/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	5/22/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	8/24/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	2/12/96	<50	NA	<0.5	<0.5	<0.5	<2	NA
	2/5/97	<50	NA	<0.5	<0.5	<0.5	<0.5	<5
	6/6/02*	NA	NA	NA	NA	NA	NA	NA
	9/23/02	<50	**310** [c]	<0.5	<0.5	<0.5	<0.5	<2.5
	12/13/02	<50	**97** [c]	<0.5	<0.5	<0.5	<1.5	**0.720** [d]
	12/14/04	<50	<50	<0.5	<0.5	<0.5	<0.5	**12**
	3/23/05	<50	<50	<0.5	<0.5	<0.5	<0.5	**23**
	6/22/05	<50	<50	<0.5	<0.5	<0.5	<0.5	**31**
	9/6/05	<50	<50	<0.5	<0.5	<0.5	<0.5	**32**

Table II, Summary of Groundwater Sample Hydrocarbon Analytical Results
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Sample ID	Date	Modified EPA Method 8015 (μg/L)		EPA Method 8020 or 8021B (μg/L)				
		TPH as Gasoline	TPH as Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE
MW-6	3/21/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	5/22/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	8/24/95	<50	NA	<0.5	<0.5	<0.5	<2	NA
	2/12/96	<50	NA	<0.5	<0.5	<0.5	<2	NA
	2/5/97	<50	NA	<0.5	<0.5	<0.5	<0.5	<5
	6/6/02*	NA	NA	NA	NA	NA	NA	NA
	9/23/02	NA	NA	NA	NA	NA	NA	NA
	12/13/02	NA	NA	NA	NA	NA	NA	NA
	12/14/04	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/23/05	NA	NA	NA	NA	NA	NA	NA
	6/22/05	NA	NA	NA	NA	NA	NA	NA
	9/6/05	NA	NA	NA	NA	NA	NA	NA
MW-7	7/18/05	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/6/05	<50	<50	**0.70**	<0.5	**1.2**	<0.5	<5.0
RWQCB Groundwater ESL: Groundwater IS a Current or Potential Source of Drinking Water; Commercial/ Industrial Land Use (Table A)		100	100	1.0	40	30	13	5.0

Table II, Continued; Summary of Groundwater Sample Hydrocarbon Analytical Results

Notes:
- µg/L = Micrograms per liter
- TPH = Total Petroleum Hydrocarbons
- MTBE = Methyl *tert*-butyl ether
- NA = Not analyzed
- <x = Less than the analytical detection limit (x)
- EPA = Environmental Protection Agency
- NV = No value established
- * = Initial data set collected under direction of Blymyer Engineers, Inc.
- [a] = Laboratory note indicates the result is an unidentified hydrocarbon within the C6 to C10 range.
- [b] = Laboratory note indicates the result is gasoline within the C6 to C10 range.
- [c] = Laboratory note indicates the result is a hydrocarbon within the diesel range but that it does not represent the pattern of the requested fuel.
- [d] = MTBE analysis by EPA Method 8260B yielded a non-detectable concentration at a detection limit of 0.50 µg/L. See Table III.
- [e] = Laboratory note indicates that unmodified or weakly modified gasoline is significant.
- [f] = Laboratory note indicates that diesel range compounds are significant, with no recognizable pattern.
- [g] = Laboratory note indicates that gasoline range compounds are significant.
- [h] = Laboratory note indicates that no recognizable pattern is present.
- [i] = Laboratory note indicates that a lighter than water immiscible sheen / product is present.
- [j] = Laboratory note indicates that oil range compounds are significant.

Bold results indicate detectable analyte concentrations.
Shaded results indicate analyte concentrations above the respective RWQCB ESL value.

Table III, Summary of Groundwater Sample Fuel Additive Analytical Results
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Sample ID	Date	EPA Method 8260B								
		TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	Ethanol (µg/L)	ETBE (µg/L)	Methanol (µg/L)	MTBE (µg/L)
MW-2	12/13/02	<0.50	<2,000	NA	NA	<0.50	NA	<0.50	NA	<0.50
	3/23/05	<5.0	<50	<5.0	**5.4**	<5.0	<500	<5.0	<5,000	<5.0
MW-5	12/14/04	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<0.5	<500	**12**
RWQCB Groundwater ESL: Groundwater is Not a Current or Potential Drinking Water Resource (Table F-1b)		NV	18,000	160	200	NV	NV	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 = Methyl *tert*-butyl Ether
(µg/L) = Micrograms per liter
NA = Not analyzed
NV = No value

Table IV, Summary of Groundwater Intrinsic Bioremediation Field Results
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Sample ID	Sample Date	Field Meter	Field Meter	Field Test Kit	Field Meter	Field Meter
		Dissolved Oxygen	Oxidation Reduction Potential	Ferrous Iron (Fe^{2+})	Field Temperature	Field pH
		mg/L	mV	mg/L	°C	pH units
MW-1	12/14/04	0.2 / 2.0	224 / 160	0.1	18.8	6.9
	3/23/05	5.1 / 0.2	105 / 102	0.0	17.3	6.9
	6/22/05	0.51 / 0.28	-208.2/-137.4	0.3	19.57	6.65
MW-2	12/14/04	0.3 / 2.0	-160 / -148	1.4	18.4	6.9
	3/23/05	0.1 / 0.1	-133 / -145	2.0	16.6	7.0
	6/22/05	0.55 / 0.11	-208.5/-229.6	1.0	22.64	6.96
MW-3	12/14/04	0.3 / 0.6	171 / 165	0.1	19.4	7.2
	3/23/05	0.1 / 0.1	81 / 79	0.0	17.7	7.2
	6/22/05	1.49/1.39	100.7/30.3	0.1	20.83	7.09
MW-4	12/14/04	0.7 / 0.1	-7 / -41	0.8	18.0	6.8
	3/23/05	0.1 / 0.4	-17 / -19	1.2	15.9	6.9
	6/22/05	0.23 / 0.12	-28.6 / -30.9	1.2	20.05	6.70
MW-5	12/14/04	0.5 / 2.0	5 / 532	0.1	17.9	7.1
	3/23/05	0.1 / 0.9	-17 / 0	0.0	15.1	7.2
	6/22/05	0.52 / 0.27	14.4 / -35.3	0.1	23.75	7.03
MW-6	12/14/04	0.3 / 1.2	125 / -25	0.0	15.5	7.2
	3/23/05	0.1 / 0.8	52 / -4	0.0	13.9	7.2
	6/22/05	0.53 / 0.49	-22.3 / -18.0	0.1	22.65	7.03
MW-7	7/18/05	NS	NS	NS	68.7 / 69.4	7.0 / 7.0

Notes:

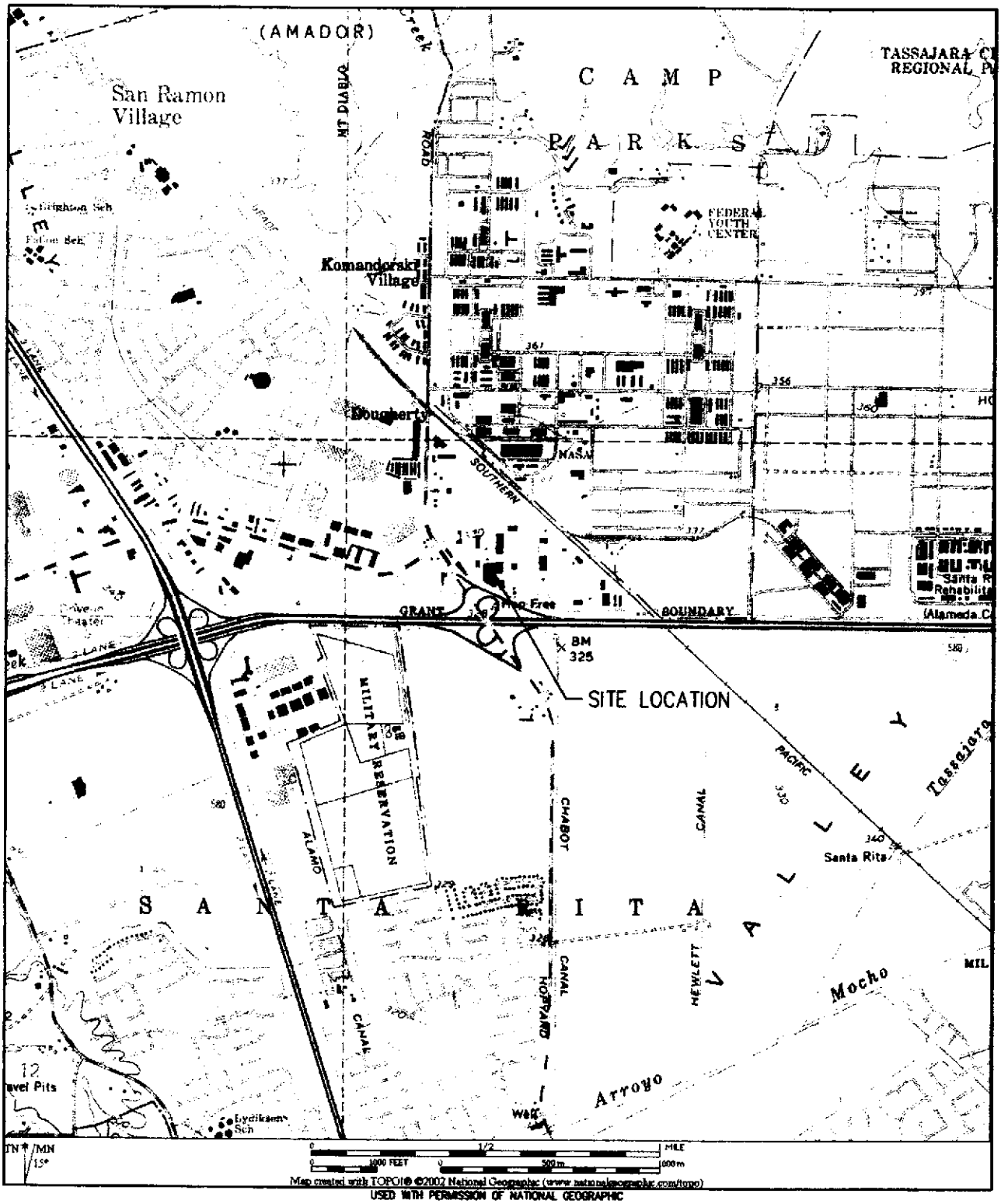
mV	=	Millivolt
mg/L	=	milligrams per liter
°C	=	degrees Centigrade
2.6 / 2.2	=	Initial reading (pre-purge) / Final reading (post-purge)
NS	=	Not sampled

Table V, Summary of Groundwater Intrinsic Bioremediation Analytical Results
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

ID	Date	SM 5310B	Method E300.1		Method RSK 174
		CO_2	Nitrate (as N)	Sulfate	Methane
		mg/L			µg/L
MW-1	12/14/04	580	<20	1,100	2.2
	3/23/05	660	0.41	620	<0.5
	6/22/05	660	<0.1	580	0.91
MW-2	12/14/04	940	<5.0	220	4,700
	3/23/05	1,100	0.34	180	3,700
	6/22/05	990	<0.1	290	1,800
MW-3	12/14/04	610	<20	780	<0.5
	3/23/05	590	0.20	560	<0.5
	6/22/05	320	1.3	540	<0.5
MW-4	12/14/04	680	<10	760	170
	3/23/05	700	0.30	430	24
	6/22/05	700	<0.1	480	71
MW-5	12/14/04	1,400	<20	1,200	120
	3/23/05	1,400	0.66	640	57
	6/22/05	1,500	<0.1	590	1.5
MW-6	12/14/04	790	<10	460	180
	3/23/05	770	0.12	380	60
	6/22/05	770	<0.1	400	36
MW-7	7/18/05	NS	NS	NS	NS

Notes:
SM = Standard Method
mg/L = Milligrams per liter
µg/L = Micrograms per liter
CO_2 = Carbon dioxide
NS = Not sampled

Figures



BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
202016	6-27-02

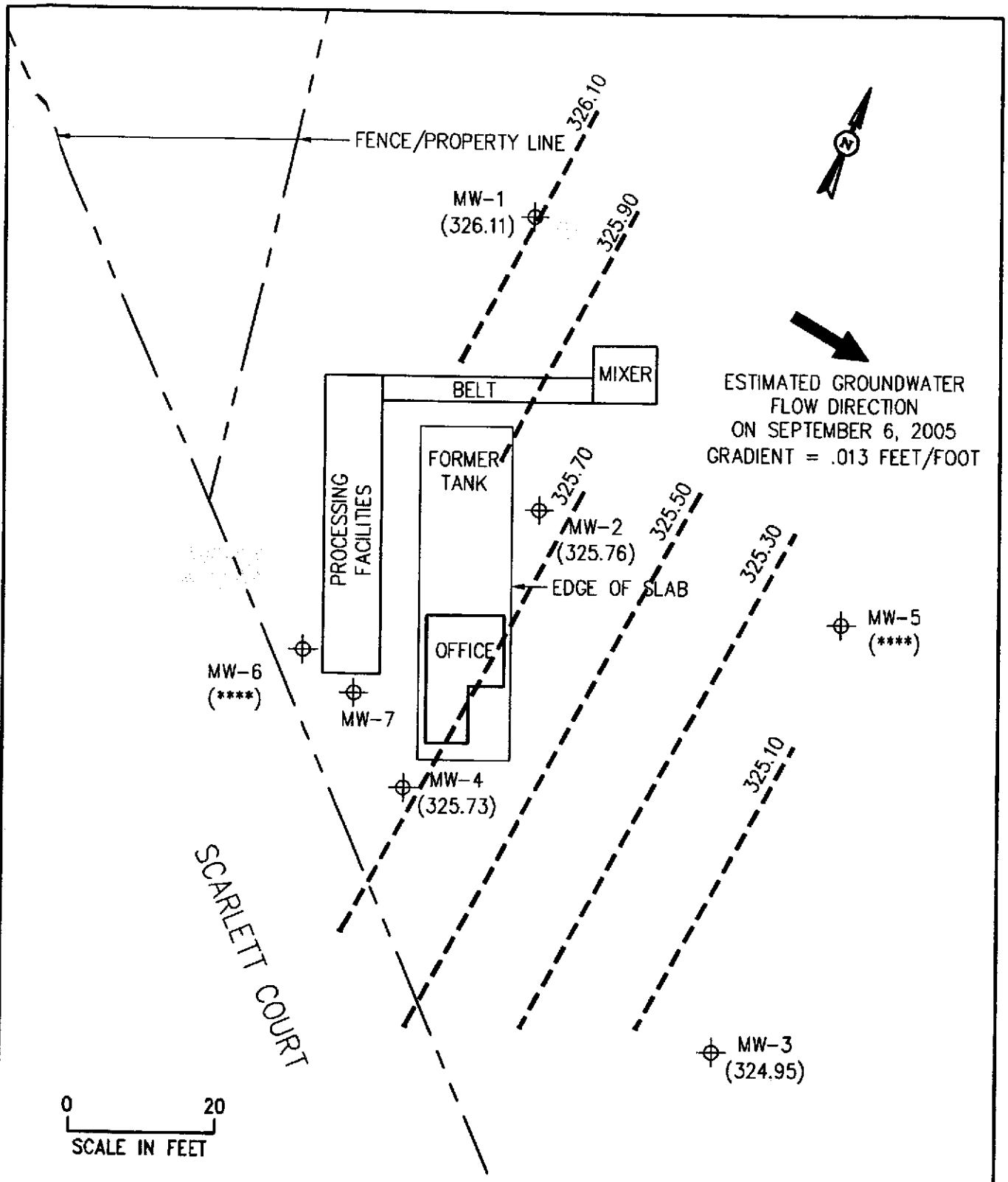
LEGEND

-

SITE LOCATION MAP

FORMER DOLAN RENTAL PROPERTY
6393 SCARLETT COURT
DUBLIN, CA

FIGURE 1



BASED ON SITE PLAN GENERATED BY AQUA SCIENCE ENGINEERS, INC.

BLYMYER ENGINEERS, INC.

BEI JOB NO.	DATE
202016	11-23-05

LEGEND

- GROUNDWATER MONITORING WELL
- (326.11) GROUND WATER ELEV.
- (****) GROUNDWATER ELEV. (NOT USED FOR CONTOURING)
- GROUNDWATER ELEV. CONTOUR
- GROUNDWATER FLOW DIRECTION

SITE PLAN AND GROUNDWATER GRADIENT SEPTEMBER 6, 2005
FORMER DOLAN RENTAL PROPERTY
6393 SCARLETT COURT
DUBLIN, CA

FIGURE 2

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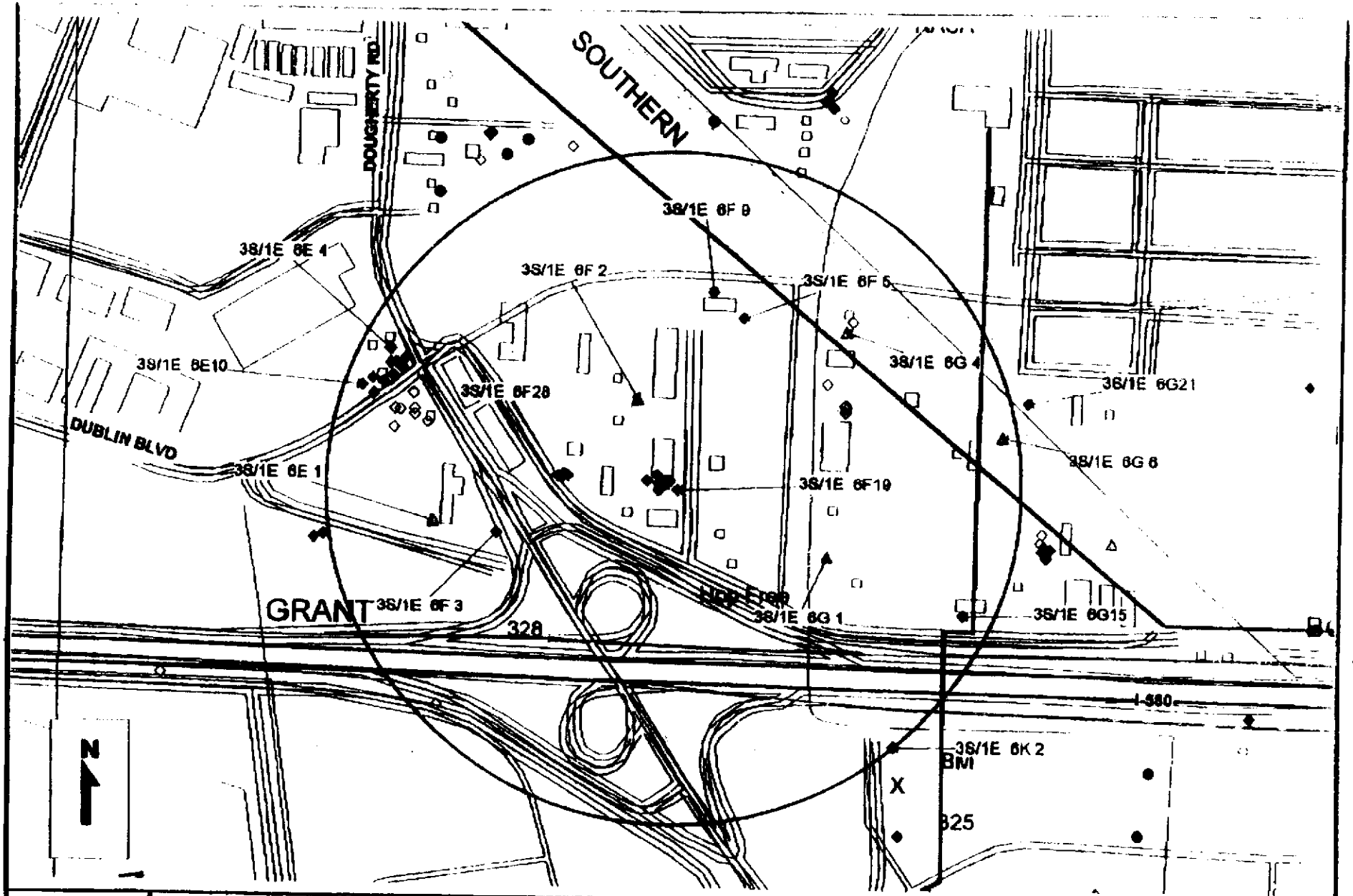
Appendix A

Water Supply Well Details

Zone 7 Water Agency



ZONE 7	**ZONE 7 WATER AGENCY** **5997 PARKSIDE DRIVE** **PLEASANTON, CA 94588**	**WELL LOCATION MAP**	**SCALE: 1"= 500 ft** **DATE: 10/7/02** **1320 FT. RADIUS**

Table A-1, Summary of Available Water Supply Well Bore Data
BEI Job No. 202016, Dolan Rentals
6393 Scarlett Court, Dublin, California

Well ID.	Status	Screened Interval (feet bgs)	Notes
3S/1E 6E1	Destroyed	NA	---
3S/1E 6F2	Not relocated in 1977; presumed destroyed until relocated in November 2002; destroyed May 2005.	NA	1st report 1959; drilled prior
3S/1E 6F1	Not relocated in 1977; presumed destroyed until relocated in November 2002; destroyed May 2005.	NA	1st report 1959; drilled prior
3S/1E 6G4	Present	180 - 186	---
3S/1E 6G6	Present	285 - 292	---
3S/1E 6G5	Present	103 - 106 and 173 - 178	400 feet east of 3S/1E 6G6; outside 1/4- mile radius

Notes: bgs = below grade surface
NA = Not available

Appendix B

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:

Casing Volume = (TD – DTW) 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 C

Purge Drum Inventory Log, Wellhead Inspection Checklist, Well Gauging Data,* and *Well Monitoring Data Sheets

Dated September 6, 2005

Blaine Tech Services, Inc.

WELLHEAD INSPECTION CHECKLIST

Date 9-6-05 Client Blymer

Site Address 6393 Scarlett Ct Dublin

Job Number 050906-DW-1 Technician DW

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-1	X							
MW-2							① ②	
MW-3	X							
MW-4							① ②	
MW-5							①	
MW-6	X							
MW-7	X							

NOTES: ① Lock rusted - needs replacing ② cap rusted - needs replacing

WELL GAUGING DATA

Project # 050906 DW-1 Date 6-9-05 Client Blymer

Site 6393 Scarlett Ct. Dublin

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or (TOC)	
MW-1	2					3.30	19.29		
MW-2	2					3.70	19.78		
MW-3	2					4.42	18.43		
MW-4	2					3.97	18.67		
MW-5	2					3.07	9.82		
MW-6	2					4.98	9.77		
MW-7	2					6.78	42.60		

LOW FLOW WELL MONITORING DATA SHEET

Project #: 050906-DW-1	Client: Blymer
Sampler: DW	Start Date: 9-6-05
Well I.D.: MW-2	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 19.78	Depth to Water Pre: 3.70 Post:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type:

Purge Method: (2" Grundfos Pump) Peristaltic Pump Bladder Pump
Sampling Method: Dedicated Tubing New Tubing Other ___
~~Flow Rate~~: C.V. = 2.6 x 3 = 7.8 Pump Depth: ___

Time	Temp. (°C or (°F))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed ((gal). or mL)	Observations
1032	68.5	6.9	3729	370	—	—	2.6	gray
1036	69.3	6.9	3609	136	—	—	5.2	"
1040	69.5	6.9	3583	107	—	—	7.8	"

Did well dewater? Yes (No) Amount actually evacuated: 7.8
Sampling Time: 1045 Sampling Date: 9-6-05
Sample I.D.: MW-2 Laboratory: McCampbell
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:
Equipment Blank I.D.: @ Time Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 050906-DW-1	Client: Blymer
Sampler: DM	Start Date: 9-6-05
Well I.D.: MW-4	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 18.67	Depth to Water Pre: 3.97 Post:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type:

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump X Positive air pump
Sampling Method: Dedicated Tubing | New Tubing | X Other Disp. Bailer
~~Flow Rate~~: C.V. = 2.4 x 3 = 7.2 | Pump Depth: ___

Time	Temp. (°C or (F))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed ((gal) or mL)	Observations
0951	68.2	6.3	3641	489	—	—	2.4	cloudy
0955	67.4	6.3	3659	730	—	—	4.8	"
0959	67.1	6.3	3655	149	—	—	7.2	"

Did well dewater? Yes (No) — Amount actually evacuated: 7.2
Sampling Time: 1004 — Sampling Date: 9-6-05
Sample I.D.: MW-4 — Laboratory: McCampbell
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) — Other:
Equipment Blank I.D.: @ Time — Duplicate I.D.:

LOW FLOW WELL MONITORING DATA SHEET

Project #: 050906-DW-1	Client: Blymer
Sampler: DW	Start Date: 9-6-05
Well I.D.: MW-5	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 9.82	Depth to Water Pre: 3.07 Post:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type:

Purge Method: 2" Grundfos Pump | Peristaltic Pump | Bladder Pump | X Posi-air pump
Sampling Method: Dedicated Tubing | New Tubing | X Other Disp Bailer

Flow Rate: C.V. = 1.1 x 3 = 3.3

Pump Depth:

Time	Temp. (°C or (F))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed ((gals) or mL)	Observations
1014	69.4	6.6	3690	108	—	—	1.1	
1016	71.7	6.8	3914	46	—	—	2.2	
1018	73.5	6.9	4096	31	—	—	3.3	

Did well dewater? Yes (No) Amount actually evacuated: 3.3

Sampling Time: 1023 Sampling Date: 9-6-05

Sample I.D.: MW-5 Laboratory: McCampbell

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

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

LOW FLOW WELL MONITORING DATA SHEET

Project #: 050906-DW-1	Client: Blymer
Sampler: DW	Start Date: 9-6-05
Well I.D.: MW-7	Well Diameter: (2) 3 4 6 8 ___
Total Well Depth: 42.60	Depth to Water Pre: 6.78 Post:
Depth to Free Product:	Thickness of Free Product (feet):
Referenced to: (PVC) Grade	Flow Cell Type:

Purge Method: (2" Grundfos Pump) Peristaltic Pump Bladder Pump
Sampling Method: Dedicated Tubing New Tubing Other ___

Flow Rate: C.V = 5.7 x 3 = 17.1 Pump Depth: ___

Time	Temp. (°C or (°F))	pH	Cond. (mS or (µS))	Turbidity (NTUs)	D.O. (mg/L)	ORP (mV)	Water Removed ((gal). or mL)	Observations
1100	67.0	7.0	3330	189	—	—	5.7	
1107	66.8	7.0	3348	81	—	—	11.4	
1114	67.0	7.1	3360	46	—	—	17.1	

Did well dewater? Yes (No) Amount actually evacuated: 17.1
Sampling Time: 1119 Sampling Date: 9-6-05
Sample I.D.: MW-7 Laboratory: McCampbell
Analyzed for: (TPH-G) (BTEX) (MTBE) (TPH-D) Other:
Equipment Blank I.D.: @ Time Duplicate I.D.:

Appendix D

Analytical Laboratory Report
Dated September 14, 2005
McCampbell Analytical, Inc.

McCampbell Analytical, Inc.

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

Blymyer Engineers, Inc. 1829 Clement Avenue Alameda, CA 94501-1395	Client Project ID: Dolan Rentals	Date Sampled: 09/06/05
		Date Received: 09/08/05
	Client Contact: Mark Detterman	Date Reported: 09/14/05
	Client P.O.:	Date Completed: 09/14/05

WorkOrder: 0509187

September 14, 2005

Dear Mark:

Enclosed are:

1). the results of 4 analyzed samples from your **Dolan Rentals project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill for analytical services.

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

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

Blymyer Engineers, Inc.	Client Project ID: Dolan Rentals	Date Sampled: 09/06/05
1829 Clement Avenue		Date Received: 09/08/05
Alameda, CA 94501-1395	Client Contact: Mark Detterman	Date Extracted: 09/11/05-09/13/05
	Client P.O.:	Date Analyzed: 09/11/05-09/13/05

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

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0509187

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-2	W	14,000,a	ND<100	1000	40	1500	680	20	99
002A	MW-4	W	ND	ND	ND	ND	ND	ND	1	114
003A	MW-5	W	ND	32	ND	ND	ND	ND	1	96
004A	MW-7	W	ND	ND	0.70	ND	1.2	ND	1	98
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.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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

Blymyer Engineers, Inc.	Client Project ID: Dolan Rentals	Date Sampled: 09/06/05
1829 Clement Avenue		Date Received: 09/08/05
Alameda, CA 94501-1395	Client Contact: Mark Detterman	Date Extracted: 09/08/05
	Client P.O.:	Date Analyzed: 09/10/05-09/12/05

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel*

Extraction method: SW3510C Analytical methods: SW8015C Work Order: 0509187

Lab ID	Client ID	Matrix	TPH(d)	DF	% SS
0509187-001B	MW-2	W	4900,d,b,g	1	115
0509187-002B	MW-4	W	ND	1	113
0509187-003B	MW-5	W	ND	1	102
0509187-004B	MW-7	W	ND	1	101

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

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

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+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 diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) unknown medium boiling point pattern that does not appear to be derived from diesel; f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; k) kerosene/kerosene range/jet fuel range; l) bunker oil; m) fuel oil; n) stoddard solvent/mineral spirit.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0509187

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 17917** **Spiked Sample ID: 0509178-003A**

Analyte	Sample µg/L	Spiked µg/L	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	Acceptance Criteria (%) MS / MSD	Acceptance Criteria (%) LCS / LCSD
TPH(btex)£	ND	60	112	112	0	106	106	0	70 - 130	70 - 130
MTBE	16	10	87.7	85.3	0.943	98.7	102	3.08	70 - 130	70 - 130
Benzene	ND	10	97.6	97.6	0	112	113	0.288	70 - 130	70 - 130
Toluene	ND	10	98.9	99.1	0.169	107	107	0	70 - 130	70 - 130
Ethylbenzene	ND	10	99	99.3	0.314	110	109	0.382	70 - 130	70 - 130
Xylenes	ND	30	100	100	0	95.3	95.7	0.349	70 - 130	70 - 130
%SS:	94	10	96	96	0	109	108	0.992	70 - 130	70 - 130

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

NONE

BATCH 17917 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509187-001A	9/06/05 10:45 AM	9/12/05	9/12/05 7:06 PM	0509187-002A	9/06/05 10:04 AM	9/13/05	9/13/05 6:33 PM
0509187-003A	9/06/05 10:23 AM	9/11/05	9/11/05 12:20 AM	0509187-004A	9/06/05 11:19 AM	9/11/05	9/11/05 12:53 AM

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.

N/A = not applicable or not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

McCampbell Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0509187

EPA Method: SW8015C **Extraction: SW3510C** **BatchID: 17911** **Spiked Sample ID: N/A**

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	LCS / LCSD
TPH(d)	N/A	1000	N/A	N/A	N/A	102	102	0	N/A	70 - 130
%SS:	N/A	2500	N/A	N/A	N/A	103	103	0	N/A	70 - 130

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

NONE

BATCH 17911 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0509187-001B	9/06/05 10:45 AM	9/08/05	9/12/05 4:08 PM	0509187-002B	9/06/05 10:04 AM	9/08/05	9/10/05 3:30 AM
0509187-003B	9/06/05 10:23 AM	9/08/05	9/12/05 1:51 PM	0509187-004B	9/06/05 11:19 AM	9/08/05	9/12/05 2:59 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.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

DHS Certification No. 1644

QA/QC Officer

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

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0509187 **ClientID: BEIA** **EDF: YES**

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

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

Requested TAT: 5 days
Date Received: 09/08/2005
Date Printed: 09/08/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below) 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0509187-001	MW-2	Water	09/06/2005	☐	A	A	B												
0509187-002	MW-4	Water	09/06/2005	☐	A		B												
0509187-003	MW-5	Water	09/06/2005	☐	A		B												
0509187-004	MW-7	Water	09/06/2005	☐	A		B												

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3	TPH(D)_W	4		5	
6		7		8		9		10	
11		12		13		14		15	

Prepared by: Rosa Venegas

Comments:

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

BETA 050-1109

BLAINE
TECH SERVICES, INC.

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

CHAIN OF CUSTODY BTS # 050906-DW-1

CLIENT: Blymyer Engineers, Inc.

SITE: Dolan Rentals
6393 Scarlett Ct.
Dublin, 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_2O	CONTAINERS TOTAL		C=COMPOSITE ALL CONTAINERS	TPH-G (8015M)	BTEX & MTBE (8020)	TPH-D (8015m)	ADD'L INFORMATION	STATUS	CONDITION	LAB SAMPLE #
+1 MW-2	9-6	1045	W	4	VOAs HCl NP Amber		X	X	X				
-1 MW-4	↓	1004	↓	↓	↓		X	X	X				
+ MW-5		1023					X	X	X				
+ MW-7		1119					X	X	X				

ICE ✓
GOOD CONDITION ✓ APPROPRIATE ✓
HEAD SPACE ABSENT ✓ CONTAINERS
DECHLORINATED IN LAB PRESERVED IN LAB
PRESERVATION VOAS O&G METALS OTHER

SAMPLING COMPLETED	DATE	TIME
	9-6-05	1630

SAMPLING PERFORMED BY: Dave Walker

RESULTS NEEDED NO LATER THAN: As contracted

RELEASED BY	DATE	TIME	RECEIVED BY	DATE	TIME
David C. Kadt	9-6-05	1540	Griffin Hyland Sample Custodian	9/6/05	1552
Griffin Hyland Sample Custodian	9/8/05	1310		9/8/05	1500
	9/8/05	400		9/8/05	1400

SHIPPED VIA | DATE SENT | TIME SENT | COOLER #