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**Additional Site Investigation Report
Fuel Leak Case No. RO0000324
Livermore Gas and Mini-Mart
160 Holmes Street, Livermore, California**

Date:
September 15, 2008

Prepared For:
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Kentfield, California 94904

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September 15, 2008

Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, California 94904

**Subject: Additional Site Investigation Report for Fuel Leak Case No. RO0000324,
Livermore Gas and Mini-Mart, 160 Holmes Street, Livermore, California**

Dear Mr. and Mrs. Shuwayhat:

On your behalf, Allterra Environmental, Inc. (Allterra) has prepared this Additional Site Investigation Report to document investigation activities recently completed at 160 Holmes Street in Livermore, California (Site). The purpose of the investigation was to evaluate the vertical and lateral extent of petroleum hydrocarbons in soil and groundwater beneath and down-gradient of the Site. The work was conducted pursuant to an October 12, 2007 *Work Plan for Additional Site Investigation*, a December 14, 2007 *Revised Work Plan for Further Site Characterization*, and Alameda County Environmental Health – Local Oversight Program (ACEH) directives dated November 9, 2007 and January 11, 2008. Additionally, work was conducted in accordance with Tri-Regional and Zone 7 Alameda County Flood Control and Water Conservation District (Zone 7) guidelines and Allterra's field protocol presented in Appendix A.

Site Location and Description

The subject property is located at the northeast intersection of Holmes Street and Second Street, in Livermore, California (Figure 1). A Valero fuel station currently occupies the Site and the surrounding area is primarily residential with some retail businesses along 1st and 2nd Streets. The approximate surface elevation of the site is 465 feet above mean sea level (MSL) and slopes to the northwest. Pertinent site features, including the locations of site structures, underground storage tanks (USTs), and monitoring wells, are presented in Figure 2.

Site Geology and Hydrology

Site geology consists primarily of clayey sand, silty clay, and/or fill material from surface grade to approximately 8 feet below ground surface (bgs). Underlying the fill material, fine-grained material generally consisting of silty clay, sandy silt, and silty sand with occasional gravel occurs to approximately 30 feet bgs. A generally continuous coarse-grained material layer consisting of sandy gravel with varying amounts of clay/silt occurs from approximately 30 feet bgs to depths ranging from approximately 54 to 69 feet bgs, where a sandy to silty clay layer exists. The thickness of the clay layer has not been determined; however, a thickness of at least five feet was confirmed in boring MW-1B.

Initial groundwater beneath the Site has fluctuated between depths of approximately 28 and 44 feet bgs. The fluctuating groundwater elevation appears to be largely dependant upon regional factors including, but not limited to, regional groundwater pumping, seasonal drought conditions, and government managed groundwater recharge programs. Initial groundwater beneath the Site occurs within a coarse-grained layer that ranges in depth from approximately 28 feet bgs to between approximately 54 and 69 feet bgs. An apparent clay aquitard with a thickness of at least 5 feet underlies the coarse-grained layer. Based on recent quarterly groundwater monitoring data, groundwater generally flows to the north-northwest at an estimated gradient of 0.006 foot per foot (ft/ft).

Additional Site Investigation Activities

The following is a discussion of additional site investigation activities completed at the Site in order to further characterize subsurface contamination, collect data that will assist in addressing a remedial strategy for soil contamination in the smear zone (from approximately 24 to 32 feet bgs), and to fill data gaps addressed in ACEH's July 13, 2007 letter. This report presents the results of data collected during the drilling of on-site Geoprobe[®] soil borings GP-20 through GP-27 and the installation of off-site wells MW-8A, MW-8B, MW-9A, and MW-9B.

Permitting

Zone 7 Drilling Permits

Prior to drilling activities, a soil boring and well construction permit (no. 28075) was acquired from Zone 7. The Zone 7 permit is included in Appendix B.

City of Livermore Encroachment Permit

An encroachment permit (no. EN080210) was obtained from the City of Livermore to allow for drilling in the public right-of-way. The encroachment permit is included in Appendix B.

Utility Checks

Underground Service Alert (USA) was notified to identify the public service utilities in the area prior to commencing drilling activities. Additionally, Allterra personnel hand cleared each on-site boring location to reduce the risk of encountering fuel dispenser piping.

On-Site Geoprobe[®] Drilling

On July 7, 8, and 9, 2008, Allterra supervised the installation of eight Geoprobe[®] soil borings designated GP-20 through GP-27. A truck-mounted Geoprobe[®] drill rig equipped with steam cleaned 2.5-inch-diameter dual-wall push core drilling equipment were used to advance borings to depths between approximately 4 and 52 feet bgs. The locations of the Geoprobe[®] soil borings are presented in Figure 3.

Soil Classification and Sample Collection

During drilling, soil samples were collected from each boring for lithological description using the Unified Soil Classification System (USCS). Boring GP-21 was continuously logged from 30 to 52 feet bgs and borings GP-22 through GP-26 were continuously logged from 30 to 50 feet bgs (previous on-site borings were logged continuously from ground surface to 30 feet bgs). For boring GP-20, drilling refusal was encountered at approximately 12 feet bgs and the boring was

terminated. Additionally, boring GP-27 was terminated at approximately 4 feet bgs because of the numerous underground utilities in that area of the Site. Soil from the borings was field screened for volatile organic compounds (VOCs) using a photoionization detector (PID) and samples showing contamination with the PID were submitted for laboratory analysis. Soil samples were collected at 32, 36, 40, and 44 feet bgs from each completed boring and samples were collected at 48 and 52 feet in GP-21, 47 feet bgs in GP-22, 50 feet bgs in boring GP-23 and GP-25, and 48 feet bgs in GP-24 and GP-26. In total, thirty-one soil samples were selected for laboratory analyses. Logs of borings are presented in Appendix C.

Groundwater samples were collected from Geoprobe[®] borings GP-21 through GP-26 for laboratory analyses (samples were not collected from borings GP-20 and GP-27). The depth discrete groundwater samples were collected from depths between approximately 47 and 52 feet using the Geoprobe[®] dual-wall sampler to seal off groundwater from above the sample zone. Groundwater samples were collected from the top five feet of the water column in each boring using a peristaltic pump equipped with clean, inert, disposable sample tubing and clean, temporary well casing and screen (Appendix C).

Well Drilling Activities

Discussion of Rational for Well Locations

Wells MW-8A, MW-8B, MW-9A, and MW-9B were installed down-gradient of the Site in order to further characterize the distal end of the dissolved plume to the northwest. The location of well cluster MW-8A/B is intended to provide vertical and lateral characterization of the contaminant plume between well MW-4A and the MW-7A/B/C well cluster. The MW-9A/B well cluster location is intended to monitor contaminants down-gradient of the MW-7A/B/C well cluster.

Well Drilling

On July 15, 16, and 17, Allterra personnel supervised the drilling of four wells designated MW-8A, MW-8B, MW-9A, and MW-9B. A truck-mounted hollow-stem auger drill-rig was used to drill well bores to depths ranging from 36 to 57 feet bgs and install the monitoring wells to depths ranging from approximately 36 to 52 feet bgs. The locations of the monitoring wells are presented in Figure 2 and a description of Allterra's well drilling and installation protocol is presented in Appendix A.

Soil Classification and Sample Collection

During the drilling of borings MW-8B and MW-9B, soil samples were collected for lithological description using the Unified Soil Classification System (USCS). In the MW-8B boring, soil samples were collected at five-foot intervals for the first 25 feet and continuously from 25 feet to total depth (55 feet bgs); for the MW-9B boring, soil samples were collected at five foot intervals for the first 20 feet and continuously from 20 feet to total depth (57 feet bgs). Well borings MW-8A and MW-9A were not logged because they were installed adjacent to their respective B-Zone well bores. Soil from the borings was field screened for volatile organic compounds (VOCs) using a photoionization detector (PID) and samples showing contamination with the PID were submitted for laboratory analysis. Soil samples were collected at 28 and 32 feet bgs from well bore MW-8B were selected for laboratory analyses. Logs of borings are presented in Appendix C.

Well Construction

A-Zone wells, MW-8A and MW-9A, were installed to approximately 36 feet bgs with screen intervals from 16 to 36 feet bgs. Well MW-8B was installed to a depth of 51 feet bgs with a screen interval from 46 to 51 feet bgs and well MW-9B was installed to a depth of 52 feet bgs with a screen interval from 47 to 52 feet bgs. Each well was constructed with Schedule 40 Polyvinyl Chloride (PVC) casing with 0.010-inch machine slotted well screen. The annular space in each well was backfilled with clean, well-sorted No. 2 sand from the bottom of the casing to approximately two feet above the top of the screened interval. A two-foot bentonite transition seal was used in each well and the wells were sealed to surface grade using neat cement.

Additionally, because monitoring wells MW-8B and MW-9B were installed in order to monitor groundwater quality immediately above the suspected clay aquitard, the B-Zone well bores were drilled approximately three to four feet into the clay layer to verify its competency. Well bore MW-8B was drilled to 55 feet and the bottom four feet of the borehole was backfilled with bentonite prior to constructing the well. Well bore MW-9B was drilled to 57 feet and the bottom five feet of the borehole was backfilled with bentonite prior to well construction. Well construction details are included in boring logs for wells MW-8A, MW-8B, MW-9A, and MW-9B and presented in Appendix C.

Well Development and Sampling

On July 23, 2008, Allterra developed newly installed wells MW-8B and MW-9B. Well development activities included the measuring of the static groundwater level to 0.01 feet, evaluating groundwater in the well for the presence of petroleum hydrocarbon odor and/or sheen, and developing the wells using a combined surging and purging technique. Wells MW-8A and MW-9A were dry and, therefore, not developed. Allterra's well development field protocol is included in Appendix A and well development field logs are included in Appendix D.

On July 28 and 29, 2008, Allterra collected groundwater samples from newly installed wells MW-8B and MW-9B as part of third quarter 2008 groundwater monitoring. Wells MW-8A and MW-9A were dry and, therefore, groundwater samples were not collected from the wells. Well sampling field logs are presented in Appendix D.

Laboratory Analysis of Soil and Groundwater Samples

All soil and groundwater samples collected from Geoprobe[®] borings and monitoring wells were submitted for chemical testing to McCampbell Analytical, Inc., of Pacheco, California, a State of California certified laboratory (ELAP #1644). Soil samples collected from the Geoprobe[®] borings were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015Cm, for benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8021B, and for the fuel oxygenates MTBE, ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), di-isopropyl ether (DIPE), and tert-butyl alcohol (TBA) by EPA Method 8260B. Soil samples collected from the MW-8B well-bore were analyzed for THPg (EPA Method 8015Cm) and BTEX/MTBE (EPA Method 8021B). Soil analytical data is presented in Table 1 and the certified analytical report, including quality assurance and quality control (QA/QC) data for the samples is included in Appendix E.

Groundwater samples collected from Geoprobe® borings were analyzed for TPHg by EPA method 8015C, for BTEX and MTBE by EPA Method 8021B, and for the fuel oxygenates MTBE, ETBE, TAME, DIPE, and TBA by EPA Method 8260B. Groundwater samples collected from wells MW-8B and MW-9B were analyzed for TPHg as well as diesel (TPHd) by EPA method 8015C, for BTEX and MTBE by EPA Method 8021B, and for the fuel oxygenates MTBE, ETBE, TAME, DIPE, TBA, and methanol, ethanol, 1,2-dibromoethane (EDB), and 1,2-dichloroethane (1,2-DCA) by EPA Method 8260B. The certified analytical report, including quality assurance and quality control (QA/QC) data for the samples is included in Appendix F and analytical results are presented in Table 2.

Waste Disposal

Soil and purge water generated during drilling and well development and sampling was temporarily stored on-site in labeled, U.S. Department of Transportation (DOT)-approved 55-gallon drums. Following waste profiling, the soil and purge water drums will be transported and disposed of.

Additional Site Investigation Results

Subsurface Geology and Hydrogeology

On-Site Borings

Soil conditions encountered during drilling at the Site were generally consistent with previous investigations. In general, soil encountered in on-site borings consisted of a mixture of gravel, sand, and clay of varying percentages (generally coarse-grained material) from approximately 30 to 36 feet to the total depth drilled, approximately 52 feet bgs. Initial groundwater in borings GP-21 through GP-26 occurred at approximately 40 feet bgs.

Off-Site Well Borings

Soil encountered during drilling of off-site wells MW-8B and MW-9B indicated interbedded fine-grained and coarse-grained layers from the surface to the total depth drilled (57 feet bgs). Silty or sandy clay occurred from the surface to depths between 3 and 9 feet bgs and was underlain by gravel-sand or gravelly sand to a depth of 15 to 17 feet bgs. Clay was encountered again from depths ranging from 15 or 17 feet bgs to 19 or 25 feet bgs, where approximately 2 to 3 feet of gravelly sand, sandy gravel or gravel-sand-clay, was encountered. Sandy clay below this coarse-grained material extended to a depth of 36 or 37 feet bgs. The sandy clay layer is underlain by alternating coarse-grained and fine-grained layers, with a clay layer encountered at the bottom of the MW-8B and MW-9B wellbores, which extended to depths of 55 and 57 feet bgs. Initial groundwater in the two wellbores was encountered at approximately 44 feet bgs.

Soil Sample Analytical Data

Geoprobe® Borings

Twenty-three (23) of the thirty-one (31) soil samples collected from the Geoprobe® soil borings contained detectable levels of fuel-related compounds. TPHg was detected in five samples at levels ranging from 1.2 milligrams per kilogram (mg/kg) in sample GP-22@32' to 56 mg/kg in GP-23@32'. Benzene was detected in four samples at concentrations between 0.0074 mg/kg (GP-26@32') and 0.18 mg/kg (GP-25@32). Detectable levels of MTBE were found in seventeen samples with concentrations ranging from 0.0061 mg/kg in sample GP-26@44' to 8.5

mg/kg in sample GP-23@32'. TBA was detected in twelve samples at levels between 0.34 mg/kg (GP-23@40') and 4.6 mg/kg (GP-21@32'). Complete soil sample analytical data is presented in Table 1.

Monitoring Well Borings

Fuel-related compounds were not detected at or above laboratory detection limits in the two samples collected from the MW-8B well bore. Soil sample analytical data is presented in Table 1.

Groundwater Sample Analytical Results

Geoprobe[®] Borings

Concentrations of petroleum hydrocarbons were detected in each of the six groundwater samples collected from the Geoprobe[®] borings. TPHg was detected in three samples at concentrations of 210 micrograms per liter (µg/L) in sample GP-25, 220 µg/L in GP-23, and 800 µg/L in GP-24. Benzene concentrations were detected in four samples at levels ranging from 1.6 µg/L (GP-26) to 7.1 µg/L (GP-23). Dissolved MTBE was detected in all six samples at concentrations from 7.9 µg/L in GP-21 to 1,300 µg/L in GP-24. Groundwater analytical results are presented in Table 2.

Monitoring Wells

Dissolved contaminants were detected in the two groundwater samples collected from newly installed wells MW-8B and MW-9B (wells MW-8A and MW-9A were not sampled because they were dry). MTBE was detected at 2.5 µg/L in MW-8B; no other fuel-related compounds were detected at or above laboratory detection limits in well MW-8B. Analysis of the groundwater sample from well MW-9B indicated TPHd levels at 63 µg/L, MTBE at 160 µg/L, and TBA at 2,800 µg/L; TPHg, BTEX, and other fuel oxygenates were not detected at or above laboratory detection limits. Groundwater analytical results are presented in Table 2 and the distribution of dissolved hydrocarbons in groundwater is presented in Figure 4.

Conclusions

Based on the results of this investigation, Allterra concludes the following:

- Soil conditions encountered during drilling at the Site were generally consistent with previous investigations. In general, soil encountered during drilling consisted of fine- to medium-grained material (sands, silts, and clays) from the ground surface to 30 feet bgs, coarse-grained material (gravel-sand-clay mixtures) occurs from approximately 30 feet bgs to approximately 52 feet bgs, where a clay layer was encountered. Initial groundwater in borings occurred at approximately 40 feet bgs.
- The vertical extent of soil contamination was defined in borings GP-21, GP-22, GP-23, and GP-24 with "non-detect" results for TPHg, BTEX, MTBE, ETBE, TAME, DIPE, and TBA in samples collected from approximately 50 feet bgs. Additionally, with the exception of trace levels of MTBE (0.015 mg/kg or under), the vertical extent of soil

contamination was defined in borings GP-25 and GP-26 (all other constituents analyzed were at or below detection limits).

- Elevated levels of MTBE were detected in soil samples collected at 32 feet bgs in on-site borings GP-23, GP-25, and GP-26. In general, the majority of soil contamination was detected in samples collected at depths between 32 and 40 feet bgs. Combining soil sample results from Allterra's Source Area Investigation and this investigation indicate that the majority of soil contamination beneath the Site occurs at depths between 24 and 40 feet bgs, with the highest levels of contamination at depths between 28 and 32 feet bgs.
- The highest levels of soil contamination were detected in samples collected from Geoprobe[®] borings installed the area between the northwestern fuel dispenser and USTs (GP-23, GP-25, and GP-26). Using soil analytical data from this and previous investigations, it appears that the majority of soil contamination occurs at depths between 24 and 40 feet bgs and extends laterally in the approximate area between Allterra boring B-3, boring GP-2, and well EW-2.
- Groundwater samples collected between 48 and 50 feet bgs from on-site borings GP-23, GP-24, and GP-25 indicated TPHg levels between 210 µg/L and 800 µg/L and MTBE levels from 61 µg/L to 1,300 µg/L. This data suggests that the vertical extent of the dissolved hydrocarbon plume has not been defined. However, groundwater data from on-site monitoring well MW-1B, with a screen interval from 50 to 55 feet bgs and located 15 to 25 feet down-gradient of borings GP-23 through GP-25, indicates that hydrocarbon contamination has not been detected at or above laboratory detection limits for the last two years.
- Groundwater levels were approximately 43 feet bgs in wells MW-8B and MW-9B. The water table elevation is approximately as low as it has been since the Site's quarterly groundwater monitoring program began in 2000. Due to the low water levels, newly installed A-Zone wells MW-8A and MW-9A were dry.
- Well MW-9B was installed down-gradient of the MW-7A/B/C well cluster in order to provide further characterization of the vertical and lateral extent of the dissolved contaminant plume. Analytical results from the groundwater sample collected from MW-9B indicated levels of MTBE and TBA at 160 µg/L and 2,800 µg/L respectively.

Recommendations

Based on the conclusions presented above, Allterra recommends the following:

- Soil data collected during this and previous investigations appear to have sufficiently characterized the vertical and lateral extent of soil contamination beneath the Site. Additional soil borings are not warranted at this time.

- Groundwater samples collected from the bottom of GP-23, GP-24, and GP-25 (depths from 48 to 50 feet bgs) contained dissolved TPHg and MTBE, which suggest that the vertical extent of on-site groundwater contamination may not be defined. However, well MW-1B is located down-gradient of these borings and has a screen interval from 50 to 55 feet bgs; therefore, MW-1B should provide sufficient monitoring of on-site groundwater quality in the “B-Zone” and further groundwater investigation and/or well drilling is not warranted at this time.
- After a slight rebound in groundwater elevations observed during the first and second quarters of 2008, groundwater elevations dropped to more than 40 feet bgs. A review of groundwater elevations from the beginning of the Site’s groundwater monitoring program in 2000 does not reveal obvious data trends. Therefore, Allterra recommends that a graphical plot of the average groundwater elevation each quarter over time be prepared and included in future quarterly groundwater monitoring reports. The goal of the time-trend plot is to evaluate potential trends in water levels for use in future data collection and remedial strategies.
- Dissolved MTBE and TBA were detected in down-gradient well MW-9B; therefore, the lateral extent of dissolved contamination has not been fully defined. However, at this time it is not cost effective to install additional wells down-gradient of the MW-9A/B well cluster.
- At this time, it appears that the vertical and lateral extent of soil and groundwater contamination has been sufficiently characterized. However, remedial pilot testing is incomplete. Therefore, Allterra recommends installing and operating a pilot scale interim soil vapor extraction (SVE) and treatment system at the Site. Operation of an interim SVE system will provide flow rate, radius of influence, and vapor stream contaminant level data that will be used for treatment system design and permitting. Additionally, operation of a pilot scale SVE system at the Site will provide immediate contaminant source removal. Pilot scale SVE operations will be proposed in a work plan.

Limitations

Allterra prepared this report for the use of Mr. Manwel and Mrs. Samira Shuwayhat and ACEH in evaluating site conditions at selected on-site locations at the time of this study. Statements, conclusions, and recommendations in this document are based solely on the field observations and analytical results related to work performed by Allterra and there is no warranty, expressed or implied. Site conditions and data can change over time; therefore, data presented in this report is only applicable to the timeframe of this study. Allterra’s services have been performed in accordance with environmental principles generally accepted at this time and location.

Limitations

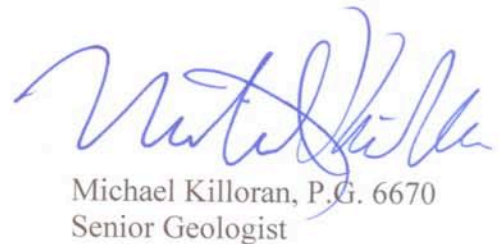
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Should you have any questions, please contact Allterra at (831) 425-2608.

Sincerely,
Allterra Environmental, Inc.



James Allen, R.E.A.II
Project Manager



Michael Killoran, P.G. 6670
Senior Geologist

Attachments:

Figure 1, Vicinity Map
Figure 2, Site Map
Figure 3, On-Site Boring Locations Plan

Table 1, Soil Analytical Results
Table 2, Groundwater Analytical Results



Appendix A, Allterra's Site Investigation Field Protocol
Appendix B, Drilling and Encroachment Permits
Appendix C, Boring Logs
Appendix D, Well Development and Sampling Field Logs
Appendix E, Soil Sample Analytical Reports and Chain of Custody Documentation
Appendix F, Groundwater Sample Analytical Reports and Chain of Custody Documentation

cc: Mr. Jerry Wickham, ACEH
State of California GeoTracker Database

TABLES 1-2

Table 1
Historical Soil Analytical Data
160 Holmes Street, Livermore, California

Sample ID (Field Point)	Sample Depth (feet)	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
T1-West	NA	4/5/99	<20	<1.0	<1.2	<1.2	<1.2	<1.2	24	--	--	--	--	--
T2-West	NA	4/5/99	<100	--	<6.2	<6.2	<6.2	<6.2	47	--	--	--	--	--
T3-West	NA	4/5/99	<200	--	<12	<12	<12	<12	41	--	--	--	--	--
T4-West	NA	4/5/99	<200	--	<12	<12	<12	<12	100	--	--	--	--	--
T1-East	NA	5/6/99	17	<1.0	<0.62	<0.62	<0.62	<0.62	7.7	--	--	--	--	--
T2-East	NA	5/6/99	31	--	<0.62	<0.62	<0.62	<0.62	28	--	--	--	--	--
T3-East	NA	5/6/99	<50	--	<3.1	<3.1	<3.1	<3.1	41	--	--	--	--	--
T4-East	NA	5/6/99	14	--	<0.62	<0.62	<0.62	<0.62	20	--	--	--	--	--
Dispenser 1	NA	5/20/99	49	--	0.015	0.084	0.033	0.041	<0.0050	--	--	--	--	--
Dispenser 2	NA	5/20/99	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--
Dispenser 3	NA	5/20/99	6,500	--	<31	81	120	940	<31	--	--	--	--	--
Dispenser 4	NA	5/20/99	--	--	--	--	--	--	--	--	--	--	--	--
Dispenser 5	NA	5/20/99	32	--	0.040	0.62	0.29	3.0	<0.0050	--	--	--	--	--
Dispenser 6	NA	5/20/99	<1.0	--	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--
Diesel-D	NA	5/20/99	160	1,300	0.032	0.20	0.089	15	<0.62	--	--	--	--	--
MW-1	15	7/26/00	<10	--	<0.62	<0.62	<0.62	<0.62	0.93	--	--	--	--	--
MW-1	19	7/26/00	800	--	<6.2	36	18	100	21	--	--	--	--	--
MW-2	15	7/26/00	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
MW-2	20	7/26/00	1.1	--	0.0092	0.013	0.053	0.13	0.11	--	--	--	--	--
MW-3	15	7/26/00	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
MW-3	20	7/26/00	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--
MB-1	18	11/11/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MB-1	22	11/11/05	78	23	0.028	0.073	1.0	4.8	2.3	--	--	--	--	--
MB-1	26	11/11/05	110	18	0.27	0.51	2.0	1.7	14	--	--	--	--	--

Table 1
Historical Soil Analytical Data
160 Holmes Street, Livermore, California

Sample ID (Field Point)	Sample Depth (feet)	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
MB-3	20	11/11/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MB-3	28	11/11/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MB-3	32	11/11/05	1,400	100	<0.5	5.0	20	67	<5.0	--	--	--	--	--
B-1	28	11/10/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-2	16	11/10/05	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-2	20	11/10/05	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-2	24	11/10/05	5.7	9.5	<0.005	0.018	0.076	0.25	1.7	--	--	--	--	--
B-2	28	11/10/05	11	2.4	0.075	0.073	0.26	0.14	7.2	--	--	--	--	--
B-3	16	11/10/05	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
B-3	20	11/10/05	<1.0	--	<0.005	0.0058	0.0071	0.024	<0.05	--	--	--	--	--
B-3	24	11/10/05	9.0	1.4	0.077	0.037	0.32	1.1	<1.0	--	--	--	--	--
B-3	28	11/10/05	48	6.1	0.053	0.20	0.53	0.49	<1.0	--	--	--	--	--
DB-1	26	11/10/05	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-1B	61	2/23/06	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-5B	55	2/27/06	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-7C	70	2/27/06	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
EW-2	41.5	2/24/06	1.4	--	<0.005	<0.005	<0.005	<0.005	0.22	--	--	--	--	--
GP-1	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-1	24	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-1	28	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--

Table 1
Historical Soil Analytical Data
160 Holmes Street, Livermore, California

Sample ID (Field Point)	Sample Depth (feet)	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
GP-2	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-2	24	1/10/07	51	--	<0.050	<0.050	0.13	0.20	<0.50	--	--	--	--	--
GP-3	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-3	24	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-3	28	1/10/07	100	--	<0.050	0.40	2.1	3.2	2.6	--	--	--	--	--
GP-4	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-4	16	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-4	28	1/10/07	13	--	0.021	0.096	0.24	0.32	4.4	--	--	--	--	--
GP-5	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-5	20	1/10/07	5.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-5	28	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-6	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.090	--	--	--	--	--
GP-6	18	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-6	24	1/10/07	<1.0	--	<0.005	<0.005	<0.005	0.013	0.11	--	--	--	--	--
GP-6	28	1/10/07	23	--	0.0057	0.021	0.052	0.16	0.056	--	--	--	--	--
GP-6A	4	1/11/07	11	--	<0.005	<0.005	0.0081	<0.005	<0.10	--	--	--	--	--
GP-6A	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	0.011	<0.10	--	--	--	--	--
GP-6A	16	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-6A	20	1/11/07	1.6	--	<0.005	<0.005	0.0052	0.0065	0.066	--	--	--	--	--
GP-6A	24	1/11/07	2.0	--	<0.005	0.013	0.0062	0.015	0.44	--	--	--	--	--
GP-6A	28	1/11/07	17	--	<0.010	<0.010	0.40	0.028	0.34	--	--	--	--	--
GP-7	4	1/11/07	2.0	--	<0.005	0.014	0.0080	0.092	0.086	--	--	--	--	--
GP-7	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-7	14	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.062	--	--	--	--	--

Table 1
Historical Soil Analytical Data
160 Holmes Street, Livermore, California

Sample ID (Field Point)	Sample Depth (feet)	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
GP-8	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-8	24	1/10/07	30	--	0.030	0.19	0.46	2.4	9.6	--	--	--	--	--
GP-9	8	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-9	12	1/10/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-9	24	1/10/07	110	--	0.27	1.2	1.6	9.5	22	--	--	--	--	--
GP-10	21	1/10/07	35	--	0.033	0.35	0.56	3.6	1.5	--	--	--	--	--
GP-10	24	1/10/07	2.2	--	0.0081	0.011	0.023	0.12	3.9	--	--	--	--	--
GP-11	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-11	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-11	28	1/11/07	3.7	--	<0.005	<0.005	<0.005	<0.005	0.057	--	--	--	--	--
GP-12	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.072	--	--	--	--	--
GP-12	24	1/11/07	15	--	<0.005	<0.005	0.13	0.14	0.092	--	--	--	--	--
GP-12	28	1/11/07	11	--	0.0061	<0.005	0.47	0.014	0.36	--	--	--	--	--
GP-13	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-13	24	1/11/07	9.1	--	<0.005	<0.005	<0.005	0.014	<0.05	--	--	--	--	--
GP-13	28	1/11/07	100	--	0.17	0.39	2.6	6.7	8.9	--	--	--	--	--
GP-14	8	1/11/07	6.4	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-14	12	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-14	16	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-14	24	1/11/07	320	--	0.43	14	7.0	40	50	--	--	--	--	--
GP-14	28	1/11/07	120	--	0.47	3.3	2.0	11	140	--	--	--	--	--
GP-15	12	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.078	--	--	--	--	--
GP-15	19	1/11/07	1.5	--	<0.005	0.012	0.026	0.054	0.49	--	--	--	--	--
GP-15	24	1/11/07	1.6	--	<0.005	0.0077	0.015	0.11	0.40	--	--	--	--	--
GP-15	28	1/11/07	6.7	--	0.047	0.24	0.13	0.72	9.5	--	--	--	--	--

Table 1
Historical Soil Analytical Data
160 Holmes Street, Livermore, California

Sample ID (Field Point)	Sample Depth (feet)	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
GP-16	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.061	--	--	--	--	--
GP-16	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.10	--	--	--	--	--
GP-16	28	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-17	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-17	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-17	28	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-18	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-18	16	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	0.070	--	--	--	--	--
GP-18	24	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-18	28	1/11/07	110	--	<0.010	0.16	0.37	1.3	0.20	--	--	--	--	--
GP-19	8	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-19	21	1/11/07	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
GP-19	24	1/11/07	5.8	--	<0.005	0.0072	0.12	0.23	0.074	--	--	--	--	--
GP-21	32	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.050	4.6	<0.050	<0.050	<0.050
GP-21	36	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	1.1	<0.010	<0.010	<0.010
GP-21	40	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	0.72	<0.010	<0.010	<0.010
GP-21	44	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-21	48	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-21	52	7/9/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-22	32	7/8/08	1.2	--	<0.005	<0.005	0.0059	<0.005	<0.05	<0.025	2.9	<0.025	<0.025	0.051
GP-22	36	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.050	3.6	<0.050	<0.050	<0.050
GP-22	40	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	1.3	<0.010	<0.010	<0.010
GP-22	44	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-22	47	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005

Table 1
Historical Soil Analytical Data
160 Holmes Street, Livermore, California

Sample ID (Field Point)	Sample Depth (feet)	Sample Date	TPHg	TPHd	Benzene	Toluene	Ethyl- benzene	Total Xylenes	MTBE	Fuel Oxygenates				
										TAME	TBA	DIPE	ETBE	MTBE
GP-23	32	7/7/08	56	--	0.093	0.089	0.73	0.61	7.0	<0.33	<3.3	<0.33	<0.33	8.5
GP-23	36	7/7/08	<1.0	--	<0.005	<0.005	0.010	0.0067	0.081	<0.050	3.0	<0.050	<0.050	0.063
GP-23	40	7/7/08	<1.0	--	<0.005	<0.005	0.0087	<0.005	<0.05	<0.005	0.34	<0.005	<0.005	0.010
GP-23	44	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.010
GP-23	50	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-24	32	7/7/08	<1.0	--	<0.005	<0.005	0.015	<0.005	0.12	<0.010	1.2	<0.010	<0.010	0.23
GP-24	36	7/7/08	<1.0	--	<0.005	<0.005	0.016	<0.005	<0.05	<0.025	1.7	<0.025	<0.025	<0.025
GP-24	40	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	0.91	<0.010	<0.010	0.088
GP-24	44	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-24	48	7/7/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	<0.005
GP-25	32	7/8/08	4.5	--	0.18	0.015	0.18	<0.005	3.3	<0.25	<2.5	<0.25	<0.25	2.8
GP-25	36	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.010	0.85	<0.010	<0.010	0.85
GP-25	40	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.014
GP-25	44	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.012
GP-25	50	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.015
GP-26	32	7/8/08	3.1	--	0.0074	0.015	0.082	0.012	4.6	<0.33	<3.3	<0.33	<0.33	5.1
GP-26	36	7/8/08	3.4	--	0.023	0.0087	0.053	0.010	1.7	<0.33	<3.3	<0.33	<0.33	2.0
GP-26	40	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.013
GP-26	44	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.0061
GP-26	48	7/8/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	<0.005	<0.05	<0.005	<0.005	0.010
MW-8B	28	7/16/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--
MW-8B	32	7/16/08	<1.0	--	<0.005	<0.005	<0.005	<0.005	<0.05	--	--	--	--	--

Notes:

-- : not analyzed

NA : not available

All results are in milligrams per kilogram (mg/kg)

TPHg was analyzed by EPA Method 8015CM

Benzene, toluene, ethylbenzene, xylenes, and MTBE were analyzed by EPA Method 8021B

MTBE, TAME, ETBE, TBA, and DIPE were analyzed by EPA Method 8260B

Refusal in borings GP-20 and GP-27 - no samples

TPHg: Total Petroleum Hydrocarbons as gasoline

MTBE = methyl tertiary butyl ether

TAME = tert-amyl methyl ether

TBA = tert-butyl alcohol

DIPE = di-isopropyl ether

ETBE = ethyl tert-butyl ether



Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA
MW-1A*	8/11/00	--	170,000	57,000	6,400	7,600	4,200	9,700	320,000	--	--	--	--	--	--	--	--	--
	10/19/00	443.09	170,000	17,000	8,400	3,200	2,700	10,000	200,000	--	--	--	--	--	--	--	--	--
	2/22/01	442.12	82,000	11,000	5,100	1,000	13,000	8,700	190,000	--	--	--	--	--	--	--	--	--
	5/30/01	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	--
	11/14/01	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	--
	5/7/02	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	--
	9/11/02	438.87	130,000	NA	7,700	1,100	4,500	1,500	<5000	--	--	--	--	--	--	--	--	--
	12/1/02	437.48	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	--	--
	3/14/03	442.40	180,000	3,800	7,100	3,200	4,300	6,000	220,000	--	--	--	--	--	--	--	--	--
	6/25/03	442.93	71,000	3,100	7,500	4,700	4,800	8,900	210,000	--	--	--	--	--	--	--	--	--
	9/16/03	440.12	37,000	3,600	4,600	220	3,600	930	150,000	--	--	--	--	--	--	--	--	--
	12/22/03	443.28	44,000	4,000	6,800	1,500	4,000	3,800	180,000	--	--	--	--	--	--	--	--	--
	3/10/04	447.58	72,000	3,100	6,000	11,000	3,900	10,000	260,000	--	--	--	--	--	--	--	--	--
	6/15/04	442.65	42,000	4,300	5,000	1,800	3,700	6,000	210,000	--	--	--	--	--	--	--	--	--
	9/17/04	439.42	24,000	2,900	2,800	<33	2,900	500	83,000	--	--	--	--	--	--	--	--	--
	12/10/04	442.85	31,000	2,700	4,600	190	4,400	2,800	200,000	--	--	--	--	--	--	--	--	--
	3/2/05	448.08	58,000	2,800	4,000	2,500	4,500	7,800	230,000	--	--	--	--	--	--	--	--	--
	5/27/05	446.61	79,000	4,600	4,300	6,200	5,100	13,000	240,000	--	--	--	--	--	--	--	--	--
	7/21/05	443.65	80,000	NS	4,300	5,300	5,400	14,000	300,000	--	--	--	--	--	--	--	--	--
	10/10/05	442.54	58,000	NS	4,300	240	5,600	8,300	170,000	--	--	--	--	--	--	--	--	--
	1/9/06	446.98	47,000	3,700	3,100	1,100	4,400	5,900	180,000	<2,500	<25,000	<2,500	<2,500	240,000	<250,000	<2,500,000	<2,500	<2,500
	4/6/06	449.43	18,000	1,900	1,200	280	2,400	2,200	110,000	<2,500	<25,000	<2,500	<2,500	87,000	<250,000	<2,500,000	<2,500	<2,500
	7/27/06	442.61	24,000	2,400	2,100	350	3,400	5,300	130,000	<5000	<50,000	<5000	<5000	160,000	--	--	--	--
	10/12/06	441.57	19,000	1,700	1,000	26	2,000	1,000	68,000	<1,200	<12,000	<1,200	<1,200	84,000	<120,000	<1,200,000	--	--
	1/3/07	444.03	27,000	2,300	1,300	53	2,500	1,900	120,000	<1,700	<1,7000	<1,700	<1,700	110,000	<170,000	<1,700,000	<1,700	<1,700
	4/13/07	441.79	28,000	3,000	1,600	74	3,700	1,800	190,000	<5,000	<50,000	<5,000	<5,000	200,000	<500,000	<5,000,000	<5,000	<5,000
7/16/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2/1/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
4/18/08	437.69	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-1B	3/13/06	446.44	<50	<50	<0.5	<0.5	<0.5	<0.5	8.2	<0.5	<5.0	<0.5	<0.5	7.9	<50	<500	<0.5	<0.5
	4/6/06	449.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.0	<50	<500	<0.5	<0.5
	7/27/06	442.55	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--
	10/12/06	441.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	--	--
	1/3/07	443.98	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/13/07	441.72	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/16/07	429.45	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	NA	NA	NA	NA
	10/29/07	417.70	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	2/1/08	431.12	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/18/08	437.67	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
7/29/08	--	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	

Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA
MW- 2A*	8/11/00	NC	4,500	1,900	220	52	160	170	3,000	--	--	--	--	--	--	--	--	--
	10/19/00	443.14	3,400	1,300	150	21	100	70	1,900	--	--	--	--	--	--	--	--	--
	2/22/01	442.07	7,600	880	25	<10	69	25	2,200	--	--	--	--	--	--	--	--	--
	5/30/01	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	--
	11/14/01	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	--
	5/7/02	438.24	400	86	5.4	<0.5	1.9	2.3	230	--	--	--	--	--	--	--	--	--
	9/11/02	438.98	260	NA	1.3	<0.5	0.57	0.77	200	--	--	--	--	--	--	--	--	--
	12/1/02	437.38	250	120	7.9	1.6	13	9.9	180	--	--	--	--	--	--	--	--	--
	3/14/03	442.53	830	110	56	<0.5	<0.5	<1.0	1,200	--	--	--	--	--	--	--	--	--
	6/25/03	442.97	260	180	0.92	2.9	3.1	8.1	2,000	--	--	--	--	--	--	--	--	--
	9/16/03	440.24	420	260	3.6	3.4	5.2	2.4	1,300	--	--	--	--	--	--	--	--	--
	12/22/03	443.36	240	120	0.82	3.1	7.8	3.9	1,400	--	--	--	--	--	--	--	--	--
	3/10/04	447.63	280	210	9.4	4.2	14	11	1,400	--	--	--	--	--	--	--	--	--
	6/15/04	442.76	150	150	2.1	2.4	2.2	1.3	1,500	--	--	--	--	--	--	--	--	--
	9/17/04	439.50	61	70	<0.5	1.0	<0.5	<0.5	730	--	--	--	--	--	--	--	--	--
	12/10/04	442.94	84	110	<0.5	1.2	<0.5	1.5	1,300	--	--	--	--	--	--	--	--	--
	3/2/05	448.19	63	91	0.55	<0.5	0.63	0.51	1,000	--	--	--	--	--	--	--	--	--
	5/27/05	446.65	270	59	14	3.9	19	6.8	1,100	--	--	--	--	--	--	--	--	--
	7/21/05	444.48	280	NS	8.6	2.5	17	2.5	1,500	--	--	--	--	--	--	--	--	--
	10/10/05	442.64	<50	NS	<.5	<.5	<.5	<.5	680	--	--	--	--	--	--	--	--	--
	1/9/06	447.27	1,700	890	4.4	1.3	120	18	530	<10	330	<10	<10	590	<1000	<10,000	<10	<10
	4/7/06	449.47	110	160	0.61	0.80	4.1	<0.5	270	<5.0	660	<5.0	<5.0	240	<500	<5,000	<5.0	<5.0
	7/27/06	442.67	<50	120	<0.5	0.84	<0.5	<0.5	87	<5.0	870	<5.0	<5.0	110	--	--	--	--
	10/12/06	441.59	<50	70	<0.5	<0.5	<0.5	<0.5	29	<5.0	480	<5.0	<5.0	30	<500	<5000	--	--
	1/3/07	444.04	55	60	0.57	<0.5	<0.5	<0.5	8.5	<2.5	590	<2.5	<2.5	7.8	<250	<2,500	<2.5	<2.5
	4/13/07	441.78	86	130	<0.5	0.60	<0.5	<0.5	16	<5.0	740	<5.0	<5.0	16	<500	<5,000	<5.0	<5.0
	7/16/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2/1/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
4/18/08	437.68	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW- 3A*	8/11/00	--	59	260	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	10/19/00	443.39	<50	<65	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	2/22/01	442.33	<50	100	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	5/30/01	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	
	11/14/01	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	
	5/7/02	DRY	not sampled - well dry							--	--	--	--	--	--	--	--	
	9/11/02	439.23	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	12/1/02	437.66		NS						--	--	--	--	--	--	--	--	
	3/14/03	442.80	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	6/25/03	443.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	9/16/03	440.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	12/22/03	443.47	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	3/10/04	447.96	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
6/15/04	443.02	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--		
9/17/04	439.75	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--		

Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA
MW-3A* (cont.)	12/10/04	443.19	<50	<50	<0.5	<0.5	<0.5	<0.5	7.6	--	--	--	--	--	--	--	--	--
	3/2/05	448.51	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--
	5/27/05	446.95	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--
	7/21/05	444.74	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--
	10/10/05	442.90	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--
	1/9/06	447.60	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<50	<500	<0.5	<0.5
	4/7/06	449.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/27/06	442.94	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--
	10/12/06	441.85	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	--	--
	1/3/07	444.32	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/13/07	442.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/16/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.98	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4**	11/14/01	431.31	510	90	4.0	<0.5	<0.5	<0.5	14	--	--	--	--	--	--	--	--	
	5/7/02	438.40	150	<50	3.5	0.5	<0.5	<0.5	48	--	--	--	--	--	--	--	--	
	9/11/02	438.49	<50	NA	<0.5	<0.5	<0.5	<0.5	15	--	--	--	--	--	--	--	--	
	12/1/02	436.76	<50	<50	<0.5	<0.5	<0.5	<0.5	24	--	--	--	--	--	--	--	--	
	3/14/03	442.01	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	
	6/25/03	442.43	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	
	9/16/03	439.76	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	12/22/03	442.73	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	3/10/04	446.95	<50	<50	<0.5	<0.5	<0.5	<0.5	37	--	--	--	--	--	--	--	--	
	6/15/04	442.20	<50	<50	<0.5	<0.5	<0.5	<0.5	7.4	--	--	--	--	--	--	--	--	
	9/17/04	439.03	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	12/10/04	442.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	3/2/05	447.55	<50	<50	<0.5	<0.5	<0.5	<0.5	14	--	--	--	--	--	--	--	--	
	5/27/05	446.01	<50	<50	<0.5	<0.5	<0.5	<0.5	9.6	--	--	--	--	--	--	--	--	
	7/21/05	443.90	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
	10/10/05	442.30	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	
1/9/06	446.61	<50	<50	<0.5	<0.5	<0.5	<0.5	0.86	<0.5	<5.0	<0.5	<5.0	0.86	<50	<500	<5.0	<5.0	
MW-4A	3/13/06	445.87	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.70	<50	<500	<0.5	<0.5
	4/7/06	448.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	1.1	<50	<500	<0.5	<0.5
	7/28/06	442.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	3.0	--	--	--	
	10/13/06	441.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	2.0	<50	<500	--	--
	1/4/07	443.44	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.79	<50	<500	<0.5	<0.5
	4/13/07	441.18	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.51	<50	<500	<0.5	<0.5
	7/16/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	2/1/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
	4/18/08	437.05	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		

Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA
MW-5**	11/14/01	429.71	<50	<66	<0.5	<0.5	<0.5	<0.5	8.2	--	--	--	--	--	--	--	--	--
	5/7/02	436.75	140	<50	<0.5	<0.5	<0.5	<0.5	110	--	--	--	--	--	--	--	--	--
	9/11/02	436.66	<50	NA	<0.5	<0.5	<0.5	<0.5	6.3	--	--	--	--	--	--	--	--	--
	12/1/02	435.15	73	<50	<0.5	<0.5	<0.5	<0.5	160	--	--	--	--	--	--	--	--	--
	3/14/03	440.39	110	<50	<0.5	<0.5	<0.5	<0.5	170	--	--	--	--	--	--	--	--	--
	6/25/03	440.64	<50	<50	<0.5	<0.5	<0.5	<0.5	89	--	--	--	--	--	--	--	--	--
	9/16/03	437.82	630	<50	<0.5	3.5	<0.5	2.6	1500	--	--	--	--	--	--	--	--	--
	12/22/03	440.97	<0.5	<50	<0.5	<0.5	<0.5	<0.5	630	--	--	--	--	--	--	--	--	--
	3/10/04	445.43	57	<50	<0.5	<0.5	<0.5	<0.5	1100	--	--	--	--	--	--	--	--	--
	6/15/04	440.45	<50	<50	<0.5	<0.5	<0.5	<0.5	750	--	--	--	--	--	--	--	--	--
	9/17/04	436.97	<50	<50	<0.5	<0.5	<0.5	<0.5	780	--	--	--	--	--	--	--	--	--
	12/10/04	440.72	<50	<50	<0.5	<0.5	<0.5	<0.5	120	--	--	--	--	--	--	--	--	--
	3/2/05	446.09	<50	<50	<0.5	<0.5	<0.5	<0.5	320	--	--	--	--	--	--	--	--	--
	5/27/05	444.50	<50	<50	<0.5	<0.5	<0.5	<0.5	120	--	--	--	--	--	--	--	--	--
	7/21/05	442.10	<50	NS	<0.5	<0.5	<0.5	<0.5	97	--	--	--	--	--	--	--	--	--
10/10/05	441.30	<50	NS	<0.5	<0.5	<0.5	<0.5	41	--	--	--	--	--	--	--	--	--	
1/9/06	445.12	<50	<50	<0.5	<0.5	<0.5	<0.5	37	<0.5	<5.0	<0.5	<5.0	<5.0	<50	<500	<0.5	<0.5	
MW-5A	3/13/06	444.48	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/7/06	447.29	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/28/06	440.24	<50	62	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--
	10/13/06	439.06	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	6.3	<0.5	<0.5	0.61	<50	<500	--	--
	1/4/07	442.11	<50	320	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	4/16/07	439.87	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	7/16/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	430.61	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.3	<50	<500	<0.5	<0.5
	4/18/08	436.51	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5B	3/13/06	444.46	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.69	<50	<500	<0.5	<0.5
	4/7/06	447.15	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.98	<50	<500	<0.5	<0.5
	7/28/06	440.50	<50	<50	<0.5	<0.5	<0.5	<0.5	6.8	<0.5	6.3	<0.5	<0.5	0.61	--	--	--	--
	10/13/06	439.42	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	3.6	<50	<500	--	--
	1/4/07	442.15	<50	89	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.3	<50	<500	<0.5	<0.5
	4/16/07	439.26	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.5	<50	<500	<0.5	<0.5
	7/17/07	428.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	1.4	NA	NA	NA	NA
	10/29/07	416.69	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5
	2/1/08	431.34	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.9	<50	<500	<0.5	<0.5
	4/18/08	435.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	1.5	<50	<500	<0.5	<0.5
	7/29/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS

Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)				
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA		
MW-6	11/14/01	430.25	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	5/7/02	437.12	<50	<67	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	9/11/02	437.10	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	12/1/02	435.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0	--	--	--	--	--	--	--	--	--		
	3/14/03	440.67	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	--	--	--	--	--	--	--	--	--		
	6/25/03	441.05	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0	--	--	--	--	--	--	--	--	--		
	9/16/03	438.36	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	12/22/03	441.54	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	3/10/04	445.48	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	6/15/04	440.82	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	9/17/04	437.57	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	12/10/04	441.04	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	3/2/05	446.09	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	5/27/05	444.56	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	7/21/05	442.53	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	10/10/05	441.92	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0	--	--	--	--	--	--	--	--	--		
	1/9/06	445.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	0.86	<50	<500	<0.5	<0.5
	4/6/06	447.13	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<0.5	<5.0	<50	<500	<0.5	<0.5
	7/28/06	440.68	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<5.0	--	--	--	--
	10/13/06	439.77	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	--	--	
	1/4/07	442.10	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	4/16/07	439.73	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
	7/16/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
2/1/08	431.08	<50	<50	<0.5	<0.5	<0.5	0.91	<5.0	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5		
4/18/08	435.93	<50	<50	<0.5	<0.5	<0.5	0.91	<5.0	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5		
7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-7A	3/13/06	445.85	6,200	1,800	140	21	200	560	6,900	<100	4400	<100	<100	6,300	<10,000	<100,000	<100	<100		
	4/7/06	448.71	5,300	1,700	130	26	330	420	5,900	<100	7,500	<100	<100	6,600	<10,000	<100,000	<100	<100		
	7/28/06	441.92	2,200	470	28	18	60	0.85	240	<25	4,700	<25	<25	240	--	--	--	--		
	10/12/06	440.82	6,500	2,400	83	38	300	160	980	<17	4,700	<10	<17	1200	<1700	<17,000	--	--		
***	11/21/06	NM	1,400	NA	25	17	65	<0.5	45	<10	1,400	<10	<10	42	<1,000	<10,000	<10	<10		
	1/4/07	443.52	1,000	440	12	18	48	8.3	75	<5.0	1,100	<5.0	<5.0	73	<500	<5000	<5.0	<5.0		
	4/16/07	441.27	520	470	17	5.6	2.6	0.88	140	<12	2,500	<12	<12	170	<1,200	<12,000	<12	<12		
	7/16/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	2/1/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
	4/18/08	437.16	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		

Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA	
MW-7B	3/13/06	445.64	230	<50	1.8	4.7	<0.5	2.2	1,500	<50	7300	<50	<50	1,300	<5,000	<50,000	<50	<50	
	4/7/06	448.54	81	<50	1.9	1.6	1.1	0.58	1,000	<50	9,200	<50	<50	930	<5,000	<50,000	<50	<50	
	7/28/06	441.67	150	<50	<0.5	1.9	<0.5	<0.5	1,500	<50	16,000	<50	<50	1,900	--	--	--	--	
	10/12/06	440.65	110	<50	<0.5	1.3	<0.5	<0.5	900	<17	15,000	<17	<17	860	<1700	<17,000	--	--	
	***	11/21/06	NM	61	NA	<0.5	0.76	<0.5	<0.5	740	<50	10,000	<50	<50	680	<5,000	<50,000	<50	<50
	1/4/07	443.21	91	<50	<0.5	2.1	<0.5	<0.5	200	<50	11,000	<50	<50	180	<5000	<50,000	<50	<50	
	4/16/07	440.98	94	<50	<0.5	2.6	<0.5	<0.5	35	<50	10,000	<50	<50	<50	<5000	<50,000	<50	<50	
	7/17/07	428.99	<50	<50	0.61	0.63	<0.5	<0.5	13	<17	4,000	<17	<17	<17	--	--	--	--	
	10/29/07	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	431.55	420	<50	0.77	17	<0.5	0.97	45	<25	4000	<25	<25	49	<2500	<25000	<25	<25	
	4/18/08	436.87	650	100	3.4	15	8.3	<0.5	150	<25	3800	<25	<25	140	<2500	<25000	<25	<25	
	7/28/08	--	<50	<50	<0.5	0.56	<0.5	<0.5	17	<5.0	760	<5.0	<5.0	22	<500	<5000	<5.0	<5.0	
	MW-7C	3/13/06	445.34	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	0.60	<50	<500	<0.5	<0.5
4/7/06		448.21	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
7/28/06		441.24	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--	
10/13/06		440.65	89	<50	<0.5	1.4	<0.5	<0.5	900	<17	12,000	<17	<17	820	<1700	<17,000	--	--	
***		11/21/06	NM	<50	NA	<0.5	<0.5	<0.5	<0.5	<0.5	24	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
1/4/07		442.86	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	24	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
4/16/07		440.66	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
7/17/07		428.69	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--	
10/29/07		417.14	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<5.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
2/1/08		431.39	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
4/18/08		436.64	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
7/28/08		--	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	<0.5	<50	<500	<0.5	<0.5	
MW-8A		7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-8B	7/28/08	--	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	<0.5	<2.0	<0.5	<0.5	2.5	<50	<500	<0.5	<0.5	
MW-9A	7/28/08	DRY	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	
MW-9B	7/29/08	--	<50	63	<0.5	<0.5	<0.5	<0.5	100	<10	2,800	<10	<10	160	<1000	<10,000	<10	<10	
EX-1**	11/14/01	431.89	13,000	2,000	180	1,000	330	3,200	2,200	--	--	--	--	--	--	--	--	--	
	5/7/02	437.72	7,700	560	320	<25	66	150	6,200	--	--	--	--	--	--	--	--	--	
	9/11/02	NC	2,800	NA	32	<13	14	<13	2,500	--	--	--	--	--	--	--	--	--	
	12/1/02	437.32	3,000	100	81	<0.5	44	<1.0	4,800	--	--	--	--	--	--	--	--	--	
	3/14/03	442.28	750	50	<0.5	<0.5	7.7	13	1,200	--	--	--	--	--	--	--	--	--	
	6/25/03	442.89	120	<50	3.2	3.7	4.2	7.6	260	--	--	--	--	--	--	--	--	--	
	9/16/03	440.65	170	<50	0.5	1.5	<0.5	0.9	1,600	--	--	--	--	--	--	--	--	--	
	3/10/04	447.31	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	--	--	
	6/15/04	442.82	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	--	--	
	9/17/04	439.39	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	--	--	
	12/10/04	NC	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	--	--	
	3/2/05	NC	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	--	--	
	5/27/05	446.62	NS	NS	NS	NS	NS	NS	NS	--	--	--	--	--	--	--	--	--	

Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)			
			Gasoline	Diesel	Benzene	Toluene	Ethylbenzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA	
EX-1** (cont.)	7/21/05	443.75	<50	NS	<0.5	<0.5	<0.5	<0.5	610	--	--	--	--	--	--	--	--	--	
	10/10/05	442.57	<50	NS	<0.5	<0.5	<0.5	<0.5	31	--	--	--	--	--	--	--	--	--	
	1/9/06	447.25	580	55	40	25	45	43	4,200	<170	<1,700	<170	<170	5,200	<170,000	<17,000	<170	<170	
EW-1	3/13/06	446.47	210	120	5.0	4.1	7.5	12	3,400	<50	<100	<50	<50	2,300	<5,000	<50,000	<50	<50	
	4/7/06	449.46	1,900	190	66	170	110	380	7,900	<100	<1000	<100	<100	6,400	<10,000	<100,000	<100	<100	
	7/27/06	441.60	280	100	7.4	5.5	12	28	8,400	<500	<5,000	<500	<500	12,000	--	--	--	--	
	10/12/06	441.94	2,100	130	86	19	100	310	2,400	<50	1,400	<50	<50	2,800	<5,000	180,000	--	--	
	1/4/07	444.00	1,600	150	56	27	110	240	5,000	<50	2,900	<50	<50	4,900	<5,000	<50,000	<50	<50	
	4/13/07	441.76	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/16/07	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.62	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
EW-2	3/13/06	446.81	<250	69	<2.5	<2.5	<2.5	<2.5	5,400	<100	<1,000	<100	<100	5,100	<10,000	<100,000	<100	<100	
	4/7/06	449.79	470	160	15	2.5	24	13	2,000	<50	<500	<50	<50	1,800	<5,000	<50,000	<50	<50	
	7/27/06	442.89	260	350	2.2	1.7	6.1	3.0	8,700	<500	<5,000	<500	<500	12,000	--	--	--	--	
	10/12/06	444.51	110	<50	2.0	1.0	3.1	3.9	620	<12	<120	<12	<12	680	<1200	<12,000	--	--	
	1/4/07	444.33	<500	<50	5.3	<5.0	16	7.1	4,500	<50	<500	<50	<50	4,200	<5000	<50,000	<50	<50	
	4/13/07	442.06	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/16/07	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	10/29/07	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	2/1/08	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	4/18/08	437.95	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
	7/28/08	NM	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
ExxonI	2/26/99	30	100,000		6,100	16,000	2,500	11,000	60,000	--	--	--	--	--	--	--	--	--	
B1	2/2/01	30	650,000	13,000	6,300	10000.0	<2,500	12,000	290,000	--	--	--	--	--	--	--	--	--	
B2	2/2/01	30	56	<0.5	<0.5	<0.5	<0.5	<0.5	47	--	--	--	--	--	--	--	--	--	
B3	2/2/01	30	6,200	NA	<50	<50	<50	<50	3,800	--	--	--	--	--	--	--	--	--	
B4	2/2/01	30	12,000	NA	<50	<50	<50	<50	6,000	--	--	--	--	--	--	--	--	--	
B5	2/2/01	30	<25,000	960	<250	<250	<250	<250	16,000	--	--	--	--	--	--	--	--	--	
MB-1-A	11/10/01	28	21,000	4,300	970	<25	3,300	1200	NA	<2,500	<25,000	<2,500	<2,500	100,000	--	--	--	--	
MB-1-B	11/10/01	50	470	210	7.8	0.97	31	48	NA	<25	<250	<25	<25	1,500	--	--	--	--	
MB-1-C	11/10/01	70	990	NA	17	1.3	89	160	NA	<25	<250	<25	<25	1,200	--	--	--	--	
MB-2-A	11/9/01	28	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--	
MB-2-B	11/10/01	50	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--	
MB-3-A	11/10/01	28	40,000	41,000	120	130	1,700	2,800	NA	<50	2,500	<50	<50	<4,500	--	--	--	--	
MB-3-B	11/13/01	50	1,400	210	0.93	9.3	14	27	NA	<50	6,200	<50	<50	190	--	--	--	--	
MB-3-C	11/13/01	70	930	260	1.7	3.8	33	100	NA	<100	16,000	<100	<100	330	--	--	--	--	
DB-1-A	11/9/01	28	160	NA	<0.5	<0.5	<0.5	<0.5	NA	<1.7	<17	<1.7	<1.7	86	--	--	--	--	
DB-2-A	11/10/01	28	<50	<50	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--	
DB-3-A	11/13/01	28	<50	51	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--	

Table 2
Historical Groundwater Analytical Results
160 Holmes Street, Livermore, California

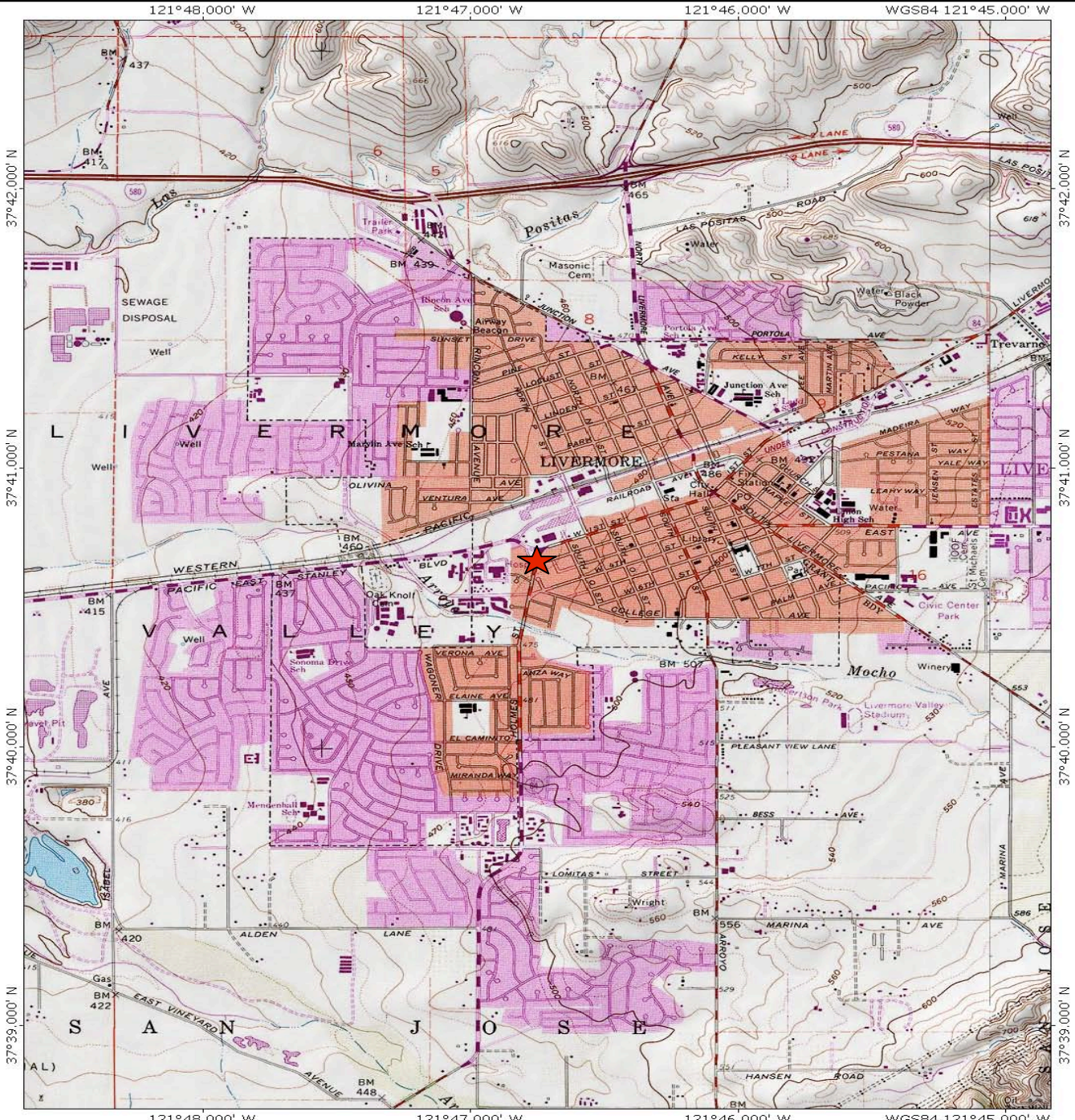
Well ID	Date Collected	Groundwater Elevation (feet above MSL)	Total Petroleum Hydrocarbons (µg/L)		Aromatic Volatile Organic Compounds (µg/L)					Oxygenated Volatile Organics (µg/L)						Lead Scavengers (µg/L)		
			Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8021B)	TAME	TBA	DIPE	ETBE	MTBE	ethanol	methanol	EDB	1,2-DCA
DB-4-A	11/13/01	28	<50	57	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--
DB-5-A	11/10/01	28	<50	910	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	<0.5	--	--	--	--
B-1-A	11/9/01	28	<50	230	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<5.0	<0.5	<0.5	28	--	--	--	--
B-2-A	11/9/01	28	25,000	6,200	900	<50	2,000	2,600	NA	<1,700	<17,000	<1,700	<1,700	80,000	--	--	--	--
B-3-A	11/9/01	28	42,000	14,000	530	140	2,400	7,800	NA	<500	<5,000	<500	<500	19,000	--	--	--	--
HP-1-A	11/13/01	28	<50	NA	<0.5	<0.5	<0.5	0.80	NA	<50	24	<50	<50	12	--	--	--	--
GP-1	1/10/07	28	270	--	<0.5	<0.5	2.6	0.85	61	--	--	--	--	--	--	--	--	--
GP-2	1/10/07	28	2,000	--	61	46	93	280	2,600	--	--	--	--	--	--	--	--	--
GP-3	1/10/07	28	11,000	--	38	27	1,100	980	37,000	--	--	--	--	--	--	--	--	--
GP-4	1/10/07	28	20,000	--	820	260	1,400	3,200	35,000	--	--	--	--	--	--	--	--	--
GP-5	1/10/07	28	4,100	--	64	6.6	13	550	780	--	--	--	--	--	--	--	--	--
GP-6	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-6A	1/11/07	28	11,000	--	360	150	1,500	480	6,100	--	--	--	--	--	--	--	--	--
GP-7	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-8	1/10/07	28	61,000	--	2,800	490	2,600	4,400	190,000	--	--	--	--	--	--	--	--	--
GP-9	1/10/07	28	100,000	--	5,600	3,400	3,500	24,000	260,000	--	--	--	--	--	--	--	--	--
GP-10	1/10/07	28	44,000	--	2,400	590	3,600	3,300	92,000	--	--	--	--	--	--	--	--	--
GP-11	1/11/07	28	550	--	1.4	1.3	2.1	36	110	--	--	--	--	--	--	--	--	--
GP-12	1/11/07	28	15,000	--	68	20	1,800	94	6,600	--	--	--	--	--	--	--	--	--
GP-13	1/11/07	28	88,000	--	5,100	<50	5,500	7,400	87,000	--	--	--	--	--	--	--	--	--
GP-14	1/11/07	28	210,000	--	11,000	26,000	4,600	21,000	1,500,000	--	--	--	--	--	--	--	--	--
GP-15	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-16	1/11/07	28	160	--	5.2	3.2	18	7.5	210	--	--	--	--	--	--	--	--	--
GP-17	1/11/07	28	460	--	7.7	4.8	8.0	7.4	790	--	--	--	--	--	--	--	--	--
GP-18	1/11/07	28	35,000	--	250	72	2,800	380	13,000	--	--	--	--	--	--	--	--	--
GP-19	1/11/07	28	430	--	8.9	1.6	24	31	430	--	--	--	--	--	--	--	--	--
GP-21	7/9/08	52	<50	--	<0.5	<0.5	0.73	3.3	9.2	<0.5	4.5	<0.5	<0.5	7.9	--	--	--	--
GP-22	7/8/08	47	<50	--	<0.5	<0.5	<0.5	0.55	8.3	<0.5	31	<0.5	<0.5	8.7	--	--	--	--
GP-23	7/7/08	50	220	--	7.1	9.1	7.0	30	61	<2.5	<10	<2.5	<2.5	76	--	--	--	--
GP-24	7/7/08	48	800	--	4.3	0.89	39	180	1,100	<50	<200	<50	<50	1300	--	--	--	--
GP-25	7/8/08	50	210	--	4.9	18	7.2	19	63	<2.5	<10	<2.5	<2.5	69	--	--	--	--
GP-26	7/8/08	48	<50	--	1.6	<0.5	2.6	5.1	<50	<0.5	2.2	<0.5	<0.5	24	--	--	--	--

Notes:
Samples analyzed for TPHg and TPHd by EPA Method 8015Cm, BTEX by EPA Method 8021B, MTBE by EPA Method 8021B and/or 8260B, and the fuel oxygenates DIPE, ETBE, TAME, EDB, 1,2-DCA, ethanol, methanol, and TBA by EPA Method 8260B.
µg/L = micrograms per liter
NA = Not Analyzed
NM = Not Monitored
NS = Not Sampled
1,2-DCA = 1,2-Dichloroethane
* = Well MW-1 renamed MW-1A, well MW-2 renamed MW-2A, Well MW-3 renamed MW-3A in February 2006
** = Well destroyed in February 2006
*** = Anomalous data observed in MW-7C from October 12, 2006 sample. Therefore, wells MW-7A, MW-7B, and MW-7C were resampled on November 21, 2006.

MTBE = methyl tertiary butyl ether
DIPE = Di-isoprpropyl Ether
ETBE = Ethyl tert-Butyl Ether
TAME - tert-Amyl Methyl Ether
TBA = tert-Butanol

EDB = 1,2-Dibromoether
No samples were collected from Borings GP-20 and GP-27
-- = Not Analyzed

FIGURES 1-3



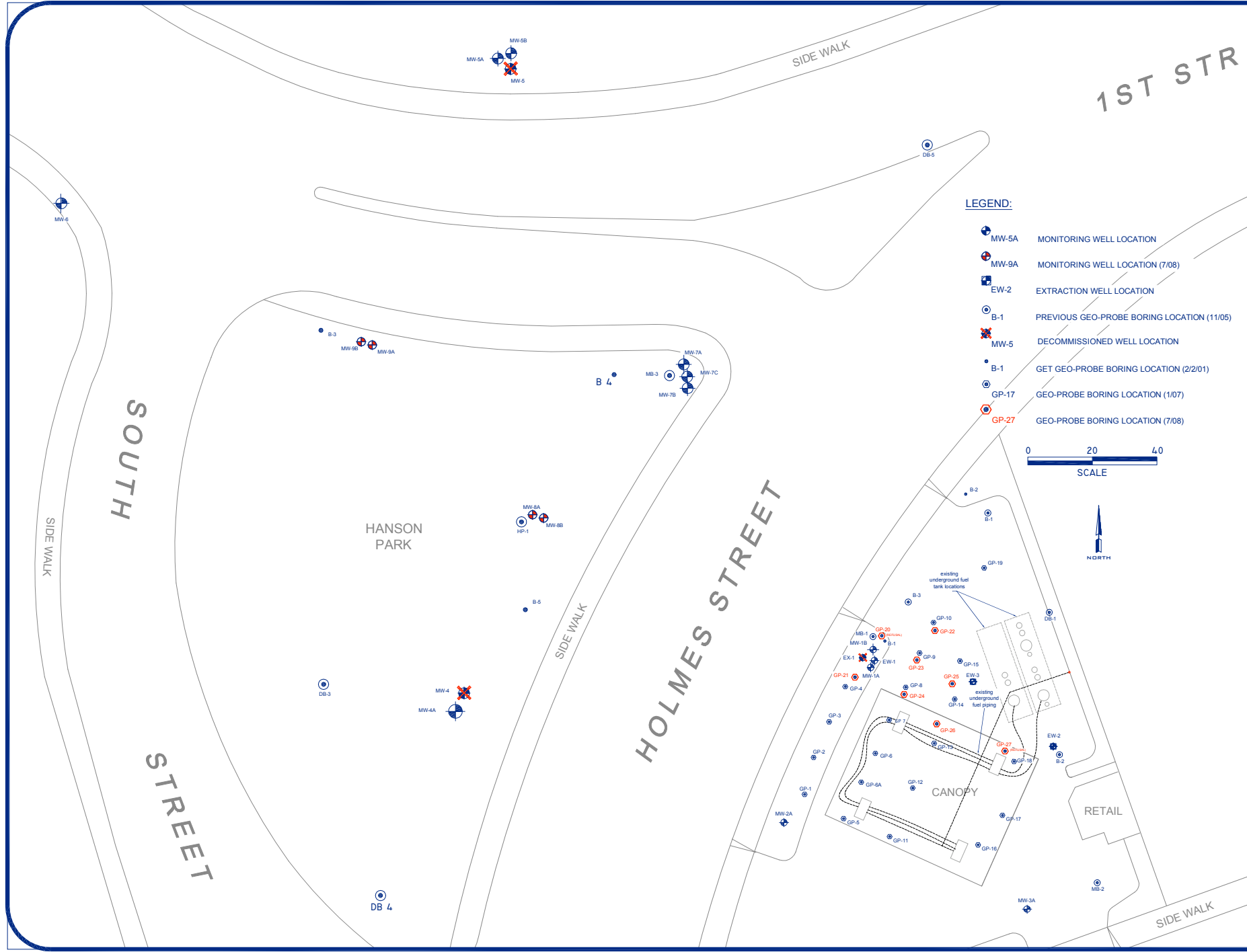
TN $\frac{1}{15^\circ}$ MN
 0 1000 FEET 0 500 1000 METERS
 121°48.000' W 121°47.000' W 121°46.000' W WGS84 121°45.000' W
 37°39.000' N 37°40.000' N 37°41.000' N 37°42.000' N

Site Vicinity Map
 Livermore Gas and Minimart
 160 Holmes Street
 Livermore, California

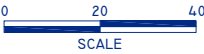
Figure 1

6/6/07

ALLTERRA
 849 Almar Avenue, Suite C, No. 281
 Santa Cruz, California
<http://www.allterraenv.com>



- LEGEND:**
- MW-5A MONITORING WELL LOCATION
 - MW-9A MONITORING WELL LOCATION (7/08)
 - EX-2 EXTRACTION WELL LOCATION
 - B-1 PREVIOUS GEO-PROBE BORING LOCATION (11/05)
 - MW-5 DECOMMISSIONED WELL LOCATION
 - B-1 GET GEO-PROBE BORING LOCATION (2/2/01)
 - GP-17 GEO-PROBE BORING LOCATION (1/07)
 - GP-27 GEO-PROBE BORING LOCATION (7/08)



General Notes

stamp

**160 HOLMES STREET
SOIL AND GROUNDWATER INVESTIGATION
AND REMEDIATION PROJECT**



0	DRAFT/REVIEW	9/8
No.	Revision/Issue	Date

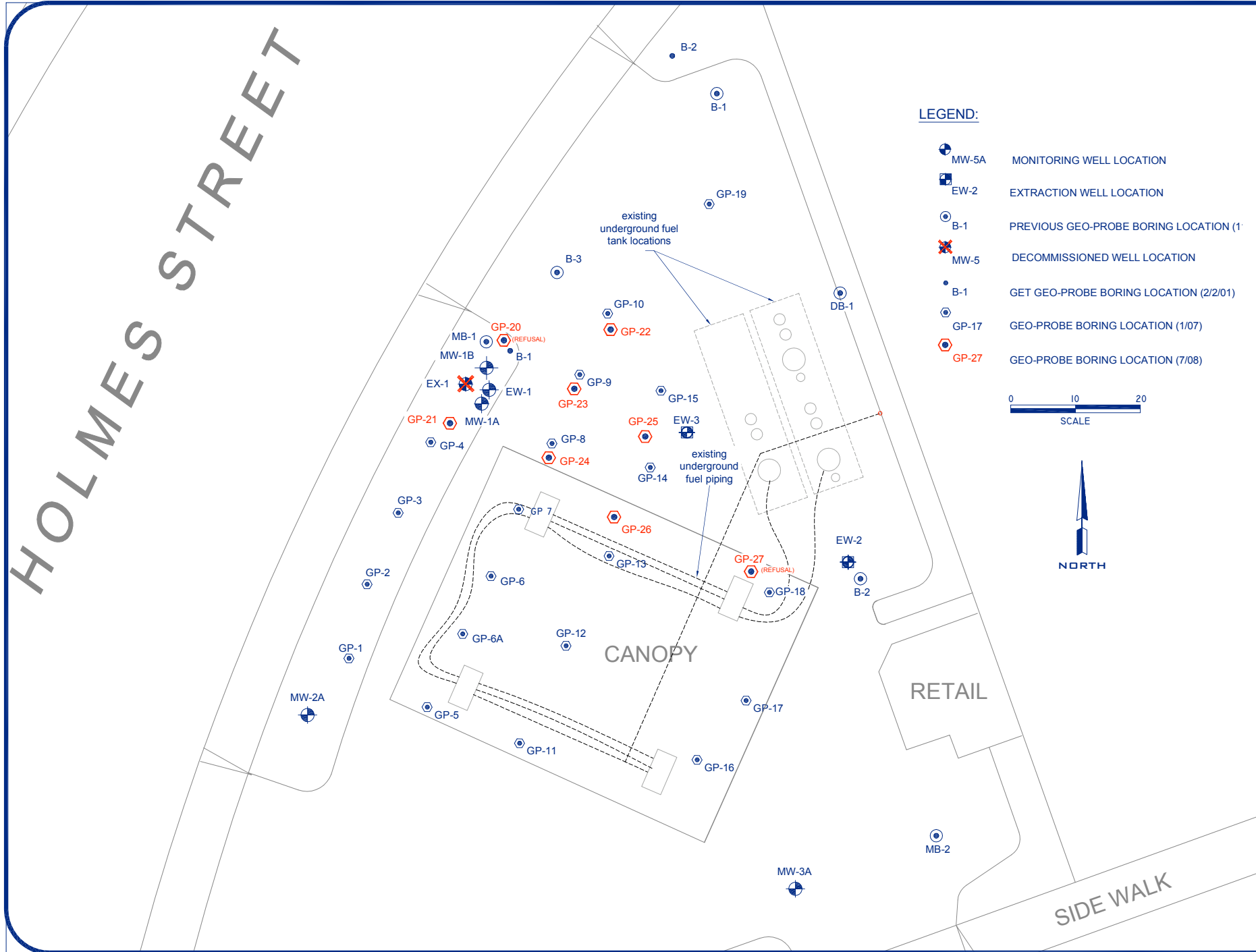
ALLTERRA ENVIRONMENTAL, INC.
849 ALMAR AVE., SUITE C, No. 281
SANTA CRUZ, CALIFORNIA
831-425-2608 FAX 831-425-2609
www.allterraenv.com

SITE PLAN
160 HOLMES STREET
LIVERMORE, CALIFORNIA

Project	160	Sheet	FIGURE 2
Date	9-8-08		
Scale	see drawing		

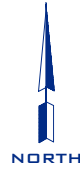
USER
RE/DATE
FNAME

HOLMES STREET



LEGEND:

- MW-5A MONITORING WELL LOCATION
- EW-2 EXTRACTION WELL LOCATION
- B-1 PREVIOUS GEO-PROBE BORING LOCATION (1/07)
- MW-5 DECOMMISSIONED WELL LOCATION
- B-1 GET GEO-PROBE BORING LOCATION (2/2/01)
- GP-17 GEO-PROBE BORING LOCATION (1/07)
- GP-27 GEO-PROBE BORING LOCATION (7/08)



General Notes

stamp

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0	DRAFT/REVIEW	9/8
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831-425-2608 FAX 831-425-2609
www.allterraenv.com

ON SITE BORING LOCATION PLAN
160 HOLMES STREET
LIVERMORE, CALIFORNIA

Project	160	FIGURE 3
Date	9-8-08	
Scale	see drawing	

FN/NAME

REV/DATE

USER

APPENDIX A
Allterra's Site Investigation Field Protocol

Appendix A

Site Investigation Field Protocol

Geoprobe® Drilling

Soil Boring Installations and Sampling

Geoprobe® soil borings are installed by pushing a clean, 2.5-inch diameter, 4-foot long, steel core barrel into undisturbed soil. The core barrel, equipped with a new, clean acetate liner, is pushed with the aid of a hydraulic hammer. The soil sample is collected in the acetate liner. The core barrel is removed from the borehole and the acetate liner is removed from the core barrel. The desired interval is immediately cut from the acetate liner, capped with Teflon® sheets and plastic caps. The sample is then labeled and placed on ice in a cooler.

A portion of each sample is retained for field screening purposes. A small amount of soil (approximately 1 ounce) is placed in a plastic bag and placed in the sun for approximately 15 minutes. The bag is then pierced by the tip of a portable photo-ionization detector (PID) and the air in the bag is analyzed for total volatile hydrocarbons. The purpose of the field screening is to qualitatively determine the presence or absence of chemical organic compounds in order to aid in the selection of samples to be analyzed at the laboratory. The data is then recorded on the boring logs at the depth corresponding to the sampling point.

Upon completion of each soil boring, the hole is filled with a cement grout and bentonite mixture from the bottom of the boring to surface grade. The purpose of grouting the hole is to prevent future surface contamination from having a conduit to the groundwater table.

Water Sampling

Once the borings are advanced to the desired depth, water samples are collected. If the boring stays open, a clean stainless steel bailer is lowered into the boring to retrieve water samples. If the boring does not stay open, a new, clean, temporary, well casing and screen will be lowered into the boring to aid in water sample collection. The water is then carefully transferred from the bailer into the sample containers. The containers are then capped, labeled and placed on ice. After the water samples are collected, the temporary well casing and screen are removed from the boring and properly disposed of.

Hydropunch Water Sampling

The hydropunch groundwater sampler is assembled with the expendable drive point, the drive head, the protective sheath, the inner stainless steel screen (or PVC) and the O-ring seal. A drive rod is added to the top of the sampler and the entire assembly is driven into the subsurface using the percussion of the direct push rig. By adding a series of hardened steel, hollow drive rods, the sampler is advanced to the desired depth. Once the desired depth is achieved, extension rods are placed down the center of the drive rods to knock the expendable point loose and to hold the screen in position as the rods are retracted approximately 4 feet. The stainless steel screen is exposed to the aquifer and fills with groundwater. The groundwater is extracted using tubing which is inserted down the center of the rods into the stainless screen sampler. The most common methods of extracting the groundwater are a bailer, a check valve, or a peristaltic pump, depending upon the contaminant, the volume desired, and the local protocols.

Monitoring Well Installation

Hollow Stem Auger Technique

Boreholes for monitoring wells are drilled using a truck-mounted, hollow-stem auger drill rig. The borehole diameter will be a minimum of 4-inches larger than the outside diameter of the casing when installing well screen. The hollow-stem auger provides minimal interruption of drilling while permitting soil sampling at desired intervals. An Allterra geologist or engineer will continuously log each borehole during drilling and will constantly check drill cuttings for indications of both the first recognizable occurrence of groundwater and volatile organic compounds using either a portable photoionization detector (PID), flame ionization detector (FID), or an explosimeter.

Soil Boring Sampling

During drilling, soil samples are collected in 2-inch by 6-inch long brass tubes. Three brass tubes are placed in an 18-inch long split-barrel (spoon) sampler of the appropriate inside-diameter. The split-barrel sampler is driven its entire length, either hydraulically or using a 140-pound hammer, or until refusal is encountered. The sampler is

extracted from the borehole and the brass tubes are immediately trimmed and capped with Teflon® sheets and plastic caps. The samples are then sealed, labeled, and placed in chilled storage (refrigerated) for delivery, under chain of custody to the state-certified analytical laboratory. These procedures minimize the potential for cross contamination and volatilization of volatile organic compounds (VOCs) prior to chemical analysis.

A portion of each sample is retained for field screening purposes. A small amount of soil (approximately 1 ounce) is placed in a plastic bag and placed in the sun for approximately 15 minutes. The bag is then pierced by the tip of a portable photo-ionization detector (PID) and the air in the bag is analyzed for total volatile hydrocarbons. The purpose of the field screening is to qualitatively determine the presence or absence of chemical organic compounds in order to aid in the selection of samples to be analyzed at the laboratory. The data is then recorded on the boring logs at the depth corresponding to the sampling point.

All soil borings not converted into monitoring wells are backfilled with a mixture of neat cement with 5% bentonite powder to surface grade.

Soil Classification

Soil from borings is examined for lithology according to the Unified Soil Classification System under the supervision of a California Registered Geologist. Job location, boring location, boring name, date, soil types, observations and activities are recorded on the boring logs.

Monitoring Well Construction

Monitoring wells are cased with threaded, factory-perforated and blank Schedule 40 polyvinyl chloride (PVC). The perforated interval consists of slotted casing, generally with either 0.01- or 0.02-inch wide by 1.5-inch long slots, with 42 slots per foot. A PVC cap is secured to the bottom of the casing with stainless steel screws; no solvents or cements are used. Centering devices may be fastened to the casing to ensure even distribution of filter material and grout within the borehole annulus.

After setting the casing inside the hollow-stem auger, sand or gravel filter material is poured into the annular space to fill from boring bottom to generally 2 feet above the perforated interval. A 1 - to 2-foot thick bentonite plug is set above this filter material to prevent grout from infiltrating the filter pack. Neat cement containing about 5 percent bentonite is then tremmied into the annular space from the top of the bentonite plug to near surface. A traffic-rated vault is installed around each wellhead for wells located in parking lots or driveways, while steel "stovepipes" are usually set over wellheads in landscaped areas.

Well Development

After installation, the wells are thoroughly developed to remove residual drilling materials from the wellbore, and to improve well performance by removing fine material from the filter pack that may pass into the well. Well development techniques used may include pumping, surging, bailing, swabbing, jetting, flushing, and airlifting. All development water is collected either in drums or tanks for temporary storage, and properly disposed of pending laboratory analytical results. Following development, the well is allowed to stand undisturbed for a minimum of 48 hours before its first sampling.

Well Monitoring and Sample Collection

A Teflon bailer or submersible pump was used to purge a minimum of three well volumes of groundwater from each well. After each well volume is purged, field parameters such as pH, temperature, and conductivity are recorded. Wells are purged until field parameters have stabilized or a maximum of ten (10) well volumes of groundwater have been removed. When possible, purge rates will not exceed the recharge rate for the well. However, if the well yield is low and the well was dewatered, the well is allowed to recharge to 80% of its original volume prior to sample collection. Field parameter measurements and pertinent qualitative observations, such as groundwater color and odor, are recorded in Groundwater Sampling Field Logs. Groundwater samples are collected in appropriate bottles and stored on ice for delivery, under chain-of-custody documentation, to a state-certified laboratory for analysis.

Sample Identification and Chain-Of-Custody Procedures

Each sample container submitted for analysis is labeled to identify the job number, date, time of sample collection, a sample number unique to the sample, any in-field measurements made, sampling methodology, name(s) of on-site personnel, and any other pertinent field observations also recorded on the field excavation or boring log. During shipment, the person with custody of the samples will relinquish them to the next person by signing the chain-of-custody form(s) and noting the date and time.

Equipment Decontamination

All drilling, sampling, well construction, and well development equipment is cleaned in a solution of laboratory grade detergent and distilled water or steam cleaned before use at each sampling point.

Field Personnel

During groundwater sampling activities, sampling personnel will wear pertinent attire to minimize risks to health and safety. Field personnel will also use a pair of clean, powderless, surgical gloves for each successive sampling point. Used surgical gloves will be placed into waste drums for future disposal.

Waste Disposal

Soil Disposal: Soil generated during drilling will be stored in DOT-approved 55-gallon waste drums pending proper disposal.

Water Disposal: Water generated during well development, purging, and sampling activities will be placed into DOT-approved 55-gallon waste drums pending proper disposal and/or permitted discharge to the sanitary sewer.

APPENDIX B
Drilling and Encroachment Permits



ZONE 7 WATER AGENCY

100 NORTH CANYONS PARKWAY, LIVERMORE, CALIFORNIA 94551 VOICE (925) 454-5000 FAX (925) 245-9306
E-MAIL whong@zone7water.com

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 160 Holmes St.

Livermore, CA 94550

Coordinates Source _____ ft. Accuracy \sqrt _____ ft.
LAT: _____ ft. LONG: _____ ft.
APN 97-82-7-7

CLIENT
Name Manwel Shewayhat
Address 54 Wolfe Canyon Rd Phone _____
City Kent Field, CA Zip 94904

APPLICANT
Name Allterra Environmental, Inc.
Email erik@allterraenv.com Fax 831-425-2609
Address 849 Almar Ave, Suite 4 Phone 831-425-2608
City Santa Cruz Zip 95060

TYPE OF PROJECT: #281
 Well Construction 9 Geotechnical Investigation 9
 Well Destruction 9 Contamination Investigation 9
 Cathodic Protection 9 Other _____ 9

PROPOSED WELL USE:
Domestic 9 Irrigation 9
Municipal 9 Remediation 9
Industrial 9 Groundwater Monitoring 9
Dewatering 9 Other temp. borings 9

DRILLING METHOD:
Mud Rotary 9 Air Rotary 9 Hollow Stem Auger 9
Cable Tool 9 Direct Push 9 Other _____ 9

DRILLING COMPANY Environmental Control Assoc. (ECA)
Exploration Geoservices
DRILLER'S LICENSE NO. ECA-695970, Exploration-484288

WELL SPECIFICATIONS:
Drill Hole Diameter 8" in. Maximum _____
Casing Diameter 2" in. Depth 70 ft.
Surface Seal Depth 5 ft. Number 6

SOIL BORINGS:
Number of Borings 8 Maximum _____
Hole Diameter 2.5 in. Depth 52 ft.

ESTIMATED STARTING DATE 6/30/08
ESTIMATED COMPLETION DATE 7/15/08

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE [Signature] Date 5/30/08

PERMIT NUMBER 28075
WELL NUMBER 3S/2E-17C34 to 17C39
APN 097-0082-007-07

PERMIT CONDITIONS
(Circled Permit Requirements Apply)

- A. GENERAL
 1. A permit application should be submitted so as to arrive at Zone 7 office five days prior to your proposed starting date.
 2. Submit to Zone 7 within 60 days after completion of permit work the original **Department of Water Resources Water Well Drillers Report (DWR Form 188), signed by the driller.**
 3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS
 1. Minimum surface seal diameter is four inches greater than well casing diameter.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
 3. Grout placed by tremie.
 4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
 5. A sample port is required on the discharge pipe near the wellhead.
- C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
 3. Grout placed by tremie.
- D. GEOTECHNICAL. Backfill bore hole with compacted cuttings heavy bentonite and upper two feet with compacted material. areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.
- E. CATHODIC. Fill hole above anode zone with concrete placed tremie.
- F. WELL DESTRUCTION. See attached.
- G. SPECIAL CONDITIONS. Submit to Zone 7 within 60 days after completion of permitted work the well installation report **including all soil and water laboratory analysis results.**

Approved [Signature] Date 6/6/08
Wyman Hong

ATTACH SITE PLAN OR SKETCH

App

City of Livermore

Community Development Department
1052 S. Livermore Avenue
Livermore, CA 94550
(925) 960-4500

Encroachment
Permit No. EN080210
Other

PERMIT TO DO WORK IN ACCORDANCE WITH CHAPTER 12.08 OF THE LIVERMORE MUNICIPAL CODE AND SPECIFICATIONS AS ADOPTED BY THE CITY OF LIVERMORE AND ANY SPECIAL REQUIREMENTS SHOWN OR LISTED HEREIN.

Applicant/Permittee:

Name: Allterra Inc.
Address: 849 Almar Ave Suite C # 281
Santa Cruz, CA, 95060
Phone: (831) 425-2608

Permit Fee: \$53.00
Inspection Fee: \$256.00
Bond: \$0.00

Total: \$309.00

Contractor:

Name: Allterra Inc.
Address: 849 Almar Ave Suite C # 281
Santa Cruz, CA 95060
Phone: (831) 425-2608

PLEASE READ THIS PERMIT CAREFULLY. KEEP IT AT THE WORK SITE. TO ARRANGE FOR AN INSPECTION, PHONE (925) 960-4500 AT LEAST 24 HOURS BEFORE YOU START WORK.

JOB LOCATION: 160 Holmes Street ****
DESCRIPTION OF WORK: Installation of 2 monitoring wells in Hansen Park. See attached plans.

Length of Excavation: _ L.F. Width: _ L.F. Depth: _ L.F.

Attention is directed to the General Provisions printed on the reverse side of this permit and to the attached special requirements (to be determined as needed by the Engineering Division).

Prosecution of Work: All work authorized by the permit shall be performed in a workmanlike, diligent, and expeditious manner, and must be completed to the satisfaction of the City Engineer.

Liability and Damages: The permittee shall be responsible for all liability imposed by law for personal injury or property damage which may arise out of the work permitted and done by permittee under this permit, or which may arise out of the failure on the part of the permittee to perform his obligations under said permit in respect to maintenance and encroachment. The permittee shall protect and indemnify the City of Livermore, its officers and employees, and save them harmless in every way from all action at law for damage or injury to persons or property that may arise out of or be occasioned in any way because of his operations as provided in this permit.

Signature of Permittee:

City Engineer

By: [Signature]

By: [Signature]

Date: 7/3/08

Date of Issue: 6/24/08

Work Completed:

Date: _____

Inspector: _____

APPENDIX C
Boring Logs



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-21		Page 1 of 2	
						Project Number:		160	
						Date:		7/9/08	
						Location:		160 Holmes	
						Logged By:		MK	
Drilling Method/Boring Diameter (inches)						Driller:		ECA	
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)			
						Description			
			1						
			2						
			3						
			4						
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
Water Level Information			Notes (total depth, etc.): Boring not logged 0 - 30 feet bgs. (See p. 2 for log of soil below 30 feet bgs)						
Date	Time	Depth (feet) (see p. 2)							



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-21	Page 2 of 2
						Project Number: 160	
						Date: 7/9/08	
						Location: 160 Holmes	
						Logged By: MK	
Drilling Method/Boring Diameter (inches)						Driller: ECA	
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)	
						Description	
0		GP21-32	31 32 33 34	*	SC	Gray clayey sand, very moist to moist, dense	
0		GP21-36	35 36 37 38 39	*	GC	Gray gravel-sand-clay mixture, very moist to wet, dense	
0		GP21-40	40 41 42	*	GC	Same with 1-2" siltstone layers	
0		GP21-44	43 44 45 46 47	*	CL	Brown silty clay with gravel, moist, stiff	
0		GP21-48	48 49 50 51	*	GP	Gray sandy gravel with clay, wet, dense	
0		GP21-52	52	*	GP	Same with 0.5" siltstone layer	
Water Level Information			Notes (total depth, etc.): Boring advanced to 52' bgs and grouted to surface grade * Sample collected for laboratory analysis. Soil logged continuously 30 to 52 feet bgs. For general lithology from 0 to 30 feet bgs, see log of boring GP-4 Water sample GP-21 collected on 7/9/08				
Date	Time	Depth (feet)					
7/9/08		40.25					



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-22		Page 1 of 2			
						Project Number:		160			
						Date:		7/8/08			
						Location:		160 Holmes			
						Logged By:		MK			
Drilling Method/Boring Diameter (inches)						Driller:		ECA			
						Casing installation data:					
						N/A (GeoProbes - no wells)					
						Description					
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)						
			1								
			2								
			3								
			4								
			5								
			6								
			7								
			8								
			9								
			10								
			11								
			12								
			13								
			14								
			15								
			16								
			17								
			18								
			19								
			20								
			21								
			22								
			23								
			24								
			25								
			26								
			27								
			28								
			29								
			30								
Water Level Information			Notes (total depth, etc.): Boring not logged 0 - 30 feet bgs. (See p. 2 for log of soil below 30 feet bgs)								
Date	Time	Depth (feet) (see p. 2)									



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-22		Page 2 of 2	
						Project Number:		160	
						Date:		7/8/08	
						Location:		160 Holmes	
						Logged By:		MK	
Drilling Method/Boring Diameter (inches)						Driller: ECA			
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)			
						Description			
			31		CL	Brown sandy clay, moist, stiff.			
0		GP22-32	32	*					
			33		GW	Gray gravel-sand mixture with clay, moist to very moist, dense.			
			34						
0		GP22-36	36	*		Same.			
			37						
			38			Brown gravel-sand-clay mixture, moist, dense			
0		GP22-40	40	*	GC				
			41			Same			
			42						
0		GP22-44	44	*		Same			
			45						
0		GP22-47	47	*		Same			
			46						
			43						
			44						
			48						
			49						
			50						
Water Level Information			Notes (total depth, etc.): Boring advanced to 50' bgs and grouted to surface grade * Sample collected for laboratory analysis. Soil logged continuously 30 to 50 feet bgs. For general lithology from 0 to 30 feet bgs, see log of boring GP-10 Water sample GP-22 collected on 7/8/08						
Date	Time	Depth (feet)							
7/8/08		39.5							



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-23		Page 1 of 2	
						Project Number:		160	
						Date:		7/7/08	
						Location:		160 Holmes	
						Logged By:		MK	
Drilling Method/Boring Diameter (inches)						Driller:		ECA	
						Casing installation data: N/A (GeoProbes - no wells)			
						Description			
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	<p>Boring not logged 0 - 30 feet bgs.</p>			
			1						
			2						
			3						
			4						
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
Water Level Information			Notes (total depth, etc.): Boring not logged 0 - 30 feet bgs. (See p. 2 for log of soil below 30 feet bgs)						
Date	Time	Depth (feet) (see p. 2)							



Field Well/Boring Log

Field location of boring:(See Site Plan)				Boring ID GP-23		Page 2 of 2
				Project Number: 160		
				Date: 7/7/08		
				Location: 160 Holmes		
				Logged By: MK		
Drilling Method/Boring Diameter (inches)				Driller: ECA		
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)
						Description
10		GP23-32	31	*	CL	Gray sandy clay, moist to very moist, stiff. (Grades into sandy clay below)
			32			
			33			
0		GP23-36	34	*	GC	Gray gravel-sand-clay mixture, very moist to wet, dense
			35			
			36			
			37			
			38			
0		GP23-40	39	*	GC	Brown gravel-sand-clay mixture, moist, dense Includes 1"-2" rock layers (quartz and siltstone)
			40			
			41			
			42			
0		GP23-44	43	*		Same
			44			
			45			
			46		CL	Brown silty clay, moist, stiff
			47			
			48			
			49			
0		GP23-50	50	*	GW	Brown gravel-sand-clay mixture, moist to wet, dense
Water Level Information			Notes (total depth, etc.): Boring advanced to 50' bgs and grouted to surface grade * Sample collected for laboratory analysis. Soil logged continuously 30 to 50 feet bgs. For general lithology from 0 to 30 feet bgs, see log of boring GP-9 Water sample GP-23 collected on 7/7/08			
Date	Time	Depth (feet)				
7/7/08	11:30	no water				
	12:05	39.7				



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-24		Page 1 of 2	
						Project Number: 160			
						Date: 7/7/08			
						Location: 160 Holmes			
						Logged By: MK			
Drilling Method/Boring Diameter (inches)						Driller: ECA			
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)			
						Description			
			1						
			2						
			3						
			4						
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
Water Level Information			Notes (total depth, etc.): Boring not logged 0 - 30 feet bgs. (See p. 2 for log of soil below 30 feet bgs)						
Date	Time	Depth (feet) (see p. 2)							



Field Well/Boring Log

Field location of boring:(See Site Plan)					Boring ID GP-24		Page 2 of 2
					Project Number: 160		
					Date: 7/7/08		
					Location: 160 Holmes		
					Logged By: MK		
Drilling Method/Boring Diameter (inches)					Driller: ECA		
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)	
			31		CL	Description	
0		GP24-32	32	*			
			33				
			34				
			35				
0		GP24-36	36	*	GC	Brown gravel-sand-clay, moist, dense	
			37				
			38				
			39				
0		GP24-40	40	*	GC	Same	
			41				
			42				
			43				
0		GP24-44	44	*	GC	Same	
			45				
			46				
			47				
0		GP24-48	48	*	GC	Same	
			49				
			50				
Water Level Information			Notes (total depth, etc.): Boring advanced to 50' bgs and grouted to surface grade * Sample collected for laboratory analysis. Soil logged continuously 30 to 50 feet bgs. For general lithology from 0 to 30 feet bgs, see log of boring GP-8 Water sample GP-24 collected on 7/7/08				
Date	Time	Depth (feet)					
7/7/08	11:30	no water					
	12:05	39.7					



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-25		Page 1 of 2	
						Project Number:		160	
						Date:		7/8/08	
						Location:		160 Holmes	
						Logged By:		MK	
Drilling Method/Boring Diameter (inches)						Driller:		ECA	
						Casing installation data:			
						N/A (GeoProbes - no wells)			
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description			
			1						
			2						
			3						
			4						
			5						
			6						
			7			Boring not logged 0 - 30 feet bgs.			
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
Water Level Information			Notes (total depth, etc.): Boring not logged 0 - 30 feet bgs. (See p. 2 for log of soil below 30 feet bgs)						
Date	Time	Depth (feet) (see p. 2)							



Field Well/Boring Log

Field location of boring:(See Site Plan)				Boring ID GP-25		Page 2 of 2
				Project Number: 160		
				Date: 7/8/08		
				Location: 160 Holmes		
				Logged By: MK		
Drilling Method/Boring Diameter (inches)				Driller: ECA		
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)
			31			Description
0		GP25-32	32	*	CL	Brown sandy clay, moist, stiff.
			33			
			34			
			35			
0		GP25-36	36	*	CL	Same with gravel
			37			Gray gravel-sand mixture, moist, dense
			38			
			39			Same but increase in sand fraction
0		GP25-40	40	*	GC	Same
			41			
			42			
			43			
0		GP25-44	44	*	GC	Same, but brown
			45			
			46			
			47		GC	Same
			48			(Limited recovery due to dense soil conditions)
			49			
			50			
Water Level Information			Notes (total depth, etc.): Boring advanced to 50' bgs and grouted to surface grade * Sample collected for laboratory analysis. Soil logged continuously 30 to 50 feet bgs. For general lithology from 0 to 30 feet bgs, see log of boring GP-14 Water sample GP-25 collected on 7/8/08			
Date	Time	Depth (feet)				
7/8/08		39.9				



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-26		Page 1 of 2	
						Project Number:		160	
						Date:		7/8/08	
						Location:		160 Holmes	
						Logged By:		MK	
Drilling Method/Boring Diameter (inches)						Driller:		ECA	
						Casing installation data:			
						N/A (GeoProbes - no wells)			
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description			
			1						
			2						
			3						
			4						
			5						
			6						
			7						
			8						
			9						
			10						
			11						
			12						
			13						
			14						
			15						
			16						
			17						
			18						
			19						
			20						
			21						
			22						
			23						
			24						
			25						
			26						
			27						
			28						
			29						
			30						
Water Level Information			Notes (total depth, etc.): Boring not logged 0 - 30 feet bgs. (See p. 2 for log of soil below 30 feet bgs)						
Date	Time	Depth (feet) (see p. 2)							



Field Well/Boring Log

Field location of boring:(See Site Plan)						Boring ID GP-26		Page 2 of 2
						Project Number: 160		
						Date: 7/8/08		
						Location: 160 Holmes		
						Logged By: MK		
Drilling Method/Boring Diameter (inches)						Driller: ECA		
PID	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Casing installation data: N/A (GeoProbes - no wells)		
						Description		
			31		CL	Brown sandy clay with gravel, moist, stiff.		
0		GP26-32	32	*				
			33					
			34					
			35					
0		GP26-36	36	*	CL	Same with more sand.		
			37					
			38					
			39					
			40					
0		GP26-40	40	*	GC	Brown gravel-sand-clay mixture, moist, dense		
			41					
			42					
			43					
			44					
0		GP26-44	44	*	GC	Brown gravel-sand-clay mixture with occasional 1"-2" sandstone layers, very moist to wet, dense		
			45					
			46					
			47					
			48					
0		GP26-48	48	*	GC	Same but wet		
			49					
			50					
Water Level Information			Notes (total depth, etc.): Boring advanced to 50' bgs and grouted to surface grade * Sample collected for laboratory analysis. Soil logged continuously 30 to 50 feet bgs. For general lithology from 0 to 30 feet bgs, see log of boring GP-13 Water sample GP-26 collected on 7/8/08					
Date	Time	Depth (feet)						
7/8/08		40.3						



Field Well/Boring Log

Field location of boring <p style="text-align: center;">(See attached Site Plan)</p>	Boring ID	MW-8A	Page: 1 of 1
Project Number: 160			
Date: 7/16/08			
Location: 160 Holmes, Livermore, CA			
Logged By: MK			

Drilling Method/Boring Diameter (inches): hollow stem auger, 8.25" diameter Driller: Exploration Geoservices Inc.

Well Construction Details	PID (ppm)	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description
				0			
				1			
				2			
				3			
				4			
				5			(Not logged - see boring log for well MW-8B for lithology from 0 - 36 ft. bgs)
				6			
				7			
				8			
				9			
				10			
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			
				21			
				22			
				23			
				24			
				25			
				26			
				27			
				28			
				29			
				30			
				31**			**Note - Well installed to 36 feet bgs

Boring terminated at approximately 36 feet bgs

Water Level Information			When applicable 31-60 feet bgs on page 2	Water samples: None
Date	Time	Depth (feet bgs)		

7/16/08		--	Notes:	= Cement = Bentonite = #2 Sand = 0.010 inch slotted PVC screen = Blank PVC casing	



Field Well/Boring Log

Field location of boring (See attached Site Plan)	Boring ID	MW-8B	Page: 1 of 2
Project Number: 160			
Date: 7/17/08			
Location: 160 Holmes, Livermore, CA			
Logged By: MK			

Drilling Method/Boring Diameter (inches): hollow stem auger, 8.25" diameter Driller: Exploration Geoservices Inc.

Well Construction Details	PID (ppm)	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description
				0			Landscaped Ground Surface
				1			
				2		CL	Dark brown silty clay, moist, stiff
				3			
				4			
				5			
				6			
	0	5/7/7		7		GW	Brown gravel-sand with clay, moist, loose
				8			
				9			
				10			
				11			
	0	5/14/18		12		GW	Same but dense
				13			
				14			
				15			
				16			
	0	4/4/7		17		GW	Same but medium dense
				18			
				19			
				20			
				21			
	0	15/36/43		22		CL	Brown silty clay with organic matter, moist, hard
				23			
				24			
				25			Brown (and green/gray/red) sandy gravel, medium dense,
				26		GW	moist
	0	5/7/7		27		SC/CL	Brown and gray clayey sand and sandy clay, medium dense/stiff, moist
				28		SP	Brown and gray sand, very fine-grained, trace silt, medium
				29			dense, very moist
	0	4/6/6		30		CL	Brown and gray very silty sandy clay, stiff, moist
				31			

Boring terminated at approximately 55 feet bgs; total well depth 51 feet bgs

Water Level Information			When applicable 31-60 feet bgs on page 2	Water samples: None
Date	Time	Depth (feet bgs)		
7/17/08		44.5	Notes:	<div style="display: flex; flex-direction: column; gap: 5px;"> <div style="display: flex; align-items: center;"> = Cement</div> <div style="display: flex; align-items: center;"> = Bentonite</div> <div style="display: flex; align-items: center;"> = #2 Sand</div> <div style="display: flex; align-items: center;"> = 0.010 inch slotted PVC screen</div> <div style="display: flex; align-items: center;"> = Blank PVC casing</div> </div>



Field Well/Boring Log

Field location of boring (See attached Site Plan)	Boring ID	MW-8B	Page: 2 of 2
Project Number: 160			
Date: 7/17/08			
Location: 160 Holmes, Livermore, CA			
Logged By: MK			

Drilling Method/Boring Diameter (inches): hollow stem auger, 8.25" diameter Driller: Exploration Geoservices Inc.

Well Construction Details	PID (ppm)	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description	
	1.5		MW8B-28	28		CL	Brown and green silty sandy clay, moist, firm	
				29				
				30				
				31				
				32				
		2.8	3/4/5 2/3/6	MW8B-32	32		CL	Brown and green silty sandy clay, moist, firm
				33				
				34				
				35				
				36				
				37				
				38				
			5/8/10 6/7/8		36		GW	Brown and gray sandy gravel, wet, moist
				37				
			5/17/18		39		CL/SC	Brown silty sandy clay, hard, moist. Grades into sandy clay
			15/19/6		40		GW/GC	Brown gravel-sand and gravel-sand-clay mixture, med. dense/v. stiff, wet
				41				
			4/5/6		42		SC/CL	Brown clayey sand/sandy clay, med. dense/stiff, very moist to moist
			4/6/8		43		CL	Brown sandy clay, stiff, very moist
			3/4/5		44		SW	Brown sand, very fine- to coarse-grained sand, loose, wet
					45		CL	Brown sandy clay, stiff to hard, moist to very moist
			7/4/18		46		SC/CL	Brown clayey sand/sandy clay, med. dense/very stiff, wet
				47				
			8/15/22		48		GW	Brown gravel-sand, dense, wet
				49				
			10/16/23 10/28/30		50		GC	Brown gravel-sand-clay mixture, very dense, moist
			28/30/20		52		CL	Brown sandy silty clay, hard, moist
				53				
			54					
				55				

Boring terminated at approx. 55 feet bgs; total well depth 51 feet bgs.

Water Level Information			When applicable 31-60 feet bgs on page 2	Notes:
Date	Time	Depth (feet bgs)		
7/17/08		44.5'		<ul style="list-style-type: none"> = Cement = Bentonite = #2 Sand = 0.010 inch slotted PVC screen = Blank PVC casing
				Water samples: None.



Field Well/Boring Log

Field location of boring (See attached Site Plan)	Boring ID	MW-9A	Page: 1 of 1
Project Number: 160			
Date: 7/16/08			
Location: 160 Holmes, Livermore, CA			
Logged By: MK			

Drilling Method/Boring Diameter (inches): hollow stem auger, 8.25" diameter Driller: Exploration Geoservices Inc.

Well Construction Details	PID (ppm)	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description
				0			
				1			
				2			
				3			
				4			
				5			(Not logged - see boring log for well MW-9B for lithology from 0 - 36 ft. bgs)
				6			
				7			
				8			
				9			
				10			
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			
				21			
				22			
				23			
				24			
				25			
				26			
				27			
				28			
				29			
				30			
				31**			**Note: Well installed to 36 feet bgs

Boring terminated at approximately 58 feet bgs; total well depth 52' bgs

Water Level Information			When applicable 31-60 feet bgs on page 2	Water samples: None
Date	Time	Depth (feet bgs)	Notes:	
7/16/08		43.5		

- = Cement
- = Bentonite
- = #2 Sand
- = 0.010 inch slotted PVC screen
- = Blank PVC casing



Field Well/Boring Log

Field location of boring (See attached Site Plan)	Boring ID	MW-9B	Page: 1 of 2
Project Number: 160			
Date: 7/16/08			
Location: 160 Holmes, Livermore, CA			
Logged By: MK			

Drilling Method/Boring Diameter (inches): hollow stem auger, 8.25" diameter Driller: Exploration Geoservices Inc.

Well Construction Details	PID (ppm)	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description
				0			Landscaped Ground Surface
				1			
				2		CL (fill)	Dark brown silty clay with gravel and sand (Fill), moist, stiff
				3			
				4			
				5			
				6			
	0	10/10/18		7		SC/CL	Brown clayey sand to sandy clay, moist, medium dense/very stiff
				8			
				9			
				10			
				11			
	0	10/15/19		12		SW	Brown gravelly sand with clay, moist, dense, moist
				13			
				14			
				15			
				16			
	0	3/3/3		17		CL/ML	Brown sandy clay grading in and out of silt and very fine sand with black organic mottling, stiff, moist.
				18			
				19			
		9/15/18		20		SW	Brown gravelly sand with clay, dense, wet.
				21			
				22		GC	Brown/gray/orange gravel-sand-clay, dense, moist.
	0	10/12/20		23			Brown sandy silty clay with sand and gravel, hard, moist.
				24			Same without significant gravel
		5/10/12		25			
		4/6/6		26			
		4/5/7		27			Same with 0.5-inch layers of wet clayey sand and stiff
				28		CL	Same but no sand layers and moist
		4/5/4		29			Same but moist to very moist.
	0	4/6/5		30			
		3/4/4		31			

Boring terminated at approximately 58 feet bgs; total well depth 52' bgs

Water Level Information			When applicable 31-60 feet bgs on page 2	Water samples: None
Date	Time	Depth (feet bgs)		
7/16/08		43.5	Notes: = Cement = Bentonite = #2 Sand = 0.010 inch slotted PVC screen = Blank PVC casing	



Field Well/Boring Log

Field location of boring <p style="text-align: center;">(See attached Site Plan)</p>	Boring ID	MW-9B	Page: 2 of 2
Project Number: 160		Date: 7/16/08	
Location: 160 Holmes, Livermore, CA		Logged By: MK	

Drilling Method/Boring Diameter (inches): hollow stem auger, 8.25" diameter Driller: Exploration Geoservices Inc.

Well Construction Details	PID (ppm)	Blows/ft. or PSI	Sample ID	Depth (feet)	Sample	Soil Group Symbol (USGS)	Description
				28			
				29			
				30			
				31			
				32		CL	
	0	3/3/6		33			Brown very sandy (fine-grained) clay, loose, moist to very moist.
				34			
		3/4/05		35			
	0	5/12/18		36			Same, but moist and hard
				37			
	0	12/20/28		38		GC	Brown gravel-sand-clay, dense, very moist.
		49/19/24		39			Same but moist to wet.
		18/27/41		40			
				41		GW	Brown gravel-sand mixture, very dense, wet
	0	20/21/40		42			
		6/18/25		43			
	0	12/15/18		44		SW	Brown gravelly sand, very fine- to coarse-grained sand, dense, wet.
				45			
				46		CL	Brown silty clay, stiff to very stiff, moist.
	0	3/6/8		47		GC	Brown gravel-sand-clay mixture, medium dense, very moist to wet.
		8/19/49		48			Same but wet.
		12/18/25		49			
	0	28/50 for 4"		51		GW	Gray cobbles with sand and gravel, very dense, wet.
				52			
	0	19/42/50 for 6"		53		GC	Brown gravel-sand-clay, very dense, moist.
	0	10/20/28		54		GW	Brown gravel-sand mixture, dense, wet.
	0	17/38/70		55		CL	Brown silty clay, hard, moist.
				56			
				57			Brown silty clay, hard, moist.

Boring terminated at approximately 57 feet bgs; total well depth 52' bgs

Water Level Information			When applicable 31-60 feet bgs on page 2	Notes:
Date	Time	Depth (feet bgs)		
7/16/08		43.5		<div style="display: flex; align-items: flex-start;"> <div style="width: 15px; height: 15px; background-color: gray; margin-right: 5px;"></div> = Cement <div style="width: 15px; height: 15px; background-color: #cccccc; margin-right: 5px;"></div> = Bentonite <div style="width: 15px; height: 15px; background: repeating-linear-gradient(45deg, transparent, transparent 2px, black 2px, black 4px); margin-right: 5px;"></div> = #2 Sand <div style="width: 15px; height: 15px; border: 1px solid black; margin-right: 5px;"></div> = 0.010 inch slotted PVC screen <div style="width: 15px; height: 15px; background-color: white; margin-right: 5px;"></div> = Blank PVC casing </div>
				Water samples: None.

APPENDIX D
Well Development and Sampling Field Logs

Allterra Environmental

Monitoring Well Development Field Log

Site Address: 160 Holmes

Date: 7/23/08

Project Number:

Field Personnel: EA

Monitoring Well Information

Monitoring Well ID MW-8B

Monitoring Well Diameter (inches) 2.0

Depth to Water (feet) 43.73

Water Column (feet) 7.51

Total Depth (feet) 51.24

80% Recharge Depth (feet)

Depth to Product (feet)

1 Well Volume (gallons) 1.3

Comments

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
11:00	43.73	1.3	838 μ S	20.7°C	7.83	high	brown	none
11:10	↓	↓	746	20.3°C	7.63	↓	↓	↓
11:20			709	20.1	7.56			
			690	20.1	7.52			
			675	19.9	7.46			
			669	20.0	7.40			
			658	20.2	7.39			
			653	20.4	7.40			
			590	20.1	7.49			
12:45	↓	↓	6.48	20.6	7.39	↓	↓	↓

Total Purge Volume

Groundwater Sampling Information

Sample ID NA

Sample Time

Sample Containers (Number/Type) NA

Comments

Allterra Environmental

Monitoring Well Development Field Log

Site Address: 160 Holmes

Date: 7-23-08

Project Number:

Field Personnel: SA

Monitoring Well Information

Monitoring Well ID MW-9B

Monitoring Well Diameter (inches) 2.0

Depth to Water (feet) 42.75

Water Column (feet) 9.25

Total Depth (feet) 52.0

80% Recharge Depth (feet)

Depth to Product (feet)

1 Well Volume (gallons) 1.6

Comments

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	42.75	1.6	973 μ S	21.5°C	7.64	high	brown	none
	↓	↓	878	20.7	7.60	↓	↓	↓
			855	19.8	7.49			
			770 μ S	19.7	7.64			
			830	19.5	7.58			
			820	19.8	7.40			
			817	19.8	7.39			
			815	19.8	7.67			
			839	20.2	7.93			
			824	19.5	7.53			

Total Purge Volume

Groundwater Sampling Information

Sample ID

Sample Time

Sample Containers (Number/Type)

Comments

Groundwater Sampling Field Log

Site Address 160 Holmes Date 7-28-08
 Project Number _____ Field Personnel EA

Monitoring Well Information

Monitoring Well ID MW-8B Monitoring Well Diameter (inches) 2.0
 Initial Depth to Water (feet) 44.90 Water Column (feet) 5.85
 Final Depth to Water (feet) _____ 80% Recharge Depth (feet) _____
 Total Depth (feet) 50.75 1 Well Volume (gallons) 1.0
 Depth to Product _____ Purging Method Bailer

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	<u>44.90</u>	<u>1.0</u>	<u>545μS</u>	<u>20.9$^{\circ}$C</u>	<u>8.16</u>	<u>high</u>	<u>brn</u>	<u>none</u>
	<u>↓</u>	<u>↓</u>	<u>556μS</u>	<u>20.2$^{\circ}$C</u>	<u>7.89</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
			<u>371</u>	<u>20.0$^{\circ}$C</u>	<u>7.71</u>			

Total Purge Volume _____ Comments _____

Groundwater Sampling Information

Sample ID MW-8B Sample Time _____
 Sample Containers (Number/Type) 3 va / 1 Amber
 Comments _____

Groundwater Sampling Field Log

Site Address 160 Holmes Date 7-29-08
 Project Number _____ Field Personnel EA

Monitoring Well Information

Monitoring Well ID MW-9B Monitoring Well Diameter (inches) 2.0
 Initial Depth to Water (feet) 44.05 Water Column (feet) 7.65
 Final Depth to Water (feet) _____ 80% Recharge Depth (feet) _____
 Total Depth (feet) 51.70 1 Well Volume (gallons) 1.3
 Depth to Product _____ Purging Method _____

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
	<u>44.05</u>	<u>1.3</u>	<u>781μS</u>	<u>21.6$^{\circ}$C</u>	<u>7.74</u>	<u>high</u>	<u>brn</u>	<u>none</u>
	<u>↓</u>	<u>↓</u>	<u>816μS</u>	<u>21.0$^{\circ}$C</u>	<u>7.65</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>
			<u>831μS</u>	<u>20.8$^{\circ}$C</u>	<u>7.51</u>			

Total Purge Volume _____ Comments _____

Groundwater Sampling Information

Sample ID MW-9B Sample Time _____
 Sample Containers (Number/Type) 3 va / 1 Amber
 Comments _____

APPENDIX E
Soil Sample Analytical Reports
and Chain of Custody Documentation



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/07/08-07/09/08
		Date Received: 07/11/08
	Client Contact: James Allen	Date Reported: 07/18/08
	Client P.O.:	Date Completed: 07/18/08

WorkOrder: 0807275

July 18, 2008

Dear James:

Enclosed within are:

- 1) The results of the **31** analyzed samples from your project: **#160**,
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0807275



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes

Project Name:

Sampler Signature: *Erik Allen*

Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPH _g /BTEX/MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPH _d (EPA 8015)	5-fuel oxy (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	C-AM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAHs/ PNA's (EPA 8270.625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required			
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other																	
GP-21-32	7-9-08		1	sleeve			X			X				X																X
GP-21-36	↓		↓	↓			↓			↓				↓																↓
GP-21-40	↓		↓	↓			↓			↓				↓																↓
GP-21-44	↓		↓	↓			↓			↓				↓																↓
GP-21-48	↓		↓	↓			↓			↓				↓																↓
GP-21-52	↓		↓	↓			↓			↓				↓																↓
GP-22-32	7-8-08		↓	↓			↓			↓				↓																↓
GP-22-36	↓		↓	↓			↓			↓				↓																↓
GP-22-40	↓		↓	↓			↓			↓				↓																↓
GP-22-44	↓		↓	↓			↓			↓				↓																↓
GP-22-48	↓		↓	↓			↓			↓				↓																↓
GP-23-32	7-7-08		↓	↓			↓			↓				↓																↓
GP-23-36	↓		↓	↓			↓			↓				↓																↓
GP-23-40	↓		↓	↓			↓			↓				↓																↓
GP-23-44	↓		↓	↓			↓			↓				↓																↓
GP-23-50	↓		↓	↓			↓			↓				↓																↓
GP-24-36	7-7-08		↓	↓			↓			↓				↓																↓
GP-24-40	↓		↓	↓			↓			↓				↓																↓
GP-24-32	↓		↓	↓			↓			↓				↓																↓
GP-24-44	↓		↓	↓			↓			↓				↓																↓

Sampled By: *Erik Allen* Date: 7-10-08 Time: Received By: *Mike Vell* 7/11/08 9am
 Received By: Date: Time: Received By:
 Received By: Date: Time: Received By:

Comments: *APPROPRIATE CONTAINERS PRESERVED IN LAB*
 PRESERVATION VIALS 10 & 9 RETAIN OTHER A
 DECONTAMINATED IN LAB PRESERVED IN LAB
 HEAD SPACE ABSENT CONTAINERS PRESERVED IN LAB
 GOOD CONDITION
 07/11/08

REC'D SEALED & INTACT VIA 07/11/08



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com

Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes

Project Name:

Sampler Signature: *Eri*

Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPHg/ BTEX/ MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPHg (EPA 8015)	5-fuel olys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other														
GP-24-48	7.7.08		1	sleeve			X			X				X													X
GP-25-32	7.8.08		↓	↓			↓			↓			↓														↓
GP-25-36																											
GP-25-40																											
GP-25-44																											
GP-26-32	7.8.08																										
GP-26-36																											
GP-26-40																											
GP-26-44																											
GP-26-48																											
GP-25-50																											

Sampled By: *Erik Allen*

Date: 7.10.08

Time:

Received By: *Jeff Vall 7/11/08 9am*

Comments:

Received By:

Date:

Time:

Received By:

Received By:

Date:

Time:

Received By:

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807275

ClientCode: ATRS

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

James Allen
Allterra Environmental, Inc
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com
cc:
PO:
ProjectNo: #160

Bill to:

Accounts Payable
Allterra Environmental
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060
micah@allterraenv.com

Requested TAT: 5 days

Date Received: 07/11/2008

Date Printed: 07/11/2008

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0807275-001	GP-21-32	Soil	7/9/2008	<input type="checkbox"/>	A	A	A										
0807275-002	GP-21-36	Soil	7/9/2008	<input type="checkbox"/>	A	A											
0807275-003	GP-21-40	Soil	7/9/2008	<input type="checkbox"/>	A	A											
0807275-004	GP-21-44	Soil	7/9/2008	<input type="checkbox"/>	A	A											
0807275-005	GP-21-48	Soil	7/9/2008	<input type="checkbox"/>	A	A											
0807275-006	GP-21-52	Soil	7/9/2008	<input type="checkbox"/>	A	A											
0807275-007	GP-22-32	Soil	7/8/2008	<input type="checkbox"/>	A	A											
0807275-008	GP-22-36	Soil	7/8/2008	<input type="checkbox"/>	A	A											
0807275-009	GP-22-40	Soil	7/8/2008	<input type="checkbox"/>	A	A											
0807275-010	GP-22-44	Soil	7/8/2008	<input type="checkbox"/>	A	A											
0807275-011	GP-22-47	Soil	7/8/2008	<input type="checkbox"/>	A	A											
0807275-012	GP-23-32	Soil	7/7/2008	<input type="checkbox"/>	A	A											
0807275-013	GP-23-36	Soil	7/7/2008	<input type="checkbox"/>	A	A											
0807275-014	GP-23-40	Soil	7/7/2008	<input type="checkbox"/>	A	A											

Test Legend:

1	5-OXYS S	2	G-MBTEX S	3	PREF REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807275

ClientCode: ATRS

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	James Allen	Email: allterraenvironmental@yahoo.com	Bill to:	Accounts Payable	Requested TAT: 5 days
	Allterra Environmental, Inc	cc:		Allterra Environmental	<i>Date Received: 07/11/2008</i>
	849 Almar Ave, Ste. C #281	PO:		849 Almar Ave, Ste. C #281	<i>Date Printed: 07/11/2008</i>
	Santa Cruz, CA 95060	ProjectNo: #160		Santa Cruz, CA 95060	
	831-425-2608 FAX 831-425-2609			micah@allterraenv.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0807275-015	GP-23-44	Soil	7/7/2008	<input type="checkbox"/>	A	A										
0807275-016	GP-23-50	Soil	7/7/2008	<input type="checkbox"/>	A	A										
0807275-017	GP-24-36	Soil	7/7/2008	<input type="checkbox"/>	A	A										
0807275-018	GP-24-40	Soil	7/7/2008	<input type="checkbox"/>	A	A										
0807275-019	GP-24-32	Soil	7/7/2008	<input type="checkbox"/>	A	A										
0807275-020	GP-24-44	Soil	7/7/2008	<input type="checkbox"/>	A	A										
0807275-021	GP-24-48	Soil	7/7/2008	<input type="checkbox"/>	A	A										
0807275-022	GP-25-32	Soil	7/8/2008	<input type="checkbox"/>	A	A										
0807275-023	GP-25-36	Soil	7/8/2008	<input type="checkbox"/>	A	A										
0807275-024	GP-25-40	Soil	7/8/2008	<input type="checkbox"/>	A	A										
0807275-025	GP-25-44	Soil	7/8/2008	<input type="checkbox"/>	A	A										
0807275-026	GP-26-32	Soil	7/8/2008	<input type="checkbox"/>	A	A										
0807275-027	GP-26-36	Soil	7/8/2008	<input type="checkbox"/>	A	A										
0807275-028	GP-26-40	Soil	7/8/2008	<input type="checkbox"/>	A	A										

Test Legend:

1	5-OXYS S	2	G-MBTEX S	3	PREF REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807275

ClientCode: ATRS

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:
 James Allen
 Allterra Environmental, Inc
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com
 cc:
 PO:
 ProjectNo: #160

Bill to:
 Accounts Payable
 Allterra Environmental
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 micah@allterraenv.com

Requested TAT: 5 days

Date Received: 07/11/2008
Date Printed: 07/11/2008

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0807275-029	GP-26-44	Soil	7/8/2008	<input type="checkbox"/>	A	A											
0807275-030	GP-26-48	Soil	7/8/2008	<input type="checkbox"/>	A	A											
0807275-031	GP-25-50	Soil	7/8/2008	<input type="checkbox"/>	A	A											

Test Legend:

1	5-OXYS S	2	G-MBTX S	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Allterra Environmental, Inc**

Date and Time Received: **07/11/08 9:08:16 AM**

Project Name: **#160**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0807275** Matrix Soil

Carrier: CA OverNight

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: 24.7°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

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

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1534 Willow Pass Road, Pittsburg, CA 94565-1701
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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/07/08-07/09/08
		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-001A	0807275-002A	0807275-003A	0807275-004A	Reporting Limit for DF =1	
Client ID	GP-21-32	GP-21-36	GP-21-40	GP-21-44		
Matrix	S	S	S	S		
DF	10	2	2	1		

Compound	Concentration				mg/kg	ug/L
	tert-Amyl methyl ether (TAME)	ND<0.050	ND<0.010	ND<0.010	ND	0.005
t-Butyl alcohol (TBA)	4.6	1.1	0.72	ND	0.05	NA
Diisopropyl ether (DIPE)	ND<0.050	ND<0.010	ND<0.010	ND	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.050	ND<0.010	ND<0.010	ND	0.005	NA
Methyl-t-butyl ether (MTBE)	ND<0.050	ND<0.010	ND<0.010	ND	0.005	NA

Surrogate Recoveries (%)

%SS1:	99	100	97	97	
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Comments

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

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

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



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/07/08-07/09/08
		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-005A	0807275-006A	0807275-007A	0807275-008A	Reporting Limit for DF =1	
Client ID	GP-21-48	GP-21-52	GP-22-32	GP-22-36		
Matrix	S	S	S	S		
DF	1	1	5	10		

Compound	Concentration				mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<0.025	ND<0.050	0.005	NA
t-Butyl alcohol (TBA)	ND	ND	2.9	3.6	0.05	NA
Diisopropyl ether (DIPE)	ND	ND	ND<0.025	ND<0.050	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<0.025	ND<0.050	0.005	NA
Methyl-t-butyl ether (MTBE)	ND	ND	0.051	ND<0.050	0.005	NA

Surrogate Recoveries (%)

%SS1:	100	87	102	89	
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Comments					
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		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-009A	0807275-010A	0807275-011A	0807275-012A	Reporting Limit for DF =1	
Client ID	GP-22-40	GP-22-44	GP-22-47	GP-23-32		
Matrix	S	S	S	S		
DF	2	1	1	67		

Compound	Concentration				mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND<0.010	ND	ND	ND<0.33	0.005	NA
t-Butyl alcohol (TBA)	1.3	ND	ND	ND<3.3	0.05	NA
Diisopropyl ether (DIPE)	ND<0.010	ND	ND	ND<0.33	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.010	ND	ND	ND<0.33	0.005	NA
Methyl-t-butyl ether (MTBE)	ND<0.010	ND	ND	8.5	0.005	NA

Surrogate Recoveries (%)

%SS1:	113	87	87	102	
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Comments					
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surrogate diluted out of range or surrogate coelutes with another peak.



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		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-013A	0807275-014A	0807275-015A	0807275-016A	Reporting Limit for DF =1	
Client ID	GP-23-36	GP-23-40	GP-23-44	GP-23-50		
Matrix	S	S	S	S		
DF	10	1	1	1		

Compound	Concentration				mg/kg	ug/L
	tert-Amyl methyl ether (TAME)	ND<0.050	ND	ND	ND	0.005
t-Butyl alcohol (TBA)	3.0	0.34	ND	ND	0.05	NA
Diisopropyl ether (DIPE)	ND<0.050	ND	ND	ND	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.050	ND	ND	ND	0.005	NA
Methyl-t-butyl ether (MTBE)	0.063	0.010	0.010	ND	0.005	NA

Surrogate Recoveries (%)

%SS1:	101	97	89	88	
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Comments					
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Oxygenated Volatile Organics by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-017A	0807275-018A	0807275-019A	0807275-020A	Reporting Limit for DF =1	
Client ID	GP-24-36	GP-24-40	GP-24-32	GP-24-44		
Matrix	S	S	S	S		
DF	5	2	2	1		

Compound	Concentration				mg/kg	ug/L
	tert-Amyl methyl ether (TAME)	ND<0.025	ND<0.010	ND<0.010	ND	0.005
t-Butyl alcohol (TBA)	1.7	0.91	1.2	ND	0.05	NA
Diisopropyl ether (DIPE)	ND<0.025	ND<0.010	ND<0.010	ND	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND<0.025	ND<0.010	ND<0.010	ND	0.005	NA
Methyl-t-butyl ether (MTBE)	ND<0.025	0.088	0.23	ND	0.005	NA

Surrogate Recoveries (%)

%SS1:	90	99	99	89	
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Comments					
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surrogate diluted out of range or surrogate coelutes with another peak.



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	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-021A	0807275-022A	0807275-023A	0807275-024A	Reporting Limit for DF =1	
Client ID	GP-24-48	GP-25-32	GP-25-36	GP-25-40		
Matrix	S	S	S	S		
DF	1	50	2	1		

Compound	Concentration				mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND	ND<0.25	ND<0.010	ND	0.005	NA
t-Butyl alcohol (TBA)	ND	ND<2.5	0.85	ND	0.05	NA
Diisopropyl ether (DIPE)	ND	ND<0.25	ND<0.010	ND	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND	ND<0.25	ND<0.010	ND	0.005	NA
Methyl-t-butyl ether (MTBE)	ND	2.8	0.085	0.014	0.005	NA

Surrogate Recoveries (%)

%SS1:	90	100	116	99	
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Comments					
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surrogate diluted out of range or surrogate coelutes with another peak.



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	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-025A	0807275-026A	0807275-027A	0807275-028A	Reporting Limit for DF =1	
Client ID	GP-25-44	GP-26-32	GP-26-36	GP-26-40		
Matrix	S	S	S	S		
DF	1	67	40	1		

Compound	Concentration				mg/kg	ug/L
	tert-Amyl methyl ether (TAME)	ND	ND<0.33	ND<0.33	ND	0.005
t-Butyl alcohol (TBA)	ND	ND<3.3	ND<3.3	ND	0.05	NA
Diisopropyl ether (DIPE)	ND	ND<0.33	ND<0.33	ND	0.005	NA
Ethyl tert-butyl ether (ETBE)	ND	ND<0.33	ND<0.33	ND	0.005	NA
Methyl-t-butyl ether (MTBE)	0.012	5.1	2.0	0.013	0.005	NA

Surrogate Recoveries (%)

%SS1:	116	103	102	114	
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Comments					
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ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

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



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	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807275

Lab ID	0807275-029A	0807275-030A	0807275-031A		Reporting Limit for DF =1	
Client ID	GP-26-44	GP-26-48	GP-25-50			
Matrix	S	S	S			
DF	1	1	1			

Compound	Concentration				mg/kg	ug/L
tert-Amyl methyl ether (TAME)	ND	ND	ND		0.005	NA
t-Butyl alcohol (TBA)	ND	ND	ND		0.05	NA
Diisopropyl ether (DIPE)	ND	ND	ND		0.005	NA
Ethyl tert-butyl ether (ETBE)	ND	ND	ND		0.005	NA
Methyl-t-butyl ether (MTBE)	0.0061	0.010	0.015		0.005	NA

Surrogate Recoveries (%)

%SS1:	89	89	117		
-------	----	----	-----	--	--

Comments					
-----------------	--	--	--	--	--

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

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



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		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0807275

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	GP-21-32	S	ND	ND	ND	ND	ND	ND	1	74
002A	GP-21-36	S	ND	ND	ND	ND	ND	ND	1	80
003A	GP-21-40	S	ND	ND	ND	ND	ND	ND	1	76
004A	GP-21-44	S	ND	ND	ND	ND	ND	ND	1	78
005A	GP-21-48	S	ND	ND	ND	ND	ND	ND	1	80
006A	GP-21-52	S	ND	ND	ND	ND	ND	ND	1	78
007A	GP-22-32	S	1.2,d9	ND	ND	ND	0.0059	ND	1	78
008A	GP-22-36	S	ND	ND	ND	ND	ND	ND	1	76
009A	GP-22-40	S	ND	ND	ND	ND	ND	ND	1	80
010A	GP-22-44	S	ND	ND	ND	ND	ND	ND	1	80
011A	GP-22-47	S	ND	ND	ND	ND	ND	ND	1	76
012A	GP-23-32	S	56,d2,d9	7.0	0.093	0.089	0.73	0.61	3.3	86
013A	GP-23-36	S	ND	0.081	ND	ND	0.010	0.0067	1	82
014A	GP-23-40	S	ND	ND	ND	ND	0.0087	ND	1	83
015A	GP-23-44	S	ND	ND	ND	ND	ND	ND	1	74
016A	GP-23-50	S	ND	ND	ND	ND	ND	ND	1	78

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/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 w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- d1) weakly modified or unmodified gasoline is significant
- d2) heavier gasoline range compounds are significant (aged gasoline?)
- d9) no recognizable pattern



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	Client Contact: James Allen	Date Extracted: 07/11/08
	Client P.O.:	Date Analyzed 07/11/08-07/22/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0807275

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
017A	GP-24-36	S	ND	ND	ND	ND	0.016	ND	1	81
018A	GP-24-40	S	ND	ND	ND	ND	ND	ND	1	80
019A	GP-24-32	S	ND	0.12	ND	ND	0.015	ND	1	80
020A	GP-24-44	S	ND	ND	ND	ND	ND	ND	1	83
021A	GP-24-48	S	ND	ND	ND	ND	ND	ND	1	82
022A	GP-25-32	S	4.5,d1	3.3	0.18	0.015	0.18	ND	1	72
023A	GP-25-36	S	ND	ND	ND	ND	ND	ND	1	79
024A	GP-25-40	S	ND	ND	ND	ND	ND	ND	1	76
025A	GP-25-44	S	ND	ND	ND	ND	ND	ND	1	81
026A	GP-26-32	S	3.1,d1	4.6	0.0074	0.015	0.082	0.012	1	76
027A	GP-26-36	S	3.4,d1	1.7	0.023	0.0087	0.053	0.010	1	80
028A	GP-26-40	S	ND	ND	ND	ND	ND	ND	1	76
029A	GP-26-44	S	ND	ND	ND	ND	ND	ND	1	79
030A	GP-26-48	S	ND	ND	ND	ND	ND	ND	1	79
031A	GP-25-50	S	ND	ND	ND	ND	ND	ND	1	85

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/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 w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

- d1) weakly modified or unmodified gasoline is significant
- d2) heavier gasoline range compounds are significant (aged gasoline?)
- d9) no recognizable pattern



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 36867

WorkOrder: 0807275

EPA Method: SW8260B		Extraction: SW5030B							Spiked Sample ID: 0807275-005A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	108	110	1.91	106	106	0	60 - 130	30	60 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	96.9	98.5	1.64	93.3	94	0.716	60 - 130	30	60 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	117	119	1.89	114	115	0.780	60 - 130	30	60 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	117	119	1.65	114	115	1.07	60 - 130	30	60 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	117	118	1.14	114	114	0	60 - 130	30	60 - 130	30
%SS1:	100	0.12	103	103	0	101	102	0.469	70 - 130	30	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 36867 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807275-001A	07/09/08	07/11/08	07/16/08 4:53 PM	0807275-002A	07/09/08	07/11/08	07/14/08 1:56 PM
0807275-003A	07/09/08	07/11/08	07/16/08 5:33 PM	0807275-004A	07/09/08	07/11/08	07/17/08 4:43 AM
0807275-005A	07/09/08	07/11/08	07/11/08 4:08 PM	0807275-006A	07/09/08	07/11/08	07/11/08 8:15 PM
0807275-007A	07/08/08	07/11/08	07/16/08 4:21 PM	0807275-008A	07/08/08	07/11/08	07/17/08 2:43 PM
0807275-009A	07/08/08	07/11/08	07/16/08 7:59 PM	0807275-010A	07/08/08	07/11/08	07/11/08 7:37 PM
0807275-011A	07/08/08	07/11/08	07/16/08 3:59 AM	0807275-012A	07/07/08	07/11/08	07/16/08 3:21 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.

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



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 36885

WorkOrder: 0807275

EPA Method: SW8260B		Extraction: SW5030B							Spiked Sample ID: 0807275-021A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	91.4	91.9	0.452	107	109	1.10	60 - 130	30	60 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	84.6	88.8	4.77	90.6	91.9	1.47	60 - 130	30	60 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	90.3	91.7	1.52	126	127	1.31	60 - 130	30	60 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	108	108	0	121	123	1.44	60 - 130	30	60 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	101	102	0.481	117	117	0	60 - 130	30	60 - 130	30
%SS1:	90	0.12	109	108	0.299	101	101	0	70 - 130	30	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 36885 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807275-013A	07/07/08	07/11/08	07/17/08 9:55 PM	0807275-014A	07/07/08	07/11/08	07/17/08 2:10 PM
0807275-015A	07/07/08	07/11/08	07/16/08 1:50 AM	0807275-016A	07/07/08	07/11/08	07/17/08 3:25 PM
0807275-017A	07/07/08	07/11/08	07/17/08 4:07 PM	0807275-018A	07/07/08	07/11/08	07/17/08 8:38 PM
0807275-019A	07/07/08	07/11/08	07/16/08 6:37 PM	0807275-020A	07/07/08	07/11/08	07/16/08 1:07 AM
0807275-021A	07/07/08	07/11/08	07/17/08 5:31 PM	0807275-022A	07/08/08	07/11/08	07/17/08 9:16 PM
0807275-023A	07/08/08	07/11/08	07/16/08 8:37 PM	0807275-024A	07/08/08	07/11/08	07/17/08 5:22 AM
0807275-025A	07/08/08	07/11/08	07/16/08 11:11 PM	0807275-026A	07/08/08	07/11/08	07/16/08 5:03 PM
0807275-026A	07/08/08	07/11/08	07/21/08 6:31 PM	0807275-027A	07/08/08	07/11/08	07/16/08 5:45 PM
0807275-027A	07/08/08	07/11/08	07/22/08 12:23 PM	0807275-028A	07/08/08	07/11/08	07/16/08 9:15 PM
0807275-029A	07/08/08	07/11/08	07/15/08 11:40 PM	0807275-030A	07/08/08	07/11/08	07/16/08 3:16 AM
0807275-031A	07/08/08	07/11/08	07/16/08 11:50 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.

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 36854

WorkOrder: 0807275

EPA Method: SW8021B/8015Cm		Extraction: SW5030B							Spiked Sample ID: 0807236-019A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	97.7	101	3.59	98.3	95	3.44	70 - 130	20	70 - 130	20
MTBE	ND	0.10	83.3	86.7	3.99	83.2	83.3	0.150	70 - 130	20	70 - 130	20
Benzene	ND	0.10	84.4	86.5	2.45	83.1	80.9	2.68	70 - 130	20	70 - 130	20
Toluene	ND	0.10	76.4	78.9	3.18	76.1	74.9	1.69	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	85.6	84.1	1.74	82.6	79.8	3.42	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	80.6	80.5	0.201	79.2	79.1	0.136	70 - 130	20	70 - 130	20
%SS:	72	0.10	70	70	0	73	72	1.38	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 36854 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807275-001A	07/09/08	07/11/08	07/15/08 3:48 PM	0807275-002A	07/09/08	07/11/08	07/15/08 9:27 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.

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

NR = matrix interference and/or 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.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 36883

WorkOrder: 0807275

EPA Method: SW8021B/8015Cm		Extraction: SW5030B							Spiked Sample ID: 0807275-005A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	102	117	13.5	110	108	1.99	70 - 130	20	70 - 130	20
MTBE	ND	0.10	102	99.6	2.43	84.7	82.1	3.20	70 - 130	20	70 - 130	20
Benzene	ND	0.10	93.4	94.2	0.767	84.9	87.4	2.91	70 - 130	20	70 - 130	20
Toluene	ND	0.10	92.6	92.1	0.565	79.4	82.6	3.93	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	97.9	98.1	0.216	90.4	96.5	6.58	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	109	109	0	88.9	95.6	7.33	70 - 130	20	70 - 130	20
%SS:	80	0.10	93	88	5.29	83	86	3.76	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 36883 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807275-003A	07/09/08	07/11/08	07/12/08 5:17 PM	0807275-004A	07/09/08	07/11/08	07/12/08 6:33 PM
0807275-005A	07/09/08	07/11/08	07/12/08 5:28 AM	0807275-006A	07/09/08	07/11/08	07/12/08 1:43 AM
0807275-007A	07/08/08	07/11/08	07/17/08 9:32 PM	0807275-008A	07/08/08	07/11/08	07/12/08 11:07 AM
0807275-009A	07/08/08	07/11/08	07/12/08 2:16 AM	0807275-010A	07/08/08	07/11/08	07/12/08 6:04 AM
0807275-011A	07/08/08	07/11/08	07/12/08 7:32 PM	0807275-012A	07/07/08	07/11/08	07/11/08 8:15 PM
0807275-012A	07/07/08	07/11/08	07/15/08 8:21 PM	0807275-013A	07/07/08	07/11/08	07/12/08 5:31 AM
0807275-013A	07/07/08	07/11/08	07/16/08 1:27 AM	0807275-014A	07/07/08	07/11/08	07/12/08 7:09 AM
0807275-015A	07/07/08	07/11/08	07/12/08 8:07 PM	0807275-016A	07/07/08	07/11/08	07/12/08 6:25 PM
0807275-017A	07/07/08	07/11/08	07/12/08 4:26 AM	0807275-018A	07/07/08	07/11/08	07/17/08 10:07 PM
0807275-019A	07/07/08	07/11/08	07/17/08 8:23 PM	0807275-020A	07/07/08	07/11/08	07/12/08 8:14 AM
0807275-021A	07/07/08	07/11/08	07/12/08 8:46 AM	0807275-022A	07/08/08	07/11/08	07/12/08 1:58 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 enough sample to perform matrix spike and matrix spike duplicate.
 NR = matrix interference and/or 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.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 36884

WorkOrder: 0807275

EPA Method: SW8021B/8015Cm		Extraction: SW5030B							Spiked Sample ID: 0807294-001A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	103	102	1.20	103	98.1	4.50	70 - 130	20	70 - 130	20
MTBE	ND	0.10	113	93.2	19.6	88.9	84.1	5.60	70 - 130	20	70 - 130	20
Benzene	ND	0.10	93.2	97	3.98	81.9	84.6	3.20	70 - 130	20	70 - 130	20
Toluene	ND	0.10	102	107	4.75	77.3	80.4	3.94	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	101	107	5.61	90.7	94.1	3.62	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	112	118	4.85	88.1	91.1	3.32	70 - 130	20	70 - 130	20
%SS:	84	0.10	93	105	13.0	81	85	4.01	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 36884 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807275-023A	07/08/08	07/11/08	07/15/08 8:49 PM	0807275-024A	07/08/08	07/11/08	07/11/08 11:58 PM
0807275-025A	07/08/08	07/11/08	07/12/08 10:24 AM	0807275-026A	07/08/08	07/11/08	07/12/08 5:07 PM
0807275-027A	07/08/08	07/11/08	07/22/08 1:40 PM	0807275-028A	07/08/08	07/11/08	07/12/08 9:14 PM
0807275-029A	07/08/08	07/11/08	07/12/08 5:58 AM	0807275-030A	07/08/08	07/11/08	07/12/08 2:28 AM
0807275-031A	07/08/08	07/11/08	07/12/08 10:57 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes Nevada City CA	Date Sampled: 07/16/08
	Client Contact: James Allen	Date Received: 07/21/08
	Client P.O.:	Date Reported: 07/28/08
		Date Completed: 07/22/08

WorkOrder: 0807485

July 28, 2008

Dear James:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#160; 160 Holmes Nevada City CA,**
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0807485



849 Almar Avenue, Suite C, #281

Santa Cruz, California 95060

Website: www.allterraenv.com

Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160

Project Location: 160 Holmes, Nevada City, CA

Project Name:

Sampler Signature: *[Signature]*

Sample ID	Sample Collection		Sample Containers		Matrix					Preservation			
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other
MW8B-28'	7/16/08		1	Brass			x			x			
MW8B-32'	7/16/08		1	Brass			x			x			

TPH/g/ BTEX / MTBE (EPA 8015/8021)	BTEX (EPA 8020)	TPH/d (EPA 8015)	5-fuel olys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCs (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	MTBE only (EPA 8260)	EDF required
x														
x														

Sampled By: <i>[Signature]</i>	Date: 7/18/08	Time:	Received By:
Received By:	Date: 7/21/08	Time: 815	Received By: <i>[Signature]</i>
Received By:	Date:	Time:	Received By:

Comments: *ILC 11228*

GOOD CONDITION
 HEAD SPACE ABSENT
 DECHLORINATED IN LAB
 PRESERVATION

APPROPRIATE CONTAINERS
 PRESERVED IN LAB
 VOAS | O & G | METALS | OTHER

REC'D SEALED & INTACT VIA C/O

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807485

ClientCode: ATRS

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:
 James Allen
 Allterra Environmental, Inc
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com
 cc:
 PO:
 ProjectNo: #160; 160 Holmes Nevada City CA

Bill to:
 Accounts Payable
 Allterra Environmental
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 micah@allterraenv.com

Requested TAT: 5 days
Date Received: 07/21/2008
Date Printed: 07/21/2008

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0807485-001	MW8B-28'	Soil	7/16/2008	<input type="checkbox"/>	A												
0807485-002	MW8B-32'	Soil	7/16/2008	<input type="checkbox"/>	A												

Test Legend:

1	G-MBTX_S	2		3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Maria Venegas

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Allterra Environmental, Inc**

Date and Time Received: **07/21/08 8:33:16 AM**

Project Name: **#160; 160 Holmes Nevada City CA**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **0807485** Matrix Soil

Carrier: CA OverNight

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: 21.8°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

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160; 160 Holmes Nevada City CA	Date Sampled: 07/16/08
	Client Contact: James Allen	Date Received: 07/21/08
	Client P.O.:	Date Analyzed 07/22/08-07/24/08
		Date Extracted: 07/21/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0807485

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW8B-28'	S	ND	ND	ND	ND	ND	ND	1	93
002A	MW8B-32'	S	ND	ND	ND	ND	ND	ND	1	101

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	ug/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	mg/Kg

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/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 w/surrogate peak; low surrogate recovery due to matrix interference.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 37023

WorkOrder 0807485

EPA Method SW8021B/8015Cm		Extraction SW5030B							Spiked Sample ID: 0807473-001			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	0.60	98.7	90.6	8.53	93.9	102	7.99	70 - 130	20	70 - 130	20
MTBE	ND	0.10	110	104	6.01	117	117	0	70 - 130	20	70 - 130	20
Benzene	ND	0.10	104	98.5	5.04	93.6	99.2	5.80	70 - 130	20	70 - 130	20
Toluene	ND	0.10	92.3	87.8	4.96	103	110	6.70	70 - 130	20	70 - 130	20
Ethylbenzene	ND	0.10	101	97.8	3.68	102	109	6.74	70 - 130	20	70 - 130	20
Xylenes	ND	0.30	95.9	96.4	0.443	112	120	7.03	70 - 130	20	70 - 130	20
%SS:	97	0.10	100	99	1.11	113	109	3.55	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37023 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807485-001A	07/16/08	07/21/08	07/24/08 5:13 AM	0807485-002A	07/16/08	07/21/08	07/22/08 6:35 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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.

APPENDIX F
Groundwater Sample Analytical Reports
and Chain of Custody Documentation



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/07/08-07/09/08
		Date Received: 07/11/08
	Client Contact: James Allen	Date Reported: 07/17/08
	Client P.O.:	Date Completed: 07/17/08

WorkOrder: 0807276

July 17, 2008

Dear James:

Enclosed within are:

- 1) The results of the **6** analyzed samples from your project: **#160**,
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0807274



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.

Project Number: 160
 Project Location: 1600 Holmes St.
 Project Name:
 Sampler Signature: EA AL

Sample ID	Sample Collection		Sample Containers		Matrix					Preservation			
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other
+2 GP-21	7.9.08		3	VGA		X				X	X		
+40 GP-22	7.8.08		2										
+10 GP-23	7.7.08		3										
+ GP-24	7.7.08												
+2 GP-25	7.8.08												
+15 GP-26	7.8.08												

TPH _g /BTEX/MTBE (EPA 801.5/8021)	BTEX (EPA 8020)	TPH _d (EPA 8015)	5-fuel olys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCS (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAH's/ PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required
X			X										X

Sampled By: Erik Allen
 Date: 7.10.08
 Received By: Me
 Date: 7/11/08
 Time: 7:11 AM

Comments: ICE / 1-24.7°C
 GOOD CONDITION
 HEAD SPACE ABSENT
 DECONTAMINATED IN LAB
 PRESERVATION
 APPROPRIATE CONTAINERS
 PRESERVED IN LAB
 VIMS 10 & 6 METALS OTHER

REC'D SEALED & INTACT VIA c/o 7/11/08

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0807276

ClientCode: ATRS

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:

James Allen
 Allterra Environmental, Inc
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 831-425-2608 FAX 831-425-2609

Email: allterraenvironmental@yahoo.com
 cc:
 PO:
 ProjectNo: #160

Bill to:

Accounts Payable
 Allterra Environmental
 849 Almar Ave, Ste. C #281
 Santa Cruz, CA 95060
 micah@allterraenv.com

Requested TAT: 5 days

Date Received: 07/11/2008

Date Printed: 07/11/2008

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0807276-001	GP-21	Water	7/9/2008	<input type="checkbox"/>	B	A	A										
0807276-002	GP-22	Water	7/9/2008	<input type="checkbox"/>	B	A											
0807276-003	GP-23	Water	7/7/2008	<input type="checkbox"/>	B	A											
0807276-004	GP-24	Water	7/7/2008	<input type="checkbox"/>	B	A											
0807276-005	GP-25	Water	7/8/2008	<input type="checkbox"/>	B	A											
0807276-006	GP-26	Water	7/8/2008	<input type="checkbox"/>	B	A											

Test Legend:

1	5-OXYS W	2	G-MBTEX W	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Allterra Environmental, Inc**

Date and Time Received: **07/11/08 9:53:44 AM**

Project Name: **#160**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0807276** Matrix Water

Carrier: CA OverNight

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: 24.7°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

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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"When Quality Counts"

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Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/07/08-07/09/08
		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/14/08-07/18/08
	Client P.O.:	Date Analyzed 07/14/08-07/18/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807276

Lab ID	0807276-001B	0807276-002B	0807276-003B	0807276-004B	Reporting Limit for DF =1	
Client ID	GP-21	GP-22	GP-23	GP-24		
Matrix	W	W	W	W		
DF	1	1	5	100		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<2.5	ND<50	NA	0.5
t-Butyl alcohol (TBA)	4.5	31	ND<10	ND<200	NA	2.0
Diisopropyl ether (DIPE)	ND	ND	ND<2.5	ND<50	NA	0.5
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<2.5	ND<50	NA	0.5
Methyl-t-butyl ether (MTBE)	7.9	8.7	76	1300	NA	0.5

Surrogate Recoveries (%)

%SS1:	89	89	103	100	
Comments	b1	b1	b1		

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

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

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

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/07/08-07/09/08
		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/14/08-07/18/08
	Client P.O.:	Date Analyzed 07/14/08-07/18/08

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

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0807276

Lab ID	0807276-005B	0807276-006B			Reporting Limit for DF =1	
Client ID	GP-25	GP-26				
Matrix	W	W				
DF	5	1				

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND<2.5	ND			NA	0.5
t-Butyl alcohol (TBA)	ND<10	2.2			NA	2.0
Diisopropyl ether (DIPE)	ND<2.5	ND			NA	0.5
Ethyl tert-butyl ether (ETBE)	ND<2.5	ND			NA	0.5
Methyl-t-butyl ether (MTBE)	69	24			NA	0.5

Surrogate Recoveries (%)

%SS1:	104	104			
Comments	b1	b1			

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

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

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

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/07/08-07/09/08
		Date Received: 07/11/08
	Client Contact: James Allen	Date Extracted: 07/14/08-07/17/08
	Client P.O.:	Date Analyzed 07/14/08-07/17/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0807276

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	GP-21	W	ND,b1	9.2	ND	ND	0.73	3.3	1	105
002A	GP-22	W	ND,b1	8.3	ND	ND	ND	0.55	1	102
003A	GP-23	W	220,d1,b1	61	7.1	9.1	7.0	30	1	100
004A	GP-24	W	800,d1	1100	4.3	0.89	39	180	1	92
005A	GP-25	W	210,d1,b1	63	4.9	18	7.2	19	1	99
006A	GP-26	W	ND,b1	17	1.6	ND	2.6	5.1	1	99

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	0.005	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 McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
d1) weakly modified or unmodified gasoline is significant
d2) heavier gasoline range compounds are significant (aged gasoline?)



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 36881

WorkOrder 0807276

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 0807270-005B			
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
tert-Amyl methyl ether (TAME)	ND	10	88.8	91.9	3.37	107	108	0.164	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	82.6	88.3	6.61	89.4	90.5	1.16	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	88.9	90.9	2.15	125	125	0	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	105	109	3.01	120	120	0	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	106	109	2.44	116	116	0	70 - 130	30	70 - 130	30
%SSI:	97	25	110	111	0.501	102	101	0.102	70 - 130	30	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 36881 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807276-001B	07/09/08	07/14/08	07/14/08 10:56 PM	0807276-002B	07/09/08	07/14/08	07/14/08 11:35 PM
0807276-002B	07/09/08	07/18/08	07/18/08 2:32 PM	0807276-003B	07/07/08	07/15/08	07/15/08 7:49 PM
0807276-003B	07/07/08	07/18/08	07/18/08 12:43 AM	0807276-004B	07/07/08	07/16/08	07/16/08 1:32 PM
0807276-005B	07/08/08	07/16/08	07/16/08 1:03 AM	0807276-005B	07/08/08	07/18/08	07/18/08 1:25 AM
0807276-006B	07/08/08	07/16/08	07/16/08 1:42 AM	0807276-006B	07/08/08	07/18/08	07/18/08 2:07 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.

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

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

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder 0807276

EPA Method SW8021B/8015Cm		Extraction SW5030B			BatchID: 36880			Spiked Sample ID: 0807295-001D				
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	85.4	99.3	15.0	101	105	3.93	70 - 130	20	70 - 130	20
MTBE	ND	10	78.4	81.4	3.75	87.2	80.3	8.22	70 - 130	20	70 - 130	20
Benzene	ND	10	83.9	85	1.27	90.6	97.5	7.33	70 - 130	20	70 - 130	20
Toluene	ND	10	82.3	82.7	0.451	83	88.4	6.29	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	88.9	84.4	5.25	91.5	97.1	5.87	70 - 130	20	70 - 130	20
Xylenes	ND	30	81.5	79.7	2.30	88.6	93.5	5.34	70 - 130	20	70 - 130	20
%SS:	100	10	103	101	2.44	100	105	5.18	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 36880 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0807276-001A	07/09/08	07/17/08	07/17/08 2:06 AM	0807276-002A	07/09/08	07/17/08	07/17/08 2:36 AM
0807276-003A	07/07/08	07/15/08	07/15/08 10:22 PM	0807276-004A	07/07/08	07/15/08	07/15/08 6:34 AM
0807276-004A	07/07/08	07/16/08	07/16/08 12:10 AM	0807276-005A	07/08/08	07/14/08	07/14/08 8:05 PM
0807276-006A	07/08/08	07/15/08	07/15/08 11:38 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.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/28/08-07/29/08
		Date Received: 08/01/08
	Client Contact: James Allen	Date Reported: 08/07/08
	Client P.O.:	Date Completed: 08/05/08

WorkOrder: 0808003

August 07, 2008

Dear James:

Enclosed within are:

- 1) The results of the **6** analyzed samples from your project: **#160**,
- 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

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0808003



849 Almar Avenue, Suite C, #281
 Santa Cruz, California 95060
 Website: www.allterraenv.com
 Phone: (831) 425-2608 Facsimile: (831) 425-2609

Chain of Custody Record

Turn Around Time (circle one) RUSH 24HR 48HR 72HR 5 Day

Report and Bill to: Allterra Environmental, Inc.
 Project Number: 160
 Project Location: 160 Holmes
 Project Name:
 Sampler Signature:

Sample ID	Sample Collection		Sample Containers		Matrix					Preservation				TPH _g /BTEX/MITBE (EPA 8015/8021)	BTEX (EPA 8020)	TPH _d (EPA 8015)	5-fuel oxys (EPA 8260)	Ethanol and Methanol (EPA 8260)	Lead Scavengers (8260)	Total HVOCS (EPA 8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LUFT 5 Metals (EPA 6010/6020)	PAHs/PNA's (EPA 8270,625/8310)	Fish Toxicity/Bioassay	Lead (EPA 6010/200.9/200.8)	EDF required				
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Other	Ice	HCl	HNO ₃	Other																		
1B	7-29-08		3/1	Voy/L		✓				✓	✓			✓																	✓
5B	7-29-08		↓	↓		↓				↓	↓			↓																	↓
7B	7-28-08		↓	↓		↓				↓	↓			↓																	↓
7C	7-28-08		↓	↓		↓				↓	↓			↓																	↓
8B	7-28-08		↓	↓		↓				↓	↓			↓																	↓
9B	7-29-08		↓	↓		↓				↓	↓			↓																	↓

+
+2
+15
+15
+15

Sampled By: Erik Allen
 Received By: *yo vall*
 Date: 7/30/08
 Time: 8/1/08

Comments: *temp 23.0°C*
 GOOD CONDITION APPROPRIATE
 HEAD SPACE ABSENT CONTAINERS
 DECHLORINATED IN LAB PRESERVED IN LAB
 PRESERVATION VOAS O & G METALS OTHER

REC'D SEALED & INTACT VIA *cto 8/1/08*

McCampbell Analytical, Inc.



1534 Willow Pass Rd
Pittsburg, CA 94565-1701
(925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0808003

ClientCode: ATRS

WriteOn
 EDF
 Excel
 Fax
 Email
 HardCopy
 ThirdParty
 J-flag

Report to:	James Allen	Email: allterraenvironmental@yahoo.com	Bill to:	Accounts Payable	Requested TAT: 5 days
	Allterra Environmental, Inc	cc:		Allterra Environmental	<i>Date Received:</i> 08/01/2008
	849 Almar Ave, Ste. C #281	PO:		849 Almar Ave, Ste. C #281	<i>Date Printed:</i> 08/04/2008
	Santa Cruz, CA 95060	ProjectNo: #160		Santa Cruz, CA 95060	
	831-425-2608 FAX 831-425-2609			micah@allterraenv.com	

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0808003-001	1B	Water	7/29/2008	<input type="checkbox"/>	C	A	A	B								
0808003-002	5B	Water	7/29/2008	<input type="checkbox"/>	C	A		B								
0808003-003	7B	Water	7/28/2008	<input type="checkbox"/>	C	A		B								
0808003-004	7C	Water	7/28/2008	<input type="checkbox"/>	C	A		B								
0808003-005	8B	Water	7/28/2008	<input type="checkbox"/>	C	A		B								
0808003-006	9B	Water	7/29/2008	<input type="checkbox"/>	C	A		B								

Test Legend:

1	9-OXYS_W	2	G-MBTEX_W	3	PREFD REPORT	4	TPH(D)_W	5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Allterra Environmental, Inc**

Date and Time Received: **8/1/08 10:15:47 AM**

Project Name: **#160**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0808003** Matrix Water

Carrier: CA OverNight

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: 23°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
- Samples Received on Ice? Yes No

(Ice Type: BLUE ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments: All samples had zero headspace except for sample 9B.



McC Campbell Analytical, Inc.

"When Quality Counts"

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

Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/28/08-07/29/08
		Date Received: 08/01/08
	Client Contact: James Allen	Date Extracted: 08/01/08-08/04/08
	Client P.O.:	Date Analyzed 08/01/08-08/04/08

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0808003

Lab ID	0808003-001C	0808003-002C	0808003-003C	0808003-004C	Reporting Limit for DF =1	
Client ID	1B	5B	7B	7C		
Matrix	W	W	W	W		
DF	1	1	10	1		

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND	ND<5.0	ND	NA	0.5
t-Butyl alcohol (TBA)	ND	ND	760	ND	NA	2.0
1,2-Dibromoethane (EDB)	ND	ND	ND<5.0	ND	NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND	ND<5.0	ND	NA	0.5
Diisopropyl ether (DIPE)	ND	ND	ND<5.0	ND	NA	0.5
Ethanol	ND	ND	ND<500	ND	NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND	ND<5.0	ND	NA	0.5
Methanol	ND	ND	ND<5000	ND	NA	500
Methyl-t-butyl ether (MTBE)	ND	ND	22	ND	NA	0.5

Surrogate Recoveries (%)

%SS1:	100	98	103	100	
Comments		b1	b1		

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

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

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/28/08-07/29/08
		Date Received: 08/01/08
	Client Contact: James Allen	Date Extracted: 08/01/08-08/04/08
	Client P.O.:	Date Analyzed 08/01/08-08/04/08

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0808003

Lab ID	0808003-005C	0808003-006C			Reporting Limit for DF =1
Client ID	8B	9B			
Matrix	W	W			
DF	1	20			

Compound	Concentration				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	ND	ND<10			NA	0.5
t-Butyl alcohol (TBA)	ND	2800			NA	2.0
1,2-Dibromoethane (EDB)	ND	ND<10			NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND	ND<10			NA	0.5
Diisopropyl ether (DIPE)	ND	ND<10			NA	0.5
Ethanol	ND	ND<1000			NA	50
Ethyl tert-butyl ether (ETBE)	ND	ND<10			NA	0.5
Methanol	ND	ND<10,000			NA	500
Methyl-t-butyl ether (MTBE)	2.5	160			NA	0.5

Surrogate Recoveries (%)

%SS1:	101	103			
Comments	b1	b1			

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

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

surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/28/08-07/29/08
		Date Received: 08/01/08
	Client Contact: James Allen	Date Extracted: 08/01/08-08/05/08
	Client P.O.:	Date Analyzed 08/01/08-08/05/08

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

Extraction method SW5030B

Analytical methods SW8021B/8015Cm

Work Order: 0808003

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	1B	W	ND	ND	ND	ND	ND	ND	1	98
002A	5B	W	ND,b1	ND	ND	ND	ND	ND	1	97
003A	7B	W	ND,b1	17	ND	0.56	ND	ND	1	99
004A	7C	W	ND	ND	ND	ND	ND	ND	1	98
005A	8B	W	ND,b1	ND	ND	ND	ND	ND	1	103
006A	9B	W	ND,b1	100	ND	ND	ND	ND	1	102

Reporting Limit for DF =1; ND means not detected at or	W	50	5.0	0.5	0.5	0.5	0.5	μg/L
	S	1.0	0.05	0.005	0.005	0.005	0.005	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 McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Allterra Environmental, Inc 849 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: #160	Date Sampled: 07/28/08-07/29/08
	Client Contact: James Allen	Date Received: 08/01/08
	Client P.O.:	Date Extracted: 08/01/08
		Date Analyzed 08/01/08-08/05/08

Total Extractable Petroleum Hydrocarbons*

Extraction method SW3510C

Analytical methods: SW8015C

Work Order: 0808003

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS
0808003-001B	1B	W	ND	1	119
0808003-002B	5B	W	ND,b1	1	119
0808003-003B	7B	W	ND,b1	1	120
0808003-004B	7C	W	ND	1	115
0808003-005B	8B	W	ND,b1	1	120
0808003-006B	9B	W	63,e2,b1	1	92

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 McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
e2) diesel range compounds are significant; no recognizable pattern



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37298

WorkOrder 0808003

Analyte	Extraction SW5030B			Spiked Sample ID: 0807744-004B								
	Sample µg/L	Spiked µg/L	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	Acceptance Criteria (%)			
tert-Amyl methyl ether (TAME)	ND	10	100	100	0	91.2	96.1	5.21	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	76.6	71.9	6.38	85.5	94.7	10.2	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	89.5	90.4	0.929	99.8	104	4.01	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	104	102	1.18	109	117	7.01	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	120	119	1.17	110	118	7.72	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	109	109	0	111	117	5.41	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	109	105	3.72	101	107	5.77	70 - 130	30	70 - 130	30
%SS1:	100	25	98	98	0	95	96	0.659	70 - 130	30	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 37298 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808003-001C	07/29/08	08/01/08	08/01/08 6:02 PM	0808003-002C	07/29/08	08/02/08	08/02/08 2:03 AM
0808003-003C	07/28/08	08/04/08	08/04/08 2:23 PM	0808003-004C	07/28/08	08/02/08	08/02/08 3:29 AM
0808003-005C	07/28/08	08/02/08	08/02/08 4:13 AM	0808003-006C	07/29/08	08/04/08	08/04/08 3:06 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.

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



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37297

WorkOrder: 0808003

Analyte	EPA Method SW8021B/8015Cm		Extraction SW5030B						Spiked Sample ID: 0807744-004A			
	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) ^f	ND	60	100	108	7.61	104	97.2	6.54	70 - 130	20	70 - 130	20
MTBE	ND	10	109	109	0	102	103	1.07	70 - 130	20	70 - 130	20
Benzene	ND	10	94.4	98.5	4.17	93.5	93.1	0.350	70 - 130	20	70 - 130	20
Toluene	ND	10	105	109	3.13	91.7	90.5	1.33	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	104	107	2.83	92.8	92.3	0.625	70 - 130	20	70 - 130	20
Xylenes	ND	30	114	118	3.26	87.9	77	13.3	70 - 130	20	70 - 130	20
%SS:	94	10	95	101	5.67	99	99	0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37297 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808003-001A	07/29/08	08/01/08	08/01/08 10:41 PM	0808003-002A	07/29/08	08/01/08	08/01/08 11:15 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.

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

NR = matrix interference and/or 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, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37315

WorkOrder: 0808003

Analyte	EPA Method SW8021B/8015Cm		Extraction SW5030B						Spiked Sample ID: 0808003-004A			
	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	104	98.2	6.06	101	97.2	3.96	70 - 130	20	70 - 130	20
MTBE	ND	10	78.4	73.8	6.01	106	102	3.46	70 - 130	20	70 - 130	20
Benzene	ND	10	89.4	90.4	1.05	96.3	94.6	1.71	70 - 130	20	70 - 130	20
Toluene	ND	10	88.9	88.7	0.310	107	104	2.00	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	89.7	88.4	1.37	104	102	1.96	70 - 130	20	70 - 130	20
Xylenes	ND	30	85.3	79.5	6.98	116	113	2.64	70 - 130	20	70 - 130	20
%SS:	98	10	103	104	1.24	96	96	0	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 37315 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808003-003A	07/28/08	08/05/08	08/05/08 7:14 PM	0808003-004A	07/28/08	08/01/08	08/01/08 11:50 PM
0808003-005A	07/28/08	08/02/08	08/02/08 12:24 AM	0808003-006A	07/29/08	08/05/08	08/05/08 7:06 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 enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or 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, or inconsistency in sample containers.



QC SUMMARY REPORT FOR SW8015C

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 37212

WorkOrder 0808003

EPA Method SW8015C		Extraction SW3510C							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	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	N/A	1000	N/A	N/A	N/A	98.6	111	11.6	N/A	N/A	70 - 130	30
%SS:	N/A	2500	N/A	N/A	N/A	104	118	11.8	N/A	N/A	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 37212 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0808003-001B	07/29/08	08/01/08	08/01/08 5:40 PM	0808003-002B	07/29/08	08/01/08	08/01/08 6:49 PM
0808003-003B	07/28/08	08/01/08	08/01/08 9:06 PM	0808003-004B	07/28/08	08/01/08	08/01/08 10:14 PM
0808003-005B	07/28/08	08/01/08	08/01/08 11:22 PM	0808003-006B	07/29/08	08/01/08	08/05/08 4:31 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.