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ALLTERRA

**Fourth Quarter 2005 Groundwater Monitoring Report
160 Holmes Street, Livermore, California**

Date:
November 23, 2005

Project No.:
015-01-002

Prepared For:
Livermore Gas and Mini mart
Attention: Manwel and Samira Shuwayhat
54 Wolfe Canyon Road
Kentfield, California 94904

Allterra Environmental, Inc.
849 Almar Avenue, Suite C, No. 281
Santa Cruz, California 95060

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November 23, 2005
Project No.: 015-01-002

Manwel and Samira Shuwayhat
Livermore Gas and Mini Mart
54 Wolfe Canyon Road
Kentfield, California 94904

Subject: Fourth Quarter 2005 Groundwater Monitoring Report
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 fourth quarter 2005 groundwater monitoring report for the property located at 160 Holmes Street in Livermore, CA (Site). This report describes the field and analytical methods, provides a summary of groundwater monitoring results, and presents conclusions and recommendations regarding groundwater conditions at the Site.

Site Location and Description

The Site is located on the southwest corner of Holmes Street and Second Street at 160 Holmes Street in Livermore, California (Figure 1). The Site currently operates as a service station and convenience store. Pertinent Site features, such as monitoring well locations, are presented in Figure 2.

Groundwater Monitoring

On October 10, 2005, Allterra performed quarterly groundwater monitoring for six monitoring wells and one extraction well at the Site. Groundwater monitoring activities included the measurement of static groundwater levels, an evaluation of groundwater in the wells for the presence of petroleum hydrocarbons, and purging and sampling of seven wells for laboratory analysis.

Groundwater Monitoring Field Activities

Depth to groundwater measurements and an evaluation of groundwater for the presence of petroleum hydrocarbons were performed in monitoring wells MW-1 through MW-6 and extraction well EX-1. The surveyed elevations of each well casing (measured in feet relative to mean sea level), depths to groundwater, and calculated groundwater elevations are presented in Table 2.

For fourth quarter 2005, six monitoring wells and one extraction well were sampled for laboratory analysis. Each well was purged and sampled in accordance with Alameda County Environmental Health Services (ACEHS) and Regional Water Quality Control Board (RWQCB) guidelines and Allterra protocols presented in Appendix A. Groundwater Sampling Field Logs

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are included in Appendix B. Groundwater samples were submitted under chain-of-custody documentation to McCampbell Analytical, Inc., of Pacheco, California, a state of California certified laboratory (ELAP #1644). Copies of the chain-of-custody documentation for the samples are included in Appendix C.

Laboratory Analysis of Groundwater Samples

Groundwater samples from each of the seven wells were analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA method 8015C, and for benzene, toluene, ethylbenzene, and xylenes (BTEX) and methyl tert-butyl ether (MTBE) by EPA Method 8021B. Analytical results from groundwater samples are presented in Table 2. The certified analytical report, including quality assurance and quality control (QA/QC) data, for the samples is included in Appendix C.

Groundwater Monitoring Results

On October 10, 2005, Allterra personnel measured and recorded depths to groundwater from the tops of well casings (TOC) for monitoring wells MW-1 through MW-6 and well EX-1. Recorded depths to groundwater ranged from 22.30 to 23.35 feet. Groundwater elevation data are summarized in Table 1 and depicted in Figure 3 as groundwater elevation contours. For the October 2005 groundwater monitoring event, groundwater appeared to flow northwest at a gradient of approximately 0.006 foot per foot (ft/ft).

Analytical Results

Fuel-related compounds were detected in four of seven wells sampled this quarter. Dissolved TPHg was detected in one well at a concentration of 58,000 micrograms per liter ($\mu\text{g/L}$) (MW-1). Benzene was detected in one well (MW-1) at a concentration of 4,300 $\mu\text{g/L}$. Well samples indicated the presence of MTBE in four wells at levels ranging from 31 $\mu\text{g/L}$ in well EX-1 to 170,000 $\mu\text{g/L}$ in well MW-1. Groundwater analytical results from well samples are presented in Table 2. The distribution of TPHg, benzene, and MTBE in groundwater is presented in Figure 4.

Purge water

Purge water generated during purging of the groundwater monitoring wells was stored on-site in Department of Transportation (DOT) approved 55-gallon drums pending disposal.

Conclusions

Based on the current monitoring data, Allterra concludes the following:

- Groundwater appears to flow to the northwest with a gradient of 0.006 ft/ft and appears to be consistent with previous monitoring events;
- The highest concentrations of dissolved TPHg, benzene, and MTBE were detected in on-site monitoring well MW-1;
- MTBE was found in off-site well MW-5.

Recommendations

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

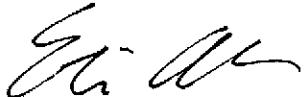
- Continue with the quarterly groundwater monitoring program at the Site.

Limitations

Allterra prepared this report for the use of Livermore Gas and Mini Mart and ACEHS in evaluating groundwater quality at selected on-site locations at the time of this study. Statements, conclusions, and recommendations in this report 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.

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

Sincerely,
Allterra Environmental, Inc.



Erik N. Allen
Environmental Scientist



Michael Killoran, P.G. #6670
Senior Geologist



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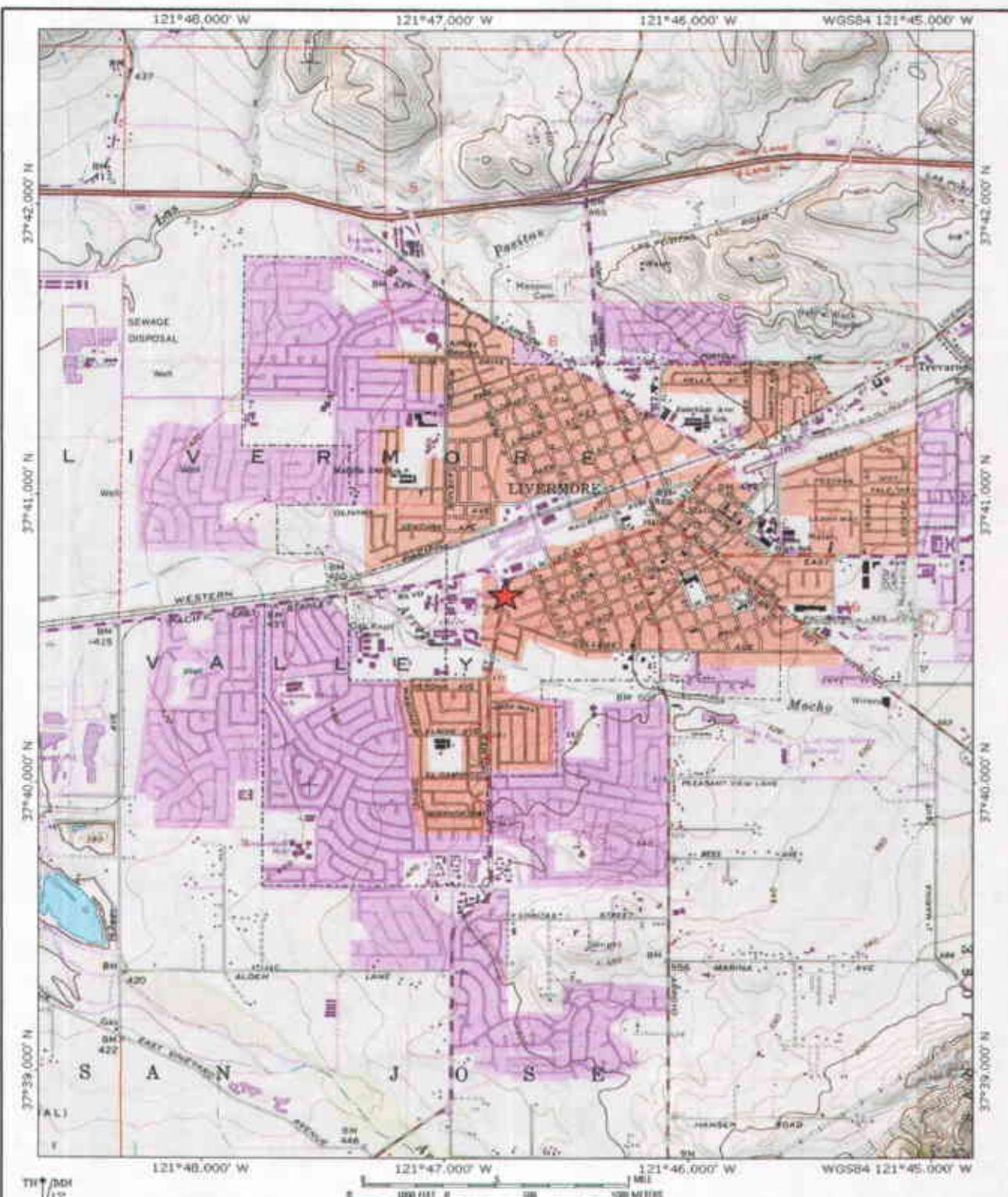
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- Appendix B, Groundwater Sampling Field Logs
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cc: Donna Drogos, ACEHS



Vicinity Map

Livermore Gas and Minimart
160 Holmes Street
Livermore, California

Figure 1

11/21/2005

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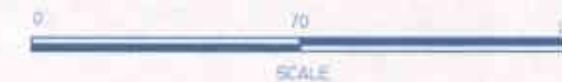
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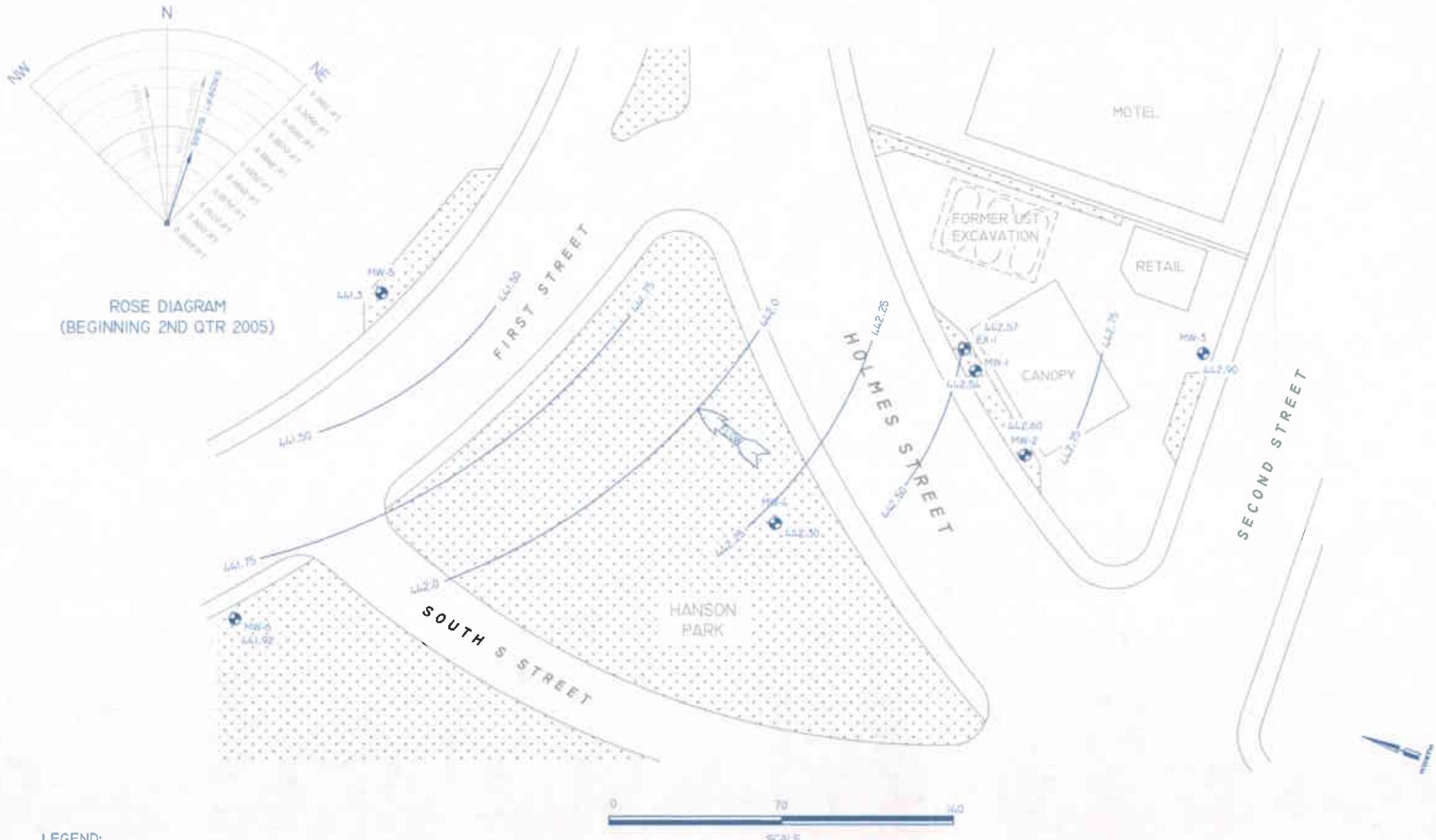


MW-4 MONITORING WELL LOCATION



EX-1 EXTRACTION WELL LOCATION





LEGEND:

- | | |
|--|--------------------------|
|  MW-4 | MONITORING WELL LOCATION |
|  EX-1 | EXTRACTION WELL LOCATION |
| * | DATA NOT CONToured |



APPROXIMATE GROUNDWATER FLOW DIRECTION

- 442.5 INFERRED GROUNDWATER GRADIENT CONTROL
441.92 GROUNDWATER ELEVATION IN FEET

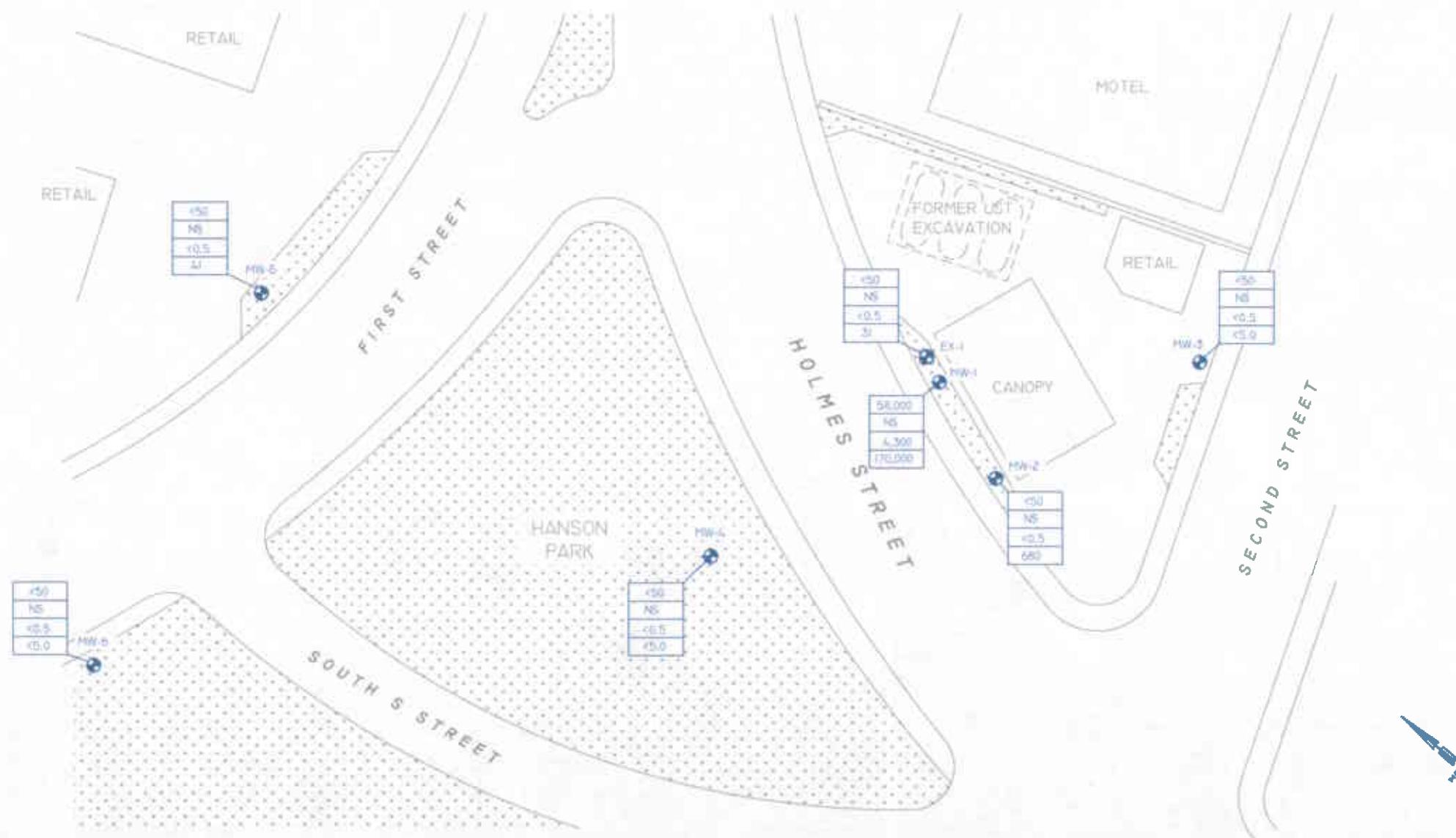
352

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GROUNDWATER POTENTIOMETRIC
MAP FOR 7/21/05

160 HOLMES STREET
LIVERMORE, CALIFORNIA

FIGURE 3
11/1/05
4TH QTR



LEGEND:



MONITORING WELL LOCATION



EXTRACTION WELL LOCATION



NOT SAMPLLED

<50
<50
<0.5
<0.0

TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
TOTAL PETROLEUM HYDROCARBONS AS DIESEL
BENZENE
METHYL TERTIARY BUTYL ETHER

0 70 140
SCALE

NOTES:

CONCENTRATIONS OF FUEL-RELATED COMPOUNDS ARE
REPORTED IN MICROGRAMS PER LITER (UG/L)

ALLTERRA

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CONCENTRATIONS OF FUEL-RELATED
COMPOUNDS IN GROUNDWATER

160 HOLMES STREET
LIVERMORE, CALIFORNIA

FIGURE 4
11/1/05
4TH QTR

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-1	8/11/2000	465.03	NM	NC
	10/19/2000	465.03	21.94	443.09
	2/22/2001	465.03	22.91	442.12
	5/30/2001	465.03	Dry	NC
	11/14/2001	465.03	Dry	NC
	5/7/2002	465.03	Dry	NC
	9/11/2002	465.03	26.16	438.87
	12/1/2002	465.03	27.55	437.48
	3/14/2003	465.03	22.63	442.40
	6/25/2003	465.03	22.10	442.93
	9/16/2003	465.03	24.91	440.12
	12/22/2003	465.03	21.75	443.28
	3/10/2004	465.03	17.45	447.58
	6/15/2004	465.03	22.38	442.65
	9/17/2004	465.03	25.61	439.42
	12/10/2004	465.03	22.18	442.85
	3/2/2005	465.03	16.95	448.08
	5/27/2005	465.03	18.42	446.61
	7/21/2005	465.03	21.38	443.65
	10/10/2005	465.03	22.49	442.54
MW-2	8/11/2000	464.94	NM	NC
	10/19/2000	464.94	21.80	443.14
	2/22/2001	464.94	22.87	442.07
	5/30/2001	464.94	Dry	NC
	11/14/2001	464.94	Dry	NC
	5/7/2002	464.94	26.70	438.24
	9/11/2002	464.94	25.96	438.98
	12/11/2002	464.94	27.56	437.38
	3/14/2003	464.94	22.41	442.53
	6/25/2003	464.94	21.97	442.97
	9/16/2003	464.94	24.70	440.24
	12/22/2003	464.94	21.58	443.36
	3/10/2004	464.94	17.31	447.63
	6/15/2004	464.94	22.18	442.76
	9/17/2004	464.94	25.44	439.50
	12/10/2004	464.94	22.00	442.94
	3/2/2005	464.94	16.75	448.19
	5/27/2005	464.94	18.29	446.65
	7/21/2005	464.94	20.46	444.48
	10/10/2005	464.94	22.30	442.64

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-3	8/11/2000	465.84	NM	NC
	10/19/2000	465.84	22.45	443.39
	2/22/2001	465.84	23.51	442.33
	5/30/2001	465.84	Dry	NC
	11/14/2001	465.84	Dry	NC
	5/7/2002	465.84	Dry	NC
	9/11/2002	465.84	26.61	439.23
	12/11/2002	465.84	28.18	437.66
	3/14/2003	465.84	23.04	442.80
	6/25/2003	465.84	22.59	443.25
	9/16/2003	465.84	25.33	440.51
	12/22/2003	465.84	22.37	443.47
	3/10/2004	465.84	17.88	447.96
	6/15/2004	465.84	22.82	443.02
	9/17/2004	465.84	26.09	439.75
	12/10/2004	465.84	22.65	443.19
	3/5/2005	465.84	17.33	448.51
	5/27/2005	465.84	18.89	446.95
	7/21/2005	465.84	21.10	444.74
	10/10/2005	465.84	22.94	442.90
MW-4	11/14/2001	465.15	33.84	431.31
	5/7/2002	465.15	26.75	438.40
	9/11/2002	465.15	26.66	438.49
	12/11/2002	465.15	28.39	436.76
	3/14/2003	465.15	23.14	442.01
	6/25/2003	465.15	22.72	442.43
	9/16/2003	465.15	25.39	439.76
	12/22/2003	465.15	22.42	442.73
	3/4/2004	465.15	18.20	446.95
	6/15/2004	465.15	22.95	442.20
	9/17/2004	465.15	26.12	439.03
	12/10/2004	465.15	22.73	442.42
	3/2/2005	465.15	17.60	447.55
	5/27/2005	465.15	19.14	446.01
	7/21/2005	465.15	21.25	443.90
	10/10/2005	465.15	22.85	442.30



November 23, 2005

Ms. Donna Drogos
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502

**SUBJECT: Fourth Quarter 2005 Groundwater Monitoring Report
160 Holmes Street, Livermore, California**

Dear Ms. Drogos:

On behalf of Mr. Manwel Shuwayhat, Allterra Environmental, Inc. (Allterra) has prepared the enclosed Fourth Quarter 2005 Groundwater Monitoring Report. Should you have any questions or comments please contact Allterra at (831) 425-2608.

Sincerely,

Allterra Environmental, Inc.

A handwritten signature in black ink, appearing to read "Erik Allen".

Erik Allen

Staff Scientist

enclosures: Fourth Quarter 2005 Groundwater Monitoring Report

Alameda County
Environmental Health
DEC 01 2005

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
MW-5	11/14/2001	464.65	34.94	429.71
	5/7/2002	464.65	27.90	436.75
	9/11/2002	464.65	27.99	436.66
	12/11/2002	464.65	29.50	435.15
	3/14/2003	464.65	24.26	440.39
	6/25/2003	464.65	24.01	440.64
	9/16/2003	464.65	26.83	437.82
	12/22/2003	464.65	23.68	440.97
	3/10/2004	464.65	19.22	445.43
	6/15/2004	464.65	24.20	440.45
	9/17/2004	464.65	27.68	436.97
	12/10/2004	464.65	23.93	440.72
	3/2/2005	464.65	18.56	446.09
	5/27/2005	464.65	20.15	444.50
	7/21/2005	464.65	22.55	442.10
	10/10/2005	464.65	23.35	441.30
MW-6	11/14/2001	464.13	33.88	430.25
	5/7/2002	464.13	27.01	437.12
	9/11/2002	464.13	27.03	437.10
	12/11/2002	464.13	28.77	435.36
	3/14/2003	464.13	23.46	440.67
	6/25/2003	464.13	23.08	441.05
	9/16/2003	464.13	25.77	438.36
	12/22/2003	464.13	22.59	441.54
	3/10/2004	464.13	18.65	445.48
	6/15/2004	464.13	23.31	440.82
	9/17/2004	464.13	26.56	437.57
	12/10/2004	464.13	23.09	441.04
	3/2/2005	464.13	18.04	446.09
	5/27/2005	464.13	19.57	444.56
	7/21/2005	464.13	21.60	442.53
	10/10/2005	464.13	22.21	441.92

Table 1
Groundwater Elevation Data
160 Holmes Street, Livermore

Monitoring Well ID	Date	Top of Casing Elevation* (feet, msl)	Depth to Groundwater (feet)	Groundwater Elevation (feet, msl)
EX-1	11/14/2001	465.30	33.41	431.89
	5/7/2002	465.30	27.58	437.72
	9/11/2002	465.30	NM	NC
	12/11/2002	465.30	27.98	437.32
	3/14/2003	465.30	23.02	442.28
	6/25/2003	465.30	22.41	442.89
	9/16/2003	465.30	24.65	440.65
	3/10/2004	465.30	17.99	447.31
	6/15/2004	465.30	22.48	442.82
	9/17/2004	465.30	25.91	439.39
	12/10/2004	465.30	NM	NC
	3/2/2005	465.30	NM	NC
	5/27/2005	465.30	18.68	446.62
	7/21/2005	465.30	21.55	443.75
	10/10/2005	465.30	22.73	442.57

MSL: Mean sea level

bgs: Below ground surface

NC: elevation not calculated

NA: well not accessible

NM: well not measured

Table 2
Groundwater Analytical Results
160 Holmes Street, Livermore

Monitoring Well ID	Date Collected	Total Petroleum Hydrocarbons as ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)				Fuel Oxygenates ($\mu\text{g/L}$)
		Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	
MW-1	8/11/2000	170,000	57,000	6,400	7,600	4,200	9,700	320,000
	10/19/2000	170,000	17,000	8,400	3,200	2,700	10,000	200,000
	2/22/2001	82,000	11,000	5,100	1,000	13,000	8,700	190,000
	5/30/2001	not sampled - well dry						
	11/14/2001	not sampled - well dry						
	5/7/2002	not sampled - well dry						
	9/11/2002	130,000	NA	7,700	1,100	4,500	1,500	<5000
	12/1/2002	NS	NS	NS	NS	NS	NS	NS
	3/14/2003	180,000	3,800	7,100	3,200	4,300	6,000	220,000
	6/25/2003	71,000	3,100	7,500	4,700	4,800	8,900	210,000
	9/16/2003	37,000	3,600	4,600	220	3,600	930	150,000
	12/22/2003	44,000	4,000	6,800	1,500	4,000	3,800	180,000
	3/10/2004	72,000	3,100	6,000	11,000	3,900	10,000	260,000
	6/15/2004	42,000	4,300	5,000	1,800	3,700	6,000	210,000
	9/17/2004	24,000	2,900	2,800	<33	2,900	500	83,000
	12/10/2004	31,000	2,700	4,600	190	4,400	2,800	200,000
	3/2/2005	58,000	2,800	4,000	2,500	4,500	7,800	230,000
	5/27/2005	79,000	4,600	4,300	6,200	5,100	13,000	240,000
	7/21/2005	80,000	NS	4,300	5,300	5,400	14,000	300,000
	10/10/2005	58,000	NS	4,300	240	5,600	8,300	170,000
MW-2	8/11/2000	4,500	1,900	220	52	160	170	3,000
	10/19/2000	3,400	1,300	150	21	100	70	1,900
	2/22/2001	7,600	880	25	<10	69	25	2,200
	5/30/2001	not sampled - well dry						
	11/14/2001	not sampled - well dry						
	5/7/2002	400	86	5.4	<0.5	1.9	2.3	230
	9/11/2002	260	NA	1.3	<0.5	0.57	0.77	200
	12/11/2002	250	120	7.9	1.6	13	9.9	180
	3/14/2003	830	110	56	<0.5	<0.5	<1.0	1,200
	6/25/2003	260	180	0.92	2.9	3.1	8.1	2,000
	9/16/2003	420	260	3.6	3.4	5.2	2.4	1,300
	12/22/2003	240	120	0.82	3.1	7.8	3.9	1,400
	3/10/2004	280	210	9.4	4.2	14	11	1,400
	6/15/2004	150	150	2.1	2.4	2.2	1.3	1,500
	9/17/2004	61	70	<0.5	1.0	<0.5	<0.5	730
	12/10/2004	84	110	<0.5	1.2	<0.5	1.5	1,300
	3/2/2005	63	91	0.55	<0.5	0.63	0.51	1,000
	5/27/2005	270	59	14	3.9	19	6.8	1,100
	7/21/2005	280	NS	8.6	2.5	17	2.5	1,500
	10/10/2005	<50	NS	<.5	<.5	<.5	<.5	680

Table 2
Groundwater Analytical Results
160 Holmes Street, Livermore

Monitoring Well ID	Date Collected	Total Petroleum Hydrocarbons as ($\mu\text{g/L}$)		Aromatic Volatile Organic Compounds ($\mu\text{g/L}$)				Fuel Oxygenates ($\mu\text{g/L}$)
		Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	
MW-3	8/11/2000	59	260	<0.5	<0.5	<0.5	<0.5	<5.0
	10/19/2000	<50	<65	<0.5	<0.5	<0.5	<0.5	<5.0
	2/22/2001	<50	100	<0.5	<0.5	<0.5	<0.5	<5.0
	5/30/2001	not sampled - well dry						
	11/14/2001	not sampled - well dry						
	5/7/2002	not sampled - well dry						
	9/11/2002	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0
	12/11/2002	NS						
	3/14/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/25/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/16/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	12/22/2003	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0
	3/10/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/15/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/17/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	12/10/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	7.6
	3/5/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	5/27/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/21/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0
MW-4	11/14/2001	510	90	4.0	<0.5	<0.5	<0.5	14
	5/7/2002	150	<50	3.5	0.5	<0.5	<0.5	48
	9/11/2002	<50	NA	<0.5	<0.5	<0.5	<0.5	15
	12/11/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	24
	3/14/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0
	6/25/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0
	9/16/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	12/22/2003	<50	69	<0.5	<0.5	<0.5	<0.5	<5.0
	3/4/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	37
	6/15/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	7.4
	9/17/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	12/10/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/2/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	14
	5/27/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	9.6
	7/21/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0
MW-5	11/14/2001	<50	<66	<0.5	<0.5	<0.5	<0.5	8.2
	5/7/2002	140	<50	<0.5	<0.5	<0.5	<0.5	110
	9/11/2002	<50	NA	<0.5	<0.5	<0.5	<0.5	6.3
	12/11/2002	73	<50	<0.5	<0.5	<0.5	<0.5	160
	3/14/2003	110	<50	<0.5	<0.5	<0.5	<0.5	170
	6/25/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	89
	9/16/2003	630	<50	<0.5	3.5	<0.5	2.6	1500
	12/22/2003	<0.5	<50	<0.5	<0.5	<0.5	<0.5	630
	3/10/2004	57	<50	<0.5	<0.5	<0.5	<0.5	1100

Table 2
Groundwater Analytical Results
160 Holmes Street, Livermore

Monitoring Well ID	Date Collected	Total Petroleum Hydrocarbons as (µg/L)		Aromatic Volatile Organic Compounds (µg/L)				Fuel Oxygenates (µg/L)
		Gasoline	Diesel	Benzene	Toluene	Ethyl-benzene	Total Xylenes	
MW-6	6/15/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	750
	9/17/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	780
	12/10/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	120
	3/2/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	320
	5/27/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	120
	7/21/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	97
	10/10/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	41
	11/14/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	5/7/2002	<50	<67	<0.5	<0.5	<0.5	<0.5	<5.0
	9/11/2002	<50	NA	<0.5	<0.5	<0.5	<0.5	<5.0
EX-1	12/11/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<1.0
	3/14/2003	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	6/25/2003	<50	<50	<0.5	<0.5	<0.5	<1.0	<1.0
	9/16/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	12/22/2003	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/10/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	6/15/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	9/17/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	12/10/2004	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	3/2/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
EX-1	5/27/2005	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	7/21/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0
	10/10/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	<5.0
	11/14/2001	13,000	2,000	180	1,000	330	3,200	2,200
	5/7/2002	7,700	560	320	<25	66	150	6,200
	9/11/2002	2,800	NA	32	<13	14	<13	2,500
	12/11/2002	3,000	100	81	<0.5	44	<1.0	4,800
	3/14/2003	750	50	<0.5	<0.5	7.7	13	1,200
	6/25/2003	120	<50	3.2	3.7	4.2	7.6	260
	9/16/2003	170	<50	0.5	1.5	<0.5	0.9	1,600
	3/10/2004		NS					
	6/15/2004		NS					
	9/17/2004		NS					
	12/10/2004		NS					
	3/2/2005		NS					
	5/27/2005		NS					
	7/21/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	610
	10/10/2005	<50	NS	<0.5	<0.5	<0.5	<0.5	31

Notes:

-- = not applicable

µg/L = micrograms per liter

NS = Not Sampled

NA = Not Analyzed

MTBE = methyl tertiary butyl ether

APPENDIX A
Groundwater Monitoring Field Protocol

Appendix A

Groundwater Monitoring Protocol

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.

Equipment Decontamination

All drilling, sampling, and well development equipment was 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 barrels for future disposal.

Waste Disposal

Water generated during well purging and sampling activities will be placed into DOT-approved 55-gallon waste drums. Waste drums will be temporarily stored on-site pending proper disposal of wastewater to an approved transport, storage, and disposal (TSD) facility.

APPENDIX B
Groundwater Sampling Field Logs

ALLTEC**Groundwater Sampling Field Log**

Site Address	160 Holmes	Date	10-10-05
Project Number		Field Personnel	512

Monitoring Well Information

Monitoring Well ID	MW-3	Monitoring Well Diameter (inches)	2.0
Depth to Water (feet)	22.94	Water Column (feet)	7.00
Total Depth (feet)	36.6	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	1.20
Comments			

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
1:05	22.94	1.20	865.5	18.9°C	7.37	High	brown	none
	22.94	1.20	856.5	18.8°C	7.21	High	brown	none
	22.94	1.20	857.5	18.7°C	7.12	High	brown	none

Total Purge Volume	3.60	Comments
--------------------	------	----------

Groundwater Sampling Information

Sample ID	MW-3	Sample Time	1:20
Sample Containers (Number/Type)	3	Voc	
Comments			

Groundwater Sampling Field Log

Site Address	160 Holmes	Date	10-11-05
Project Number		Field Personnel	512

Monitoring Well Information

Monitoring Well ID	MW-4	Monitoring Well Diameter (inches)	2.0
Depth to Water (feet)	23.5	Water Column (feet)	26.5
Total Depth (feet)	50.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	7.50
Comments			

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
1:30	23.5	4.50	784.5	18.7°C	7.78	medium	brown	none
	23.5	4.50	762.05	18.5°C	7.63	medium	brown	none
	23.5	4.50	767.5	18.7°C	7.26	medium	brown	none

Total Purge Volume	13.51	Comments
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Groundwater Sampling Information

Sample ID	MW-4	Sample Time	2:00
Sample Containers (Number/Type)	3	Voc	
Comments			

ALLTEK**Groundwater Sampling Field Log**

Site Address	160 Holmes		Date	10-10-05					
Project Number			Field Personnel	SJZ					
Monitoring Well Information									
Monitoring Well ID	MW-1		Monitoring Well Diameter (inches)	2.0					
Depth to Water (feet)	22.49		Water Column (feet)	7.51					
Total Depth (feet)	30.0		80% Recharge Depth (feet)						
Depth to Product (feet)			1 Well Volume (gallons)	1.27					
Comments									
Field Measurements and Observations									
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor	
12:20	22.49	1.27	1291.25	18.8°C	7.00	High	Grey	strong	
	22.49	1.27	1316.25	18.8°C	6.95	High	Grey	strong	
	22.49	1.27	1303.25	18.8°C	6.93	High	Grey	strong	
Total Purge Volume			3.83	Comments					
Groundwater Sampling Information									
Sample ID	MW-1		Sample Time	12:30					
Sample Containers (Number/Type)	3 Uga								
Comments									
Groundwater Sampling Field Log									
Site Address	160 Holmes		Date	10-10-05					
Project Number			Field Personnel	SJZ					
Monitoring Well Information									
Monitoring Well ID	MW-2		Monitoring Well Diameter (inches)	2.0					
Depth to Water (feet)	22.30		Water Column (feet)	7.70					
Total Depth (feet)	30.0		80% Recharge Depth (feet)						
Depth to Product (feet)			1 Well Volume (gallons)	1.30					
Comments									
Field Measurements and Observations									
Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor	
12:58	22.30	1.30	1024.25	26.4°C	6.97	medium	Grey	slight	
	22.30	1.30	1040.25	19.7°C	6.94	medium	Grey	slight	
	22.30	1.30	1037.25	19.3°C	6.94	medium	Grey	slight	
Total Purge Volume			3.92	Comments					
Groundwater Sampling Information									
Sample ID	MW-2		Sample Time	1:00					
Sample Containers (Number/Type)	3 Uga								
Comments									

ALLCREA**Groundwater Sampling Field Log**

Site Address	160 Hwy 16	Date	10-10-05
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Project Number		Field Personnel	S12
----------------	--	-----------------	-----

Monitoring Well Information

Monitoring Well ID	MW-5	Monitoring Well Diameter (inches)	2.0
Depth to Water (feet)	23.35	Water Column (feet)	26.65
Total Depth (feet)	50.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	4.53
Comments			

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
2:10	23.35	4.53	1010.5	21.0°C	7.33	medium	brown	none
	23.35	4.53	937.05	19.3°C	7.37	medium	brown	none
	23.35	4.53	905.05	19.5°C	7.38	medium	brown	none

Total Purge Volume	13.59	Comments
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Groundwater Sampling Information

Sample ID	MW-5	Sample Time	2:45
-----------	------	-------------	------

Sample Containers (Number/Type)	3	Vac
---------------------------------	---	-----

Comments

Groundwater Sampling Field Log

Site Address	160	Date	10-10-05
--------------	-----	------	----------

Project Number		Field Personnel	S12
----------------	--	-----------------	-----

Monitoring Well Information

Monitoring Well ID	MW-6	Monitoring Well Diameter (inches)	2.0
Depth to Water (feet)	22.21	Water Column (feet)	27.79
Total Depth (feet)	50.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	7.72
Comments			

Field Measurements and Observations

Time	Depth to Water	Purge Volume	Conductivity	Temperature	pH	Turbidity	Color	Odor
2:50	22.21	4.72	1015.5	12.3°C	7.64	medium	brown	none
	22.21	4.72	1015.05	18.8°C	7.42	medium	brown	none
	22.21	4.72	1011.05	18.5°C	7.35	medium	brown	none

Total Purge Volume	14.17	Comments
--------------------	-------	----------

Groundwater Sampling Information

Sample ID	MW-6	Sample Time	3:56
-----------	------	-------------	------

Sample Containers (Number/Type)	3	Vac
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Comments

ALLTERRAIN

Groundwater Sampling Field Log

Site Address: 111-117

Date 11/17/10-05

Project Number

Field Personnel

Monitoring Well Information

Monitoring Well ID	EX-1	Monitoring Well Diameter (inches)	6.0
Depth to Water (feet)	22.73	Water Column (feet)	32.27
Total Depth (feet)	55.0	80% Recharge Depth (feet)	
Depth to Product (feet)		1 Well Volume (gallons)	5.48
Comments			

Field Measurements and Observations

Groundwater Sampling Information

Sample ID 61-1 | Sample Time 10:45

Sample Containers (Number/Type)

Comments

Groundwater Sampling Field Log

Site Address _____ **Date** _____

Project Number: Field B

Monitoring Well Information

Monitoring Well ID	Monitoring Well Diameter (inches)
Depth to Water (feet)	Water Column (feet)
Total Depth (feet)	80% Recharge Depth (feet)
Depth to Product (feet)	1 Well Volume (gallons)
Comments	

Field Measurements and Observations

Comments

Groundwater Sampling

Sample ID

Sample Co

APPENDIX C
Certified Analytical Reports and Chain of Custody



McCAMPBELL ANALYTICAL, INC.

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

Alterra Environmental, Inc 349 Almar Ave, Ste. C #281 Santa Cruz, CA 95060	Client Project ID: 160 Holmes	Date Sampled: 10/10/05
		Date Received: 10/12/05
	Client Contact: James Allen	Date Extracted: 10/13/05-10/14/05

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

Extraction method: SW5030B

Analytical methods: SW8021B/8015Cm

Work Order: 0510194

Reporting Limit for DF = 1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	$\mu\text{g/L}$
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

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

cluttered chromatogram: sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant (aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas); m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydellius, Lab Manager



McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
 Telephone : 925-798-1620 Fax : 925-798-1522
 Website: www.mccampbell.com E-mail: main@mccampbell.com

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0510194

EPA Method: SW8021B/8015Cm		Extraction: SW8030B		BatchID: 18502		Spiked Sample ID: 0510194-006A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) ^E	ND	60	105	106	0.932	112	110	1.95	70 - 130	70 - 130
MTBE	ND	10	92.4	90.6	1.99	97.5	100	2.70	70 - 130	70 - 130
Benzene	ND	10	93.2	97.4	4.42	90.6	91.1	0.583	70 - 130	70 - 130
Toluene	ND	10	93.5	97.3	3.96	91.2	91.9	0.799	70 - 130	70 - 130
Ethylbenzene	ND	10	99.5	99	0.461	94.1	94.7	0.626	70 - 130	70 - 130
Xylenes	ND	30	100	99.7	0.334	95.3	95.3	0	70 - 130	70 - 130
%SS:	106	10	98	102	3.46	95	96	0.0787	70 - 130	70 - 130

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

BATCH 18502 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0510194-006A	10/10/05	10/13/05	10/13/05 1:31 PM	0510194-007A	10/10/05	10/13/05	10/13/05 2:01 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.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

DHS Certification No. 1644

QA/QC Officer



McCormick Analytical, Inc.

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

QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

WorkOrder: 0510194

EPA Method: SW8021B/8015Cm		Extraction: SW5030B		BatchID: 18487		Spiked Sample ID: 0510194-004A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)	
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	LCS / LCSD
TPH(btex) ^E	ND	60	107	112	4.07	110	108	1.73	70 - 130	70 - 130
MTBE	ND	10	86.9	90.8	4.45	95.2	94.1	1.22	70 - 130	70 - 130
Benzene	ND	10	89	95	6.56	91.5	88.9	2.96	70 - 130	70 - 130
Toluene	ND	10	89.7	95.3	6.08	91.8	88.9	3.27	70 - 130	70 - 130
Ethylbenzene	ND	10	92.6	98.4	6.09	95.2	92	3.42	70 - 130	70 - 130
Xylenes	ND	30	94.7	100	5.48	95.3	94.7	0.702	70 - 130	70 - 130
%SS:	112	10	96	98	1.94	96	95	0.994	70 - 130	70 - 130

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

NONE

BATCH 18487 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0510194-001A	10/10/05	10/13/05	10/13/05 5:23 AM	0510194-001A	10/10/05	10/13/05	10/13/05 9:17 PM
0510194-002A	10/10/05	10/13/05	0/13/05 10:03 AM	0510194-002A	10/10/05	10/14/05	10/14/05 2:29 AM
0510194-003A	10/10/05	10/13/05	0/13/05 12:53 PM	0510194-004A	10/10/05	10/13/05	10/13/05 1:27 PM
0510194-005A	10/10/05	10/13/05	10/13/05 1:01 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 inhomogeneous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

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

cluttered chromatogram; sample peak coelutes with surrogate peak.

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

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

DHS Certification No. 1644

 QA/QC Officer

44PS 05/01/94

ALLTERRA

849 Almar Avenue, Suite C, #281
Santa Cruz, California 95060

Website: www.allterraenv.com
Phone: (831) 425-2608 Facsimile: (831) 425-2609

Report and Bill to: Allterra Environmental, Inc.

Project Number:

Project Location: 160 Holmes

Project Name:

Sampler Signature:

Sample ID	Sample Collection		Sample Containers		Matrix		Preservation		TPH ₂ , BTEX&MTBE (EPA 8015/8020)	BTEX (EPA 8020)	TPH ₄ (EPA 8015)	S-fuel oxy's (EPA 8260)	Ethanol and Methanol (EPA 8260)	Total SVOCs (EPA 8260)	Lead Scavengers (8260)	Hardness/Total dissolved solids	CAM-17 Metals (EPA 6010/6020)	LIFT-5 Metals (EPA 6010/6020)	PAHs/PNAs (EPA 8270, 825/8310)	FISH Toxicity/Bioassay	Lead (EPA 6010/2009/2008)	Total Toxic Organics (EPA 624)	PCP required
	Date	Time	Number of Containers	Container Type	Air	Water	Soil	Sludge	Ice	HCl	HNO ₃	Other											
MW-1	10-10-95		3	Vac	X				X	X													
MW-2					X				X	X													
MW-3					X				X	X													
MW-4					X				X	X													
MW-5					X				X	X													
MW-6					X				X	X													
FA-1					X				X	X													

Sampled By: GREG NOLAN Date: 10-10-95 Time: Received By: Mike Kall 10/10/95 8am

Received By: Date: Time: Received By:

Received By: Date: Time: Received By:

Comments: ✓			
GOOD CONDITION ✓			
HEAD SPACE ABSENT ✓			
DECHLORINATED IN LAB ✓			
PRESERVED IN LAB ✓			
WATER	OSA	ACIDIC	CAUSTIC

ALLTERRA ENVIRONMENTAL INC.

McCAMPBELL ANALYTICAL, INC.

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

CHAIN-OF-CUSTODY RECORD

Page 1 of 1

Oct 18 2005 2:14PM

MCCAMPBELL ANALYTICAL

9257984612

WorkOrder: 0510194

ClientID: ATRS

EDF: YES

Report to:

James Allen
Alterra Environmental, Inc
849 Almar Ave, Ste. C #281
Santa Cruz, CA 95060

TEL: 831-334-0696
FAX: 831-425-2609
ProjectNo: 160 Holmes
PO:

SH to:

Requested TAT: 5 days

Date Received: 10/12/2005
Date Printed: 10/12/2005

Sample ID	ClientSamplID	Matrix	Collection Date	Hold	Requested Tests (See legend below)														
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
0510194-001	MW-1	Water	10/10/05	<input type="checkbox"/>	A	A													
0510194-002	MW-2	Water	10/10/05	<input type="checkbox"/>	A														
0510194-003	MW-3	Water	10/10/05	<input type="checkbox"/>	A														
0510194-004	MW-4	Water	10/10/05	<input type="checkbox"/>	A														
0510194-005	MW-5	Water	10/10/05	<input type="checkbox"/>	A														
0510194-006	MW-6	Water	10/10/05	<input type="checkbox"/>	A														
0510194-007	EX-1	Water	10/10/05	<input type="checkbox"/>	A														

Test Legend:

1	G-MBTEX_W
6	
11	

2	PREDF REPORT
7	
12	

3	
8	
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4	
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14	

5	
10	
15	

Prepared by: Melissa Valles

Comments:

McCAMPBELL ANALYTICAL has discretion to charge extra for analytical testing other arrangements can made. Hazardous samples will be returned to client or disposed of at client expense.

TO
DO