RECEIVED By lopprojectop at 11:43 am, Feb 02, 2006

Third Quarter 2005 Groundwater Monitoring and Sampling Report

Mission Valley Rock Company 7999 Athenour Way Sunol, California

Prepared by: Tait Environmental Management, Inc.

October 14, 2005

October 14, 2005

Third Quarter 2005 Groundwater Monitoring and Sampling Report

Mission Valley Rock Company 7999 Athenour Way Sunol, California

Prepared for:

Mr. Mort Calvert Mission Valley Rock Company 7999 Athenour Way Sunol, California 94586

Prepared by:

Ģregory A. Buchanan Project Geologist

Reviewed by:

Mehmet Pehlivan, PG, CHG

Mehmet Pehlivan, PG, CHG Director



Tait Environmental Management 701 North Parkcenter Drive Santa Ana, California 92705

Project No. EM-5009A

TABLE OF CONTENTS

1.0	INTRODUCTION	.4
2.0	OBJECTIVE	.4
3.0	SCOPE OF WORK	.4
4.0	BACKGROUND	
4.1	SITE GEOLOGY	2
5.0	GROUNDWATER MONITORING WELL PURGING AND SAMPLING	2
6.0	LABORATORY ANALYSES	2
7.0	SUMMARY OF ACTIVITIES AND FINDINGS	3
8.0	RECOMMENDATIONS	3
9.0	QUALITY ASSURANCE/QUALITY CONTROL	4
10.0	LIMITATIONS	
11.0	REFERENCES	4

FIGURES

1.	Site	Vicinity	Мар

- 2. Site Plan
- 3. 3rd Quarter 2005 Groundwater Contour Map
- 4. TPH-G Concentrations in Groundwater (Shallow Zone)
- 5. TPH-G Concentrations in Groundwater (Deep Zone)
- 6. MTBE Concentrations in Groundwater (Shallow Zone)
- 7. MTBE Concentrations in Groundwater (Deep Zone)

TABLES

- 1. Well Construction Details and Groundwater Elevation Data
- 2. Historical Groundwater Gauging Data
- 3. Groundwater Analytical Results Third Quarter 2005
- 4. Historical Groundwater Analytical Results

APPENDICES

- A. Sampling Data Sheets
- B. Laboratory Report

Third Quarter 2005 Groundwater Monitoring and Sampling Report Mission Valley Rock Company Sunol, California

1.0 INTRODUCTION

This report summarizes the third quarter 2005 groundwater monitoring and sampling event conducted at the Mission Valley Rock Company (Site) located at 7999 Athenour Way in Sunol, California (Figure 1). The wells were sampled as part of the 3rd Quarter 2005 groundwater monitoring and sampling program.

2.0 OBJECTIVE

The objective of the proposed scope of work was to:

Monitor and sample the existing groundwater monitoring wells at the Site.

3.0 SCOPE OF WORK

The scope of work that Tait Environmental Management (TEM) developed to meet the objectives included the following tasks:

- Groundwater Monitoring & Sampling
- Laboratory Analyses
- Monitoring Well Survey
- Report Preparation

4.0 BACKGROUND

In May of 1996, Tank Protect Engineering (TPE) removed two (2) diesel and one (1) gasoline underground storage tank (UST). During June of 1998, three (3) groundwater-monitoring wells (MW-1, MW-2, and MW-3) were installed at the Site. Quarterly groundwater-monitoring continued from January of 1999 through March of 2000.

In June of 2000, TEM assumed the contract for environmental services at the Site. In December of 2002, eight (8) soil borings (TB-1 through TB-8) were drilled and sampled at the Site using a direct-push rig. In January of 2005, 8 additional soil borings were advanced at the Site using a hollow-stem drill rig. Six (6) of the borings were converted to single, double, and triple completion groundwater monitoring wells for a total of 12 wells. Groundwater-monitoring well MW-2 was abandoned.

Quarterly groundwater monitoring and sampling have been conducted by TEM from the 4th quarter 2000 through the present.



October 14, 2005 *Third Quarter 2005 Groundwater Monitoring Report Mission Valley Rock, Sunol, California*

4.1 Site Geology

Drilling and sampling activities indicate that a clay layer exists from the near-surface to between 10 and 15 feet bgs, with the exception of MW-2S/2M/2D, which contains clay to 25 feet bgs. The soils to total depth of the borings consist of gravelly sand and sandy gravel mixtures. Sand was found from approximately 10 to 20 feet bgs. in the boring containing MW-5S/5D.

5.0 GROUNDWATER MONITORING WELL PURGING AND SAMPLING

On August 11th, 2005, static groundwater levels were measured and recorded in the onsite groundwater monitoring wells using an electrical product/water interface meter. Water levels were measured from the top of the well casing (representing the wellhead survey point). The meter was decontaminated prior to use at each well with a mild detergent solution and two (2) de-ionized water rinses.

On August 11th and 12th, 2005, the groundwater monitoring wells were sampled using a 2" diameter electrical submersible pump as part of the third quarter 2005 groundwater monitoring and sampling event. Approximately 85 gallons of purged groundwater was pumped into steel 55-gallon drums during the sampling event. Groundwater samples were collected from the discharge end of the pump at low flow levels into laboratory-supplied containers. Care was taken to insure no headspace was allowed into the containers.

Groundwater samples were collected from fourteen (14) wells. They were labeled, placed into an icechilled cooler (4°C), and transported under chain-of-custody protocol to SunStar Laboratories, Inc. (SunStar), a State-Certified laboratory for chemical analysis.

Based on monitoring well data, the depth to groundwater measured at the Site averaged 5.25 feet bgs. The apparent groundwater flow direction is to the southeast at a gradient of approximately 0.017 ft/ft. Groundwater gauging and elevation data for the 3rd Quarter 2005 event is summarized in Table 1. Historical groundwater elevation data is summarized in Table 2. Groundwater sampling data sheets are presented in Appendix A.

6.0 LABORATORY ANALYSES

The groundwater samples collected during the groundwater monitoring and sampling event were analyzed for:

- The Diesel and Gasoline fraction of Total Petroleum Hydrocarbons (TPHd and TPHg, respectively) using EPA Method No. 8015M.
- Volatile Organic Compounds (VOC's) including benzene, toluene, ethylbenzene, total xylenes (BTEX); methyl-tert-butyl ether (MTBE), and the other fuel oxygenates Tert-amyl methyl ether (TAME), Tert-butyl alcohol (TBA), Di-isopropyl ether (DIPE), and Ethyl tert-butyl ether (ETBE) using EPA Method No. 8260B.



October 14, 2005 *Third Quarter 2005 Groundwater Monitoring Report Mission Valley Rock, Sunol, California*

Dissolved-phase TPH-g concentrations in the shallow groundwater zone is presented in Figure 4, and deep zone concentrations are contoured in Figure 5. Dissolved-phase MTBE concentrations shallow zone wells are reported and contoured in Figure 6. Deep zone MTBE concentrations are contoured and presented in Figure 7.

Third Quarter 2005 groundwater analytical results are summarized in Table 3 and a copy of the laboratory analytical report is presented in Appendix B. Historical groundwater analytical results are summarized in Table 4.

7.0 SUMMARY OF ACTIVITIES AND FINDINGS

Based upon the data presented in this report, previous investigations, current regulatory guidelines, and the judgment of TEM, the following is a summary of activities and findings:

- Based on the depth to water measurements obtained by TEM, groundwater levels averaged 5.25 feet bgs. The groundwater flow direction to the southeast at a gradient of approximately 0.015 ft/ft.
- A total of 14 groundwater samples were collected from the monitoring wells at the Site, and they were delivered to SunStar for analysis.
- A maximum TPH-D concentration of 37 µg/L was detected in well MW-7D.
- A maximum TPH-G concentration in groundwater of 83,000 μg/L was detected in well MW-7D.
- A maximum benzene concentration of 550 μg/L was detected in well MW-7D.
- A maximum MTBE concentration of 410 μg/L was detected in well MW-6S.
- TBA was detected in MW-8 with a concentration of 160 μg/L.

Based on groundwater sampling data, the BTEX concentrations were low, and fuel oxygenates other than MTBE and TBA were not detected above laboratory detection limits. The TPH-G, TPH-D, and MTBE concentrations were higher.

8.0 **RECOMMENDATIONS**

Based on the work conducted to date, the data obtained during field activities, current regulatory guidelines, and the professional judgment of TEM, the following recommendation is presented for your consideration:

- TEM proposes to perform a feasibility study and prepare a remedial action plan to remediate the limited impact of TPH-G and TPH-D in the vicinity of monitoring well MW-7.
- Continue to monitor the groundwater on a quarterly basis.



October 14, 2005 *Third Quarter 2005 Groundwater Monitoring Report Mission Valley Rock, Sunol, California*

9.0 QUALITY ASSURANCE/QUALITY CONTROL

To increase the confidence levels in the data obtained and minimize the likelihood that judgments were made from potentially erroneous data, a quality assurance/quality control (QA/QC) program was implemented. QA refers to management of actions designed to maintain precision, accuracy, completeness, and representativeness of the data developed from the project. QC refers to accepted formal procedures and activities specifically designed for the purpose of collecting data that are intended to be reliable and consistent for the Site conditions.

The program includes formal procedures for drilling, sampling, well installation, decontamination, instrument calibration, documentation of activities and calculations, and peer review. Routine QC procedures were performed by the laboratory and included daily calibration of instruments, percent surrogate recoveries and analysis of matrix spikes and matrix spike duplicates (Appendix D). The laboratory reported the results to be within acceptable percent recoveries with no results exceeding the laboratory-established control limits.

10.0 LIMITATIONS

No investigation is considered thorough enough to exclude the presence of hazardous materials at a given site. Opinions and/or recommendations presented apply to Site conditions existing at the time of the performance of services and TEM is unable to report on or accurately predict events which may impact the Site following conduct of the described services, whether occurring naturally or caused by external forces. No responsibility is assumed by TEM for conditions we were not authorized to investigate, or conditions not generally recognized as environmentally unacceptable at the time services were performed. Services hereunder were performed in accordance with our agreement and understanding with, and solely for the use of, MVR. We are not responsible for the subsequent separation, detachment or partial use of this document. Any reliance on this report by a third party shall be at such party's sole risk.

11.0 REFERENCES

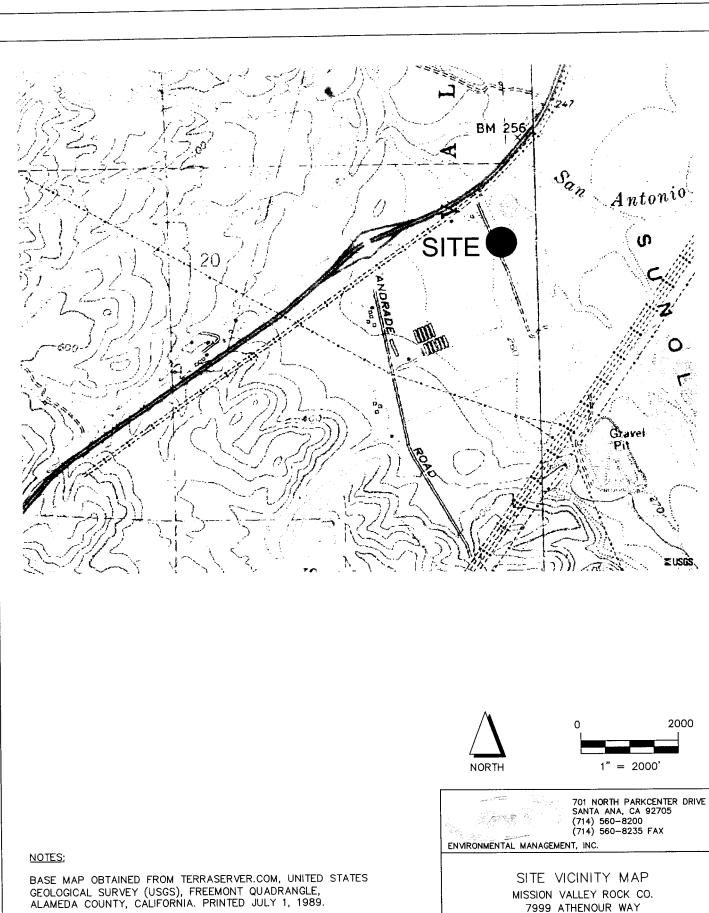
Groundwater Monitoring Report – Third Quarter 2002, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California, prepared by TEM, November 5, 2002.

Drinking Water Standards, California Department of Health Services, January 31, 2001.

Environmental Protection Agency (EPA), Preliminary Remediation Goals (PRG's) for Region 9 (Residential Soils "Direct Contact Exposure Pathways), October 2002.

Site Assessment and First Quarter 2005 Groundwater Monitoring and Sampling Report, April 1, 2005.

FIGURES

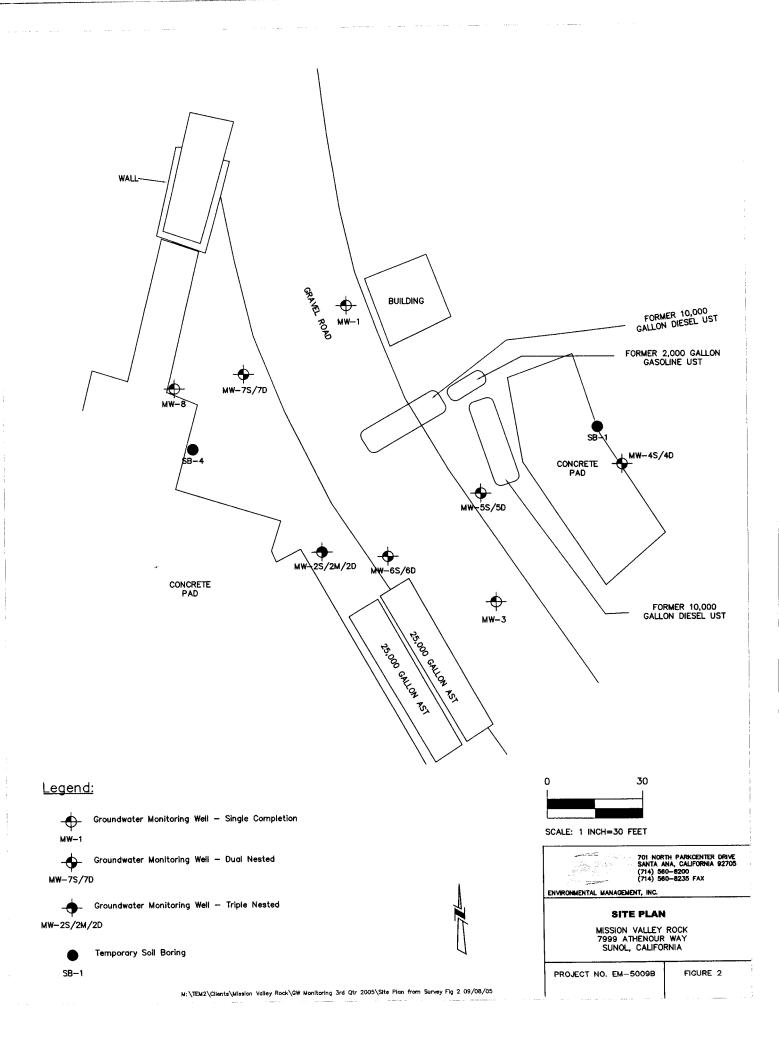


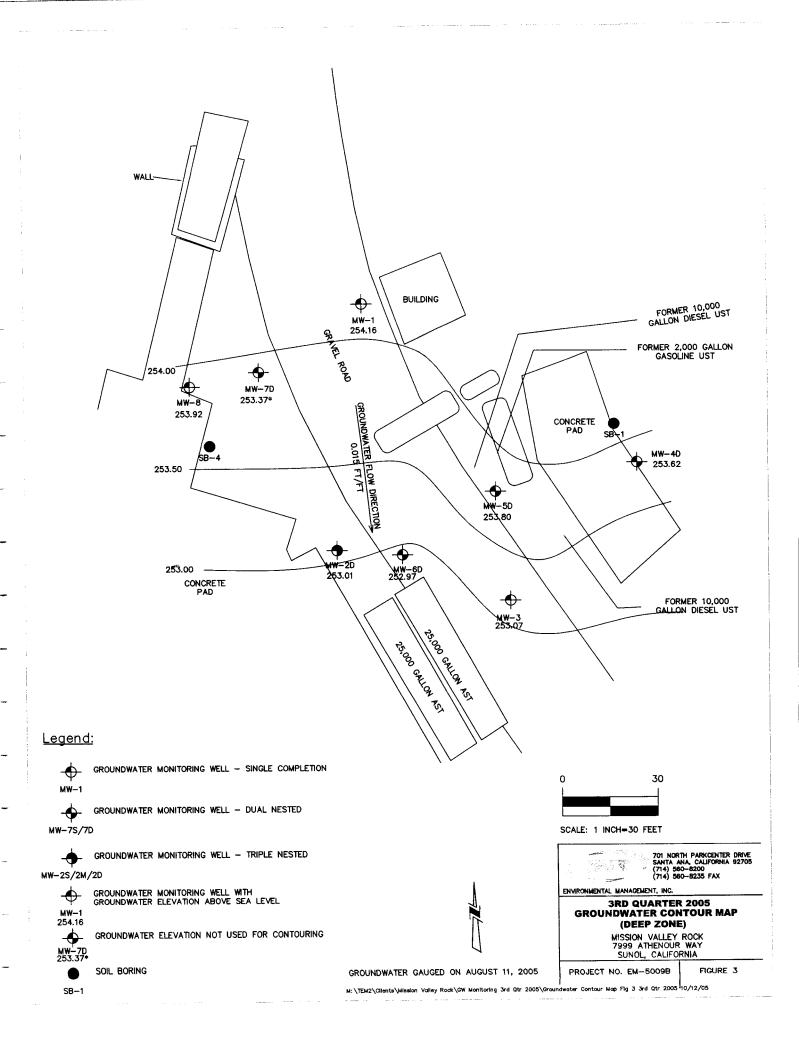
MISSION VALLEY ROCK CO. 7999 ATHENOUR WAY SUNOL, CALIFORNIA

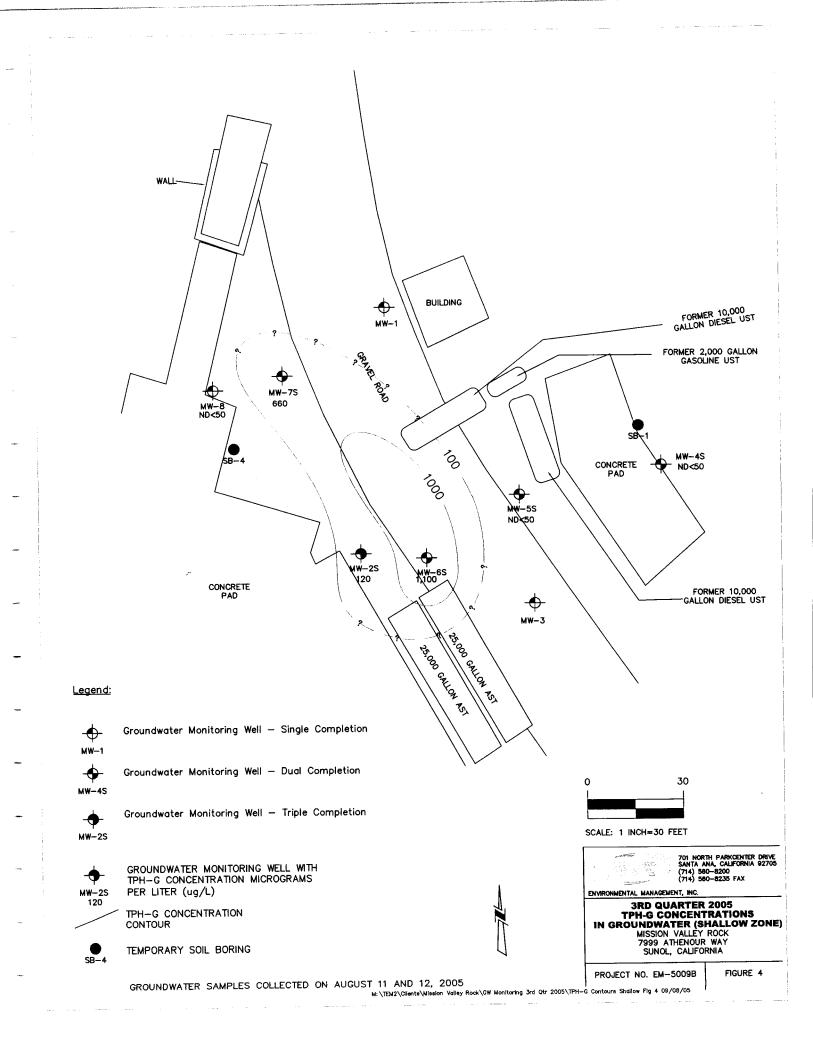
FIGURE 1

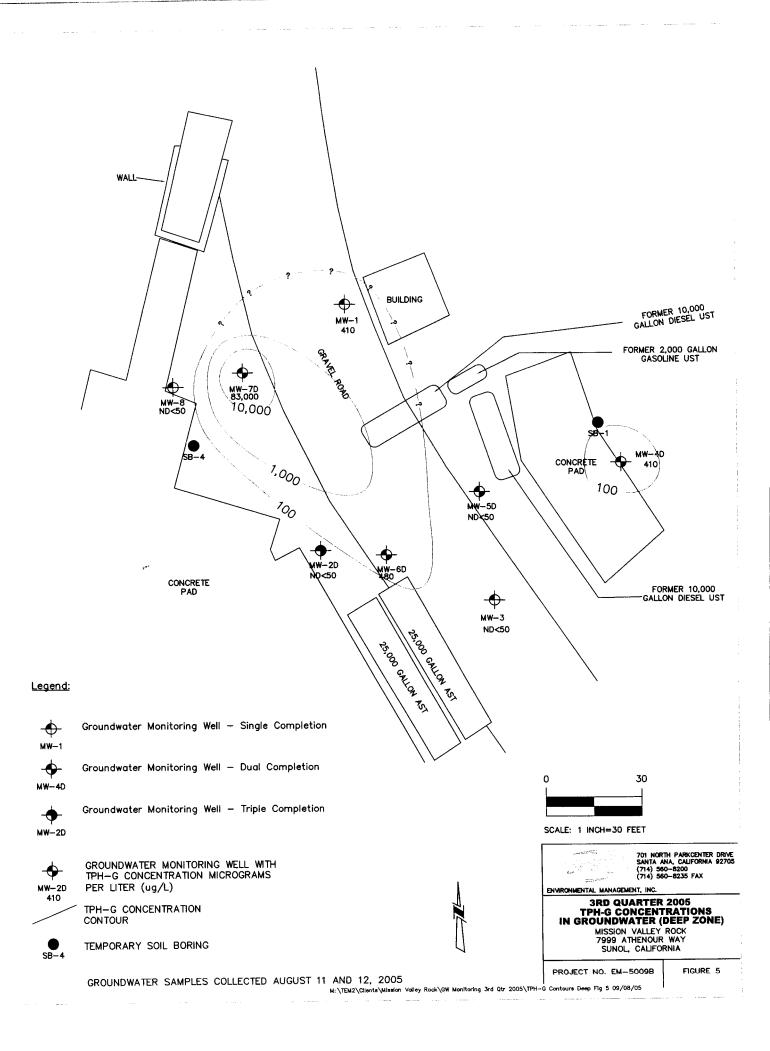
M: Tem2\Clients\Mission Valley Rock\GW Monitoring 4th Qtr 2000\Mission Valley Rock - Figure 1

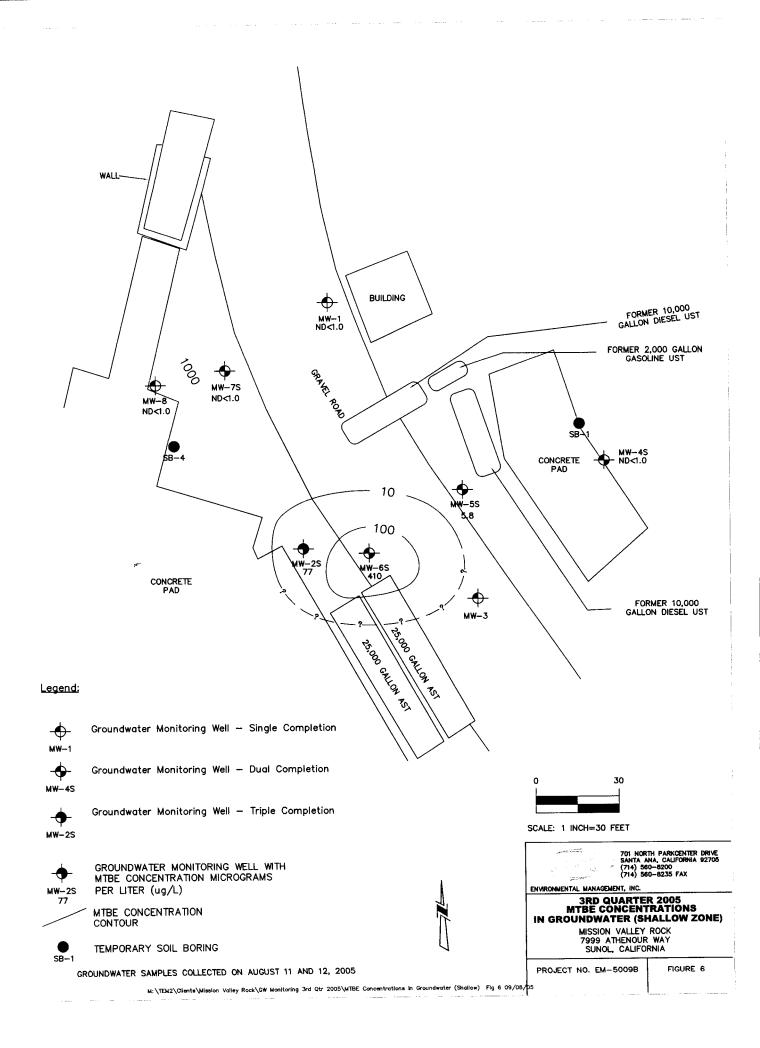
PROJECT NO. EM-5009

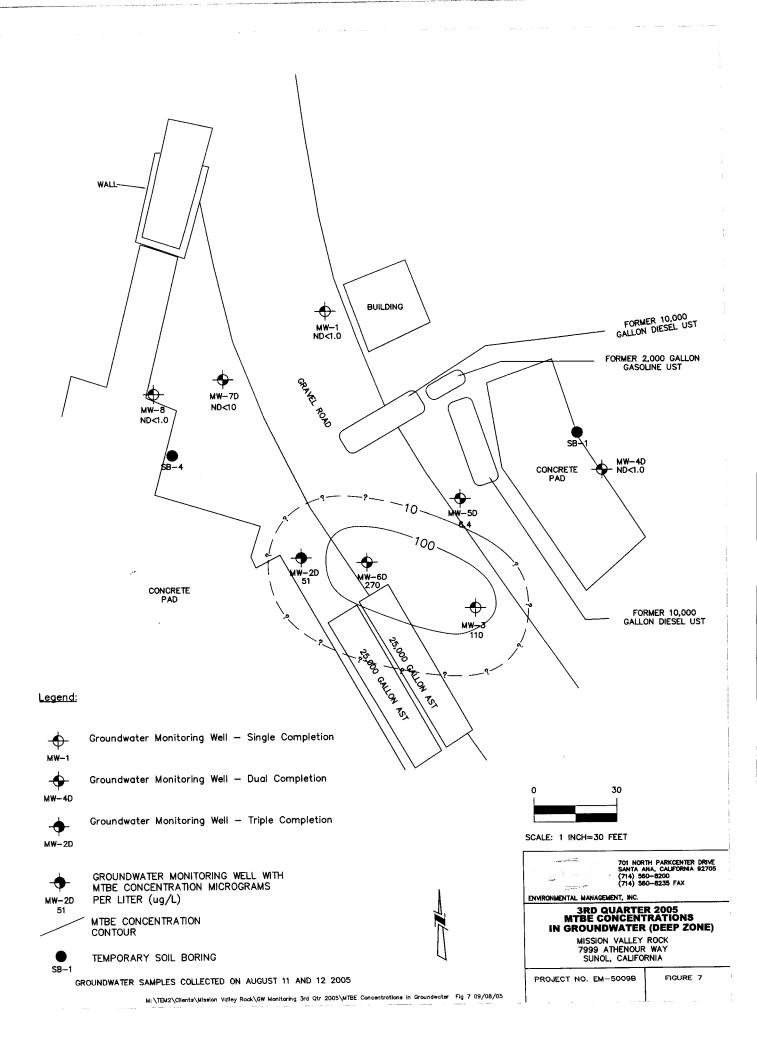












TABLES

 Table 1

 Well Construction Details and Groundwater Elevation Data

 Third Quarter 2005

 Mission Valley Rock Company

 Sunol, California

1

1

1

1

Well ID	Casing Diameter (inches)	Depth to Water (feet below TOC)	Total Depth (feet below TOC)	Screened Interval (feet bgs)	Measuring Point Elevation (feet MSL)	Groundwater Elevation (feet MSL)	
MW-1	2	4.52	17.45	5.0 - 20.0	258.68	254.16	
MW-2S	2	5.46	8.48	3.0-8.0	258.84	253.38	
MW-2M	2	5.77	18.70	14.0-19.0	258.99	253.22	
MW-2D	2	5.90	29.60	25.0-30.0	258.91	253.01	
MW-3	2	6.01	14.50	5.0-20.0	259.08	253.07	-
MW-4S	2	3.45	8.71	3.0-8.0	259.14	255.69	
MW-4D	2	5.60	23.15	17.0-22.0	259.22	253.62	
MW-5S	2	5.30	8.00	3.0-8.0	259.43	254.13	<u> </u>
MW-5D	2	5.60	22.65	17.0-22.0	259.40	253.80	
MW-6S	2	5.17	14.75	5.0-15.0	258.75	253.58	u
MW-6D	2	6.30	28.90	24.5-29.5	259.27	252.97	
MW-7S	2	4.80	8.35	5.0-8.0	258.82	254.02	pa ~~
MW-7D	2	4.70	22.55	20.0-25.0	258.07	253.37	
MW-8	2	4.92	15.05	5.0-15.0	258.84	253.92] -

Screened intervals are approximated. Screened interval in wells is lower than the measured total depth due to silting in the bottom of wells. The measurement point for the above three wells is the north side of the top of casing.

Depth to water and total depth measurements taken by Tait Environmental Management, Inc. personnel on August 11, 2005. Total depth and depth to water measurements taken by Tait Environmental Management from designated measurement point. groundwater elevation = Measurement Point Elevation - Depth to Water.

TOC = Top of Casing

1

ł

i a

ì

4

1

1

bgs = Below Ground Surface

MSL = Mean Sea Level

Table 2Historical Groundwater Gauging DataMission Valley Rock Company
Sunol, California

XA7 11	Top of Casing	Data	Depth to Water	Groundwater Elevation	LPH Thickness
Well	Elevation	Date	(feet below TOC)	(feet MSL)	(feet)
	(Feet)				
MW-1	256.51	Jun-98	1.32	255.19	ND
	[Jan-99	2.28	254.23	ND
		Mar-99	1.88	254.63	ND
		Jun-99	3.35	253.16	ND
		Sep-99	3.66	252.85	ND
	l L	Dec-99	2.94	253.57	ND
		Mar-00	2.72	253.79	Odor
		Jun-00	4.01	252.50	Slight Odor
		Sep-00	5.11	251.40	Slight Odor
	-	Dec-00 Mar-01	4.95	251.56 254.23	ND ND
	-	Jun-01	3.60	254.25	ND
		Sep-01	6.50	250.01	ND ND
	-	Dec-01	1.29	255.22	ND
	-	Mar-02	2.91	253.60	ND
		Jun-02	3.95	252.56	ND
		Sep-02	5.18	251.33	ND
		Dec-02	3.90	252.61	ND
		Mar-03	1.40	255.11	ND
		Jun-03	2.65	253.86	ND
		Sep-03	4.67	251.84	ND
		Dec-03	4.60	251.91	ND
	258.68	Jan-05	3.41	255.27	ND
		May-05	1.20	257.48	
		Aug-05	4.52	254.16	
MW-2	256.7	Jun-98	1.72	254.98	0.005
		Jan-99	2.69	254.01	4.00
		Mar-99	2.50	254.20	ND
		Jun-99	4.00	252.70	Sheen
		Sep-99	4.54	252.16	0.50
	4 -	Dec-99	3.85	252.85	0.13
		Mar-00	3.20	253.50	0.03
		Jun-00	4.62	252.08	0.02
		Sep-00	5.95	250.75	>0.01
		Dec-00	5.65	251.05	0.07
		Mar-01 Jun-01	3.21 3.31	253.49 253.39	0.10
		Sep-01	7.08	253.39	
		Dec-01	2.18	254.52	0.34
	F	Mar-02	3.40	253.30	0.26
		Jun-02	4.35	252.35	0.90
		Sep-02	5.54	252.33	ND
	F	 Dec-02	4.30	252.40	ND ND
		Mar-03	1.78	254.92	ND
		Jun-03	3.10	253.60	ND
		Sep-03	5.02	251.68	ND
		Dec-03	NM	NM	NM
		1/5/05		Abandoned	
MW-2S	258.84	1/17/05	4.25	254.59	ND
		5/4/05	1.98	256.86	
		8/12/05	5.46	253.38	
MW-2M	258.99	1/17/05	4.68	254.16	ND
		5/4/05	2.32	256.52	
		8/12/05	5.77	253.07	
MW-2D	258.91	1/17/05	4.75	254.09	
		5/4/05	2.38	256.46	
	I T	8/12/05	5.90	252.94	

Table 2Historical Groundwater Gauging DataMission Valley Rock CompanySunol, California

Well	Top of Casing Elevation (Feet)	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	LPH Thickness (feet)
MW-3	256.72	Jun-98	2.66	254.06	ND
		Jan-99	4.47	252.25	Slight Odor
		Mar-99	3.96	252.76	Sheen
		Jun-99	5.54	251.18	ND
		Sep-99	6.18	250.54	Sheen
		Dec-99	5.52	251.20	Odor
		Mar-00	4.61	252.11	Odor
		Jun-00	6.35	250.37	Very Slight Odo
		Sep-00	7.30	249.42	Very Slight Odo
		Dec-00	7.29	249.43	ND
		Mar-01	4.73	251.99	ŃĎ
		Jun-01	NM	ŇM	NM
		Sep-01	7.89	248.83	ND
		Dec-01	3.77	252.95	ND
		Mar-02	5.12	251.60	ND
		Jun-02	6.52	250.20	ND
		Sep-02	7.28	249.44	ND
		Dec-02	6.40	250.32	ND
		Mar-03	4.01	252.71	ND
		Jun-03	5.13	251.59	ND
		Sep-03	5.13	251.59	ND
		Dec-03	7.2	249.52	ND
	259.08	Jan-05 May-05	5.81	253.27 255.58	ND
		Aug-05	3.50	253.07	
MW-4S	259.14	1/17/05	6.01	254.52	ND
10100-43	209.14	5/4/05	3.73	255.41	
		8/12/05	3.45	255.69	
MW-4D	259.22	1/17/05	5.96	253.26	ND
10100 415		5/4/05	3.93	255.29	
		8/12/05	5.60	253.62	
MW-5S	259.43	1/17/05	4.57	254.86	ND
		5/4/05	2.50	256.93	
		8/12/05	5.30	254.13	
MW-5D	259,40	1/17/05	5.15	254.25	ND
		5/4/05	2.75	256.65	
		8/12/05	5.60	253.80	
MW-6S	258.75	1/17/05	4.30	254.45	ND
		5/4/05	1.96	256.79	
	<u> </u>	8/12/05	5.17	253.58	
MW-6D	259.27	1/17/05	5.17	254.10	ND
	1 E	5/4/05	2.80	256.47	
		8/12/05	6.30	252.97	
MW-7S	258.82	1/17/05	3.42	255.40	ND
		5/4/05	1.44	257.38	
		8/12/05	4.80	254.02	
MW-7D	258.07	1/17/05	5.50	252.57	ND
		5/4/05	1.45	256.62	
	+	8/12/05	4.70	253.37	
MW-8	258.84	1/17/05	3.45	255.39	ND
		5/4/05	1.25	257.59	
	1	8/12/05	4.92	253.92	1

Depth to water and liquid phase hydrocarbon (LPH) thickness reported in feet below measurement point.

Groundwater elevations reported in feet above mean sea level (msl).

Adjusted groundwater elevation = Measurement Point Elevation - Depth to Water + (LPH Thickness x 0.75)

NM = Not Measured

ND = Not Detected

TOC = Top of Casing

MSL = Mean Sea Level

LPH = Liquid-Phase Hydrocarbon

Table 3 Groundwater Analytical Results Third Quarter 2005 Mission Valley Rock Company Sunol, California

ł

1

1

(

				Sunoi, Camorn					
Well	Date	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)	TBA (ug/L)
MW-1	8/12/2005	ND<50	410	ND<0.50	ND<0.50	2.4	ND<0.50	ND<1.0	ND<10
MW-2S	8/12/2005	6.1	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	77	ND<10
MW-2M	8/12/2005	ND<50	460	ND<0.50	ND<0.50	2.5	1.2	56	ND<10
MW-2D	8/12/2005	ND<50	ND<50	ND<0.50	ND<0.50	2.8	1.1	51	ND<10
MW-3	8/11/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	110	ND<10
MW-4S	8/12/2005	ND<50	ND<50	ND<0.50	ND<0.50	2.2	5.8	ND<1.0	ND<10
MW-4D	8/12/2005	ND<50	410	ND<0.50	2.2	10	25.5	ND<1.0	ND<10
MW-5S	8/11/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	5.8	ND<10
MW-5D	8/11/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6.4	ND<10
MW-6S	8/12/2005	1.3	1100	ND<0.50	ND<0.50	ND<0.50	ND<0.50	410	ND<10
MW-6D	8/12/2005	ND<50	480	2.0	ND<0.50	ND<0.50	ND<0.50	270	ND<10
MW-7S	8/12/2005	ND<50	660	ND<0.50	ND<0.50	5.5	ND<0.50	ND<1.0	ND<10
MW-7D	8/12/2005	37	83000	550	2200	4400	10600	ND<10	ND<100
MW-8	8/12/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0	160

Notes:

1

1

1

1

1

1

ł

Analyses for Total Petroleum Hydrocarbons as Gasoline and Diesel (TPHg and TPHd, respectively) were performed using EPA Method No. 8015M.

Analyses for benzene, toluene, ethylbenzene, total xylenes, methyl-tert-butyl ether (MTBE), and Tert-butyl alcolhol (TBA) were performed using EPA Method No. 8260B. Tert-amyl methyl ether (TAME), Di-isoproppyl ether (DIPE), and Ethyl tert-butyl ther (ETBE) were not detected above laboratory detection limits.

Total xylene concentrations were determined by adding m,p-xylene and o-xylene from laboratory report.

NM = Not Measured

mg/L = Milligrams per Liter

ug/L = Micrograms per Liter

ND = Non-detect at or above corresponding laboratory reporting limit.

Monitoring wells MW-3, MW-5S, and MW-5D were sampled on August 11, 2005

Table 4Historical Groundwater Analytical ResultsMission Valley Rock Company
Sunol, California

1		TPHd	TPHg	Benzene	Toluene	Ethylbonzono	Xulanaa	MTBE
Well	Date	(ug/L)	(ug/L)	(ug/L)	(ug/L)	Ethylbenzene (ug/L)	Xylenes (ug/L)	(ug/L)
	Jun-98	0.1	3,100	19	2.3	91		
ł	Oct-98	0.1	2,300	3.1	4.2	5.0	48 15	110
ŀ	Dec-98	350	2,300 ND<50	12	7.5	20	6.2	ND<0.5
	Mar-99	190	ND<50	ND<0.5	ND<0.5	ND<0.5	0.2 ND<0.5	ND<5.0
-	Jun-99	210	1,800	1.2	0.9	1.5		
ŀ	Sep-99	62	1,800	ND<0.50	ND<0.50	ND<0.50	4.6 ND<0.50	ND<0.5
ŀ	Dec-99	290	ND<50	ND<0.5	ND<0.5	ND<0.50	ND<0.50	ND<0.5
F	Mar-00	86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
ŀ	Jun-00	70	450	2.1	ND<0.5	2.1	1.4	7.6
ŀ	Sep-00	ND<50	850	5.4	ND<0.50	9.4	2.6	9.8
	Dec-00	ND<1,000	370	5.3	ND<1.0	2.7	ND<3.0	55
MW-1	Mar-01	ND<1,000	700	ND<1.0	ND<1.0	1.4	ND<1.0	ND<1.0
ŀ	Jun-01	ND<1,000	170	ND<1.0	ND<1.0	1.2	ND<1.0	ND<1.0
F	Sep-01	ND<1,000	730	1.4	ND<1.0	7.6	1.2	ND<1.0
F	Dec-01	1000	500	15	ND<1.0	27	5.5	ND<1.0
f	Mar-02	12000	29000	50	ND<25	960	290	ND<25
	Jun-02	ND<1,000	1400	3.5	ND<1.0	42	7.9	ND<1.0
F	Sep-02	1400	760	ND<1.0	ND<1.0	4.3	1.1	ND<1.0
ľ	Dec-02	ND<1,000	1600	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
1	Mar-03	ND<1,000	620	1.2	ND<1.0	12	ND<1.0	ND<1.0
	Jun-03	ND<1,000	0.61	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
	Sep-03	ND<1,000	1.2	ND<1.0	ND<1.0	6.4	ND<1.0	ND<1.0
[Dec-03	ND<1,000	0.49	ND<1.0	ND<1.0	3.0	ND<1.0	ND<1.0
[1/17/05	ND<50	63	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
ľ	5/4/05	ND<50	1200	ND<0.5	ND<0.5	8.5	1.2	ND<1.0
	8/12/05	ND<50	410	ND<0.5	ND<0.5	2.4	ND<0.5	ND<1.0
	Jun-98	12,000	2,500	0.68	ND<0.50	1.2	0.57	14
	Oct-98	4,300	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5
Į	Dec-98	38,000	ND<5,000		ND<50	51	190	ND<500
	Mar-99	580	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
_	Jun-99	4,500	24,000	38	27	41	98	ND<0.5
-	Sep-99	24,000	1,400	ND<0.50	ND<0.50	ND<0.50	ND<0.50	27
-	Dec-99	2,300	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
سرو م	Mar-00	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
-	Jun-00	1,700	270	ND<0.5	ND<0.5	ND<0.5	ND<0.5	17
-	Sep-00	5,800	130	ND<0.50	ND<0.50	ND<0.50	0.94	12
MW-2	Dec-00	19,000	1700	ND<50	ND<50	ND<50	ND<150	ND<250
-	Mar-01 Jun-01	610000	3300	ND<1.0	ND<1.0	ND<1.0	ND<1.0	9.0
-		8800	1800	ND<1.0	ND<1.0 ND<50	ND<1.0	ND<1.0	6.7
ŀ	Sep-01 Dec-01	530000 27000	7000 310	ND<50 ND<1.0	ND<50	ND<50 ND<1.0	ND<50	ND<50
ŀ	Mar-02						ND<1.0	62
ŀ	Jun-02	65000 130000	<u>130</u> 460	ND<1.0 ND<1.0	ND<1.0 ND<1.0	ND<1.0 ND<1.0	ND<1.0 ND<1.0	30
ŀ	Sep-02	480000	290	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24 16
ŀ		61000	1800	ND<1.0	ND<1.0	ND<1.0	ND<1.0 ND<1.0	
ŀ	Mar-03	5000	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	10
ŀ	Jun-03	8.1	360	ND<1.0	ND<1.0	ND<1.0	ND<1.0	20
ŀ	Sep-03	85	12	ND<1.0	ND<1.0	ND<1.0	ND<1.0	15
ŀ	Dec-03	NM	NM	NM	NM	NM	NM	NM
ŀ	1/17/05			1 1 1 1	Abando		ININI	T ENTAL
MW-2S	1/17/05	1100	730	ND<0.50	ND<0.50	1.0	3.5	50
	5/4/05	8200	190	ND<0.5	ND<0.5	ND<0.5	ND<0.5	44
F	8/12/05	6100	120	ND<0.5	ND<0.5	ND<0.5	ND<0.5	77
MW-2M	1/17/05	4100	3300	6.5	1.7	89	82.2	38
	5/4/05	ND<50	610	ND<0.5	ND<0.5	16	10.6	30
ŀ	8/12/05	ND<50	460	ND<0.5	ND<0.5	2.5	1.2	56
MW-2D	1/17/05	1800	1000	6.5	ND<0.50	80	71	62
	5/4/05	ND<50	250	ND<0.5	ND<0.5	4.6	1.6	72
F	8/12/05	ND<50	ND<50	ND<0.5	ND<0.5	2.8	1.1	51
MW-3	Jun-98	12,000	300	0.80	ND<0.50	ND<0.50	ND<0.50	150
F	Oct-98	6400	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5
	Dec-98	5,600	ND<100	1.6	1.4	ND<1.0	ND<1.0	110
	Mar-99	150	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	11101 00							
ŀ	Jun-99	620	ND<50	ND<0.5	ND<0.5 ND<0.50	ND<0.5 ND<0.50	ND<0.5 ND<0.50	ND<0.5

Page 1 of 2

.....

Table 4 Historical Groundwater Analytical Results Mission Valley Rock Company Sunol, California

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
		(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
	Dec-99	58	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Mar-00	94	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-00	240	170	ND<0.5	0.52	ND<0.5	ND<0.5	100
	Sep-00	850	170	0.81	ND<0.50	ND<0.50	ND<0.50	68
	Dec-00	1600	230	ND<1.0	ND<1.0	ND<1.0	ND<3.0	80
	Mar-01	1100	140	ND<1.0	ND<1.0	ND<1.0	ND<1.0	83
	Jun-01	NS	NS	NS	NS	NS	NS	NS
	Sep-01	3800	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	45
	Dec-01	3100	340	1.4	1.1	10	3.8	45
	Mar-02	1500	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	50
	Jun-02	ND<1000	160	ND<1.0	ND<1.0	ND<1.0	ND<1.0	36
	Sep-02	ND<1000	ND<1000	ND<1.0	ND<1.0	ND<1.0	ND<1.0	43
	Dec-02	ND<1000	ND<100	ND<1.0	ND<1.0	ND<1.0	ND<1.0	41
	Mar-03	ND<1000	ND<100	ND<2.5	ND<2.5	ND<2.5	ND<2.5	92
	Jun-03	1200.0	ND<100	ND<2.0	ND<2.0	ND<2.0	ND<2.0	93
	Sep-03	ND<1000	ND<100	ND<2.0	ND<2.0	ND<2.0	ND<2.0	65
	Dec-03	5700	190	ND<2.0	ND<2.0	ND<2.0	ND<2.0	56
	1/17/05	ND<50	590	ND<0.50	ND<0.50	ND<0.50	ND<0.50	47
	5/4/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	190
	8/11/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	110
MW-4S	1/17/05	ND<50	65	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	5/4/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0
	8/12/05	ND<50	ND<50	ND<0.5	ND<0.5	2.2	5.8	ND<1.0
MW-4D	1/17/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	5/4/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	8/12/05	ND<50	410	ND<0.5	2.20	10.0	25.5	ND<1.0
MW-5S	1/17/05	ND<50	ND<50	ND<0.50	4.5	ND<0.50	ND<0.50	ND<1.0
	5/4/05	ND<50	ND<50	ND<0.50	ND<0.5	ND<0.50	ND<0.50	ND<1.0
	8/11/05	ND<50	ND<50	ND<0.50	ND<0.5	ND<0.50	ND<0.50	6
MW-5D	1/17/05	ND<50	210	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	5/4/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10
	8/11/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	6
MW-6S	1/17/05	2800	1600	6.1	ND<0.50	3.6	2.3	160
*	5/4/05	ND<50	750	ND<0.5	ND<0.5	3.0	ND<0.5	160
	8/12/05	1300	1100	ND<0.50	ND<0.50	ND<0.50	ND<0.50	410
MW-6D	1/17/05	2100	1200	10	ND<0.50	1.6	2.2	180
ļ	5/4/05	ND<50	360	2	ND<0.5	ND<0.5	ND<0.5	360
	8/12/05	ND<50	480	2	ND<0.5	ND<0.5	ND<0.5	270
MW-7S	1/17/05	ND<50	12000	10	89	590	1670	ND<1.0
ļ	5/4/05	520	1600	ND<0.5	ND<0.5	31	18.4	1600
	8/12/05	ND<50	660	ND<0.5	ND<0.5	5.5	ND<0.5	ND<1.0
MW-7D	1/17/05	ND<50	23000	350	1000	1800	5200	ND<1.0
[5/4/05				NA	I .		
	8/12/05	37	83000	550	2200	4400	10600	ND<10
MW-8	1/17/05	ND<50	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	5/4/05	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	8/12/05	ND<50	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<1.0

Concentrations reported in micrograms per Liter (ug/L).

MTBE = Methyl-tert-Butyl Ether

Tert-butyl alcohol (TBA) was detected in MW-8 at a concentration of 160 micrograms per liter (ug/L)

ND = Not Detected at or above corresponding reporting limit

NS = Not Sampled

TPHd = Total Petroleum Hydrocarbons as Diesel

TPHd = Total Petroleum Hydrocarbons as Gasoline

NM: Not Measured

APPENDIX A

SAMPLING DATA SHEETS

TAIT Environmental Ma	inagement, Inc	;		•••			Sampling Da		_						Page	_of
Project Name:	missio	~ Val	Ry Ro	sc.K			Date: 8									
Project No.: EN							Prepared									
Well Identificati		-		<u>.</u>			Weather:		5.000							
Measurement #		iption:	<u> 20 /</u>	VorT	1-4		Fump Int	E E	144	/ 			Scree	en:		
Øepth to Lଖୟ≗²L (ft-b⊮ip)	A Depth to Water Le bm	vel (ft-	B Mell To Depth bmp	(ft-	Mat Colu Height (A - B =	nn t (ft)	LNAPL Thickness (#t-bmp)	0 (9) (9)	ne (1) asing olume allons) CXD=E)	Ca Vol (ga	ee (3) sing umes llons)	½ Casing Volume (E /2)	37.1	een ime reen –	Screen Volume (Screen length x D)	¹⁄₂ scree Volun
	4,5	2	17,5	0	12,4	18		\mathcal{I}	,07	6.	23				·	
and the second	<u>L</u>		Gallo	ns/Foot		Fie	ld Equipment		Sol	inst, Hor	ba	Genreitad	07			
Well Diame	ter (in)	0.75	2	4	6	Pu	rge Wethod:	W	nLte	rA P.	nep					
D Gallons per foo	t of casing	0.02	0.16	0.65	1.47	' We	II Condition:	0	K			,		·		
Time	(Casing/) Screen	Volume Purged (gallons)	Flow Rate (gpm	L	/ater evel bmp)	Ph	Temperature (°C)		urbidity NTU)	Conducti (<u>Sİm</u>		Dissolved Oxygen (mg/L)	ORP (mV)		Observati	
12:29	1:0	2.0	+ 5	A	IA	7.56	23.23	3	20	,257		2.26	51	C	loudy	40
12:33	2.0	4.0	.5	~	ILA	7,50	22.49	2	35	,255		5,02	86	60		
12:37	3.0	6.0	.5	ľ	JA	7,36	21.85	2	58	,257		3.96	86	11	27	
								_								
									,							
Purge Start Time	Purge E Time	nu · F	erage Flow gpm)	Total Gallons Purged	i C Vo	Total asing blumes urged	80% Recovery Level Depti (C x .80) - B	ı	Sampli	Level at ng Time omp)	Colle	nple ection me	S	ample	Identification	
12:25	12:3	7 _ •	5	6,0		3,0	7,11		5.1	1	[]	:45	mu	V - ,	/	

AIT Environmental Ma	nagement Ir			Groun	ndwater S	Sampling Da	ta Sheet					Page	of
Project Name:			Alley R	o c/K		Date: §	112105						
Project No.: EM	5009	ß	<u></u>			Prepared	BV: SR						
Well Identificati			2			Weather:	<u>ک</u> ری (ake: [/]	ý			r		
Measurement Po	pint Desc	ription: 「	TOC A	JOTT	Н	Pump Int	ake: /	7FT			Scree	<u>n:</u>	T
Beyth to LNAPL (ft-k-mp)	A Nepth to Water L bn		B Meli Tota Depth (ft Immp)	Co Hei	Vater olumn iglit (ft) - B = C)	_LNAPL Thickness (ft-bmp)	E One (1) Casing Volume (gallons) _(C XD=E)	The C: Vo (g:	ree (3) asing lunnes illons) E x 3)	¹ / ₂ Casing Volume (E /2)	Abo Scre Volu (Top scr DTW)	een Screen Wolume (Screen length x D)	½ scree⊭ Volum
	5, 4	16	8.44	2	,98		. 47	1.	43			-	
			Gallons/	Foot	Fie	ld Equipment	: So	olinst, Hor	iba , (BENATA	tor		
Well Diame	ter (in)	0.75	5 2	4	6 Pu	rge Method:	WALte	rra P					
Gallons per foo	t of casing	0.02	2 (0.16	0.65	1.47 We	Il Condition:	OK						
Time	Casing/) Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp	Ph	Temperature (°C)	Turbidity (NTU)	Conduct	ivity <u>n)</u>	Dissolved Oxygen (mg/L)	ORP (mV)	Observat	ions
08:52	1,0	.5		NIA	6,90	26.30	7999	,28	5.	3,91	56	BLACK	
09:00	2.0	1.0		NIA	1-0		7999	,26	8	3,36	24	te te	
		1.5		NLA		-	7999	94.9		6.80	61	11 11	
09:07	3,0	10		IN TH	0,00								
						· · · ·							
Purge Start Time	Purge I Time		Flow G	otal allons urged	Total Casing Volumes Purged	80% Recovery Level Depti (C x .80) - B	a Samp	r Level at ling Time -bmp)	Samı Collec Tim	tion	S	ample Identification	1
08:45	09:0	5		.5	3,0	6.06	6	01	092	:10	Mhs	- 25	

IT Environmental Ma	nocement In	c		Gro	undwater	Sampling Dat	la Sheel					Page	of
roject Mame:	miss.		Alley R	ock		Date:	3/12/05	,					
roject No.: EW		2m		<u></u>		Prepared							
Vell Mentification	ou: 50(U9B				Weather:		~ Ý			- 		
leasurement Po	oint Descr	iption: 🗻	TOC NO	SETH		Pump Int		<i>FT</i>		<u> </u>	Screen	11 ·····	
Depth to L≌t∞f°L (ft-bmp)	A ⊎⊙pth to Water Le bm	o Static evel (ft-	B Depth (1 bmp)	tal ft-	J∀ater Column H∗:işşht (ft) (A – B = C)	LNAPL Thickness (ft-bnp)	E One (1) Casing Volume (gallons (C XD=E)) (e V s) (hree (3) Casing Jolumes Jallons) (E x 3)	Casing Volume	Abov Scree Volum (Top scree DTW)x	en Screen Ne (Screen length ten - x D)	¹⁄₂ screen Volume
	5.7	7	18,75	5	13.98		3.07	6	5,33				
م میں میں میں میں میں میں میں میں میں می			Gallon	s/Foot	Fi	eld Equipment:	(Solinst, Ho	oriba				
Well Diame	ter (in)	0.75	2	4	6 🕬	urge illiethod:	WAL-	terral	PUME	>			
Gallons per foot	of casing	0.02	0.16	0.65	1.47 We	ell Condition:	ÓK						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Le	ater evel Ph omp)	Temperature (°C)	Turbidity (NTU)	y Conduc (<u>51</u>		Dissolved Oxygen (mg/L)	ORP (mV)	Observati	ons
09:51	1.0	2.0	,2		1A 6.84	23,52	601	, 32	8	7,73	136	Cloudy	1
10:01	2.0	4.0	.2		1A 76.03		790	122	13	7.11	130	18 1.	1
10:11	3,0	6.0	,2		IA 7,15	23.19	558	.20		4.23	107	te t	7
				Tatal	Total		Wa	ter Level at	SE	ample			
Purge Start Time	Purge E Time	F		Total Gallons Purged	Casing Volumes Purged	80% Recovery V Level Depth (C x .80) - B	Sam	npling Time (ft-bmp)	Coll T	lection Time		ample Identification	1
09:41	10:1		2	6,0	3.0	8.36	6	.06	10	120 .	MW-	2 m	

JT Environmental Ma	inagement. Inc			Ground	awater S	Sampling D	ata Sheet					Page	of
roject Name:	Missio.		ley Roc	, K		Date:	8 10 105						
roject No.: EN		3					By: SA						
fell Identificati						Weather					1		
easurement P	······		and the state of the second	NOFTY	ŧ	Pump In	take: /5	/· 7		1	Screer	n:	1
Depth to L에APL (ft-bmp)	A Depth to Water Le Dmg	Static vel (ft-	B Beell Tota Depth (ft bmp) ⊇9.5	Col Huig (A - I	ater umn bt (ft) B = C) B = G 5	LNAPL Thickness (ft-bmp)	E One (1) Casing Volume (gallons (C XD=E)	C Vo	ree (3) asing blumes allons) (E × 3)	½ Casing Volume (E /2)	Abov Scree Volut (Top scre DTW)>	en me en – XD	½ scree Volum
	5.90)	Vortra	4.4.7.0			3.78	Ø	(E x 3) 1,35 1,301	+ 1.00m			
			Gallons/	Foot	Fie	ld Equipmen	t: (Solinst, Ho	riba (GENATA	tor		
Well Diame	ter (in)	0.75	2	4	6 Pu	rge M ethod:	WALter	TA PL	mp				
Gallons per foo	t of casing	0.02	0.16	0.65 1.	47 We	# Condition:	OK.						
Time	Casing/ Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidity (NTU)	Conduc (Dissolved Oxygen (mg/L)	ORP (mV)	Observat	ions
09:21	1.0 4	1:00	,66	NIR	7,21	22.94	1 49.0	121	7	4.88	119	Clear	
09:26		8.00	. 8	NIR	6,99	22.03	3 4.2		1	4,94	60	11 11	
09:31	3.0 1	2,00		NIR	6,85	21,44		,23		4,51	70	is ki	
				<u> </u>					l				
Purge Start Time	Purge Er Time	F	low G		Total Casing Volumes Purged	80% Recovery Level Dept (C x .80) - i	h Sam	er Level at pling Time ft-bmp)	Sam Collec Tim	ie	Sa	mple Identification	1
D9:15	09:3	1 -	75 12	.00	3.0	10.63	3 5	.95	07	:35 n	nW	2 m	

AIT Environmental Ma						Date:	8 - 11 - 0			<u></u>		Page	of
*roject Name: Project No.: EM		N VA	lley R	OC K			8-11-0 By: SR						
Well Mentificati						Weather:							
Masurement P			TOC N	JOFT H		Pump Int		ALterr	A R	ump 10	FT Scree	n: <u>~/A</u>	
Depth to LenaurL (ft-brap)	A Depth to Water L Dm	evel (ft-	B ∯'ell Total ⊡e:pth (ft- bmp)	C Col	ater lumn ht (ft)	L₩APL Thickness (ft-bmp)	E One (1 Casing Volum (gatton (CXD=E	l) TI g (e V s) (ຍ	hree (3) Casing /olumes gellons) (E x 3)	¹ ⁄ ₂ Casir Volun	Abo Scre Ne Volu	een Volum me (Screen leng reen – x D)	screen
	6.0	1	15,04	9,0	53	Nto	1.44	4	,33	~	~	-	
	<u></u>		∩allons/I	oot	Fie	eld Equipment:	· · · · · · · · · · · · · · · · · · ·	Solinst, Ho	oriba				
Well Diame	ter (in)	0.75	5 2	4 6	6 ្ខា	rge Method:	WALt	erra	Pum;	ρ			
Gallons per foot	t of casing	0.02	2 0.16 (0.65 1.4	.47 ₩ e	ell Condition:	OK						
Time	Casing Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbidit (NTU)			Dissolved Oxygen (mg/L)	d ORP (mV)	Observ	ations
12:35	1.0	1.5	. 1	NA	6.04	25.44	7999	.6		8.02	295	GREY	
12:51	2.0	3.0	c	NIA	6.00	25.48	7999	7 .6		8,00	5 293	11 11	
13:06	3.0	4.5	-1	NIA	6,48	26,94	7999	1.26	,4	0,00	145	11 1.	
Purge Start Time	Purge E Time		verageTotalTotal80% Recovery WaterWater Level atSampleFlowGallonsCasingLevel DepthSampling TimeCollectiongpm)PurgedPurged(C x . 80) - B(ft-bmp)Time		lection	S	ample Identificat	ion					
12:20	13:0	.6.	.1 4	,5	4.5	7.82	6	,20	13	3:20	mw-3) 	



ł

1

Well Development Field Data Sheet

I

ł

ł

ł

Page ____ of ____

1

~ 1

1

1

roject Na	ame:	Mis	510	NV VI	Alley	k	ocic			Dat		<u>୪// ଛ</u> By: ୯	58	<u> </u>		
voject No Vell Ident				>09A V-4							ather:		ץ נו נינ			
leasuren							NOT	⁻ H	١							
Depth .HAPL (ft	l		-	n to Sta evel (ft [.]	1	W	ell Total (ft-bm	-		Water Colun Height (ft)			PL Thickness (ft)) Casing (gallons)	∃ ≝b==-(#) Casing Volumes (gallons)
NID	>		3.	.45			8.2	2		4.77			NO		76	2.28
					Gal	lons	/Foot		Fie	ld Equipme	n t: /	Hori	ba, Sola	wist		
Well D	iamete:	r (in)	F	0.75	2	$\left \right $	4	6	Pu	rge Method:			erra Pu			
0.75 2			6	0.02	0.16	/	0.65	1.47	We	Il Condition	:	OK	<u> </u>			
Time	Casir Volum Purge	ies	P۱	olume urged allons)	Flow R (gpm		Water L (ft-bm	•	Ph	Temperature (°C)		rbidity NTU)	Conductivity	Dissolved Oxygen (mg/L)	ORP (mV)	Observations
17:00	1.0			75	.15	5	NIN	2 7	7.81	26.83	7	999	.90	5.50	107	GREY
17:05	2.0			50	.1:	5	NIA		2,90	26.54		799	.630	8.26	78	10 21
17:10	3.0			25	.1		NI		,69	26.79		799	,994	8.59	68	le li
	-															
<u></u>	-															
													1			<u> </u>
Purge Sta Time	art P	urge B Time			ge Flow pm)	То	tal Gallon Purged	^s v	al Casin olumes ^o urged	-		•	covery			
16:55	5 1	7:1	10		15	c	2.25		3.0	SA	mple	e Le	vel 3.5	SC Sh	mple to	ine 17:20

1.9

ft-bmp = feet below measuring point LNAPL = light non-aqueous phase liquid M:\TEM2\Forms\Field Forms\Well Development Field Data Sheet.DOC



1

۱

1

ł

1

i

í.

i.

TAIT Environmental Management, Inc

1

ŧ

ŧ

1

× 1

Project Na Project No Well Identi	.: E	mi	50	09 A		Ro	داد				Date: Prepar Weath	8/1고 red By: ier: 5				
Measurem					To	C	Nor	TH		<u>ب</u>						·
Depth (to	De	pth	n to Sta evel (ft	tic		ell Total (ft-bm	Depth		Water C Heigh		LNA	PL Thickness (ft)	•) Casing (gallons)	ع تغییم(ت) Casing Volumes (gallons)
ND			5,	60			23.2	20		17.	6		Nlo	2.	81	8.44
<u></u>					Ga	lions	/Foot		Fi	ield Equi	oment:	Hori	6A, Soli	mist		
Well Di	ametei	' (in)		0.75	2	\sum	4	6	Pi	urge Met	hod:		ErrA Pu			
0.75	4	6	-	0.02	(0.10	9	0.65	1.47	W	lell Cond	ition:	OK				
Time	Casir Volum Purge	es	Ρι	olume urged allons)	Flow F		Water L (ft-bm		Ph	Tempe (°(Turbidity (NTU)	Conductivity (Store) S (m.	Dissolved Oxygen (mg/L)	ORP (mV)	Observations
16:05	1.0			.0			NIA	e -	7,70	24.	64	7999	.897	5.25	153	GREY
16:20	2.0			.0			nli		7.67			294	.962	7.05	98	Cloudy
16:35	3,2			,0			NIA		75			154	.977	6.55	99	Cloudx
Purge Star Time	rt Pi	urge Er Time	nd		ge Flow pm)	To	tal Gallon Purged	s ν	tal Cas /olume Purged	sing s	es:		Recovery		P. S.A.	ple time 16:4
15:50	5 16	.35	5		2		9.0	3	3.0		د	mple	LEVELC	2. © ~		

1,

Page ____ of ____

		_		Ground	water S	Sampling Dat	ta Shee	et				Page	_of
IT Environmental Ma *roject Name:			alley Ro	a 15		Date:	8-11	-65					
roject No.: ÈM	5000	B	THUC Y			Prepared							
ell Identificati			S			Weather:	SUM	Ni					
Weasurement P	oint Desci	iption:	TOC N	UTTH		Pump Inta	ike:	704			Scree	n:	·
Depth to LataPL (ft-bmp)	L:4APL Water Level ((ft-bmp) bmp)		B Well Total	Caluman		LNAPL Thickness (ft-bmp)	Casi Volu (gallo	On⇔ (1) Thr Casing Ca Volume Vol gallons) (9a (C XD=E) (l		S Volume	Abor Scre Volut (Top scn DTW)	en Screen Wolume (Screen length x D)	½ scree Volum
NID	5.30)	8.00	2.	70	NLO	.43		1,29				
· · · · ·			Gallons/F	oot	Fie	d Equipment:		Solin	ist, Horiba	GENARAT	٥٢		
Well Diame	ter (in)	0.	75 2	4 . 6	6 E°u	rge Method:	WAL	ter	ra Pun	~P			
Gallons per foo	t of casing	0.	02 0.16 0	.65 1.4	47 . ₩¥€	II Condition:	(0K					
Time	Time Casing)		e Flow d Rate s) (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)	Turbic (NTL		Conductivity	Dissolved Oxygen (mg/L)	ORP (mV)	Observati	ions
15:15	1.0	.5	:03	NIA	7,38	25.96	799	19	,257	5,92	1.7	GREY	
15:30	2.0	1.0	103	NIA	7,37	25,87	79	.3	03	4:11	149	CLEAT	
15:45	3,0	1,5	.03	NIA	7,34	25.55	69	2	0,3	4.86	Ισί	11 11	
	2	<u></u>											
Purge Start Time	Purge E Time	nu	Flow Ga		Total Casing /olumes	80% Recovery W Level Depth (C x .80) - B		/ater Le ampling (ft-bm	Time Co	ample Ilection Time	Sa	ample Identification	1
15:00	15:-	15 .			Purged 3.0	5.84		5,70		5:55	mw	-55	
inites:	ntes:			,,,					میں بر _ا ی میں میں ہیں ا				

•

۰.

Groundwater Sampling Data Sheet

9453 .

1

roject No.: EM		3	alley Ro			By: SR					<u></u> ,	
Well Mentification			TAD NO	CTH		50~~ uke: 18 F				Screen:	AIN	
Depth to LtosteL (ft-bmp)	A b⇔pth to Water Lo bn	o Static evel (ft-	B ₩ell Total D∋pth (#- bmp)	C Column Height (ft) (A - B = C)	្រុកស្រា Thickness (ft-bmp)	E One (1) Cassing Volume (gailons) (C XD=E)	Th C Va) (9	ree (3) asina olumos atons) (E x 3)	¹ /2 Casing Volume (E /2)	Above , Screen Volume (Top screen – DTW)x D	Screen Volume= (Screen length x D)	½ screei Vol⊎m
	5,60		22.66	17.06		2.72	8	2.18		<u> </u>	·	
	<u> </u>		Gallons/F	oot F	ield Equipment:	S	olinst, Ho	riba _, G	eNArat	c <i>r</i>		
well Di⊳met	ter (in)	0.7	5 2	4 6	urg e Method:	WALter						
) Gallons per foot	t of casing	0.0	2 0.16 0	.65 1.47. M	Condition:	OK		1				
Time	Casing/ Screen	Volume Flow Purged Rate (gallons) (gpm)		Water H Level Ph (ft-bmp)	Temperature (°C)	Turbidity (NTU)	Conduct (//		Dissolved Oxygen (mg/L)	ORP (mV)	Observati	ons
13:58	1.0	3.0	.16	N/A 7.44	22.45	458,0	.30	4 -	7.78	99 (loudy	
14:20	2.0	6.0	. 14	N/A 7.10		258.0	,30	1 3	3,75	3	10 11	
14:40	3.0	9.0	.15	NA 7,0		308.0	.30	3 3	3,69	-9	le el	
					~							
Purge Start Time	Purge E Time	na	verage To Flow Gal (gpm) Pur	lons Casing	(C X .00) - B	Samp	r Level at bling Time -bmp)	Samı Collec Tim	tion	Sampl	e Identificatior	1
13:40 14:40 .1			.15 9	.0 3.0	9.01	5,	170a		50	MW-5D		

AIT Environmental Ma		and the second se						4444				Page	of
Project Name:			ey Ro	CK		Date: 8	-12-05	5					
Project No.: EW			<i>.</i>			Meather:	SUUN						
Well Mentification				Jave T H		Pump lista					Scree	1:	
Depth to LNA: L (ft-bmp)	A Beepth to Water Lo Bm) Static evel (ft-	- Propth (ft- Co hmn) Hei		later dumn ght (ft) B = C)		Casing Volume (gallons) (C XD=E)	Thi Ca Vo) (ga	ree (3) asing luanes itions) E x 3)	1/2 Casing Volume (E /2)	Abov Scre Volue (Top scre DTW))	en Volume ne (Screen length ten - x D)	½ screen Volume
	5,17		14,7	8 9	.61		1.53	4.	61		- <u></u>		
			Gallor	s/Foot	Fie	ld Equipment:	S	olinst, Hor	riba (SUNARAt	08		
Well Diamet	ter (in)	0.75	$\int 2$	4	6 Pu	ge Wethod:	WALter	A PUM	۰p				
Gallons per foot	of casing	0.02	0.16	0.65 1	.47 We	Il Condition:	OK		•				
Time	Casing) Screen	Volume Purged (gallons)	Flow Rate (gpm	Level	Ph	Temperature (°C)	Turbidity (NTU)	Conduct (Dissolved Oxygen (mg/L)	ORP (mV)	Observati	ons
11:32	1,0	1.5	.18			27.01	7999	,23	4	5.19	95	GREY	
11:40	2.0	3.0	.18			26.02	7999	.24	7	4,24	87	GREY	
11:49	3.0	4.5	,16		7.08	25.55	7999	125	3	.19	84	GREY	
Purge Start Time	Purge E Time	ina F	verage Flow gpm)	Total Gallons Purged	Total Casing Volumes Purged	80% Recovery W Level Depth (C x .80) - B	Sam	er Level at pling Time t-bmp)	San Colle Tir	ction	Sa	ample Identification	1
11:34	11:4	19.	17	4,5	3.0	7,09	ى ف	,00	11;	55	mw.	-65	

roject Name:		JVA	lley Roc	,iK				-05	.						
Project No.: EM						Prepared									
Well Identificati		<u>V-G</u>) 	1		Weather: Pump Int:		2.2.4 24	Y FT			Scree	PN 4 7		
Weasurement P	A Dint Descri		Toe A B	C IC			ik e:	27				Jeree			
Depth to `Lettel (ft-bmp)	Depth to Water Le Smp	Static vel (ft-	b ⊡epth (ft- bmp)	Col	aleer umn āit (ft) 3 = C)	LMAPL Thickness (ff-bmp)	Or Ca Vo (ya	ne (1) sing blume ilfons) xD=E)	C: Vo (9-	ree (3) asin() lum(=s (llons) E x 3)	½ Casing Volume (E /2)	Alixo Scree Volu (Top sci DTW ;	en me	Screen Volume (Screen length x D)	½ scre Vol⊓
	6.30	o l	2890	37	,6		З.	()	10,	84				• معين	
	<u> </u>		Gallons/	Føøt	Fie	eld Equipment:		So	linst, Hoi	iba	GENARA	tc.~			
Well Diame	ter (in)	0.75	2	4	ઉ હ [ા] શા	rye Wethod:	WA	Lter	A PU	np					
D Gallons per foo		0.02	0.16	0.65 1.	47 W.	Il Condition:	OK			9					
Time	Casing Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp)	Ph	Temperature (°C)		rbidity NTU)	Conduct (<i>≶ I∧</i>		Dissolved Oxygen (mg/L)	ORP (mV)		Observatio	ons
10:52	1,0	4.0	,57	NA	7,42	24.37	7	999	,21	q	8,67	76	B	IACK	
11:00	2.0	8,0	.50	NIA	7,01	22,02	5	999	r 21.	3	0,00	- 4	t i	17	
11:68		12.0	,50	NIA	6.91	21,40	7'	799	.21		1.83	-43	į i	ι	
													· · · · · · · · · · · · · · · · · · ·		
Purge Start Time	Purge En Time	u F	low Ga	mons ,	Total Casing √olumes Purged	80% Recovery V Level Depth (C x .80) - B	/ater	Sampli	Level at ng Time omp)	Sam Colle Tin	ction	S	ample	Identification	
10:45	11:08		52 1		3,0	10.82		6,0	0	ll:	15 /	nw-	60		

/



1

1

1

Well Development Field Data Sheet

1

1

Page ____ of ____

1

		40.			1. 11	12	· · · /				Date	8/12	105				
Project Na	ame:	<u>/// 11</u>	<u>، در</u>	0~1	VAlley	K	ocic		_ <u></u> .			red By:					
Project No		m.									Weat		JUNNY				
Well Ident								T .,			meat		CNN Y				
Measuren	nent P	oint C)esci	iption:	To	<u>د</u>	Nor	ii+	<u> </u>	ł				1			2
Depth LNAPL (ft			-	n to Stat evel (ft-	1	We	ell Total (ft-bm		'n		ter Column leight (ft)	-	APL Thicknes (ft)	Volume) Casing (gallons)		46) Casing nes (gallons)
ND			4.	80			8.30	3			3.5		Nlo		56	1.	68
					Gal	ions	/Foot		F	Field I	Equipment		inist		-		
Well D	iamet	er (in)		0.75	2	\backslash	4	6	F	Purge	Method:		terra t				
0.75		4	6	0.02	0.16	1	0.65	1.4	17	Well C	Condition:	DK					
Time	Cas Volu Pur	mes	Pi	olume urged allons)	Flow R		Water L (ft-bm		Ph	Т	emperature (°C)	Turbidity (NTU)	Conductivity (Stam) S/m	Dissolved Oxygen (mg/L)	ORP (mV)	Ot	oservations
				5		<u> </u>	NIA	<u>,</u>	7.44		26.67	7999		6.04	158	GR	EY
14:05	1.0								6.9		25.87	7999		7.55	83	11	<i>(</i> (
14:15	2.			0			NI					833		6.74	139	11	11
14:25	3.	<u>0</u>	<u> /.</u>	5			NIK	<	7.3	<u>a</u> jo	25.04	000				1	
							ļ					<u> </u>					
							ļ									+	
												<u> </u>				<u> </u>	
															···		
Purge Sta Time	art	Purge Tim			ge Flow pm)	То	tal Gallon Purged	s T	otal Ca Volum Purge	ies	Notes:	80%. Recove	= 5.5 rx				
13:5	5	14:0	25	. (05	1	1,5		3.	0	-						

SAmple Level 4.80 C SAmple time 14:31

ft-bmp = feet below measuring point LNAPL = light non-aqueous phase liquid M:\TEM2\Forms\Field Forms\Well Development Field Data Sheet.DOC

110



TAIT Environmental Management, Inc

į

		0	ر	. 1/-	11.	2	10			Date	: X	Plial	0.5			
Project Na	ime: /		100		uey	N OC						By:				
Project No		M.50	20	7 #_					-		ther:		YNNY			
Well Ident	incatio	<u>in: /</u>	ηv	<u>v - /</u>	<u> </u>		A 1 3	1	1	L				- <u> </u>		
Measurem Depth LNAPL (ft-	to	De	pth	to Sta			<u>₩ð≀⊤/</u> eli Total (ft-bm	Depth		Yater Colum Height (ft)	n	LNAI	PL Thickness (ft)) Casing (gallons)	े 74रमा(8) Casing Volumes (gallons)
NO)		Y, "	70		ō	22.4	<i>'</i> 0		17.7			NID	2.	83	8.49
		(7)	Τ		Gal	lons	/Foot		Fiel	ld Equipmen	t: /	Hor,	'bA, 50	lonis	<u>+</u>	
Well Di	iametei	r (in)	F	0.75	2	\mathbf{i}	4	6	Pur	ge Method:			ETTA PU.			
0.75 2	4	6		0.02	0.16	<u>5</u> /	0.65	1.47	We	Il Condition:		OK		r	T	
Time	Casir Volum Purge	umes Purged (gpm) (ft-bmp)				1	Ph	(°C) (NTU) (SCOTT) (mV) (mV)						Observations		
IHIKE				2.0			NIA	, 7	.93	24.16	79	799	1.2	6.87	117	BLACK
14:55	1.0								.73	20.83		799	1.4	9.53	135	GREY
15:10	2.0			.0			NR					799	,194 5 lm	6,80	137	GREY
15:26	<u>3.</u> ĉ	2	7.	0	ļ		NIA	< //	,70	21.65		117		0,00	· - /	
							<u> </u>									
															<u> </u>	
											_	<u></u>			<u> </u>	
													<u></u>		<u> </u>	
Purge Sta Time	art P	Purge En Time	ıd	1	ge Flow pm)	То	tal Gallon Purged	s Vo	al Casin olumes Purged	g Notes:	30%	! Re	covery	8.24		
14:40	0 10	5:11	1		2		9,0	3	, 0		Sar	nple	time ,	/7:30		

Strong GASoline Smell From Well.

ft-bmp = feet below measuring point LNAPL = light non-aqueous phase liquid M:\TEM2\Forms\Field Forms\Well Development Field Data Sheet.DOC

Page ____ of ____



÷



į



i

i

Well Development Field Data Sheet

1

1

1

Page ____ of ____

TAIT Environmental Management, Inc

1

1

1

1

Project N	lam	e: /)	1:3	Sìo	N VI	Alley	Rc	ocic				Date:			-05			
Project 🕅	10.:	E	n j	5000	7.4							Prepa			>1< > ~ ~ ~ ~			
Well Ider Measure						Too		No.7	14		۰. ۲	weat						
Depti LNAPL (1	h to		0)epth	to Sta evel (ft	tic		ell Total (ft-bm	Depth			er Column eight (ft)		LNAI	PL Thickness (ft)	•) Casing (gallons)	ें3 ऑगफ (5) Casing Volumes (gallons)
NI	D			4.	92			15.1	0		1	0.18			ND	1.	62	4.88
		<u></u>				Ga	lions	/Foot		F	ield E	Equipment	5	oli	uist, H	oriba		
Well	Diaı	neter	(in)	-	0.75	2		4	6	P	urge	Method:			tera Pu			
0.75	2	4		6	0.02	0.1	6)	0.65	1.47	v	Vell C	ondition:	C)K				
Time		Casing Volume Purge	es	Pu	lume Jrged Illons)	Flow I		Water L (ft-bm		Ph	Т	emperature (°C)	Turb (NT	oidity TU)	Conductivity (Stan) S(m	Dissolved Oxygen (mg/L)	ORP (mV)	Observations
13:20	5	1.0		1	.5			م الم	}	7,7	3 .	21.82	66	5	.156	6.50	143	Cloudy
13:32		7.0			. 0			AIN		7.75		11.24	54	10	.150	7.41	182	21 11
13:38		3.0			.5			NI		7.40		20.67	49	2	.152	8.71	165	Li 2'
														.				
												<u> </u>						
Purge S Time			rge I Time			ge Flow pm)	То	tal Gallon Purged	s \	tal Cas /olume Purge	es	Notes: ੴਟ			over y			
13:0	20) /3	3:.	38		25		4.5	5	3. C	2		6.	95)			

Sample Level C Sample time 4.98 13:45

ft-bmp = feet below measuring point LNAPL = light non-aqueous phase liquid

1.14

M:\TEM2\Forms\Field Forms\Well Development Field Data Sheet.DOC

APPENDIX B

LABORATORY REPORT

19 August 2005

Greg Buchanan

- Tait Environmental
- 701 N. Parkcenter Drive
- Santa Ana, CA 92705
- RE: Mission Valley Rock
- Enclosed are the results of analyses for samples received by the laboratory on 08/15/05 14:55. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

John J. Life

Tait Environmental 701 N. Parkcenter Drive Santa Ana CA, 92705	Project Project N	Reported: 08/19/05 16:48		
	ANALYTICAL H	REPORT FOR SAMPLES		
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-8	T500937-01	Water	08/12/05 13:45	08/15/05 14:55
MW-75	T500937-02	Water	08/12/05 14:30	08/15/05 14:55
MW-7D	T500937-03	Water	08/12/05 17:30	08/15/05 14:55
MW-4D	T500937-04	Water	08/12/05 16:40	08/15/05 14:55
MW-4S	T500937-05	Water	08/12/05 17:20	08/15/05 14:55
MW-1	T500937-06	Water	08/12/05 12:45	08/15/05 14:55
MW-6S	T500937-07	Water	08/12/05 11:55	08/15/05 14:55
MW-6D	T500937-08	Water	08/12/05 11:15	08/15/05 14:55
MW-2M	T500937-09	Water	08/12/05 10:20	08/15/05 14:55
MW-2D	T500937-10	Water	08/12/05 09:35	08/15/05 14:55
MW-2S	T500937-11	Water	08/12/05 09:12	08/15/05 14:55
MW-5S	T500937-12	Water	08/11/05 15:55	08/15/05 14:55
MW-5D	T500937-13	Water	08/11/05 14:50	08/15/05 14:55
MW-3	T500937-14	Water	08/11/05 13:20	08/15/05 14:5.

ph f. all-

. مىر

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missio	on Valley F	Rock				
701 N. Parkcenter Drive	1	Project Numb	er: EM50	09A				Reported	:
Santa Ana CA, 92705	F	roject Manag	er: Greg l	Buchanan				08/19/05 16	:48
		N	4W-1						
		T50093	7-06 (Wa	ater)		- 7 - Mr I			
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
		SunStar La	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons b	oy EPA 8015m	·····							
C6-C12 (GRO)	410	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		110 %	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Foluene	ND	0.50	"	**	**	"	"	"	
Ethylbenzene	2.4	0.50	11	"	"	0		"	
n,p-Xylene	ND	1.0		"	**	"	n	**	
o-Xylene	ND	0.50		**		U	н	**	
Fert-amyl methyl ether	ND	2.0		11	"	n	"	"	
Tert-butyl alcohol	ND	10	n	n	"	**	"	**	
Di-isopropyl ether	ND	2.0	н	н	**		**	**	
Ethyl tert-butyl ether	ND	2.0	н	n	"	**		"	
Methyl tert-butyl ether	ND	1.0	H		11	11	"	11	
Surrogate: Toluene-d8		99.5 %	87.6	-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-	112	"	"	"	"	
Surrogate: Dibromofluoromethäne		101 %	78.6	-122	11	"	"	"	

a K /

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		2		on Valley F	lock				
701 N. Parkcenter Drive		Project Numb	er: EM50	009A				Reported	:
Santa Ana CA, 92705		Project Manag	er: Greg	Buchanan				08/19/05 16:	:48
		M T50093	W-2S 7-11 (W	ater)					
		Reporting							
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons	oy EPA 8015m								
C6-C12 (GRO)	120	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		105 %	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	6.1	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	D-0
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	н	н	"	"	"	••	
Ethylbenzene	ND	0.50	"	"		"	11	**	
m,p-Xylene	ND	1.0	"	ч	"	"	11	"	
o-Xylene	ND	0.50	**	"	*1	"	11	и	
Tert-amyl methyl ether	ND	2.0	11	11	11	"		н	
Tert-butyl alcohol	ND	10	**	п	"	н	"	0	
Di-isopropyl ether	ND	2.0	**	н	"	н	U	11	
Ethyl tert-butyl ether	ND	2.0	"	"	"	**	11	u	
Methyl tert-butyl ether	77	1.0	"	"	11	11	11	11	
Surrogate: Toluene-d8		99.2 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %		-112	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	78.0	5-122	"	"	"	"	

All -Jan -

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		-		on Valley F	lock				
701 N. Parkcenter Drive		roject Numbe						Reported	
Santa Ana CA, 92705	Pı	oject Manag	er: Greg I	Buchanan				08/19/05 16:	:48
		Μ	W-2M						
		T50093	7-09 (Wa	iter)					
	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Analyte	Result		**		Daten	Flepaleu	Anaryzeu	Method	Note
	EDA 9016	SunStar La	aporator	ies, mc.					
Purgeable Petroleum Hydrocarbons b C6-C12 (GRO)	<u>y EFA 8015111</u> 460	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		102 %	65-	135		"	"	"	
Extractable Petroleum Hydrocarbons	by 8015	102 /0	0.5						
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA		0.0000							
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	ug/I	1	л 1001505	"	N 10/10/00	H 8200D	
Ethylbenzene	2.5	0.50	11	11		н		н	
m,p-Xylene	1.2	1.0	н	н	"	U			
o-Xylene	ND	0.50	н	н	"	n	"	"	
Tert-amyl methyl ether	ND	2.0	11	"	"	"		"	
Tert-butyl alcohol	ND	10	17	n	"	**	u		
Di-isopropyl ether	ND	2.0	11	н	"	ti			
Ethyl tert-butyl ether	ND	2.0	и	u	11	"	**	11	
Methyl tert-butyl ether	56	1.0	37	u	**	"	"	11	
Surrogate: Toluene-d8	A.L.M.B.	99.2 %	87.6	-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	80-	112	"	"	"	"	
Surrogate: Dibromofluoromethane		97.0 %	78.6		"	"	"	"	

f. 21/-John

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missic	on Valley F	Rock				
701 N. Parkcenter Drive		Project Numb	er: EM50	09A				Reported	
Santa Ana CA, 92705	I	Project Manag	er: Greg I	Buchanan				08/19/05 16	:48
		М	W-2D						
		T50093	7-10 (Wa	ater)					
	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Analyte	Kesuit				Daten	Tepareu	Anaryzeu	Method	
	ED 4 0015	SunStar L	aborator	ies, me.					
Purgeable Petroleum Hydrocarbons b									
C6-C12 (GRO)	ND	50	ug/l	l	5081505	08/15/05		EPA 8015m	<u> </u>
Surrogate: 4-Bromofluorobenzene		108~%	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	н	"	"	"	11	"	
Ethylbenzene	2.8	0.50	н	**	"	"	н	U	
m,p-Xylene	1.1	1.0	н	11	**	11	"	н	
o-Xylene	ND	0.50	11	н	"	"		"	
Tert-amyl methyl ether	ND	2.0	"	u.	Ħ	"	"	"	
Tert-butyl alcohol	ND	10		"	11		11	"	
Di-isopropyl ether	ND	2.0	u.	н	"	н	"	н	
Ethyl tert-butyl ether	ND	2.0	н	u.	11		н	u	
Methyl tert-butyl ether	51	1.0	"	"	н	**	11	11	
Surrogate: Toluene-d8		98.8 %	87.6	-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	80-	112	"	"	"	"	
Surrogate: Dibromofluoromethane		100 %	78.6	-122	"	"	п	n	

f. sille 1--

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missio	on Valley F	lock				
701 N. Parkcenter Drive		Project Numb	er: EM50	09A				Reported	
Santa Ana CA, 92705	I	Project Manag	er: Greg I	Buchanan				08/19/05 16:	48
		N	1W-3						
		T50093	7-14 (Wa	ater)					
······································		Reporting				~ .			
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	No
		SunStar L	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons	by EPA 8015m							and the state of t	
C6-C12 (GRO)	ND	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		113 %	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	s by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	11	н	"	**	"		
Ethylbenzene	ND	0.50	"	**	н	11	0	"	
m,p-Xylene	ND	1.0	0	11	**	11	n	"	
o-Xylene	ND	0.50	11	11	**		н	"	
Tert-amyl methyl ether	ND	2.0	н	"	11		**		
Tert-butyl alcohol	ND	10	н	11	11		"		
Di-isopropyl ether	ND	2.0	"		и		11	"	
Ethyl tert-butyl ether	ND	2.0	**	11	"	11	"	11	
Methyl tert-butyl ether	110	1.0	11	н	"	11	11	11	
Surrogate: Toluene-d8		98.2 %	87.6	-115	"	"	п	"	
Surrogate: 4-Bromofluorobenzene		109 %	80-	112	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %	78.6	-122	"	"	"	"	

a film 1/min 4

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		6		on Valley F	lock				
701 N. Parkcenter Drive		Project Numb	er: EM50	009A				Reported	
Santa Ana CA, 92705	I	Project Manag	er: Greg	Buchanan				08/19/05 16	:48
		Μ	W-4S						
		T50093	7-05 (W	ater)		,			
	Derrik	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Analyte	Result				Daten	riepared	Anaryzeu	Methou	Note
	ED4 0015	SunStar L	aborator	les, mc.					
Purgeable Petroleum Hydrocarbons	ND	50			5001505	00/15/05	00/07/05	EDA 9016	
C6-C12 (GRO)	ND		ug/l		5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		103 %	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	s by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50			11	"	"		
Ethylbenzene	2.2	0.50	"	"			"	11	
m,p-Xylene	4.7	1.0	11			"	11	11	
o-Xylene	1.1	0.50	**	н	**	**	"		
Tert-amyl methyl ether	ND	2.0	11	"	11	11	ч	**	
Tert-butyl alcohol	ND	10	11	"	"	"	н	11	
Di-isopropyl ether	ND	2.0	"	"	"	"	"	п	
Ethyl tert-butyl ether	ND	2.0	"	"	11	"		"	
Methyl tert-butyl ether	ND	1.0	"	"	11	"	"	11	
Surrogate: Toluene-d8		100 %	87.0	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	78.0	5-122	"	n	"	"	

par f. stille and a

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missie	on Valley F	Rock				
701 N. Parkcenter Drive		Project Numb	er: EM50	09A				Reported	:
Santa Ana CA, 92705	I	Project Manag	er: Greg	Buchanan				08/19/05 16	:48
	, ng mang ang ang ang ang ang ang ang ang ang	M	W-4D						
		T50093	7-04 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
Analyte		SunStar L	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons l	oy EPA 8015m			<i>,</i>					
 C6-C12 (GRO)	410	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		112 %	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	2.2	0.50	11	н	"	**	"		
Ethylbenzene	10	0.50		и	11		"	11	
m,p-Xylene	21	1.0	**		11	"	11	11	
o-Xylene	4.5	0.50	.,	"	"	ч	н	11	
Tert-amyl methyl ether	ND	2.0	**	n		н	н	"	
Tert-butyl alcohol	ND	10	н	н	**	н		"	
Di-isopropyl ether	ND	2.0	н	"	н	"	11	11	
Ethyl tert-butyl ether	ND	2.0	u.	"	"	н	"	u	
Methyl tert-butyl ether	ND	1.0	"	n	11	U	"	"	
Surrogate: Toluene-d8		98.0 %	87.6	-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	80-	112	"	"	"	"	
Surrogate: Dibromofluoromethane		99.5 %	78.6	-122	"	"	"	"	

All-A.L.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missi	on Valley F	lock				
701 N. Parkcenter Drive]	Project Numb	er: EM50	009A				Reported	:
Santa Ana CA, 92705	F	roject Manag	er: Greg	Buchanan				08/19/05 16	:48
		M	[W-5S						
		T50093	7-12 (W	ater)		•			
A	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analvzed	Method	Note
Analyte	Kesuit	SunStar La			Daten	Trepared	Maryzed	method	
		Sunstar L	aborator	ies, me.					
Purgeable Petroleum Hydrocarbons h	ND	50		1	5091505	09/15/05	08/16/06	EPA 8015m	
C6-C12 (GRO)			ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		112 %	63-	135	"	n	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	н	н		"	"	"	
Ethylbenzene	ND	0.50		11		"	н	11	
m,p-Xylene	ND	1.0	0	н	"	**	и	n	
o-Xylene	ND	0.50	**	и	"	"	н	н	
Tert-amyl methyl ether	ND	2.0		н	11	"		u	
Tert-butyl alcohol	ND	10	"		11	"	ч	n	
Di-isopropyl ether	ND	2.0	н	"	н	11	"	n	
Ethyl tert-butyl ether	ND	2.0	"	"		11	11	11	
Methyl tert-butyl ether	5.8	1.0	0	19		11	11	11	
Surrogate: Toluene-d8		98.8 %	87.6	-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	80-	112	"	п	"	"	
Surrogate: Dibromofluoromethane		99.0 %	78 6	-122	"	"	"	"	

244-A. de

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Ŷ		on Valley F	COCK			<u> </u>	
701 N. Parkcenter Drive		Project Numb						Reported	
Santa Ana CA, 92705	F	roject Manag	er: Greg I	Buchanan				08/19/05 16:	48
		Μ	W-5D						
		T50093	7-13 (Wa	ater)		<u></u>			
	D 1	Reporting	X 7 (4	Dilution	Batch	Prepared	Analvzed	Method	Note
Analyte	Result	Limit	_Units		Batch	Prepared	Analyzed	Method	INDIG
		SunStar L	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons b									
C6-C12 (GRO)	ND	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		111 %	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	и		ч	"	"	"	
Ethylbenzene	ND	0.50		"		"	"	"	
m,p-Xylene	ND	1.0	**	U.	"		11	**	
o-Xylene	ND	0.50	n	"	11	11	п	11	
Tert-amyl methyl ether	ND	2.0	**	"	"	н		н	
Tert-butyl alcohol	ND	10	10	11	"	н	"	"	
Di-isopropyl ether	ND	2.0	11	11	**	"	"	**	
Ethyl tert-butyl ether	ND	2.0	н	н	11	"	"	11	
Methyl tert-butyl ether	6.4	1.0		**	11	"	11	11	
Surrogate: Toluene-d8		100 %	87.6	-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		112 %	80-	112	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	78.6	-122	"	"	"	"	

John J. Lit

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missi	on Valley H	Rock				
701 N. Parkcenter Drive		Project Numb	er: EM5	009A				Reported	:
Santa Ana CA, 92705	1	Project Manag	er: Greg	Buchanan				08/19/05 16	:48
		М Т50093	[W-6S 7-07 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Anaryte	Result	SunStar La			Duten	Tropured	7111019200	motiou	
Description Defendance in the second		Sunstaf La	abui atui	ics, 111c.					
Purgeable Petroleum Hydrocarbons b C6-C12 (GRO)	1100	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
		104 %		-135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	by 9015	104 /0	05	155					
Extractable Petroleum Hydrocarbons		0.050		1	5091504	08/15/05	09/16/05	EPA 8015m	D-02
Diesel Range Hydrocarbons	1.3	0.050	mg/l	I	5081504	08/15/05	08/16/05	EPA 8015m	D-0.
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	н			"	"	11	
Ethylbenzene	ND	0.50	н	н	н	11	п	11	
m,p-Xylene	ND	1.0	*1	"	н	tı.	н	н	
o-Xylene	ND	0.50	11	**	**	н	u	п	
Tert-amyl methyl ether	ND	2.0	11	"	**	н	н		
Tert-butyl alcohol	ND	10	11	11	**	п	ч	"	
Di-isopropyl ether	ND	2.0		"	п	11	11	"	
Ethyl tert-butyl ether	ND	2.0		"	"	11	"	"	
Methyl tert-butyl ether	410	1.0	n.	"	u	n	n	н	
Surrogate: Toluene-d8		100 %	87.0	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %	78 (5-122	"	"	"	"	

part of alphan

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		2		on Valley F	lock				
701 N. Parkcenter Drive		Project Numbe						Reported	
Santa Ana CA, 92705]	Project Manage	er: Greg l	Buchanan				08/19/05 16	:48
			W-6D						
		150095	7-08 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	No
		SunStar La	aborator	ies, Inc.					
Purgeable Petroleum Hydrocarbons b	oy EPA 8015m								
C6-C12 (GRO)	480	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		112 %	65-	135	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	*1	"	**	11	11	"	
Ethylbenzene	ND	0.50	11	п	11	"	"	"	
m,p-Xylene	ND	1.0		"	11	"	11	"	
o-Xylene	ND	0.50		"	н	"	11	"	
Tert-amyl methyl ether	ND	2.0		"		н	"	н	
Tert-butyl alcohol	ND	10	11	11	"	n	"	н	
Di-isopropyl ether	ND	2.0	"		"	"	11		
Ethyl tert-butyl ether	ND	2.0	"		11	"	11	"	
Methyl tert-butyl ether	270	1.0	"	"	"	**	н	11	
Surrogate: Toluene-d8		97.8 %	87.6	-115	"	н	"	н	
Surrogate: 4-Bromofluorobenzene		109 %	80-	112	"	"	"	"	
Surrogate: Dibromofluoromethane		98.2 %	78 /	-122	"	"	"	"	

ph f lit

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missio	on Valley F	lock				
701 N. Parkcenter Drive	1	Project Numb	er: EM50	09A				Reported	
Santa Ana CA, 92705	F	roject Manag	er: Greg l	Buchanan				08/19/05 16	:48
		Μ	[W-7 5						
		T50093	7-02 (W	ater)					
	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Not
Analyte	Kesun				Daten	Trepured	/ mary 2cd	method	
	ND 4 0017	SunStar L	aporator	ies, mc.					
Purgeable Petroleum Hydrocarbons C6-C12 (GRO)	660 <u>660</u>	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
		120 %		135	"	"	"	"	
Surrogate: 4-Bromofluorobenzene	h-, 9015	120 70	05-	155					
Extractable Petroleum Hydrocarbons		0.050			6091504	08/15/05	08/16/05	EPA 8015m	<u></u>
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/10/03	EFA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503		08/15/05	EPA 8260B	
Toluene	ND	0.50	19	11	11	"	"	u	
Ethylbenzene	5.5	0.50				н	н	**	
m,p-Xylene	ND	1.0	11	11	"	11	"	н	
o-Xylene	ND	0.50	**	н	"	н	н	**	
Tert-amyl methyl ether	ND	2.0	"	11	"	"	"	u	
Tert-butyl alcohol	ND	10	"	н	11	"	**	34	
Di-isopropyl ether	ND	2.0	u	"	"	11	н	"	
Ethyl tert-butyl ether	ND	2.0	**	11	u	н	n	n	
Methyl tert-butyl ether	ND	1.0	**	11	11	"	"	"	
Surrogate: Toluene-d8		98.5 %	87.6	-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-	112	"	"	n	"	
Surrogate: Dibromofluoromethane		102 %	78 A	-122	"	"	"	"	

par for alle

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental		Proje	ct: Missi	on Valley F	Rock				
701 N. Parkcenter Drive		Project Numb						Reported	
Santa Ana CA, 92705	P	roject Manag	er: Greg	Buchanan				08/19/05 16:	:48
		Μ	W-7D						
		T50093	7-03 (W	ater)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Analyte	Result	SunStar L							
Purgeable Petroleum Hydrocarbons l	by EPA 8015m	Sunstar D		,					
C6-C12 (GRO)	83000	500	ug/l	10	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		114 %		135	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	37	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	D-0
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	550	5.0	ug/l	10	5081503	08/15/05	08/16/05	EPA 8260B	
Toluene	2200	5.0		"	**	"	"	**	
Ethylbenzene	4400	5.0	"	u	н	"	11	11	
m,p-Xylene	8100	10	11	"	н	**	11	н	
o-Xylene	2500	5.0	н	11	11	14		0	
Tert-amyl methyl ether	ND	20	н	"	"	н	n	11	
Tert-butyl alcohol	ND	100	"	"	"	н	н	н	
Di-isopropyl ether	ND	20	*1	"	п	"	11	"	
Ethyl tert-butyl ether	ND	20	11	14		"		"	
Methyl tert-butyl ether	ND	10	11	11	11	"	"	H	
Surrogate: Toluene-d8		99.5 %	87.0	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %		-112	"	"	"	"	
Surrogate: Dibromofluoromethane		98.5 %	78.0	5-122	"	"	"	"	

pile of elle

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental	Ţ	Projec Project Numbe	ct: Mission	-	lock			Reported	
701 N. Parkcenter Drive		0						08/19/05 16:	
Santa Ana CA, 92705	P	roject Manage	er: Greg B	ucnanan				08/19/05 10	.+0
		Ν	1W-8						
		T50093	7-01 (Wa	ter)					
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
		SunStar La	aboratori	es, Inc.					
Purgeable Petroleum Hydrocarbons I	oy EPA 8015m								
C6-C12 (GRO)	ND	50	ug/l	1	5081505	08/15/05	08/16/05	EPA 8015m	
Surrogate: 4-Bromofluorobenzene		105 %	65-1	35	"	"	"	"	
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5081504	08/15/05	08/16/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5081503	08/15/05	08/15/05	EPA 8260B	
Toluene	ND	0.50	11	**	"	"	"	**	
Ethylbenzene	ND	0.50	н		u.	11	н	ч	
m,p-Xylene	ND	1.0	0		11	"		"	
o-Xylene	ND	0.50	11	"	ч	17			
Tert-amyl methyl ether	ND	2.0	0	н	11	"	11	"	
Tert-butyl alcohol	160	10	н		11	11	11		
Di-isopropyl ether	ND	2.0		"		"	"	0	
Ethyl tert-butyl ether	ND	2.0	"	ti	11	"	"		
Methyl tert-butyl ether	ND	1.0	11	"	11	n	11	"	
Surrogate: Toluene-d8		97.2 %	87.6-	115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-1	112	"	"	"	"	
Surrogate: Dibromofluoromethane		98.8 %	78.6-	122	"	"	"	"	

gin of site

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental	Project: Mission Valley Rock	
701 N. Parkcenter Drive	Project Number: EM5009A	Reported:
Santa Ana CA, 92705	Project Manager: Greg Buchanan	08/19/05 16:48
		inter and the second

Purgeable Petroleum Hydrocarbons by EPA 8015m - Quality Control

		SunStar	Labora	atories, I	nc.					
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5081505 - EPA 5030 GC										
Blank (5081505-BLK1)				Prepared:	08/15/05	Analyzed	: 08/16/05			
C6-C12 (GRO)	ND	50	ug/l							
Surrogate: 4-Bromofluorobenzene	54.8		"	50.0		110	65-135			
LCS (5081505-BS1)				Prepared:	08/15/05	Analyzed	: 08/16/05			
C6-C12 (GRO)	5460	50	ug/l	5500		99.3	75-125			
Surrogate: 4-Bromofluorobenzene	58.8		"	50.0		118	65-135			
<u>Matrix Spike (5081505-MS1)</u>	Se	urce: T50093	87-01	Prepared:	08/15/05	Analyzed	: 08/16/05			
C6-C12 (GRO)	5800	50	ug/l	5500	ND	105	65-135			
Surrogate: 4-Bromofluorobenzene	58.3		"	50.0		117	65-135			
Matrix Spike Dup (5081505-MSD1)	So	urce: T50093	37-01	Prepared:	08/15/05	Analyzed	: 08/16/05			
C6-C12 (GRO)	4270	50	ug/l	5500	ND	77.6	65-135	30.4	20	QM-05
Surrogate: 4-Bromofluorobenzene	0.00		"	50.0			65-135			QM-0.

SunStar Laboratories, Inc.

11

e,

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Extrac	table Petroleum Hydrocarbons by 8015 - Quality Co	ontrol
Santa Ana CA, 92705	Project Manager: Greg Buchanan	08/19/05 16:48
701 N. Parkcenter Drive	Project Number: EM5009A	Reported:
Tait Environmental	Project: Mission Valley Rock	

		Junotar			iii iii					
		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5081504 - EPA 3510C GC										
Blank (5081504-BLK1)				Prepared:	08/15/05	Analyzed	: 08/16/05			
Diesel Range Hydrocarbons	ND	0.050	mg/l							
LCS (5081504-BS1)				Prepared:	08/15/05	Analyzed	: 08/18/05			
Diesel Range Hydrocarbons	23.3	0.050	mg/l	20.0		116	75-125			
Matrix Spike (5081504-MS1)	Sou	rce: T50093	87-01	Prepared:	08/15/05	Analyzed	: 08/18/05			
Diesel Range Hydrocarbons	23.9	0.050	mg/l	20.0	ND	120	75-125			
Matrix Spike Dup (5081504-MSD1)	Sou	rce: T50093	37-01	Prepared:	08/15/05	Analyzed	: 08/18/05			
Diesel Range Hydrocarbons	23.8	0.050	mg/l	20.0	ND	119	75-125	0.419	20	

...

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental 701 N. Parkcenter Drive Santa Ana CA, 92705

Project: Mission Valley Rock Project Number: EM5009A Project Manager: Greg Buchanan

Reported: 08/19/05 16:48

Volatile Organic Compounds by EPA Method 8260B - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5081503 - EPA 5030 GCMS										
Blank (5081503-BLK1)				Prepared	& Analyze	ed: 08/15/	05			
Benzene	ND	0.50	ug/l							
Toluene	ND	0.50	"							
Ethylbenzene	ND	0.50								
m,p-Xylene	ND	1.0								
o-Xylene	ND	0.50	11							
Tert-amyl methyl ether	ND	2.0	11							
Tert-butyl alcohol	ND	10	11							
Di-isopropyl ether	ND	2.0	н							
Ethyl tert-butyl ether	ND	2.0	"							
Methyl tert-butyl ether	ND	1.0	ri							
Surrogate: Toluene-d8	38.4		"	40.0		96.0	87.6-115			
Surrogate: 4-Bromofluorobenzene	42.9		"	40.0		107	80-112			
Surrogate: Dibromofluoromethane	42.3		"	40.0		106	78.6-122			
LCS (5081503-BS1)				Prepared	& Analyze	ed: 08/15/	05			
Benzene	105	0.50	ug/l	100		105	75-125			
Toluene	101	0.50	"	100		101	75-125			
Surrogate: Toluene-d8	40.0		"	40.0		100	87.6-115			
Surrogate: 4-Bromofluorobenzene	43.9		"	40.0		110	80-112			
Surrogate: Dibromofluoromethane	40.7		"	40.0		102	78.6-122			
Matrix Spike (5081503-MS1)	So	ource: T50093	37-01	Prepared	& Analyze	ed: 08/15/	05			
Benzene	103	0.50	ug/l	100	ND	103	75-125			
Toluene	98.0	0.50	11	100	ND	98.0	75-125			
Surrogate: Toluene-d8	40.1		"	40.0		100	87.6-115			
Surrogate: 4-Bromofluorobenzene	44.4		"	40.0		111	80-112			
Surrogate: Dibromofluoromethane	38.2		"	40.0		95.5	78.6-122			

SunStar Laboratories, Inc.

and the second second

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Environmental 701 N. Parkcenter Drive Santa Ana CA, 92705

Project: Mission Valley Rock Project Number: EM5009A Project Manager: Greg Buchanan

Reported: 08/19/05 16:48

Volatile Organic Compounds by EPA Method 8260B - Quality Control

SunStar	Laboratories,	Inc.
---------	---------------	------

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	DDD	RPD Limit	NI-4
Analyte	Result		Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5081503 - EPA 5030 GCMS										
Matrix Spike Dup (5081503-MSD1)	Sou	rce: T50093	37-01	Prepared	& Analyze	ed: 08/15/	/05			
Benzene	105	0.50	ug/l	100	ND	105	75-125	1.92	20	
Toluene	99.5	0.50	"	100	ND	99.5	75-125	1.52	20	
Surrogate: Toluene-d8	40.2		"	40.0		100	87.6-115			
Surrogate: 4-Bromofluorobenzene	43.7		"	40.0		109	80-112			
Surrogate: Dibromofluoromethane	39.3		"	40.0		98.2	78.6-122			

SunStar Laboratories, Inc.

de la

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Tait Envi	ronmental	Project: Mission Valley Rock	
701 N. Pa	irkcenter Drive	Project Number: EM5009A	Reported:
Santa An	a CA, 92705	Project Manager: Greg Buchanan	08/19/05 16:48
		Notes and Definitions	
D-02	Hydrocarbon pattern present in	the requested fuel quantitation range but does not resemble the patte	ern of the requested fuel.
D-08	Results in the diesel organics ran	nge are primarily due to overlap from a gasoline range product.	
QM-05		acceptance limits for the MS and/or MSD due to matrix interference og that the laboratory is in control and the data is acceptable.	. The LCS and/or LCSD were
DET	Analyte DETECTED		
ND	Analyte NOT DETECTED at or	above the reporting limit	
NR	Not Reported		
dry	Sample results reported on a dry	weight basis	
RPD	Relative Percent Difference		

and the second

?"'

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

John Shepler, Laboratory Director

Page 20 of 20

Chain of Custody Record

SunStar Laboratories, Inc. 3002 Dow Ave., Ste. 212 Tustin, CA 92780 714-505-4010

Client: TAIT Environental MNgT.	Date: 8/13
Address: 701 N. PArkcenter DRive SANTA ANA, CA	Project Name: 🖊
Phone: (714)560-8200 Fax:	Collector: 57
Project Manager: GREG BUCHNAN	Batch #:

Date: 8/15/05	Page: Of
Project Name: Mission	Valley Rock
Collector: STAR R	Client Project #: En 5009A

500937

EDF #:__

Sample ID	Date Sampled	Time	Sample Type	Container Type	8260	8260 + OXY	8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	(diesel)	8015M Ext./Carbon Chain	0/7000 Title 22 M	8013	MTBE, 8260 BTex	+ oxy.		Laboratory ID #	Со	mmer	1ts/Preservativ	Total # of containers
MW-8	8/12/05	13:45	H20	YOML	1		<u> </u>	<u> </u>	<u> </u>	~	~	<u> </u>		X	_	X		01	Н	CL		4
	8/12/05	14:30	HJO	HOML								-				Λ		02		$\mathbf{\Lambda}$		4
MW-75 MW-70	8/12/05	17:30	Ha	HOML											Π			03				H
MW-4D	812105	16:40		YOML											Π	П		04				<u>+++++++++++++++++++++++++++++++++++++</u>
MW-45	8/12/05	17:20	H2.	YOML										П	Л			05				4
MW-1	8/12/05	12:45	H2'	40mL											$\left[\right]$	\square		06				- 4
MW-65	8 12 05	11:55	H2.	HOML										\square				07				4
MW-60	8/12/05	11:15	H2.	40mL												\square		င်္ခ				4
MW-2M	8/12/05	10:20	H2.	HOME	ļ									\downarrow	\square	Ц		09				4
MW-20	8/12/05	09:35	H2.	YOML								_			\square			1.3				4
MW-25	8/12/05	09:12	HJ.	40 mL	ļ													11			<u> </u>	
MW-55	8/11/05	15:55	H2°	40mL		L								\square	\mathbf{J}			12		-		М
MW-50	8/11/05	14:50	H2.	40mL		_				\square				~		V		13		$\underline{\mathbf{v}}$		4
MN-3	811,105	13:20	HJ.	YOML						\rightarrow				×	X	X		14	r	101	-	4
Relinquished by: (signature)	Date / T			y: (signature)	L	<u>ا</u>	Date	/ Tir	ne ທີ່		1		l To	otal #	ofc	onta	iners	56			Notes	<u>_</u>
& Kunnum	8/15/05	14:55	1thin	-1. tt	~	ଅ/					Chai	in of	Cus	tody	seal	s Y/N	VATA					
Relinquished by (signature)	Date / T			y: (signature)			Date	/ Tir	ne				Se	als ir	ntact	? Y/I	N/ 52 2					
											Re	eceiv	ed g	ood	cond	tition	6	32				
Relinquished by: (signature)	Date / T	ime	Received b	y: (signature)			Date	e / Tir	ne	L L							гm					
Sample disposal Instructions: [)isposal @ \$2.00	each	Return	to client		Pick	kup _															
															فجار ومعارج	u · · ·						