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Second Quarter 2005 Groundwater Monitoring and Sampling Report

Mission Valley Rock Company 7999 Athenour Way Sunol, California

Prepared by: Tait Environmental Management, Inc.

July 29, 2005

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Second Quarter 2005 Groundwater Monitoring and Sampling Report

Mission Valley Rock Company 7999 Athenour Way Sunol, California

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1.0 INTRODUCTION

This report summarizes the second 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 2nd 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.



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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. Refer to cross-sections A-A', B-B', and C-C' (Figures 6, 7, and 8).

5.0 GROUNDWATER MONITORING WELL PURGING AND SAMPLING

On May 4th, 2005, the groundwater monitoring wells were sampled using a 2" diameter electrical submersible pump as part of the second quarter 2005 groundwater monitoring and sampling event. Approximately 90 gallons of purged groundwater was pumped into steel 55-gallon drums prior to sampling. 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. 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 thirteen (13) wells, labeled, and placed into an ice-chilled cooler (4°C). The samples were 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 2.37 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 2nd 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 Tertamyl methyl ether (TAME), Tert-butyl alcohol (TBA), Di-isopropyl ether (DIPE), and Ethyl tert-butyl ether (ETBE) using EPA Method No. 8260B.

Dissolved-phase TPH-g concentrations in the shallow groundwater zone is presented in Figure 4, and deep zone concentrations are contoured in Figure 5. A benzene concentration of 2 μ g/L



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was detected in MW-6D. A maximum MTBE concentration of 1,600 μ g/L was detected in MW-7S, and dissolved-phase MTBE concentrations in groundwater are reported and contoured in Figure 6.

Second 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 (monitoring wells only) obtained by TEM, groundwater levels averaged 2.37 feet bgs. The groundwater flow direction to the southeast at a gradient of approximately 0.017 ft/ft.
- A total of 13 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 8,200 µg/L was detected in well MW-2S.
- A maximum TPH-G concentration in groundwater of 1,600 μg/L was detected in well MW-7S.
- A maximum benzene concentration of 2.0 μg/L was detected in well MW-6D.
- A maximum MTBE concentration of 1,600 µg/L was detected in well MW-7S.
- The other fuel oxygenates were not detected in the groundwater.

Based on groundwater sampling data, the BTEX concentrations were low, and fuel oxygenates other than MTBE 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 has proposed a combination of conventional pump-and-treat, and in-Situ Submerged Oxygen Curtain (ISOC) technologies to remediate the soil and groundwater beneath the Site.
- Continue to monitor the groundwater on a quarterly basis.



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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

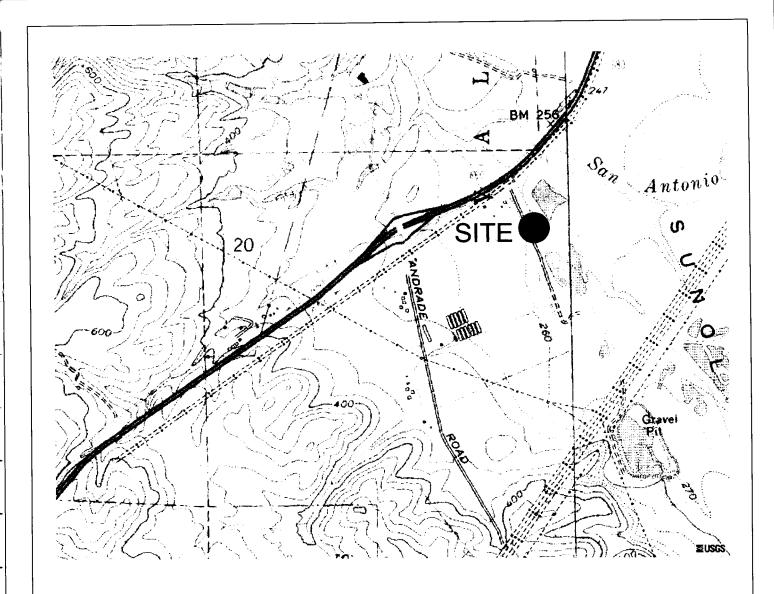
Groundwater Monitoring Report – Third Quarter 2002, Mission Valley Rock Company, 7999 Athenour Way, Sunol, California, prepared by TEM, November 5, 2002.

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

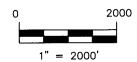
Environmental Protection Agency (EPA), Preliminary Remediation Goals (PRG's) for Region 9 (Residential Soils "Direct Contact Exposure Pathways), October 2002.

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

FIGURES







NOTES:

BASE MAP OBTAINED FROM TERRASERVER.COM, UNITED STATES GEOLOGICAL SURVEY (USGS), FREEMONT QUADRANGLE, ALAMEDA COUNTY, CALIFORNIA. PRINTED JULY 1, 1989.



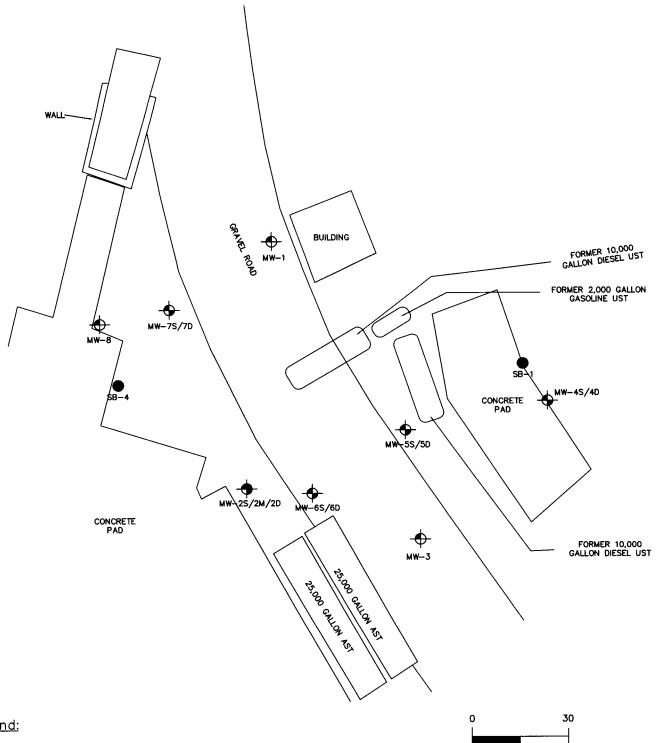
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ENVIRONMENTAL MANAGEMENT, INC.

SITE VICINITY MAP MISSION VALLEY ROCK CO. 7999 ATHENOUR WAY SUNOL, CALIFORNIA

PROJECT NO. EM-5009

FIGURE 1



Legend:

Groundwater Monitoring Well — Single Completion MW-1

♦ Groundwater Monitoring Well — Dual Nested MW-7S/7D

Groundwater Monitoring Well — Triple Nested MW-2S/2M/2D

Soil Boring

MW-1



SCALE: 1 INCH=30 FEET



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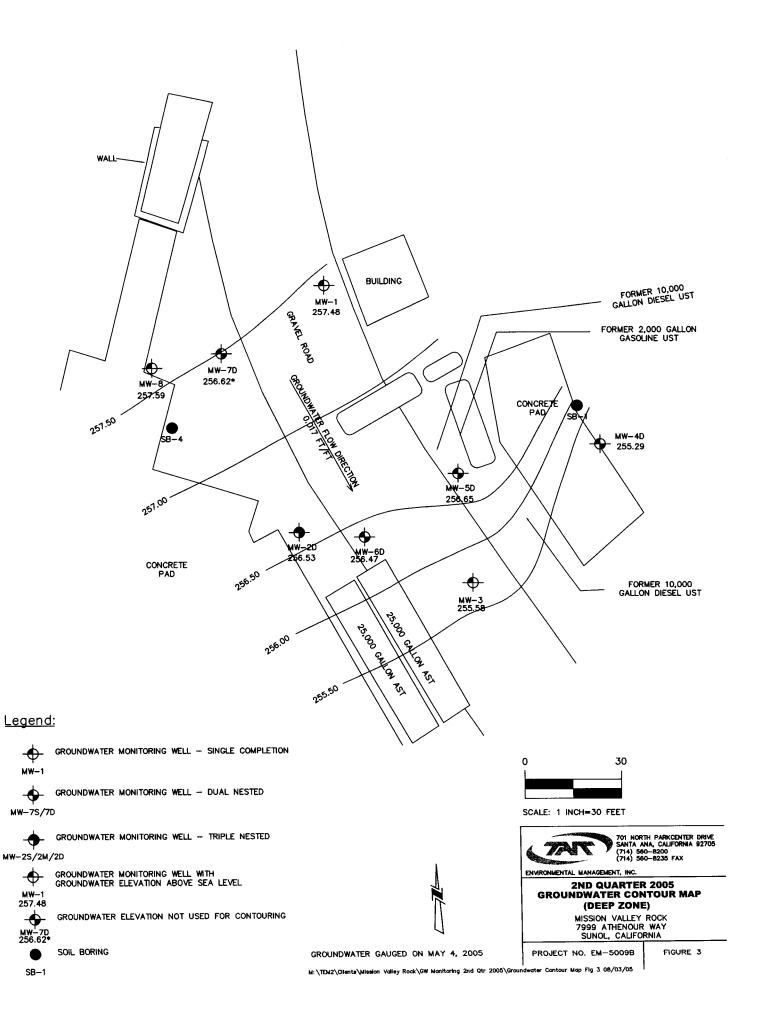
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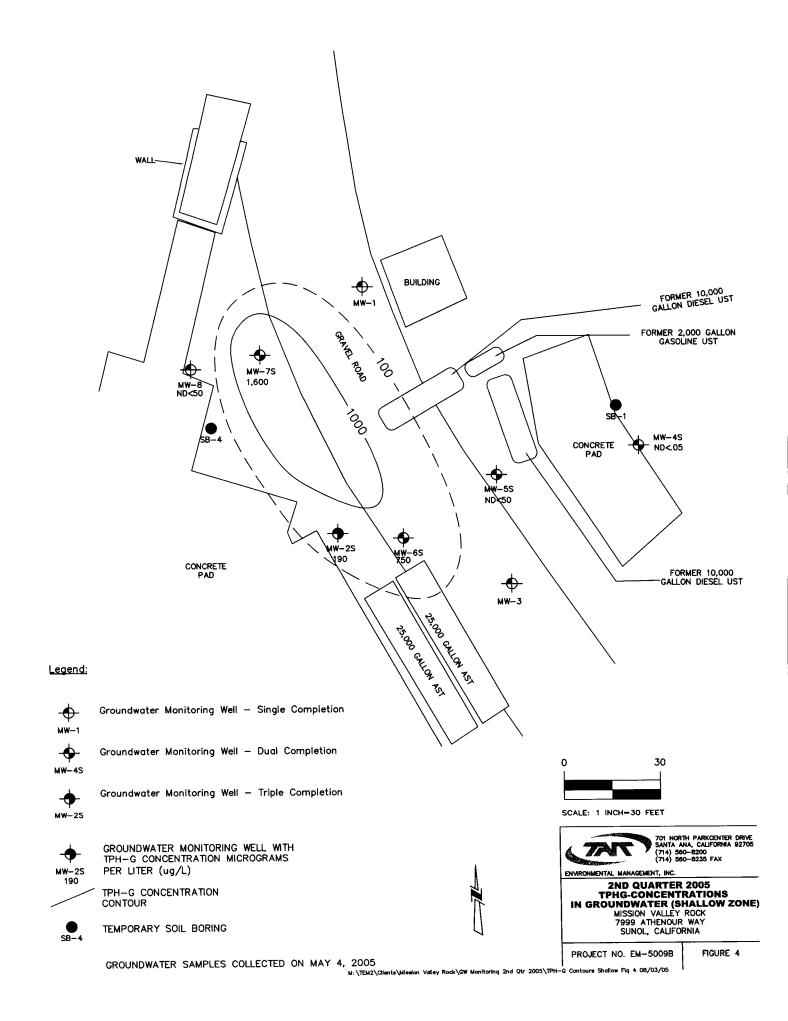
SITE PLAN

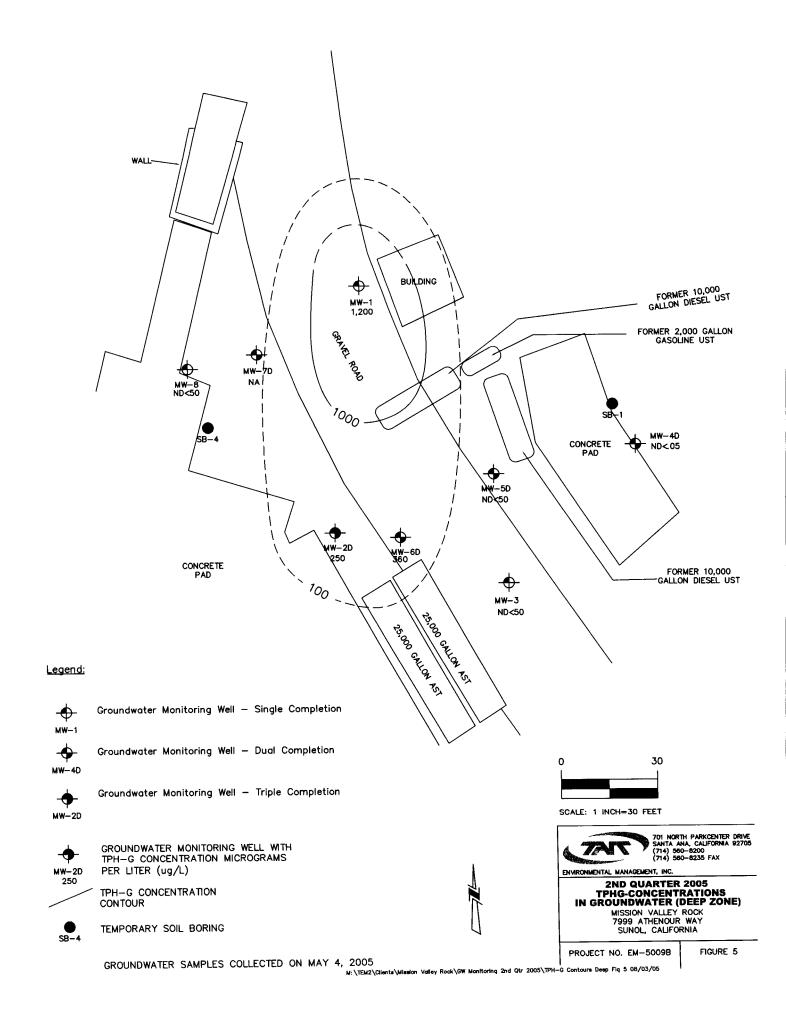
MISSION VALLEY ROCK 7999 ATHENOUR WAY SUNOL, CALIFORNIA

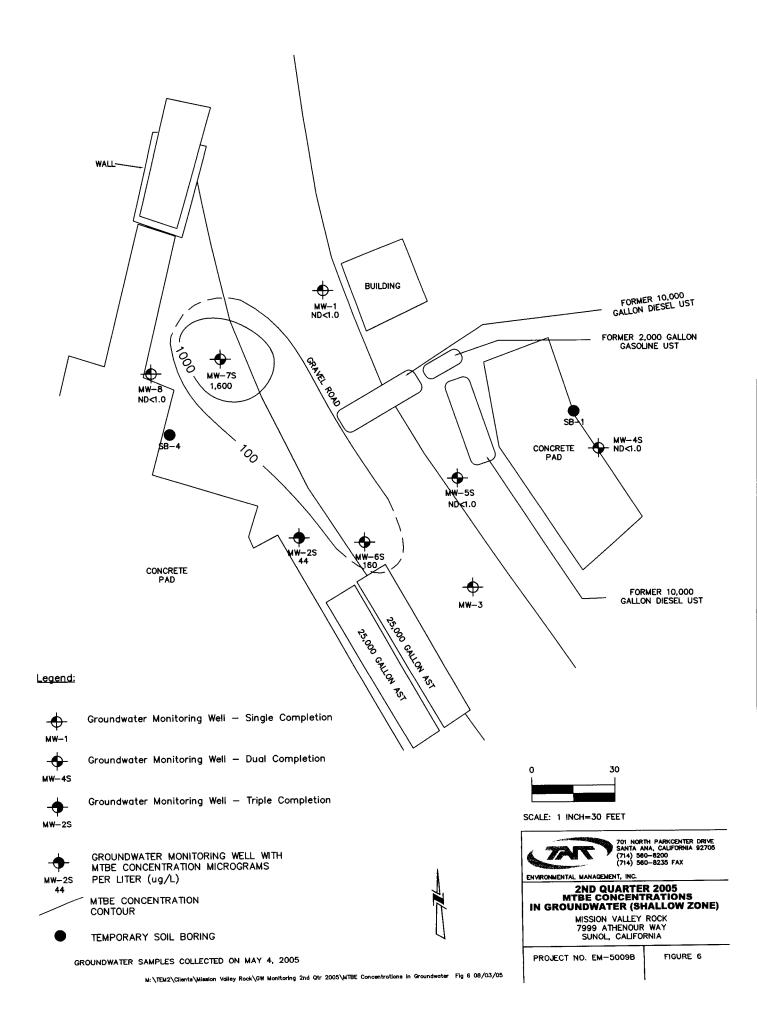
PROJECT NO. EM-5009B

FIGURE 2









TABLES

Well Construction Details and Groundwater Elevation Data Mission Valley Rock Company Second Quarter 2005 Sunol, California Table 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	1.20	17.45	5.0 - 20.0	258.68	257.48
MW-2S	2	1.98	8.48	3.0-8.0	258.84	256.86
MW-2M	2	2.32	18.70	14.0-19.0	258.99	256.67
MW-2D	2	2.38	29.60	25.0-30.0	258.91	256.53
MW-3	2	3.50	14.50	5.0-20.0	259.08	255.58
MW-4S	2	3.73	8.71	3.0-8.0	259.14	255.41
MW-4D	2	3.93	23.15	17.0-22.0	259.22	255.29
MW-5S	2	2.50	8.00	3.0-8.0	259.43	256.93
MW-5D	2	2.75	22.65	17.0-22.0	259.40	256.65
MW-6S	2	1.96	14.75	5.0-15.0	258.75	256.79
MW-6D	2	2.80	28.90	24.5-29.5	259.27	256.47
MW-7S	2	1.44	8.35	5.0-8.0	258.82	257.38
MW-7D	2	1.45	22.55	20.0-25.0	258.07	256.62
MW-8	2	1.25	15.05	5.0-15.0	258.84	257.59

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 May 4, 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

Table 2 Historical Groundwater Gauging Data Mission Valley Rock Company Sunol, California

Well	Top of Casing	Date	Depth to Water (feet below TOC)	Groundwater Elevation (feet MSL)	LPH Thickness (feet
	Elevation		(teet below 100)	(leet MSL)	
	(Feet)			055.40	ND
MW-1	256.51	Jun-98	1.32	255.19	ND ND
		Jan-99	2.28	254.23	
		Mar-99	1.88	254.63	ND
		Jun-99	3.35	253.16	ND
	ļ	Sep-99	3.66	252.85	ND ND
		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	4.95	251.56	ND
	1	Mar-01	2.28	254.23	ND
		Jun-01	3.60	252.91	ND ND
	ļ	Sep-01	6.50	250.01	ND ND
		Dec-01	1.29	255.22	ND ND
		Mar-02	2.91	253.60	
		Jun-02	3.95	252.56	ND ND
		Sep-02	5.18	251.33	ND ND
		Dec-02	3.90	252.61	ND ND
		Mar-03	1.40	255.11	ND ND
		Jun-03	2.65	253.86	ND ND
	1	Sep-03	4.67	251.84	ND
		Dec-03	4.60	251.91	ND
	258.68	Jan-05	3.41	255.27	ND
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
		Dec-99	3.85	252.85	0.13
	Ì	Mar-00	3.20	253.50	0.03
		Jun-00	4.62	252.08	0.02
	ļ	Sep-00	5.95	250.75	>0.01
		Dec-00	5.65	251.05	0.07
	ļ	Mar-01	3.21	253.49	0.10
		Jun-01	3.31	253.39	0.06
		Sep-01	7.08	249.62	0.34
	Ī	Dec-01	2.18	254.52	0.26
		Mar-02	3.40	253.30	0.90
	1	Jun-02	4.35	252.35	0.08
	1	Sep-02	5.54	251.16	ND
	1	Dec-02	4.30	252.40	ND
	1	Mar-03	1.78	254.92	ND
	1	Jun-03	3.10	253.60	ND
		Sep-03	5.02	251.68	ND
		Dec-03	NM	NM	NM
		1/5/05	1 4141	Abandoned	,
MW-2S	258.84	1/3/05	4.25	254.59	ND
	258.99	1/17/05	4.68	254.16	ND ND
MW-2M MW-2D	258.99	1/17/05	4.75	254.09	

Table 2 Historical Groundwater Gauging Data Mission Valley Rock Company Sunol, 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
MW-3		Dec-99	5.52	251.20	Odor
,,,,,,		Mar-00	4.61	252.11	Odor
		Jun-00	6.35	250.37	Very Slight Odor
	<u> </u>	Sep-00	7.30	249.42	Very Slight Odor
		Dec-00	7.29	249.43	ND
	Ì	Mar-01	4.73	251.99	ND
		Jun-01	NM	NM	NM
	İ	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
	l .	Dec-03	7.2	249.52	ND
	259.08	Jan-05	5.81	253.27	ND
MW-4S	259.14	1/17/05	4.62	254.52	ND
MW-4D	259.22	1/17/05	5.96	253.26	ND
MW-5S	259.43	1/17/05	4.57	254.86	ND
MW-5D	259.40	1/17/05	5.15	254.25	ND
MW-6S	258.75	1/17/05	4.30	254.45	ND
MW-6D	259.27	1/17/05	5.17	254.10	ND
MW-7S	258.82	1/17/05	3.42	255.40	ND
MW-7D	258.07	1/17/05	5.50	252.57	ND
MW-8	258.84	1/17/05	3.45	255.39	ND

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** Second Quarter 2005

Mission Valley Rock Company Sunol, California

Well	Date	TPHd (ug/L)	TPHg (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylenes (ug/L)	MTBE (ug/L)
MW-1	5/4/2005	ND<50	1200	ND<0.50	ND<0.50	8.5	1.2	ND<1.0
MW-2S	5/4/2005	8200	190	ND<0.50	ND<0.50	ND<0.50	ND<0.50	44
MW-2M	5/4/2005	ND<50	610	ND<0.50	ND<0.50	16	10.6	32
MW-2D	5/4/2005	ND<50	250	ND<0.50	ND<0.50	4.6	1.6	72
MW-3	5/4/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	190
MW-4S	5/4/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
MW-4D	5/4/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
MW-5S	5/4/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
MW-5D	5/4/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	10
MW-6S	5/4/2005	ND<50	750	ND<0.50	ND<0.50	3.0	ND<0.50	160
MW-6D	5/4/2005	ND<50	360	2.0	ND<0.50	ND<0.50	ND<0.50	360
MW-7S	5/4/2005	520	1600	ND<0.50	ND<0.50	31	18.4	1600
MW-7D	5/4/2005	NA	NA	NA	NA	NA	NA	NA
MW-8	5/4/2005	ND<50	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0

Notes:

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, and methyl-tert-butyl ether (MTBE) were performed using EPA Method No. 8260B.

Depth to water and total depth measurements taken by Tait Environmental Management, Inc. personnel on May 4th, 2005.

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.

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

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
	lun 00	0.1	3,100	19	2.3	91	48	110
-	Jun-98	0.1	2,300	3.1	4.2	5.0	15	ND<0.50
F	Oct-98	350	ND<50	12	7.5	20	6.2	ND<5.0
-	Dec-98		ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
-	Mar-99	190 210	1,800	1.2	0.9	1.5	4.6	ND<0.5
-	Jun-99	62	180	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5
-	Sep-99	290	ND<50	ND<0.50	ND<0.5	ND<0.5	ND<0.5	ND<0.5
-	Dec-99	86	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Mar-00	70	450	2.1	ND<0.5	2.1	1.4	7.6
	Jun-00	ND<50	850	5.4	ND<0.50	9.4	2.6	9.8
-	Sep-00		370	5.3	ND<1.0	2.7	ND<3.0	55
MW-1	Dec-00	ND<1,000	700	ND<1.0	ND<1.0	1.4	ND<1.0	ND<1.0
-	Mar-01	ND<1,000 ND<1,000	170	ND<1.0	ND<1.0	1.2	ND<1.0	ND<1.0
-	Jun-01	ND<1,000 ND<1,000	730	1.4	ND<1.0	7.6	1.2	ND<1.0
-	Sep-01	1000	500	15	ND<1.0	27	5.5	ND<1.0
-	Dec-01	12000	29000	50	ND<1.0	960	290	ND<25
-	Mar-02	ND<1,000	1400	3.5	ND<1.0	42	7.9	ND<1.0
ŀ	Jun-02	1400	760	ND<1.0	ND<1.0	4.3	1.1	ND<1.0
	Sep-02	ND<1,000	1600	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
}	Dec-02	ND<1,000	620	1.2	ND<1.0	12	ND<1.0	ND<1.0
}	Mar-03 Jun-03	ND<1,000 ND<1,000	0.61	ND<1.0	ND<1.0	ND<1.0	ND<1.0	ND<1.0
ŀ	Sep-03	ND<1,000 ND<1,000	1.2	ND<1.0	ND<1.0	6.4	ND<1.0	ND<1.0
1	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<1,000 ND<50	63	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
	Jun-98	12,000	2,500	0.68	ND<0.50		0.57	14
}	Oct-98	4,300	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.5
}	Dec-98	38,000	ND<5,000		ND<50	51	190	ND<50
ŀ	Mar-99	580	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.
ŀ	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	27
}	Dec-99	2,300	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.
	Mar-00	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.
	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		0.94	12
	Dec-00	19,000	1700	ND<50	ND<50	ND<50	ND<150	ND<25
MW-2	Mar-01	610000	3300	ND<1.0	ND<1.0	ND<1.0	ND<1.0	9.0
	Jun-01	8800	1800	ND<1.0	ND<1.0	ND<1.0	ND<1.0	6.7
	Sep-01	530000	7000	ND<50	ND<50	ND<50	ND<50	ND<50
	Dec-01	27000	310	ND<1.0	ND<1.0	ND<1.0	ND<1.0	62
	Mar-02	65000	130	ND<1.0	ND<1.0	ND<1.0	ND<1.0	30
	Jun-02	130000	460	ND<1.0	ND<1.0	ND<1.0	ND<1.0	24
	Sep-02	480000	290	ND<1.0	ND<1.0		ND<1.0	16
	Dec-02	61000	1800	ND<1.0	ND<1.0		ND<1.0	10
	Mar-03	5000	ND<100	ND<1.0	ND<1.0		ND<1.0	14
	Jun-03	8.1	360	ND<1.0	ND<1.0		ND<1.0	20
	Sep-03	85	12	ND<1.0	ND<1.0		ND<1.0	15
	Dec-03	NM	NM	NM	NM	NM	NM	NM
	1/17/05	1 1 1 1 1	1	1	Abando			
MW-2S		1100	730	ND<0.50			3.5	50
MW-2M		4100	3300	6.5	1.7	89	82.2	38

Table 4 Historical Groundwater Analytical Results

Mission Valley Rock Company Sunol, California

Well	Date	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-2D	1/17/05	1800	1000	6.5	ND<0.50	80	71	62
10100 20	Jun-98	12,000	300	0.80	ND<0.50	ND<0.50	ND<0.50	150
	Oct-98	6400	ND<50	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<0.50
ļ-	Dec-98	5,600	ND<100	1.6	1.4	ND<1.0	ND<1.0	110
ŀ	Mar-99	150	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Jun-99	620	ND<50	ND<0.5	ND<0.5	ND<0.5	ND<0.5	ND<0.5
	Sep-99	1,500	230		ND<0.50	ND<0.50	ND<0.50	89
	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
мw-з l	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
MW-4S	1/17/05	ND<50	65	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
MW-4D	1/17/05	ND<50	ND<50	ND<0.50	ND<0.50		ND<0.50	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
MW-5D	1/17/05	ND<50	210	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0
MW-6S	1/17/05	2800	1600	6.1	ND<0.50		2.3	160
MW-6D	1/17/05	2100	1200	10	ND<0.50		2.2	180
MW-7S	1/17/05	ND<50	12000	10	89	590	1670	ND<1.0
MW-7D	1/17/05	ND<50	23000	350	1000	1800	5200	ND<1.0
MW-8	1/17/05	ND<50	120	ND<0.50	ND<0.50	ND<0.50	ND<0.50	ND<1.0

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

MTBE = Methyl-tert-Butyl Ether

ND = Not Detected at or above corresponding reporting limit

NS = Not Sampled

TPHd = Total Petroleum Hydrocarbons as Diesel

TPH = Total Petroleum Hydrocarbons as Gasoline

NM: Not Measured

APPENDIX A SAMPLING DATA SHEETS

Page __ of __

Proje	ct Na	me:		MVK						Date		5	1410					
Proje	ct No).: <u> </u>	Em	520g	1						pared	By:	Sa	eed	<u>, </u>			
	ident			MW-							ther:		<u> </u>		Sc	reen:		
Meas	urem	ent l	Point D	escript	ion: 🤇	100				Pun	ip Inta	ike:	Va.	···				
L	pth to NAPL t-bmp		Stati	pth to c Wate (ft-bm)	r	Vell Tot (ft-b	al Depth mp)	Wate Colum Heigh (ft)	าก	LNAPL Thic (ft-bmp		1	• -	Casing (gallons) Volu	e (3) sing mes ons)	Above Screen Volume	Screen Volume
			1.2	70		17.4	5	16.2	5			2	6		7.	<u></u>		
184	all Ois	amat	er (in)			Gallo	ıs/Foot		Fiel	ld Equipment	t: S	olins	1					
	en 1916		.e. ()	0.	75	2	4	6	Pur	ge Method:								
0.75	2		4	0.	02	0.16	0.65	1.47	Wel	il Condition:								
Tim	e	Casing) / Screen	Volum Purge (gallor	d	Flow Rat (gpm)	e Wai Lev (ft-br	rel F np)	Ph	Temperature (°C)	Turb (N)		(m		Dissolved Oxygen (mg/L)	ORF (mV		servations
	2			3		~	6.	- ' ` /	/	63.5	6	1_	3.				<u> </u>	201
	5			6				7 7		63.7	M		3.5	/			- C	een.
i'o	7			8			0	95 7-	2_	63.5	9		3.	6			CV C	or-
																-		
	e Start me	F	Purge Er Time	nd Av	erage F (gpm)		otal Gallons Purged	Total (Volu Pun	mes	80% Recovery Water Lev Depth	/ 	Water at San ime (f		Sam Collec Tin	ction	S	Sample Identific	ation
1:1	0	1.	·07	0	1,6		8	1 —		a				12:	15 /1	MW.	-1'):	Cs.
Note			-	· · ·		<u> </u>				, i.e.				1:	15		<i></i>	

5/4/05 Date: Valley Rock Project Name: MISSION Prepared By: Sale Screen: Weather: Project No.: MW-25 Well Identification: Pump Intake: Measurement Point Description: 70C Three (3) **Above** Screen Water Casing One (1) Casing LNAPL Thickness Screen Volume Depth to Column Well Total Depth **Volumes** Depth to Volume (gallons) Volume (ft-bmp) Static Water Height (gallons) (ft-bmp) LNAPL Level (ft-bmp) (ft) (ft-bmp) 1. D 3.12 1.98 Solinst Field Equipment: Gallons/Foot Vail Pump **Purge Method:** Well Diameter (in) 6 2 0.75 **Well Condition:** 1.47 0.65 0.19 0.02 6 Dissolved 4 ORP 2 0.75 Observations Conductivity Turbidity Temperature Oxygen Water (mV) Volume Flow Rate (ms Ph (NTU) Level (°C) (mg/L)Purged Casing / Screen (gpm) (ft-bmp) clew Time (gallons) 63.3 day. Ø 63.3 S:50 2 3.6 63.3 4 80% Sample Water Level Sample Identification **Total Casing** Collection Recovery at Sampling **Total Gallons** Average Flow Volumes Time Purge End Water Level Time (ft-bmp) Purge Start Purged Purged (gpm) Depth MW-25 Time Time 11:30 Notes:



roject Name: roject No.: ell Identificat	ion: 🎾	1W-2	lalley Mw-				Weath	ed By:	Society Society	d	Sci	een:		
Depth to LNAPL (ff-bmp)	Depti Static \ Level (fi	n to Nater	Well Tot (ft-b	-	Wate Colum Heig (ft)	nn ht	LNAPL Thickn (ft-bmp)	\	One (1) C Volume (9	alions)	(gallo	ng mes ons)	Above Screen Volume	Screen Volume
	2.3	2	18.	7			16.38		2.67	<u>-</u>	6.8	6		
	47. \	***************************************	Gallo	ns/Foot		+	d Equipment:	Solin	nst 					
Well Diame	ter (IN)	0.75	2	4	6	Pur	ge Method:							
0.75 2	4 6	0.02	0.16	0.65	1.47	Wel	Condition:							
	g / Screen	Volume Purged (gallons)	Flow Ra	ete Le	ater vel omp)	Ph	Temperature (°C)	Turbidity (NTU)	y Conduc	zlivity	Dissolved Oxygen (mg/L)	ORP (mV)	1	servations
9:01		2.5	 -	2	97	.3	63.6	1.8	3.0	}		-	()4	2V
		5-0	_	9 2	3.27	1,2	63.4	9	3.	_			de	20 / 20 /
7:03		7.0			8	1.2	63.4	2	3.	6		_		
							1					 		
Purge Start	Purge End Time		rage Flow (gpm)	Total Gallo Purged	ns Vo	l Casin olumes urged	g Recovery Water Level Depth	, at s	iter Level Sampling e (ft-bmp)	San Colle Tír	ction ne		ample Identifi	cation
Time			1						-	10:0		. 4 . 3	2 M	



el Ident	ifica	ation	: /	1W-	- 2	they I		k_				Date: Prepa Weatl	er:	d	105 Sage		S	creen:		
Depth t LNAPI	0	S	Deptitatic	h to Wate	r	Well Tot		pth	Wate Colur Heig (ft)	mn ht	LN	APL Thicki (ft-bmp)		s O	ne (1) C Jume (g	allons	Ca: Volt	e (3) sing umes lons)	Above Screen Volume	Screen Volume
		6	2 - 3	8		29.	6		27.	2	2				1,3	<u> </u>	13.	0		
			(?\			Gallo	ns/Fo	ot		-	Field l	Equipment:		Solins	<u> </u>					
Well D	iam	eter ((in)	0	.75	2		4	6	_		Method:								
1.75 2		4	6	0	.02	0.16	0	.65	1.47		Well C	ondition:					Disabled	<u> </u>		
Time	Cas	sing / So	creen	Volur Purg (gallo	ed	Flow Ra	1	Wat Lev (ft-br	rel	Ph	Т	emperature (°C)		rbidity NTU)	Conduct (Dissolved Oxygen (mg/L)	ORP (mV)		oservations
				5		(2	97	1, 7	2	63.6	1	لم	3,5			1 ~		eov.
1:15	-			10		1		3.	6	7.	3	63.5		<u> </u>	3.					ler.
1:20	-			15		/		15	27	2.)		63.5		2	3.7	<u> </u>				
	+-										-									
Purge St	art		rge En	d A		ige Flow gpm)		Gallon irged	s V	al Ca olun Purg		80% Recovery Water Lev Depth		at Sa	r Level mpling (ft-bmp)	Coll T	imple lection lime		Sample Identi	fication
0.12		a	! 25	- -	1,	0	15			3		1				10	: 45	MW-	20	
9:12 Notes:		_/	>		1		`					<u></u>			,				•	



roject Name:	MISSIU	n 1/a	elley R	ock			Date: Prepare	d Bv:						
oject No.:	Em 2	509	<u> </u>				Weathe				Sci	reen:		
ell locumir.	11000						Pump I							
easurement		1	TOC		Water				(4) C	`-eina	Three Cas		Above	Screen
Depth to LNAPL (ft-bmp)	Static Level (f	Nater	Well Total (ft-bm		Column Height (ft)	1	L Thickne lt-bmp)		olume (g	jallons)	Volui (galle	mes	Screen Volume	Volume
•	3.5	_	14.5		11.				1.7	5	5.	28		
			Gallons	Foot	F	ield Equ		Solins						
Well Diamo	eter (in)	0.75	2	4	6 P	urge Me			Pum P) 				
0.75 /2	4 6	0.02	0.16	0.65	1.47 ¥	Vell Con	lition:	600	. .			T	- - - - - - - - - - 	
	ing / Screen	Volume Purged (gallons)	Flow Rate (gpm)	Water Level (ft-bmp	Ph		°C)	urbidity (NTU)	Conduc	ctivity {	Dissolved Oxygen (mg/L)	ORP (mV)	Obs	servations
10;00		2	I	3.5		_ 6	2.9	450						
10:02		4	1	6.7	7.7		3 4	210				 		
10:05		6		8.1	7.3	6.	s. 7	<u>55</u>	-					
10:07		8				-		10	1					
				}										
												<u> </u>		
Purge Start Time	Purge End Time		age Flow To	tal Gallons Purged	Total Ca Volum Purge	es \	80% Recovery Vater Level Depth	at Sa	r Level Impling (ft-bmp)	Sam r Collect Time	tion e		ample Identifi	cation
9:57	10:07		1.0	8	Y			}		11:4	5	MW	1-3	

ft-bmp = feet below measuring point



iption: to ater omp) Well To (ft-l	tal Depth bmp)	Water Column Heigh (ft)	t (Cloudy ke:	Casing (gallons)	Three Casin Volum (gallo	ng nes ons)	Above Screen Volume	Screen Volume
Well To (ft-1) Romp) 8-7 Gallo 0.75	ons/Foot	Colum Heigh (ft)	t (f	L Thickness (t-bmp)	One (1) Volume	(gallons)	Casi Volun (gallo	ng nes ons)	Screen	
(ft-lomp) (ft-lomp) (Gallo	ons/Foot	Colum Heigh (ft)	t (f	ft-bmp)	Volume	(gallons)	Casi Volun (gallo	ng nes ons)	Screen	
0.75 Z	ns/Foot	4.92			0.7	-	2-3	1		
0.75	· · · · ·		Field Equi							
 /-	4		·	pment: S	olinst					
0.02 (0.16)		6	Pur ge Me	thod:					-	
- 11 /	0.65	1.47	Well Cond	ition:						
olume urged allons) Flow Ra	LEVE	el P		erature Turbi		activity C	ssolved Oxygen (mg/L)	ORP (mV)		ervalions
1 -	4.	5 7.	3 63	3.8 2	7 3:	3				
2 -	5.	7 7.			3.8	3			Cle	e
3 –	8.	· -		- -			_			
Average Flow (gpm)	Total Gailons Purged	Volur	nes N	ecovery a ater Level	t Sampling			Sam	nple Identifica	ation
				1		11:19	s /	MW-	45	a
	Average Flow	Average Flow Total Gallons	Average Flow Total Gallons Total Callons Total Callons Total Callons Total Callons Total Callons	Average Flow (gpm)	Average Flow (gpm) Total Gallons Purged Total Casing Volumes Purged Pril (°C) (NT) Volumes Purged Pril (°C) (NT) (NT	Average Flow (gpm) Total Gallons Purged Total Casing Volumes Purged P	Average Flow (gpm) Total Gallons Purged Pri (°C) (NTU) (~3) Sample (gpm) Purged Pri (°C) (NTU) (~3) Sample (GPm) Purged Pri (°C) (NTU) (~3) Sample (Collectic Time (ff-bmp)) Pri (°C) (NTU) (~3) Sample (Collectic Time (ff-bmp)) Pri (°C) (NTU) (~3) Sample (Collectic Time (ff-bmp)) Pri (°C) (NTU) (~3) Sample (GPm) Pri (GPm) Pri (GPm) Sample (Collectic Time (ff-bmp)) Pri (°C) (NTU) (~3) Sample (Collectic Time (ff-bmp)) Pri (°C) (~3) Sample (Collec	Average Flow (gpm) Total Gallons Purged Volumes Purged Recovery Water Level at Sampling Time (ft-bmp) Prince (Average Flow (gpm) Total Gallons Purged Purged	Average Flow (gpm) Total Gallons Purged Purged

Cas 2009 Mission Valley Rock Project Name: 5/4/05 Date: Project No.: Cm 2509 Sailed Prepared By: **Well Identification:** MW-UD Weather: Screen: Measurement Point Description: Pump Intake: Water Three (3) Depth to Depth to Above **Well Total Depth** Screen Column **LNAPL** Thickness One (1) Casing Casing LNAPL Static Water Screen Volume (ft-bmp) Height (ft-bmp) Volume (gallons) **Volumes** (ft-bmp) Level (ft-bmp) Volume (ft) (galions) 3.07 23.15. 3.93 19.22 9.2 Gallons/Foot Field Equipment: Solinst Well Diameter (in) 0.75 2 4 6 **Purge Method:** 0.75 2 0.02 0.16 0.65 1.47 **Well Condition:** Volume Water Dissolved Flow Rate Temperature Turbidity Conductivity ORP Time Casing / Screen Purged Observations Level Ρh Oxygen (gpm) (°C) (NTU) (3 5 (mV) (gallons) (ft-bmp) (mg/L) 8:10 7.4 clear .0 1.0 3.67 64.1 10 8:116 Jee 4 5.3 7.2 641 1.0 80% Total Casing Water Level Sample Purge Start Purge End Average Flow **Total Gallons** Recovery Sample Identification Volumes at Sampling Collection Time Time (gpm) Purged Water Level Purged Time (ft-bmp) Time Depth 9.0 8:30 MW-4D 1.6 3.0

MUK. Date: Project Name: Prepared By: Cm 209 Project No.: Screen: Weather: Well Identification: MW-55 Pump Intake: **Measurement Point Description:** Three (3) Water Above Screen Casing Depth to Depth to One (1) Casing **LNAPL Thickness** Well Total Depth Column Screen Volume Volumes Static Water Volume (gallons) LNAPL Height (ft-bmp) **Volume** (ft-bmp) (gallons) Level (ft-bmp) (ft-bmp) (ft) 5.5 .88 2.64 8.0 2.5 Solinst Field Equipment: Gallons/Foot Well Diameter (in) 6 **Purge Method:** 2 4 0.75 Well Condition: 1.47 0.65 0.16 0.02 6 2 4 0.75 Dissolved ORP Water Volume Conductivity Observations **Turbidity** Temperature Oxygen Flow Rate Ph (mV) Level (ms Purged (NTU) Casing / Screen (°C) Time (mg/L)(gpm) (ft-bmp) (gallons) .3 3 10:35 6 9 80% Sample Water Level Total Casing Sample Identification Recovery Total Gallons Collection Average Flow Purge End at Sampling Purge Start Volumes Water Level Purged Time Time (gpm) Time (ff.-bmp) Time Purged Depth MW-55 12:30 10:33 10:35 Pag.

TAIT Environmental Management, Inc

Groundwater Sampling Data Sheet

ject Name: ject No.: Il Identification:		MW —	50				Prepared By: Weather: Screen:							
Depth to LNAPL	Static Level (f	Water ft-bmp)	Well Total Depth (ft-bmp)		Water Colum Height (ft)	ın LNAP	PL Thicknes (ft-bmp)	Volume) Casing (gallons)	Three (3) Casing Volumes (gallons)	Above Screen Volume			
(ft-bmp)	27	5	22.	65	19.9	,		3.19	8	9,55				
	(in)		Gallons	s/Foot		Field Equ	ipment:	Solinst						
Well Diametes		0.75	/2	4	6	Purge Me	Purge Method:							
	6	0.02	0.16	0.65	1.47	Well Con	dition:		 					
0.75 2 Casin	Gcreen	Volume Purged (gaflons)	Rate (gpm)	Wate Leve (ft-bm	rel Ph			urbidity Condi	uctivity Disso Oxy (mg	gen (m)/				
		4		 	5 7			34						
10:45	1 W	8	1	12.3	3 65	7 65	3.5	5						
10. Ve		~ t	AY	1.0										
			H											
Punsta	Purge End Time			Total Gallons Volu Purged Pun		nes W	80% Recovery ater Level Depth	Water Level at Sampling Time (ft-bmp)	Sample Collection Time	on S	ample Ident			
				q					12:15	Mw	-51			
N Si				-										

Page __of __

		A.	-						Date:								
oject Nam	e:	ML	IK						Prepar		Ŋ:			Scr	een:		
ciect No.:									Weath								
	cation	: M	W-6	>					Pump	intal	ke:			Three	(2)		
ell Identifi easuremei	nt Poin	t Des	cription:			Water	-				1		_	1	[Above	Screen
Depth to	Depth to Static Water			Well Total Depth (ft-bmp)		Column Height (ft)		LNAPL Thick (ft-bmp)) v		One (1) Casing Volume (gallons)		(gallons)		Screen Volume	Volume
(ft-bmp)			11. 7			12.7	79			2		2.04		6.13		<u></u>	
		1.96)			121		. Equi	pment:	S	olinst		_				
				Gallor	ns/Foot												
Well Dia	meter	(in)	0.75	1/2	4	6		e Met									
	T.	6	0.02	0.16	0.65	1.47	Well	Cond	ition:		 -			Dissolved			
0.75 2	4	┵~	Volume		Wa			Tempe	erature		oidity	Conduct	tivity	Oxygen	ORP (mV)	Obs	servations
Time	Casing / Screen Purget (gallons		Purged	Flow Rate Lev		evel Ph omp)		(°			ru) () (mg/L)			de	R.
					4.	57	./	63	.5	6	4				_	t	
12:00			3.0		8.	-	,9	63	.7							100	
12:03			6.0			724									+		
						<u> </u>		-		1							
										\vdash							
										_							
	 								80%	1	\\\\-\-\-	r Level	Sar	mple			
Purge Sta	art F	urge E	1	erage Flow (gpm)	Total Gallo Purged	×ns ∨o	al Casing olumes Purged		Recovery Vater Lev		at Sa	mpling (ft-bmp)	Colle Ti	ection me		Sample Identifi	cation
Time		Time		(9411)	8.5			-	Depth				1!	15	Mu	5-65	
11:58)]	2:0	ر ک ^{ری} ا		0.3												

Date: Project Name: Prepared By: Project No.: Screen: Weather: MW-6D Well Identification: Pump Intake: Measurement Point Description: Three (3) Water Above Screen Casing LNAPL Thickness One (1) Casing Depth to Depth to Column Screen **Well Total Depth** Volume **Volumes** Volume (gallons) Static Water (ft-bmp) Height Volume LNAPL (ft-bmp) (gallons) Level (H-bmp) (ft) (ft-bmp) 4.17 12.52 28,90 26.1 2.80 Solinst Field Equipment: Gallons/Foot Well Diameter (in) **Purge Method:** 6 0.75 2 1.47 **Well Condition:** 0.65 0.02 0.16 6 2 0.75 Dissolved ORP Water Observations **Turbidity** Conductivity Volume Temperature Oxygen Flow Rate (mV) Ph Level m ? (NTU) (°C) Purged Casing / Screen (mg/L) Time (gpm) (ft-bmp) (gallons) 3.8 8 8 3.8 63.4 24 3 80% Sample Water Level **Total Casing** Sample Identification Recovery Collection **Total Gallons** Average Flow at Sampling Purge End Volumes Purge Start Water Level Time Purged Time (ft-bmp) (gpm) Time Purged Time Depth MW-60 13.0 12:31 Hotes:

4:4: 6	MVR CM 2ST	J - 4	2 75			Prepared By: Screen: Weather: Screen: Pump Intake:									
Depth to	Depth Static W Level (ft-	to ater	Well Total De (ft-bmp)	pth Col	ater lumn eight (ft)		, Thickness ft-bmp)	One (1) Casing Volume (gallons)		(gallons)		Above Screen Volume	Screen Volume		
(ft-bmp)	1.44		8.35		.91	and Fau	ipment: S	(, (0	3.5	5				
Well Diame 0.75 2 Time Cas 12:51	4 6	0.75 0.02 Volume Purged (gallons	2 0.16 Flow Rate (gprn)	4 6	5 P 47 V Ph	Vell Con	othod: Vo	3.	uctivity	Dissolved Oxygen (mg/L)	ORP (mV)	Obs	servations		
	Purge E	L4	verage Flow To	tal Gallons Purged	Total C Volu Pur	mes	80% Recovery Water Level Depth	Water Level at Sampling Time (ft-bmp)	Samp Collect Time	ion e		mple Identifica	ation		

	M :									Date:									
roject i						···-				Prepa	red By	:							
roject	NO.;	ation	. MI	J-71	A D					Weat	ner:				Sci	reen:			
Veli lae	NEITIC	Bair	+ Desc	ription:	//					Pump	Intake	<u>:</u>							
Depth to LNAPL (ft-bmp)		Depth (Static Walley (ft-)		to Vater	Well To	cal Depth nmp)	Wate Colui Heig (ft)	nn L ht		. Thickness t-bmp)		One (1) Casing Volume (gallons)		Three (3) Casing Volumes (gallons)		Above Screen Volume	Screen Volume		
		1.45		\	22	. 55			-	·								<u> </u>	
Gallons/Foot						Field Equipment: Solinst													
Well Diameter (in) 0.75				2	2 4		Purg	Purge Method:											
0.75	2	4	6	0.02	0.16	0.65	1.47	Well	Condi	tion:		<u> </u>		<u> </u>	Discolation	T			
Time	Ca	Casing / Screen		Volume Purged (gallons)	1 ,	Flow Rate Le		Ph	Tempe (°C		Turbidi (NTU		Conductivity ()		Dissolved Oxygen (mg/L)	ORP (mV)		servations	
											-								
Purge S			rge End Time		age Flow gpm)	Total Gallor Purged	ns Vo	l Casing blumes urged	Re Wa	80% ecovery ter Leve Depth	, at	San	Level npling t-bmp)	Colle	nple ection me		Sample Identil	fication	
			٠,							1-			./2	Cin		1/10	Detroit	vell	
Notes:	•	Co	uld	n	ol 1	55h	the	De	Si o	ale	· Y	10	COC	JY "	,		Perri		
i		11	Se	is	~ /	8' L	n810	e to	he	O	sur	9	• '						

Groundwater Sampling Data Sheet

Page __ of __

roject Name: roject No.:	En		J-8					Date: Prepa Weath	er:		30	000	Sci	reen:		
el Identifica leasurement	uon: Point I)esc	ription:	Je	e	Water		Pump	Intal	(e:			Three	- 1	Above	
Depth to LNAPL (ft-bmp)	Sta	epth tic W	1		tal Depth bmp)	Columi Height (ft)	- (-	APL Thickr (ft-bmp)	l e3 5		ne (1) C um o (g		Casi Volui (galle	mes	Screen Volume	Screen Volume
(14-211-12)		2		15.0	>5	13.8		-		2	. 2	6.6		6		
				Gall	ons/Foot		Field E	quipment:	S	olinst						
Well Diame	ter (in)	0.75	1/2	4	6	Purge l	Method:								
0.75 (2)	4	6	0.02	0.16	0.65	1.47	Well C	ondition:			<u> </u>					
	ng / Scree	en l	/olume Purged gallons)	Flow R	1 1 123	vel P	h Te	emperature (°C)	Turbi (NT		Conduc		Dissolved Oxygen (mg/L)	ORP (mV)	Obs	servations
1',03			3_		6	7.	2 6	3,6	38	3						
06 -			4		$ \mathcal{I}$	Ry.	_									
		_					_									
																 -
		_		-												
						Total	Casing	80%		Water			mple		ample Identifi	cation
Purge Start	Pu rg e Tir			age Flow (gpm)	Total Gallor Purged	s Volu	mes ged	Recovery Water Leve Depth	-1 1	at San Time (f	npling t-bmp)		ection ime		anipre ruonur	
	11 8				(1)							1:5	70	MW	_8_	
1:01	1:0	>	i		しイノ											

APPENDIX B LABORATORY REPORT

12 May 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 05/05/05 14:20. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Dennis Dorning For John Shepler

Laboratory Director

Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4D	T500546-01	Water	05/04/05 08:30	05/05/05 14:20
MW-4S	T500546-02	Water	05/04/05 09:00	05/05/05 14:20
MW-6S	T500546-03	Water	05/04/05 09:30	05/05/05 14:20
MW-2M	T500546-04	Water	05/04/05 10:00	05/05/05 14:20
MW-2D	T500546-05	Water	05/04/05 10:30	05/05/05 14:20
MW-6D	T500546-06	Water	05/04/05 11:20	05/05/05 14:20
MW-2S	T500546-07	Water	05/04/05 11:30	05/05/05 14:20
MW-3	T500546-08	Water	05/04/05 11:45	05/05/05 14:20
MW-5S	T500546-09	Water	05/04/05 12:30	05/05/05 14:20
MW-5D	T500546-10	Water	05/04/05 12:15	05/05/05 14:20
MW-1	T500546-11	Water	05/04/05 12:45	05/05/05 14:20
MW-8	T500546-12	Water	05/04/05 13:15	05/05/05 14:20
MW-7S	T500546-13	Water	05/04/05 14:15	05/05/05 14:20

SunStar Laboratories, Inc.

12-12-

701 N. Parkcenter Drive Santa Ana CA, 92705 Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-1 T500546-11 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Maryo		SunStar La	borator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	11	*1	11	н	11	**	
Ethylbenzene	8.5	0.50	**	P	**	ñ	н	н	
m,p-Xylene	ND	1.0	**	11	"	**	11	**	
o-Xylene	1.2	0.50	11		**	11	**	**	
Tert-amyl methyl ether	ND	2.0	**	"	н	"	11	**	
Tert-butyl alcohol	ND	10	**	19	**	11	Ħ	н	
Di-isopropyl ether	ND	2.0	11	11	Ħ	11	11	**	
Ethyl tert-butyl ether	ND	2.0	11	н	11	**	"	"	
Methyl tert-butyl ether	ND	1.0	**	n	u	*1	"	"	
C6-C12 (GRO)	1200	50	"	**	11	**	11	**	
Surrogate: Toluene-d8		99.8 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	<i>78.6</i>	5-122	"	"	"	"	

SunStar Laboratories, Inc.

(2:42_

701 N. Parkcenter Drive Santa Ana CA, 92705 Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-2S T500546-07 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
LAnaryte		SunStar La		ies, Inc.					
Extractable Petroleum Hydrocarbons l	oy 8015								
Diesel Range Hydrocarbons	8.2	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	н	0	11	н	"	11	
Ethylbenzene	ND	0.50	**	**	**	H	#	н	
m,p-Xylene	ND	1.0	11		19	"	11	**	
o-Xylene	ND	0.50	н	"	**	"	0	**	
Tert-amyl methyl ether	ND	2.0	11	U	и	"	0	н	
Tert-butyl alcohol	ND	10	ti	н	н	**	**		
Di-isopropyl ether	ND	2.0	11	"	**	11	H.	**	
Ethyl tert-butyl ether	ND	2.0	**	н	*1	H	**	**	
Methyl tert-butyl ether	44	1.0	**	**	11	**	11	11	
C6-C12 (GRO)	190	50	н	Ħ		н	11	11	
Surrogate: Toluene-d8		102 %	87.0	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		111 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		106 %	78.6	5-122	"	"	"	"	

SunStar Laboratories, Inc.

7-12-

701 N. Parkcenter Drive Santa Ana CA, 92705 Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-2M T500546-04 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	11	н	"	н	Ħ	11	
Ethylbenzene	16	0.50	11	**	11	11	н	**	
m,p-Xylene	8.8	1.0	0	"	#1	**	"	11	
o-Xylene	1.8	0.50	Ħ	n	"	11	u	11	
Tert-amyl methyl ether	ND	2.0	**	н	"	н	91	0	
Tert-butyl alcohol	ND	10	**	11	"	11	t†	**	
Di-isopropyl ether	ND	2.0	**	"	R	**	11	**	
Ethyl tert-butyl ether	ND	2.0	**	**	11	11	н	11	
Methyl tert-butyl ether	32	1.0	**	**	11	н	11	19	
C6-C12 (GRO)	610	50	11	11		11	"	H	
Surrogate: Toluene-d8		102 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		110 %	80-	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	78. <i>6</i>	5-122	"	"	"	"	

SunStar Laboratories, Inc.

02-12-

701 N. Parkcenter Drive Santa Ana CA, 92705 Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-2D T500546-05 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	11	*1	**	"	"	11	
Ethylbenzene	4.6	0.50	11	11	n	11	н	Ħ	
m,p-Xylene	1.1	1.0	11	**	"	**	11	0	
o-Xylene	0.56	0.50	**	**	**	n	**	91	
Tert-amyl methyl ether	ND	2.0	"	**	11	11	18	19	
Tert-butyl alcohol	ND	10	11	н	"	H	"	**	
Di-isopropyl ether	ND	2.0	**	"		11	"	**	
Ethyl tert-butyl ether	ND	2.0	"	"	u	**	Ħ	п	
Methyl tert-butyl ether	72	1.0	**	"	н	11	Ħ	"	
C6-C12 (GRO)	250	50		**	**		"		
Surrogate: Toluene-d8		102 %	87. <i>6</i>	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		99.0 %	78.6	5-122	"	"	"	"	

SunStar Laboratories, Inc.

Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-3 T500546-08 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	н	*1	IT.	"	11	Ħ	
Ethylbenzene	ND	0.50	**		11	"	11	н	
m,p-Xylene	ND	1.0	11	n	н	**	0	n	
o-Xylene	ND	0.50	**	"	11	**	#	#	
Tert-amyl methyl ether	ND	2.0	**	**	**	11	**	**	
Tert-butyl alcohol	ND	10	"	н	17	н	11	11	
Di-isopropyl ether	ND	2.0	*1	п	н	11	**	u	
Ethyl tert-butyl ether	ND	2.0	**	н	**	"	11	u u	
Methyl tert-butyl ether	190	1.0	11		n	11	**	11	
C6-C12 (GRO)	ND	50	**	н	#	н	"	*1	
Surrogate: Toluene-d8		101 %	87.0	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		104 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		100 %	78.6	5-122	"	"	"	"	

SunStar Laboratories, Inc.

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.

Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-4S T500546-02 (Water)

Analyte	Result	Reporting Limit	Uniţs	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	11	**	Ħ	н	Ħ	11	
Ethylbenzene	ND	0.50	**	**	11	**	11	н	
m,p-Xylene	ND	1.0	11	"	н	н	**		
o-Xylene	ND	0.50	H	11	**	19	17	"	
Tert-amyl methyl ether	ND	2.0	11	"	н	u	**	**	
Tert-butyl alcohol	ND	10	**	*1	11		u.	н	
Di-isopropyl ether	ND	2.0	**	10	tt	11		11	
Ethyl tert-butyl ether	ND	2.0	**	н	11	#1	"	ij	
Methyl tert-butyl ether	ND	1.0	11	п	11	19	H	н	
C6-C12 (GRO)	ND	50	11		н		*1	11	
Surrogate: Toluene-d8		102 %	87. <i>6</i>	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		100 %	78. c	5-122	"	"	"	"	

SunStar Laboratories, Inc.

Tait Environmental 701 N. Parkcenter Drive

Santa Ana CA, 92705

Project: Mission Valley Rock

Project Number: EM2509

Reported:

Project Manager: Greg Buchanan

05/12/05 10:48

MW-4DT500546-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	11	91	"	*1	**	н	
Ethylbenzene	ND	0.50	**	**	**	**	n	11	
m,p-Xylene	ND	1.0	н		11	0	11	11	
o-Xylene	ND	0.50	11	11	н	**	11	"	
Tert-amyl methyl ether	ND	2.0	11	**	"	**	H	11	
Tert-butyl alcohol	ND	10	**	*1	**	**	11	Ħ	
Di-isopropyl ether	ND	2.0	11	н	11	II .	**	11	
Ethyl tert-butyl ether	ND	2.0	11	**	н	11	11	**	
Methyl tert-butyl ether	ND	1.0	11	**	u	n	11	н	
C6-C12 (GRO)	ND	50	11	11	н	11	11	11	
Surrogate: Toluene-d8		102 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		108 %	80-	-112	"	n	"	"	
Surrogate: Dibromofluoromethane		99.0 %	78. c	5-122	"	"	"	"	

SunStar Laboratories, Inc.

Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-5S T500546-09 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	11	**	n	н	11	11	
Ethylbenzene	ND	0.50	u	11	11	11	n	н	
m,p-Xylene	ND	1.0	11	n	n	"	u	"	
o-Xylene	ND	0.50	**	н	19	н	**	**	
Tert-amyl methyl ether	ND	2.0	**	**	H	11	н	11	
Tert-butyl alcohol	ND	10	*1	**	10	н	10	*1	
Di-isopropyl ether	ND	2.0	11	"	**	u	"	**	
Ethyl tert-butyl ether	ND	2.0	u	11	11	U	,,	"	
Methyl tert-butyl ether	ND	1.0	11	"	н	n	**		
C6-C12 (GRO)	ND	50	**	11		1†	*1		
Surrogate: Toluene-d8		100 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		103 %	78. c	5-122	"	"	"	"	

SunStar Laboratories, Inc.

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.

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Tait Environmental 701 N. Parkcenter Drive

Santa Ana CA, 92705

Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-5D T500546-10 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	ıborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	"	"	11	**	*1	11	
Ethylbenzene	ND	0.50	11	0	"	11	**	н	
m,p-Xylene	ND	1.0	"	51	19	"	и	n	
o-Xylene	ND	0.50	**	**	"	**	n	11	
Tert-amyl methyl ether	ND	2.0	*1	11	n	**	0	u	
Tert-butyl alcohol	ND	10	**	н	"	н	**	11	
Di-isopropyl ether	ND	2.0	11	11	**	11	**	11	
Ethyl tert-butyl ether	ND	2.0	19	Ħ	11	"	11	**	
Methyl tert-butyl ether	10	1.0	**	**	н	"	11	11	
C6-C12 (GRO)	ND_	50	н	11	11	+1	11	11	
Surrogate: Toluene-d8		102 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		106 %	80-	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		104 %	78. <i>0</i>	5-122	"	"	"	"	

SunStar Laboratories, Inc.

(2-12-

Project: Mission Valley Rock

701 N. Parkcenter Drive Santa Ana CA, 92705 Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-6S T500546-03 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar L	aboratoi	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015							· · · · · · · · · · · · · · · · · · · 	
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	. 1	5050521	05/05/05	05/06/05	EPA 8260B	
Toluene	ND	0.50	**	**	11	н	n	tt.	
Ethylbenzene	3.0	0.50	**	"	Ħ	n	11	11	
m,p-Xylene	ND	1.0	11	11	u	**	"	"	
o-Xylene	ND	0.50		n		17	H	11	
Tert-amyl methyl ether	ND	2.0	"		0	**	*1	н	
Tert-butyl alcohol	ND	10	н	11	*1	11	ŧ	31	
Di-isopropyl ether	ND	2.0	11	"	17	H	11	н	
Ethyl tert-butyl ether	ND	2.0	и	11	**	"		11	
Methyl tert-butyl ether	160	1.0	11		u	11	11	"	
C6-C12 (GRO)	750	50	**	17	**	11	11		
Surrogate: Toluene-d8		99.2 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		91.5 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		113 %	78.6	6-122	"	"	"	"	

SunStar Laboratories, Inc.

Tait Environmental 701 N. Parkcenter Drive

Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

Santa Ana CA, 92705

MW-6D T500546-06 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons b	oy 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	2.0	0.50	ug/l	1	5050521	05/05/05	05/05/05	EPA 8260B	
Toluene	ND	0.50	"	11	*1	0	н	11	
Ethylbenzene	ND	0.50	н	"	11	"	11	н	
m,p-Xylene	ND	1.0	**	11	11	11	**	11	
o-Xylene	ND	0.50	**	"	"	11	11	11	
Tert-amyl methyl ether	ND	2.0	**	19	**	u	н	H	
Tert-butyl alcohol	ND	10	"	**	**	11	11	**	
Di-isopropyl ether	ND	2.0	11	11	н	"	н	11	
Ethyl tert-butyl ether	ND	2.0		н	11	н	"	H	
Methyl tert-butyl ether	190	1.0	**	**	и	11	H	"	
C6-C12 (GRO)	360	50	"		H	u .	Ħ	в	
Surrogate: Toluene-d8		102 %	87.6	5-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	80-	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		101 %	78.c	5-122	"	"	"	"	

SunStar Laboratories, Inc.

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.

701 N. Parkcenter Drive Santa Ana CA, 92705 Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-7S T500546-13 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		SunStar La	aborator	ies, Inc.					
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	0.52	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/06/05	EPA 8260B	
Toluene	ND	0.50	**	34	11	"	11	**	
Ethylbenzene	31	0.50	11	"	"	11	н	11	
m,p-Xylene	16	1.0	17	"	н	10	н	н	
o-Xylene	2.4	0.50	н	17		"	11	0	
Tert-amyl methyl ether	ND	2.0	**	Ħ	**	0	Ħ	**	
Tert-butyl alcohol	ND	10	**	n	"	11	11	**	
Di-isopropyl ether	ND	2.0	и	"	"	"	**	u	
Ethyl tert-butyl ether	ND	2.0	11	n	**	e	"	"	
Methyl tert-butyl ether	ND	1.0	"	11	17	o o	11	н	
C6-C12 (GRO)	1600	50	11	*1	"		H	***	
Surrogate: Toluene-d8		100 %	87.0	6-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		109 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		102 %	78.	6-122	"	"	"	"	

SunStar Laboratories, Inc.

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.

Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

MW-8 T500546-12 (Water)

Analyta	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Analyte	Result	SunStar La							
Extractable Petroleum Hydrocarbons	by 8015								
Diesel Range Hydrocarbons	ND	0.050	mg/l	1	5050520	05/05/05	05/07/05	EPA 8015m	
Volatile Organic Compounds by EPA	Method 8260B								
Benzene	ND	0.50	ug/l	1	5050521	05/05/05	05/06/05	EPA 8260B	
Toluene	ND	0.50	11	*	Ħ	11	н	#1	
Ethylbenzene	ND	0.50	**	**	11	*1	11	11	
m,p-Xylene	ND	1.0	11	11	9	**	**	O.	
o-Xylene	ND	0.50	**	н	**	11	н	11	
Tert-amyl methyl ether	ND	2.0	"	11	**	"	11	**	
Tert-butyl alcohol	ND	10	**	н	н	0	н	11	
Di-isopropyl ether	ND	2.0	n	11	11	Ħ	"	11	
Ethyl tert-butyl ether	ND	2.0	**	u	"	11	"	11	
Methyl tert-butyl ether	ND	1.0	***	0	**	*1	#	н	
C6-C12 (GRO)	ND	50_	11	н	**		"	11	
Surrogate: Toluene-d8		102 %	87.0	6-115	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		107 %	80	-112	"	"	"	"	
Surrogate: Dibromofluoromethane		104 %	78.6	6-122	"	"	"	"	

SunStar Laboratories, Inc.

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Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

Extractable Petroleum Hydrocarbons by 8015 - Quality Control SunStar Laboratories, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch 5050520 - EPA 3510C GC						_		<u>-</u>		
Blank (5050520-BLK1)				Prepared:	05/05/05	Analyzed	: 05/07/05			
Diesel Range Hydrocarbons	ND	0.050	mg/l							
LCS (5050520-BS1)				Prepared:	05/05/05	Analyzed	: 05/07/05			
Diesel Range Hydrocarbons	22.7	0.050	mg/l	20.0		114	75-125			
Matrix Spike (5050520-MS1)	Sou	rce: T <u>5005</u> 4	16-01	Prepared:	05/05/05	Analyzed	: 05/07/05			
Diesel Range Hydrocarbons	21.9	0.050	mg/l	20.0	ND	110	75-125			
Matrix Spike Dup (5050520-MSD1)	Sou	rce: T5005	46-01	Prepared:	05/05/05	Analyzed	1: 05/07/05			
Diesel Range Hydrocarbons	23.5	0.050	mg/l	20.0	ND	118	75-125	7.05	20	

SunStar Laboratories, Inc.

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Project: Mission Valley Rock

Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

Volatile Organic Compounds by EPA Method 8260B - Quality Control SunStar Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes				
Batch 5050521 - EPA 5030 GCMS														
Blank (5050521-BLK1)				Prepared	& Analyzo	ed: 05/05/	05							
Benzene	ND	0.50	ug/l											
Toluene	ND	0.50	U											
Ethylbenzene	ND	0.50	11											
m,p-Xylene	ND	1.0	11											
o-Xylene	ND	0.50	**											
Tert-amyl methyl ether	ND	2.0	н											
Tert-butyl alcohol	ND	10	*1											
Di-isopropyl ether	ND	2.0	11											
Ethyl tert-butyl ether	ND	2.0	11											
Methyl tert-butyl ether	ND	1.0	11											
C6-C12 (GRO)	ND	50						· · · · · · · · · · · · · · · · · · ·						
Surrogate: Toluene-d8	40.3		"	40.0		101	87.6-115							
Surrogate: 4-Bromofluorobenzene	44.3		"	40.0		111	80-112							
Surrogate: Dibromofluoromethane	40.7		"	40.0		102	78.6-122							
LCS (5050521-BS1)				Prepared:	05/05/05	Analyzed	d: 05/06/05							
Benzene	106	0.50	ug/l	100		106	75-125							
Toluene	111	0.50	19	100		111	75-125							
Surrogate: Toluene-d8	40.7		"	40.0		102	87.6-115							
Surrogate: 4-Bromofluorobenzene	44.4		"	40.0		111	80-112							
Surrogate: Dibromofluoromethane	41.0		"	40.0		102	78.6-122							
Matrix Spike (5050521-MS1)	S	ource: T5005	45-05	Prepared	: 05/05/05	Analyze	75-125 75-125 87.6-115 80-112 78.6-122 red: 05/06/05 75-125							
Benzene	112	0.50	ug/l	100	ND	112								
Toluene	118	0.50	**	100	ND	118	75-125							
Surrogate: Toluene-d8	40.4		"	40.0		101	87.6-115							
Surrogate: 4-Bromofluorobenzene	38.6		"	40.0		96.5	80-112							
Surrogate: Dibromofluoromethane	40.8		"	40.0		102	78.6-122							

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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.

Project: Mission Valley Rock

701 N. Parkcenter Drive Santa Ana CA, 92705 Project Number: EM2509 Project Manager: Greg Buchanan **Reported:** 05/12/05 10:48

Volatile Organic Compounds by EPA Method 8260B - Quality Control SunStar Laboratories, Inc.

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	PD Limit 51 20	Notes
Batch 5050521 - EPA 5030 GCMS										
Matrix Spike Dup (5050521-MSD1)	Sou	rce: T5005	45-05	Prepared:	05/05/05	Analyzed	1: 05/06/05			
Benzene	116	0.50	ug/l	100	ND	116	75-125	3.51	20	
Toluene	121	0.50	*1	100	ND	121	75-125	2.51	20	
Surrogate: Toluene-d8	41.5		"	40.0		104	87.6-115			
Surrogate: 4-Bromofluorobenzene	44.1		"	40.0		110	80-112			
Surrogate: Dibromofluoromethane	41.8		"	40.0		104	78.6-122			

SunStar Laboratories, Inc.

0-12-

Project: Mission Valley Rock

701 N. Parkcenter Drive

Project Number: EM2509

Reported: 05/12/05 10:48

Santa Ana CA, 92705

Project Manager: Greg Buchanan

Notes and Definitions

DET

Analyte DETECTED

ND

Analyte NOT DETECTED at or above the reporting limit

NR

dry

Sample results reported on a dry weight basis

RPD

Relative Percent Difference

SunStar Laboratories, Inc.

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.

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

Chain of Custody Record

T500 546

Client: TAT ENV. Address: 701 N. PARK CH. J.A. Phone: 714-560-8200 Fax: Project Manager: Greg. Buchanan						_ Date:							55 55	٧٥١	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	hu	Pag Clier EDF	e:Of Rick nt Project #:#:		
Sample ID MW-ID MW-ID MW-65 MW-65 MW-72 MW-6D MW-3 MW-55 MW-50 MW-1 MW-8 MW-75	Date Sampled 5/4/05 // // // // // // // // //	6:30 9:30 10:30 11:30 11:30 12:45 12:45 12:45 12:45 1:15 2:15	e((1)	Container Type Volates Li II II II II II II II II II	8260	8260 + OXY	CCCCC CCC CCC 8260 BTEX, OXY only	8270	8021 BTEX	8015M (gasoline)	TCCCCC (8015M (diesel)		6010/7000 Title 22 Metals				TESSER CERCELaboratory ID#	Comments/Preservative O 67 O3 O4 O5 O6 57 O3 O9 10 11 12 13	Total # of containers	
4.7	Date / Ti		1	y: (signature)		5		J. Tir	7		Chai	in of	Custo	dy sea	contair als Y/Ň	6	52	Notes	1	
Relinquished by: (signature)	Date / Ti			y. (signature)		V		e / Tir			Seals intact? Y/N/					_ +	92			
Relinquished by: (signature) Date / Time Received by: (signature) Sample disposal Instructions: Disposal @ \$2.00 each Return to client						Pickı		Turn around time: 1												