February 27, 2006

Peter Van Alyea
Redwood Oil Company
50 Professional Center Drive
Rohnert Park, CA 94928

Ground Water Monitoring Report, December 2005/
Operations and Maintenance Report
Redwood Oil Service Station
1100 Bennett Valley Road
Santa Rosa, California
ECM Project #98-511-14

Dear Mr. Van Alyea:

This report provides the results of the quarterly ground water monitoring at the Redwood Oil Service Station located at 1100 Bennett Valley Road in Santa Rosa, California (Figure 1, Appendix A). Also included is the summery of operations and maintenance activities for the Ground Water Extraction (GWE) system operating at the site for the time period between October 27, 2005 and January 18, 2006.

Ground Water Monitoring

On December 13 and 14, 2005, ECM personnel visited the site. Ground water elevations were measured and ground water samples were collected from the thirteen conventional monitoring wells (MW-4 through MW-14, MW-16, and MW-17) and each of the four sample ports in the multi-level monitoring well (MW-15). Ground water elevation was also measured in piezometer PZ-1, and a water sample was collected from the domestic well located at 1020 Bennett Valley Road. The well locations are provided on Figure 2 (Appendix A).

Depth to water was measured in each of the monitoring wells. Wells were also checked for the presence of free-phase hydrocarbons. Free-phase hydrocarbons were not observed in any of the wells. Wellheads and well vaults were observed to be in good condition. Water level data is provided in Table 1 (Appendix B) and a ground water elevation contour map is included as Figure 2 (Appendix A).

The ground water samples were forwarded under chain of custody record to Friedman and Bruya Inc. of Seattle, Washington for analysis. Analytical results for ground water are included in Table 2 (Appendix B). Ground water samples were collected in accordance with ECM Standard

Operating Procedure - Ground Water Sampling (Appendix E). The chain of custody document and laboratory analytical reports are included as Appendix C. Water sampling data sheets are included in Appendix D. Purge water and decon rinseate were transferred to the ground water remediation system holding tank for treatment and permitted discharge.

Gasoline, diesel, BTEX constituents, and MTBE have been detected consistently in samples from site monitoring wells. Analytical results for this sampling event were typical of previous results. Ground water flow was to the west at an approximate gradient of 0.02 ft/ft. Ground water gradient at the site is influenced by the ground water extraction system. Influence of the system can be seen on Figure 2 (Appendix A).

Wells MW-4 through MW-7 represent the most impacted area of the site due to their proximity to the former USTs. Contaminant concentrations were relatively high in the samples from wells MW-4, MW-6 and MW-7. The concentrations were typical of previous sampling events. Well MW-5 represents the most highly impacted area of the site. Samples from well MW-5 have consistently been heavily impacted with gasoline, diesel, BTEX compounds, and the oxygenates MTBE and TBA. Samples collected during the December 2005 event were consistent with historical results. The oxygenate TAME was also detected in the sample from MW-5 at a lower concentration that was consistent with previous samples.

Wells MW-8 and MW-9 are located downgradient of the site, to the southeast and south, respectively. Contaminant concentrations for samples from MW-8 and MW-9 have typically been low or below detection limits. Contaminant concentrations in the samples collected during the December 2005 were consistent with historical results. Low concentrations of BTEX compounds and very low concentrations of MTBE were detected in the samples from MW-8 and MW-9. No gasoline or diesel were detected in either sample.

Wells MW-10, MW-11, and MW-12 are located downgradient, to the west of the site. Analytical results for samples from MW-10 and MW-11 have consistently been low or below detection limits for all contaminants of concern. Contaminant concentrations in the samples from MW-10 and MW-11 were consistent with previous results. BTEX compounds and MTBE were detected in both samples. Gasoline and diesel were not detected in either sample.

Contamination in samples from MW-12 has fluctuated from high concentrations to concentrations below detection limits. The sample collected during this event contained low concentrations of MTBE and BTEX compounds. No other analytes were detected in the sample. There is no apparent correlation between ground water elevation and contaminant concentration in well MW-12.

Well MW-13 is located cross-gradient, to the north of the site. Results for this quarter were consistent with results of previous samples from MW-13. Gasoline and BTEX compounds were detected in the sample from MW-13. A low concentration of MTBE was also detected in the

sample. No diesel was detected in the sample.

Well MW-14 is located downgradient, to the west of the site. Concentrations of gasoline, diesel, and BTEX compounds detected in samples from MW-14 have typically been moderate to high. Oxygenates have been detected at lower concentrations. Results for the December sampling event were moderate and consistent with historical results.

Well MW-15 is installed to a depth of 150 ft bgs and contains four sample ports (30 - 40 ft, 60 - 70 ft, 83 - 93 ft, and 140 - 150 ft). Well MW-15 was installed in April, 2005 and has been sampled quarterly since installation. Since monitoring began, analytical results for samples collected from the 140 - 150 ft port have been similar to results for samples from the 30 - 40 ft port. Ground water elevations measured in the two ports have also been similar. An on-site evaluation of the well, combined with consistent historical sample results, indicates communication between the 30 - 40 ft sample port and the 140 - 150 ft sample port. All data collected from these sample ports is assumed to be invalid. There is no indication that the 60 - 70 ft sample port or the 83 - 93 ft sample port have been affected. However, the entire well is considered compromised and all data is considered unreliable.

Wells MW-16 and MW-17 were installed in April, 2005 to evaluate groundwater in the 30 - 40 ft zone downgradient of the site. Low concentrations of BTEX compounds have been detected in samples from MW-16 and MW-17 collected during the first four monitoring events, including the December 2005 event. No diesel has been detected in any of the samples. Gasoline was detected in the samples from MW-16 collected in June and December of 2005. Gasoline was detected in the sample from MW-17 collected during June of 2005. MTBE has been detected in each sample collected from MW-16 and MW-17.

A domestic well at 1020 Bennett Valley Road was sampled on December 14, 2005. No analytes were detected in the sample.

Remedial System Operation

An air sparge (AS) system was formerly operational at the site. A summary report describing the AS system was submitted in July 2000.[1] The AS system became operational on July 18, 2000 and was deactivated during the third quarter of 2004. A ground water extraction (GWE) system is currently operational at the site. A summary report describing the GWE system installation

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[1] ECM, 2000, Air Sparge Investigation Report, 1100 Bennett Valley Road, Santa Rosa, California, September 13, 2000, 2 pages and 1 attachment.

was submitted in March 2004.[2] The GWE system became operational on December 5, 2003. After repairs and modifications the system was permanently activated on February 23, 2004.

On September 11, 2004, free product was detected in the system holding tank and the system was deactivated. The system was reconfigured to process free product under permit by the Santa Rosa Fire Department. Upon permit approval, the remediation system was reactivated on July 5, 2005 and has operated continuously since activation, with downtime for routine maintenance and system evaluation. Layout of the treatment system pad is shown in Figure 4 (Appendix A).

Analytic laboratory reports for treatment system influent samples are included in Appendix C. Operation and maintenance field notes are presented in Appendix D.

GWE System Operation

The GWE system extracts ground water from three wells (EX-1, EX-2, and EX-3, Figure 3, Appendix A). EX-1 is 4 inches in diameter and 31 ft in depth. EX-2 and EX-3 are 6 inches in diameter and 40 ft in depth. Each well contains a top-loading pump which is 5 ft in length and set approximately 0.5 ft from the bottom of each well. Between October 27, 2005 and January 18, 2006, a total of 840,704 gallons of ground water were extracted by the system. Flow rate for the system between October 27, 2005 and January 18, 2006 varied from 0.0 to 12.3 gallons per minute (GPM). Since initial activation, the GWE system has extracted approximately 3,300,000 gallons of ground water. Table 4 (Appendix B) provides complete influent analytical results for the system. Table 5 (Appendix B) provides flow totalizer readings for the GWE system.

GWE System Performance Evaluation

System performance may be measured by quantity of hydrocarbons removed. Since hydrocarbons have a very low solubility in water, mass of hydrocarbons removed by a ground water extraction system is typically low relative to the quantity of hydrocarbons sorbed to soil. Another measure of system performance is the system's ability to control the offsite migration of impacted groundwater

Between October 27, 2005 and January 18, 2006, a total of 840,704 gallons of ground water were extracted by the system (Table 5, Appendix B). Hydrocarbon removal is calculated using the influent concentrations provided in Table 4 (Appendix B). Influent stream samples were collected for the fourth quarter of 2005 on October 3. Influent samples were collected for the first quarter of 2006 on January 11. The concentrations of gasoline in the influent samples were

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[2] ECM, 2004, Groundwater Extraction System Installation Report, 1100 Bennett Valley, Santa Rosa, California, March 12, 2004, 6 pages and 6 attachments.

19,000 parts per billion (ppb) and 6,500 ppb, respectively. Diesel was not detected in either sample, though hydrocarbons (C8-C18), possible gasoline compounds in the TPH-diesel range, were detected at 2,000 ppb in the October 3 sample and 610 ppb in the January 11 sample. Assuming the influent stream samples collected on October 3, 2005 and January 11, 2005 are representative of the period between October 27, 2005 and January 18, 2006, then the mass of hydrocarbon removed by the GWE system during the quarter is approximately 50 kg. Cumulative totals for hydrocarbon removal are provided in Table 5 and Graph 1, Appendix B.

Water level measurements are collected from thirteen conventional monitoring wells (MW-4 through MW-14, MW-16, and MW-17) and one piezometer (PZ-1) on a quarterly basis. Water level measurements were collected from the eleven monitoring wells and one piezometer on December 14, 2005. Water level measurements in monitoring wells and piezometer are used to evaluate GWE system performance in terms of drawdown and plume migration control. Figure 2 (Appendix A) shows ground water elevation in monitoring wells for December 14, 2005, and shows ground water elevation contours based on the measurements collected. It is inferred from the measurements that the extraction system is effectively preventing off-site migration.

Thank you for the opportunity to provide services to Redwood Oil Company. Please call if you have any questions.

Sincerely,
ECM Group

David Hazard
Environmental Scientist

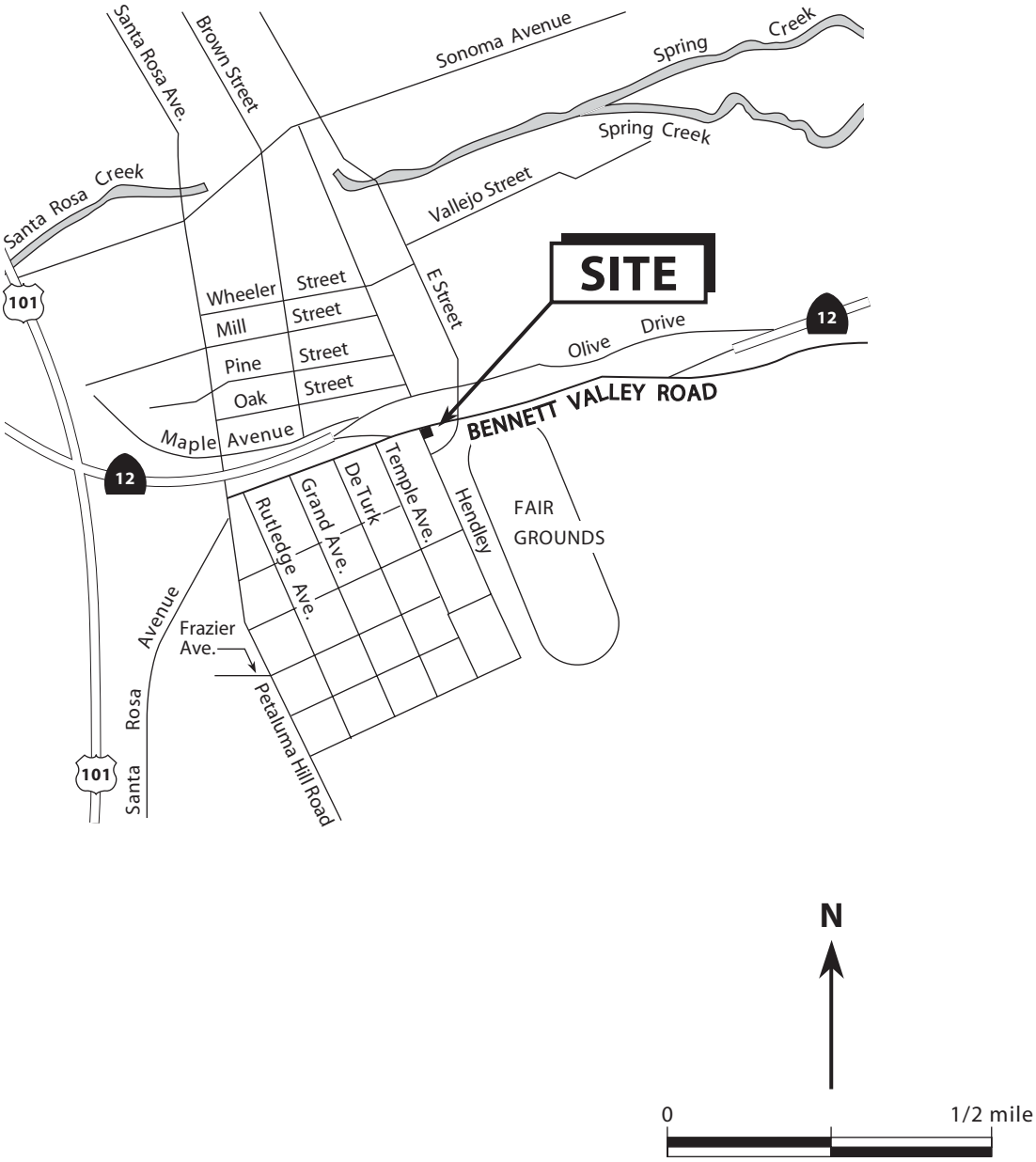
Chris Bramer
Professional Engineer #C048846

Attachments:
A - Figures
B - Tables
C - Chain of Custody Document and Lab Analytical Reports
D - Water Sampling Data Sheets
E - Standard Operating Procedure

cc: Joan Fleck, North Coast Regional Water Quality Control Board
C1:ECMQMs\51104QMSep05

APPENDIX A

FIGURES



Base map ref: Thomas Bros.

Figure 1. Site Location Map – Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

98-511 [Site loc map] 4/08/03

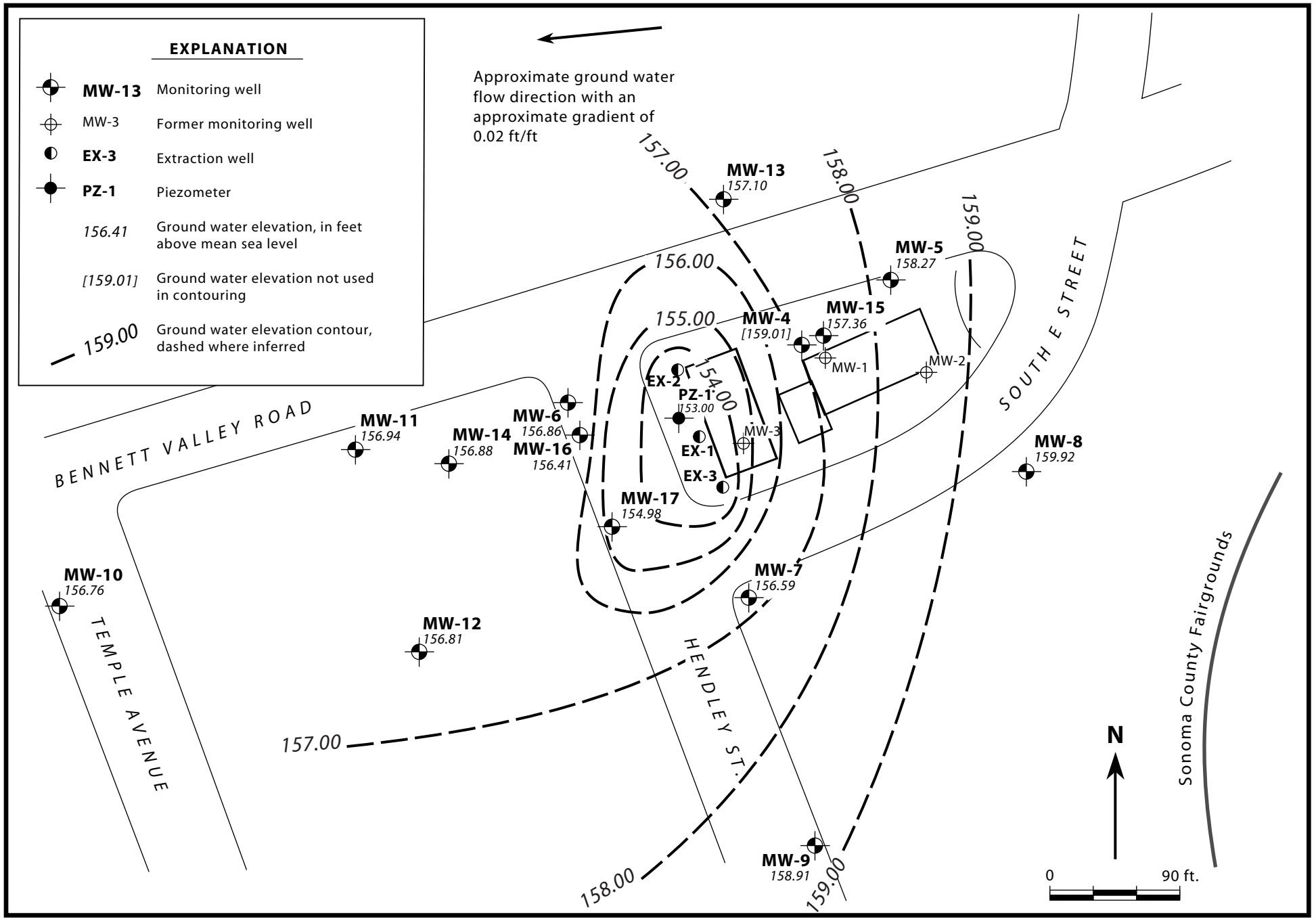


Figure 2. Monitoring Well Locations and Ground Water Elevation Contour Map - December 14, 2005 - Redwood Oil Service Station #106, 1100 Bennett Valley Road, Santa Rosa, California

98-511-14 [GW 12-05] 1/20/06

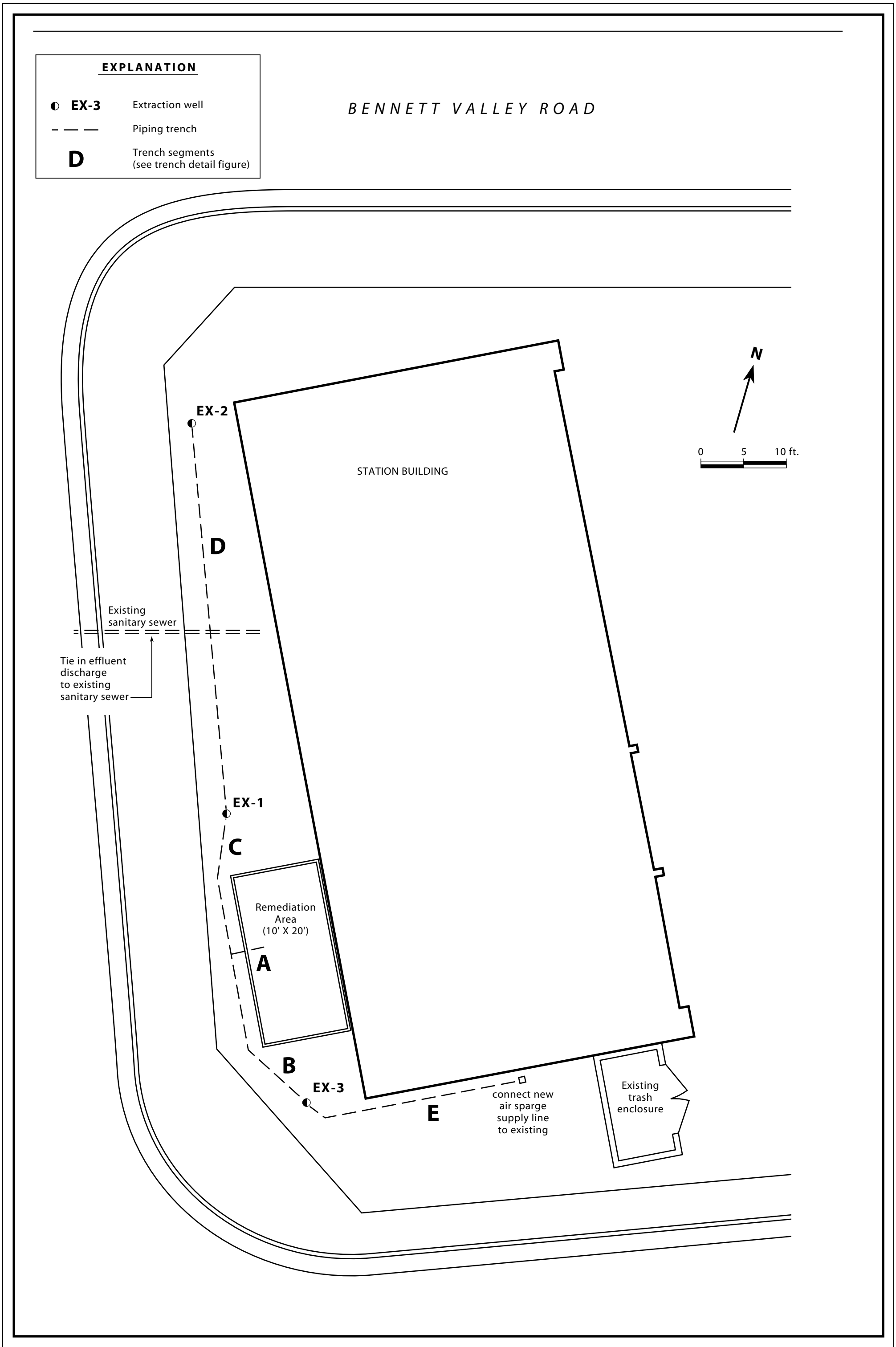
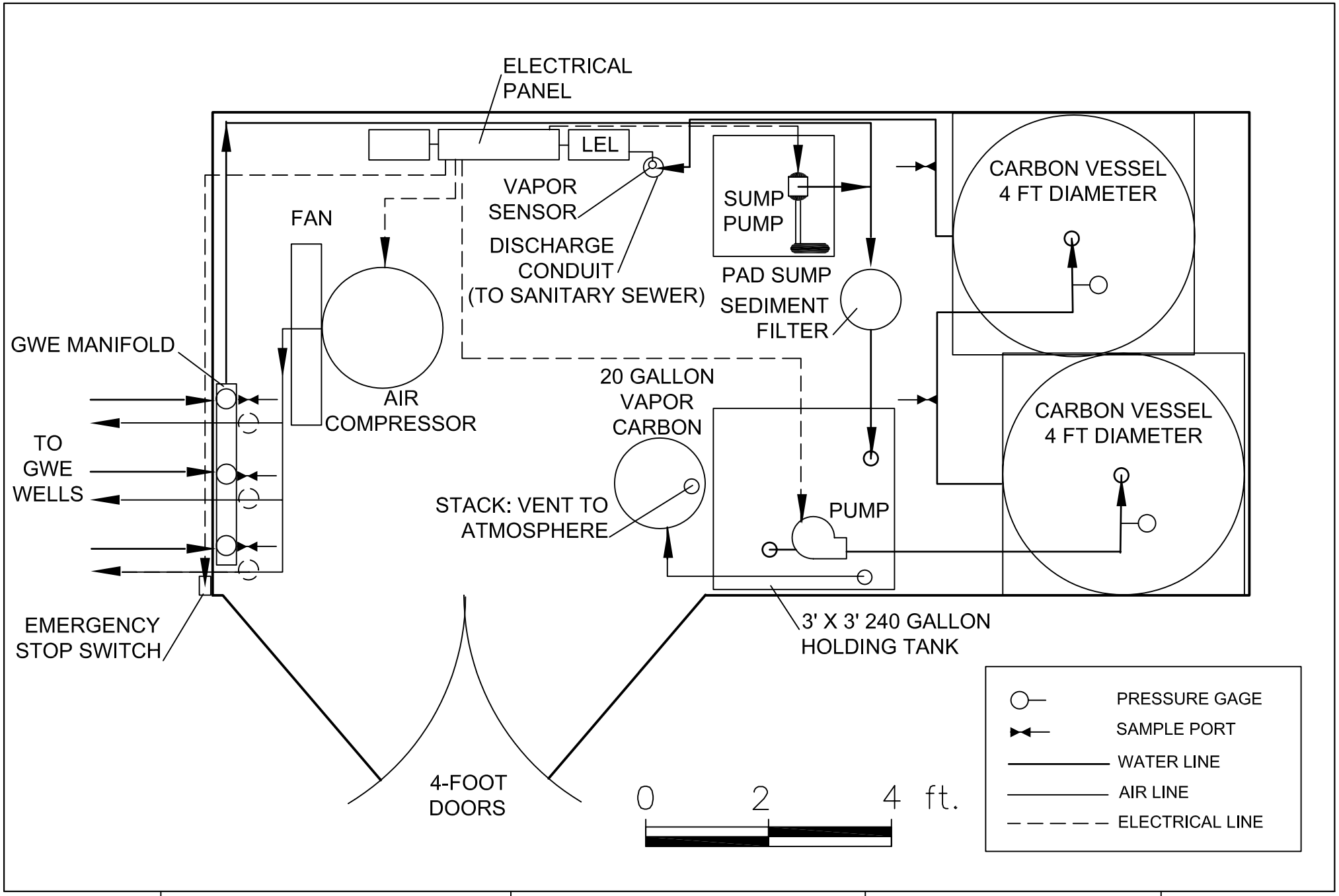


Figure 3. Remediation System Layout - Redwood Oil Service Station #106, 1100 Bennett Valley Road, Santa Rosa, California

98-511-65 [remsys layout] 10/17/02



ECM Group

PROJECT REMEDIATION SYSTEM Redwood Oil Service Station # 106, 1100 Bennett Valley Road Santa Rosa, California	DRAWING REMEDIATION PAD LAYOUT	PROJECT NUMBER 98-511-66	DRAWN BY RG
		ORIGINAL DATE	CHECKED BY CB
		REVISION DATE 12/05/05	FIGURE NUMBER 4

APPENDIX B

TABLES AND GRAPHS

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-4	9/18/1998	165.15	5.95	159.20	5-20	4-20	0-4	
	1/4/1999		7.12	158.03				
	3/10/1999		4.37	160.78				
	10/1/1999		7.73	157.42				
	1/5/2000		8.70	156.45				
	3/29/2000		4.88	160.27				
	7/11/2000		7.60	157.55				
	9/29/2000		8.11	157.04				
	12/7/2000		8.52	156.63				
	3/6/2001		6.60	158.55				
	6/21/2001		7.05	158.10				
	9/18/2001		8.47	156.68				
	12/19/2001		7.05	158.10				
	3/20/2002		4.50	163.21				
	6/20/2002	167.71	6.18	161.53				Surveyed for EDF compliance.
	9/20/2002		7.68	160.03				
	12/31/2002		3.42	164.29				
	3/25/2003		4.80	162.91				
	7/1/2003		5.76	161.95				
	10/2/2003		7.61	160.10				
	12/9/2003		7.80	159.91				
	3/2/2004		4.12	163.59				
	6/8/2004		7.00	160.71				
	6/28/2004		7.37	160.34				
	9/9/2004		8.71	159.00				
	12/28/2004		7.84	159.87				
	3/29/2005		3.60	164.11				
	6/27/2005		5.24	162.47				
	9/27/2005		8.51	159.20				
	12/14/2005		**8.70**	**159.01**				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-5	9/18/1998	165.22	7.62	157.60	5-20	4-20	0-4	
	1/4/1999		7.61	157.61				
	3/10/1999		4.29	160.93				
	10/1/1999		8.70	156.52				
	1/5/2000		9.28	155.94				
	3/29/2000		5.27	159.95				
	7/11/2000		7.47	157.75				
	9/29/2000		9.05	156.17				
	12/7/2000	165.22	8.04	157.18				
	3/6/2001		5.40	159.82				
	6/21/2001		7.95	157.27				
	9/18/2001		9.45	155.77				
	12/19/2001		5.60	159.62				
	3/20/2002		4.85	162.94				
	6/20/2002	167.79	7.21	160.58				Surveyed for EDF compliance.
	9/20/2002		9.01	158.78				
	12/31/2002		4.35	163.44				
	3/25/2003		5.15	162.64				
	7/1/2003		7.00	160.79				
	10/2/2003		9.00	158.79				
	12/9/2003		8.60	159.19				
	3/2/2004		4.58	163.21				
	6/8/2004		8.18	159.61				
	6/28/2004		9.09	158.70				
	9/9/2004		10.32	157.47				
	12/28/2004		7.19	160.60				
	3/29/2005		4.10	163.69				
	6/27/2005		6.43	161.36				
	9/27/2005		10.32	157.47				
	12/14/2005		**9.52**	**158.27**				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-6	9/18/1998	163.49	8.50	154.99	5-20	4-20	0-4	
	1/4/1999		7.88	155.61				
	3/10/1999		3.97	159.52				
	10/1/1999		9.65	153.84				
	1/5/2000		9.70	153.79				
	3/29/2000		5.91	157.58				
	7/13/001		---	---				Monitoring well was inaccessable
	9/29/2000		9.73	153.76				
	12/7/001		---	---				Monitoring well was inaccessable
	3/6/2001		4.37	159.12				
	6/21/2001		8.52	154.97				
	9/18/2001		10.12	153.37				
	12/19/2001		9.93	153.56				
	3/20/2002	166.52	5.29	161.23				Surveyed for EDF compliance.
	6/20/2002		7.95	158.57				
	9/20/2002		9.91	156.61				
	12/31/2002		3.89	162.63				
	3/25/2003		5.59	160.93				
	7/1/2003		7.58	158.94				
	10/2/2003		9.70	156.82				
	12/9/2003		8.70	157.82				
	3/2/2004		5.21	161.31				
	6/8/2004		8.51	158.01				
	6/28/2004		9.93	156.59				
	9/9/2004		11.04	155.48				
	12/28/2004		--	--				Monitoring well was inaccessable
	3/29/2005		3.64	162.88				
	6/27/2005		6.85	159.67				
	9/27/2005		10.87	155.65				
	12/14/2005		**9.66**	**156.86**				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-7	9/18/1998	163.33	8.81	154.52	5-20	4-20	0-4	
	1/4/1999		7.18	156.15				
	3/10/1999		4.40	158.93				
	10/1/1999		8.31	155.02				
	1/5/2000		8.79	154.54				
	3/29/2000		4.96	158.37				
	7/11/2000		7.11	156.22				
	9/29/2000		8.68	154.65				
	12/7/2000		8.31	155.02				
	3/6/2001		4.62	158.71				
	6/21/2001		7.70	155.63				
	9/18/2001		9.17	154.16				
	12/19/2001		4.96	158.37				
	3/20/2002	167.01	---	---				Resurveyed for EDF compliance. Monitoring well was inaccessable.
	6/20/2002		7.00	160.01				
	9/20/2002		8.81	158.20				
	12/31/2002		4.17	162.84				
	3/25/2003		5.00	162.01				
	7/1/2003		6.92	160.09				
	10/2/2003		8.70	158.31				
	12/9/2003		8.24	158.77				
	3/2/2004		5.61	161.40				
	6/8/2004		8.12	158.89				
	6/28/2004		9.29	157.72				
	9/9/2004		10.34	156.67				
	12/28/2004		6.02	160.99				
	3/29/2005		4.02	162.99				
	6/27/2005		6.30	160.71				
	9/27/2005		11.42	155.59				
	12/14/2005		**10.42**	**156.59**				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-8	9/18/1998	164.37	6.00	158.37	5-20	4-20	0-4	
	1/4/1999		7.84	156.53				
	3/10/1999		2.41	161.96				
	10/1/1999		7.29	157.08				
	1/5/2000		7.57	156.80				
	3/29/2000		3.52	160.85				
	7/11/2000		5.71	158.66				
	9/29/2000		7.42	156.95				
	12/7/2000		7.00	157.37				
	3/6/2001		3.08	161.29				
	6/21/2001		6.22	158.15				
	9/18/2001		7.87	156.50				
	12/19/2001		3.45	160.92				
	3/20/2002	166.93	3.10	163.83				Surveyed for EDF compliance.
	6/20/2002		5.48	161.45				
	9/20/2002		7.30	159.63				
	12/31/2002		2.99	163.94				
	3/25/2003		3.29	163.64				
	7/1/2003		5.20	161.73				
	10/2/2003		7.21	159.72				
	12/9/2003		6.67	160.26				
	3/2/2004		2.38	164.55				
	6/8/2004		6.27	160.66				
	6/28/2004		6.91	160.02				
	9/9/2004		8.15	158.78				
	12/28/2004		5.28	161.65				
	3/29/2005		2.60	164.33				
	6/27/2005		4.84	162.09				
	9/27/2005		7.88	159.05				
	12/14/2005		**7.01**	**159.92**				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-9	7/11/2000	162.72	6.28	156.44	5-20	4-20	2-4	
	9/29/2000		7.75	154.97				
	12/7/2000		7.30	155.42				
	3/6/2001		4.34	158.38				
	6/21/2001		6.95	155.77				
	9/18/2001		8.25	154.47				
	12/19/2001		4.66	158.06				
	3/20/2002	166.40	4.70	161.70				Surveyed for EDF compliance.
	6/20/2002		6.41	159.99				
	9/20/2002		7.92	158.48				
	12/31/2002		3.75	162.65				
	3/25/2003		5.71	160.69				
	7/1/2003		6.20	160.20				
	10/2/2003		7.30	159.10				
	12/9/2003		6.78	159.62				
	3/2/2004		4.39	162.01				
	6/8/2004		7.10	159.30				
	6/28/2004		7.66	158.74				
	9/9/2004		8.77	157.63				
	12/28/2004		4.66	161.74				
	3/29/2005		4.05	162.35				
	6/27/2005		5.69	160.71				
	9/27/2005		8.49	157.91				
	12/14/2005		**7.49**	**158.91**				
MW-10	7/11/2000	162.23	8.50	153.73	5-20	4-20	2-4	
	9/29/2000		10.07	152.16				
	12/7/2000		9.47	152.76				
	3/6/2001		4.61	157.62				
	6/21/2001		9.00	153.23				
	9/18/2001		10.50	151.73				
	12/19/2001		5.10	157.13				
	3/20/2002	165.91	5.75	160.16				Surveyed for EDF compliance.
	6/20/2002		8.45	157.46				
	9/20/2002		10.28	155.63				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-10 cont	12/31/2002	165.91	3.53	162.38	5-20	4-20	2-4	
	3/25/2003		6.10	159.81				
	7/1/2003		8.12	157.79				
	10/2/2003		10.10	155.81				
	12/9/2003		8.70	157.21				
	3/2/2004		4.55	161.36				
	6/8/2004		8.73	157.18				
	6/28/2004		9.34	156.57				
	9/9/2004		10.41	155.50				
	12/28/2004		4.74	161.17				
	3/29/2005		3.71	162.20				
	6/27/2005		7.29	158.62				
	9/27/2005		10.52	155.39				
	12/14/2005		**9.15**	**156.76**				
MW-11	7/11/2000	162.86	8.36	154.50	5-20	4-20	2-4	
	9/29/2000		9.96	152.90				
	12/7/2000		9.37	153.49				
	3/6/2001		4.65	158.21				
	6/21/2001		8.78	154.08				
	9/18/2001		10.31	152.55				
	12/19/2001		5.20	157.66				
	3/20/2002	166.54	5.65	160.89				Surveyed for EDF compliance.
	6/20/2002		8.27	158.27				
	9/20/2002		10.21	156.33				
	12/31/2002		4.11	162.43				
	3/25/2003		5.98	160.56				
	7/1/2003		7.94	158.60				
	10/2/2003		10.00	156.54				
	12/9/2003		8.86	157.68				
	3/2/2004		5.14	161.40				
	6/8/2004		8.75	157.79				
	6/28/2004		9.88	156.66				
	9/9/2004		10.98	155.56				
	12/28/2004		6.28	160.26				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-11 cont.	3/29/2005	166.54	3.95	162.59	5-20	4-20	2-4	
	6/27/2005		7.29	159.25				
	9/27/2005		10.82	155.72				
	12/14/2005		**9.60**	**156.94**				
MW-12	7/11/2000	162.86	8.49	154.37	5-20	4-20	2-4	
	9/29/2000		10.04	152.82				
	12/7/2000		---	---				Monitoring well was inaccessable
	3/6/2001		---	---				Monitoring well was inaccessable
	6/21/2001		9.04	153.82				
	9/18/2001		10.46	152.40				
	12/19/2001		7.30	155.56				
	3/20/2002	166.56	5.81	160.75				Surveyed for EDF compliance.
	6/20/2002		8.48	158.08				
	9/20/2002		10.35	156.21				
	12/31/2002		---	---				Monitoring well was inaccessable
	3/25/2003		6.06	160.50				
	7/1/2003		8.12	158.44				
	10/2/2003		10.18	156.38				
	12/9/2003		9.03	157.53				
	3/2/2004		5.09	161.47				
	6/8/2004		8.96	157.60				
	6/28/2004		9.91	156.65				
	9/9/2004		11.06	155.50				
	12/28/2004		6.34	160.22				
	3/29/2005		4.06	162.50				
	6/27/2005		7.39	159.17				
	9/27/2005		10.91	155.65				
	12/14/2005		**9.75**	**156.81**				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-13	7/11/2000	164.14	9.63	154.51	5-20	4-20	2-4	
	9/29/2000		10.61	153.53				
	12/7/2000		10.07	154.07				
	3/6/2001		5.22	158.92				
	6/21/2001		9.37	154.77				
	9/18/2001		11.00	153.14				
	12/19/2001		5.72	158.42				
	3/20/2002	167.82	5.97	161.85				Surveyed for EDF compliance.
	6/20/2002		8.67	159.15				
	9/20/2002		10.67	157.15				
	12/31/2002		4.80	163.02				
	3/25/2003		6.22	161.60				
	7/1/2003		8.21	159.61				
	10/2/2003		10.44	157.38				
	12/9/2003		9.50	158.32				
	3/2/2004		6.19	161.63				
	6/8/2004		9.32	158.50				
	6/28/2004		10.98	156.84				
	9/9/2004		12.11	155.71				
	12/28/2004		7.46	160.36				
	3/29/2005		4.41	163.41				
	6/27/2005		7.59	160.23				
	9/27/2005		11.80	156.02				
	12/14/2005		**10.72**	**157.10**				
MW-14	3/20/2002	166.97	5.90	161.07	5-20	4-20	0-4	Surveyed for EDF compliance.
	6/20/2002		8.58	158.39				
	9/20/2002		10.51	156.46				
	12/31/2002		4.53	162.44				
	3/25/2003		6.23	160.74				
	7/1/2003		8.17	158.80				
	10/2/2003		10.29	156.68				
	12/9/2003		9.19	157.78				
	3/2/2004		5.62	161.35				
	6/8/2004		9.08	157.89				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-14 cont.	6/28/2004	166.97	10.34	156.63	5-20	4-20	0-4	
	9/9/2004		11.47	155.50				
	12/28/2004		6.74	160.23				
	3/29/2005		4.26	162.71				
	6/27/2005		7.51	159.46				
	9/27/2005		11.30	155.67				
	12/14/2005		**10.09**	**156.88**				
MW-15 @ 30'	5/4/2005	168.09	8.02	160.07	30 - 40	29 - 41	0 - 29	Surveyed for EDF compliance.
	6/27/2005		8.01	160.08				
	9/27/2005		12.42	155.67				
	12/14/2005		**10.73**	**157.36**				
MW-15 @ 60'	5/4/2005	168.09	7.68	160.41	60 - 70	59 - 71	41 - 59	Surveyed for EDF compliance.
	6/27/2005		8.23	159.86				
	9/27/2005		12.38	155.71				
	12/14/2005		**11.23**	**156.86**				
MW-15 @ 83'	5/4/2005	168.09	7.95	160.14	83 - 93	82 - 94	71 - 82	Surveyed for EDF compliance.
	6/27/2005		8.52	159.57				
	9/27/2005		11.81	156.28				
	12/14/2005		**10.95**	**157.14**				
MW-15 @ 140'	5/4/2005	168.09	8.03	160.06	140 - 150	139 - 150	94 - 139	Surveyed for EDF compliance.
	6/27/2005		8.03	160.06				
	9/27/2005		12.40	155.69				
	12/14/2005		**10.75**	**157.34**				

Table 1. Monitoring Well Survey Data, Well Construction Details, and Depth to Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Date	TOC (Ft,msl)	DTW (Ft)	GWE (Ft,msl)	Screen Interval	Sand Pack Interval	Bentonite Interval	Notes
MW-16	5/4/2005	166.96	7.04	159.92	30 - 40	29 - 40	0 - 29	Surveyed for EDF compliance.
	6/27/2005		7.52	159.44				
	9/27/2005		11.21	155.75				
	12/14/2005		**10.55**	**156.41**				
MW-17	5/4/2005	167.20	6.98	160.22	30 - 40	29 - 40	0 - 29	Surveyed for EDF compliance.
	6/27/2005		7.48	159.72				
	9/27/2005		13.54	153.66				
	12/14/2005		**12.22**	**154.98**				
PZ-1	3/2/2004	168.23	11.56	156.67	5-20	4-20	0-4	Surveyed for EDF compliance.
	6/8/2004		10.42	157.81				
	6/28/2004		15.27	152.96				
	9/9/2004		16.38	151.85				
	9/27/2005		15.29	152.94				
	12/14/2005		**15.23**	**153.00**				

Explanation:
ft = feet
msl = Mean Sea Level
DTW = Depth to Water
GWE = Ground Water Elevation

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-4	9/18/1998	87,000	16,000	8,500	8,200	1,900	7,700	5,900	
	1/4/1999	79,000	<1,000	13,000	7,500	1,800	8,800	7,800	
	3/10/1999	44,000	<50	7,700	4,400	970	4,100	3,600	
	6/30/1999	17,000	270	2,200	300	490	800	3,000	Sample was flagged. See analytical report for details
	10/1/1999	---	---	---	--	--	--	---	Monitoring well now on semi annual sampling
	1/5/2000	32,000	<50	8,600	770	1,100	2,500	6,000	
	3/29/2000	64,000	3,200	9,500	7,400	1,700	6,100	9,000	Sample was flagged. See analytical report for details
	7/11/2000	14,000	790	4,300	130	680	420	5,100	Sample was flagged. See analytical report for details
	9/29/2000	19,000	<50	3,100	210	570	470	3,900	
	12/7/2000	41,000	<50	3,600	1,700	260	1,400	1,300	
	3/6/2001	25,000	<50	4,300	4,100	420	2,100	860	
	6/21/2001	720	160	140	18	28	12	340	
	9/18/2001	3,900	710	1,100	190	120	340	730	
	12/19/2001	21,000	1,200	5,000	3,200	710	1,800	1,500	
	3/20/2002	<50	<250	<1	<1	<1	<1	200	
	6/20/2002	150	<50	21	5	4	7	87	
	9/20/2002	720	120	34	3.8	3.5	7.1	720	
	12/31/2002	1,300	<50	200	95	22	82	77	
	3/25/2003	380	<125	120	30	7	27	3	
	7/1/2003	450	<50	160	62	14	54	10	
	10/2/2003	400	50	140	37	9	31	2	
	12/9/2003	1,000	64	290	100	26	113	47	
	3/2/2004	650	<50	190	84	21	82	49	
	6/8/2004	<25	260	<0.5	<0.5	<0.5	<1	<1	
	9/14/2004	950	55	120	46	16	67	37	
	12/28/2004	4,400	310	2,200	39	49	73	1,300	
	3/29/2005	3,800	200	350	150	65	320	180	
	6/27/2005	430	<50	2.0	3.1	1	0.5	130	
	9/27/2005	3,000	190	440	65	47	85	111	
	12/14/2005	**2,300**	**<50**	**310**	**44**	**25**	**73**	**130**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-5	9/18/1998	160,000	39,000	33,000	20,000	4,000	20,000	15,000	
	1/4/1999	160,000	<50	31,000	22,000	3,100	16,000	8,400	
	3/10/1999	190,000	230	34,000	13,000	3,500	15,000	6,800	Sample was flagged. See analytical report for details
	6/30/1999	130,000	1,700	22,000	15,000	2,500	12,000	4,900	Sample was flagged. See analytical report for details
	10/1/1999	---	---	---	---	--	---	---	Monitoring well on semi annual sampling
	1/5/2000	170,000	<50	38,000	23,000	3,000	16,000	8,000	
	3/29/2000	130,000	5,000	17,000	9,300	3,500	12,000	6,500	Sample was flagged. See analytical report for details
	7/11/2000	190,000	29,000	33,000	21,000	2,800	13,000	6,500	Sample was flagged. See analytical report for details
	9/29/2000	260,000	<50	28,000	25,000	3,700	18,000	7,700	
	12/7/2000	250,000	<50	21,000	13,000	2,200	12,000	6,500	
	3/6/2001	96,000	<50	54,000	12,000	2,100	9,500	2,300	
	6/21/2001	90,000	6,500	23,000	12,000	2,400	11,000	6,200	
	9/18/2001	88,000	3,100	23,000	12,000	3,000	14,000	3,600	
	12/19/2001	84,000	5,100	25,000	9,600	2,800	12,000	3,300	
	3/20/2002	43,000	6,200	19,000	7,300	1,900	9,800	2,200	
	6/20/2002	94,000	7,800	28,000	11,000	2,200	8,600	3,200	
	9/20/2002	120,000	3,700	30,000	14,000	3,300	15,000	3,000	
	12/31/2002	110,000	10,000	23,000	9,500	3,000	11,000	2,400	
	3/25/2003	83,000	7,800	26,000	8,000	2,800	11,200	1,600	
	7/1/2003	62,000	5,300	33,000	11,000	3,300	13,000	2,200	
	10/2/2003	90,000	8,000	31,000	10,000	3,300	13,100	2,500	
	12/9/2003	110,000	6,700	29,000	8,800	3,100	13,000	1,600	
	3/2/2004	120,000	8,600	38,000	11,000	4,000	13,700	1,000	
	6/8/2004	81,000	5,500	31,000	8,100	2,900	10,000	1,300	
	9/14/2004	97,000	8,700	27,000	7,100	3,100	11,600	1,100	
	12/28/2004	68,000	12,000	17,000	2,400	2,800	12,000	660	
	3/29/2005	120,000	5,000	28,000	6,200	3,200	11,200	720	
	6/27/2005	120,000	4,900	30,000	7,000	3,200	11,800	620	
	9/27/2005	120,000	4,600	29,000	5,700	3,800	12,500	540	
	12/14/2005	**110,000**	**4,800**	**24,000**	**3,700**	**2,800**	**9,900**	**490**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-6	9/18/1998	49,000	8,000	10,000	3,200	1,600	5,200	10	Sample was flagged. See analytical report for details
	1/4/1999	11,000	<50	5,900	360	730	800	180	
	3/10/1999	18,000	190	2,800	330	77	930	91	
	6/30/1999	23,000	150	7,000	400	480	770	120	Sample was flagged. See analytical report for details
	10/1/1999	18,000	640	6,300	78	370	190	<250	Sample was flagged. See analytical report for details
	1/5/2000	22,000	<50	8,500	110	350	330	260	
	3/29/2000	15,000	1,200	4,200	380	290	460	<50	Sample was flagged. See analytical report for details
	7/13/2000	15,000	2,300	3,100	180	400	1,300	<13	Sample was flagged. See analytical report for details
	9/29/2000	33,000	<50	9,800	120	530	760	610	
	12/7/008	---	---	---	---	---	---	---	Well was inaccessible
	3/6/2001	43,000	<50	30,000	1,300	760	1,300	120	
	6/21/2001	44,000	1,700	18,000	810	1,500	1,800	<1,250	
	9/18/2001	25,000	960	11,000	240	810	780	<1,000	
	12/19/2001	27,000	750	12,000	360	510	480	790	
	3/20/2002	20,000	1,400	16,000	1,300	980	1,310	810	
	6/20/2002	23,000	750	11,000	350	540	330	960	
	9/20/2002	<50,000	570	12,000	<500	510	<1,000	1,500	
	12/31/2002	21,000	440	8,200	270	340	340	2,300	
	3/25/2003	32,000	1,900	14,000	1,100	900	1,170	1,000	
	7/1/2003	19,000	960	14,000	440	550	414	1,400	
	10/2/2003	21,000	1,200	12,000	130	450	163	1,900	
	12/9/2003	3,300	190	1,500	18	44	24	280	
	3/2/2004	840	<50	500	38	40	42	47	
	6/8/2004	1,000	110	500	<5	55	11	<10	
	9/14/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	1	
	12/28/2004	---	---	---	---	---	---	---	Well was inaccessible.
	3/29/2005	6,300	700	1,200	160	180	379	29	
	6/27/2005	6,000	270	1,400	90	220	375	28	
	9/27/2005	1,400	100	290	15	77	116	3.1	
	12/14/2005	**520**	**<50**	**120**	**29**	**17**	**32**	**170**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-7	9/18/1998	<50	3,000	<0.5	<0.5	<0.5	<1.0	<1	Sample was flagged. See analytical report for details
	1/4/1999	4,200	<50	1,900	81	160	280	35	
	3/10/1999	9,800	<50	<0.50	70	150	390	18	
	6/30/1999	13,000	78	3,000	320	320	670	<125	
	10/1/1999	7,800	2,600	2,700	140	220	420	<100	Sample was flagged. See analytical report for details
	1/5/2000	14,000	<50	4,500	120	300	650	<50	
	3/29/2000	14,000	360	4,100	94	360	220	<50	Sample was flagged. See analytical report for details
	7/11/2000	8,500	560	3,000	53	270	220	12	Sample was flagged. See analytical report for details
	9/29/2000	15,000	<50	3,700	41	290	360	<25	
	12/7/2000	7,000	<50	1,300	83	160	280	<25	
	3/6/2001	13,000	1,200	4,600	110	510	850	<2.0	
	6/21/2001	12,000	660	2,800	95	350	590	<500	
	9/18/2001	2,600	140	1,000	36	85	110	<50	
	12/19/2001	9,300	600	3,800	76	450	370	<50	
	3/20/2002	—	—	—	—	—	—	---	Well was inaccessible.
	6/20/2002	6,800	730	2,600	34	270	112	<20	
	9/20/2002	14,000	330	4,800	<125	500	540	7.7	
	12/31/2002	9,300	770	2,600	70	240	300	5	
	3/25/2003	3,600	470	1,600	10	120	28	41	
	7/1/2003	600	52	200	18	22	34	49	
	10/2/2003	3,200	480	1,600	23	130	176	31	
	12/9/2003	16,000	170	390	17	24	45	24	
	3/2/2004	4,100	330	1,300	9	47	29	17	
	6/8/2004	2,000	110	860	16	47	46	<10	
	9/14/2004	5,000	110	980	23	84	58.8	6	
	12/28/2004	6,000	920	1,800	27	68	61.1	3.7	
	3/29/2005	1,600	100	350	5	22	8	2	
	6/28/2005	840	<50	180	11	18	17	1.7	
	9/27/2005	2,300	62	670	17	41	30.4	1.4	
	12/14/2005	**3,400**	**<50**	**1,500**	**50**	**64**	**59**	**3.1**	Lab noted benzene result may be biased high.

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-8	9/18/1998	<50	<50	3	1	<0.5	<1.0	<1	
	1/4/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/10/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	6/30/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/1/1999	<50	<50	<0.5	<0.5	<0.5	1.2	<5.0	
	1/5/2000	220	<50	7.1	0.7	0.5	1.7	<2.0	
	3/29/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	7/11/2000	76	<50	4.6	<0.5	<0.5	0.5	<0.5	
	9/29/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	12/7/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	3/6/2001	<50	<50	2.8	<0.5	<0.5	<0.5	<2.0	
	6/21/2001	<50	52	6	2.3	1.1	2.6	<5.0	
	9/18/2001	<50	<50	<0.5	0.62	<0.5	<0.5	<5.0	
	12/19/2001	51	84	6	0.8	0.9	2.6	<5	
	3/20/2002	<50	<50	<1	<1	<1	<1	<1	
	6/20/2002	78	<50	18	5	4	7	4	
	9/20/2002	<50	<50	<0.5	<0.5	<0.5	<1	<5	
	12/31/2002	61	200	13	2.2	2.1	4.6	<1	
	3/25/2003	55	<50	16	3	1	5	<1	
	7/1/2003	<50	<50	11	2	2	4	<1	
	10/2/2003	<50	<50	<1	<1	<1	<1	<1	
	12/9/2003	71	<50	10	5	2	8	<1	
	3/2/2004	69	<50	5	13	2	13	1	
	6/8/2004	<25	<50	<0.5	0.6	<0.5	<1	<1	
	9/14/2004	<50	<50	3.3	1.4	0.7	3	<0.5	
	12/28/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	<0.5	
	3/29/2005	<100	<50	3.1	<0.5	0.5	<1.5	1.9	
	6/27/2005	590	<50	100	47	16	61	2.8	
	9/27/2005	<100	<50	4.9	3.9	1.9	9.1	1.0	
	12/14/2005	**<100**	**<50**	**20**	**7.1**	**1.4**	**5.3**	**0.7**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-9	7/11/2000	92	<50	6.4	<0.5	1.2	1	<0.5	
	9/29/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	12/7/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	3/6/2001	<50	<50	1.1	<0.5	<0.5	<0.5	<2.0	
	6/21/2001	67	<50	0.61	0.53	<0.5	<0.5	<5.0	
	9/18/2001	<50	<50	1.4	0.63	<0.5	<0.5	<5.0	
	12/19/2001	<50	<50	4.7	0.74	0.66	1.9	<5	
	3/20/2002	110	<50	35	8	4	7	<1	
	6/20/2002	99	<50	25	5	5	8	5	
	9/20/2002	<50	<50	18	0.8	1.5	<1	<5	
	12/31/2002	54	220	11	3.4	1.9	5.1	<1	
	3/25/2003	57	<50	15	4	2	6	<1	
	7/1/2003	63	<50	24	4	3	7	<1	
	10/2/2003	<50	<50	12	<1	<1	<1	<1	
	12/9/2003	53	<50	6	6	2	9	<1	
	3/2/2004	83	<50	6	15	2	15	1	
	6/8/2004	<25	<50	<0.5	0.6	<0.5	<1	<1	
	9/14/2004	<50	<50	2	3	1.2	5.9	<0.5	
	12/28/2004	<50	<50	<0.5	<5	<0.5	<1.0	<0.5	
	3/29/2005	<100	<50	0.9	<0.5	<0.5	<1.5	<0.5	
	6/28/2005	100	<50	7.1	4.7	2.1	7.7	<0.5	
	9/27/2005	<100	<50	2.5	3.7	1.9	9.1	<0.5	
	12/14/2005	**<100**	**<50**	**12**	**9.5**	**1.1**	**6.0**	**0.7**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-10	7/11/2000	<50	<50	1.5	<0.5	<0.5	<0.5	8.1	
	9/29/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	12	
	12/7/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	13	
	3/6/2001	110	<50	20	1.2	0.82	0.75	12	
	6/21/2001	57	<50	6.3	1.5	0.78	1.2	34	
	9/18/2001	59	<50	7	1.1	0.6	1.2	39	
	12/19/2001	60	80	7.5	0.68	0.56	1	47	
	3/20/2002	82	<250	23	7	3	7	26	
	6/20/2002	150	<50	47	7	6	8	60	
	9/20/2002	380	<50	160	2.7	12	11	66	
	12/31/2002	140	<50	37	3.9	2.5	5.6	64	
	3/25/2003	110	<50	38	6	3	8	63	
	7/1/2003	77	<50	29	4	3	7	71	
	10/2/2003	58	<50	29	<1	<1	<1	110	
	12/9/2003	67	<50	8	8	2	10	96	
	3/2/2004	82	<50	6	13	2	14	83	
	6/8/2004	35	<50	<0.5	0.5	<0.5	<1	54	
	9/14/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	35	
	12/28/2004	<50	<50	44	<0.5	<0.5	0.89	<0.5	
	3/29/2005	<100	<50	3.1	1.0	1.1	1.7	29	
	6/28/2005	100	<50	8.1	5.5	2.2	8.3	41	
	9/27/2005	110	<50	3.6	7.8	2.5	15.3	33	
	12/14/2005	**<100**	**<50**	**18**	**14**	**1.2**	**6.4**	**42**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-11	7/11/2000	3,000	770	260	48	8.3	550	12	Sample was flagged. See analytical report for details
	9/29/2000	8,500	<50	1,400	9.6	280	760	33	
	12/7/2000	3,300	<50	340	6.9	70	240	<2.5	
	3/6/2001	540	<50	220	2.5	2.7	7.8	<2.0	
	6/21/2001	930	170	250	9.1	41	44	<25	
	9/18/2001	1,200	160	290	12	83	120	<25	
	12/19/2001	140	140	34	1.5	2.4	3.6	<5	
	3/20/2002	<50	<50	<1	<1	<1	<1	<1	
	6/20/2002	140	<50	37	5	5	7	6	
	9/20/2002	64	<50	32	1.2	1.9	1.3	<5	
	12/31/2002	53	<50	17	2.9	1.9	4.4	<1	
	3/25/2003	97	<125	29	5	2	8	<1	
	7/1/2003	51	<50	16	3	2	7	<1	
	10/2/2003	<50	<50	15	<1	<1	<1	<1	
	12/9/2003	69	<50	8	8	2	10	<1	
	3/2/2004	92	<50	8	15	3	15	1	
	6/8/2004	<25	<50	1.1	<0.5	<0.5	<1	<1	
	9/14/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	<0.5	
	12/28/2004	<50	<50	3	<5.0	0.69	1	<0.5	
	3/29/2005	<100	<50	2.3	0.6	0.7	1.1	<0.5	
	6/28/2005	<100	<50	6.5	4.6	1.9	7.3	<0.5	
	9/27/2005	<100	<50	2.6	6.6	2.2	13.2	<0.5	
	12/14/2005	**<100**	**<50**	**14**	**11**	**1.2**	**6.1**	**0.9**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-12	7/11/2000	3,400	340	710	46	78	70	3.3	Sample was flagged. See analytical report for details
	9/29/2000	3,500	<50	1,100	8.8	100	4.2	4.7	
	12/7/2000	---	---	---	---	---	---	---	Well was inaccessible.
	3/6/2001	---	---	---	---	---	---	---	Well was inaccessible.
	6/21/2001	620	84	210	4	8	<2.5	<25	
	9/18/2001	76	<50	17	1.6	0.99	2.1	11	
	12/19/2001	88	97	23	1.7	1.3	2.6	22	
	3/20/2002	540	<50	170	12	8	12	8	
	6/20/2002	320	62	92	8	7	8	14	
	9/20/2002	<250	—	76	<2.5	3.4	<5	36	
	12/31/2002	—	—	—	—	—	—	---	Well was inaccessible.
	3/25/2003	1,600	100	540	15	50	15	8	
	7/1/2003	2,100	120	680	21	110	24	6	
	10/2/2003	150	<50	57	<1	1	<1	27	
	12/9/2003	340	<50	87	10	3	12	14	
	3/2/2004	1,100	69	270	20	6	21	7	
	6/8/2004	47	<50	<0.5	<0.5	<0.5	<1	1.5	
	9/14/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	2	
	12/28/2004	<50	80	<0.5	<0.5	<0.5	<1.5	<0.5	
	3/29/2005	580	<50	90	3.1	13	7.7	0.6	
	6/28/2005	1,700	<50	460	12	58	13.2	0.9	
	9/27/2005	1,800	<50	330	17	9.1	27	1.6	
	12/14/2005	**<100**	**<50**	**14**	**9.9**	**1.1**	**6.1**	**2.3**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-13	8/8/2000	53,000	<50	3,700	5,600	1,400	7,200	ND	
	9/29/2000	11,000	<50	890	350	900	800	<5.0	
	12/7/2000	1,200	<50	170	7.5	7.7	26	<2.5	
	3/6/2001	1,000	<50	480	30	19	110	<2.0	
	6/21/2001	750	110	260	10	20	14	<25	
	9/18/2001	1,700	160	520	110	65	110	<50	
	12/19/2001	6,500	98	570	380	130	720	<5	
	3/20/2002	210	<250	34	2	<1	6	<1	
	6/20/2002	420	<250	130	63	15	46	10	
	9/20/2002	100	<50	36	1.5	4	2.2	<5	
	12/31/2002	2,600	320	410	170	84	240	<1	
	3/25/2003	270	<125	160	32	18	42	<1	
	7/1/2003	220	<50	58	15	8	23	<1	
	10/2/2003	410	<50	120	23	22	49	<1	
	12/9/2003	490	<50	100	12	15	47	<1	
	3/2/2004	530	<50	140	40	12	49	2	
	6/8/2004	47	<50	9.8	<0.5	0.7	<1	<1	
	9/14/2004	540	<50	99	15	13	28.9	<0.5	
	12/28/2004	110	<50	45	<0.5	<0.5	0.92	<0.5	
	3/29/2005	110	<50	22	1.3	2.2	2.8	<0.5	
	6/28/2005	1,700	<50	640	42	74	150	<0.5	
	9/27/2005	160	<50	19	7.5	4.0	15.3	<0.5	
	12/14/2005	**120**	**<50**	**25**	**11**	**2.2**	**8.7**	**0.8**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-14	3/20/2002	8,100	2,300	200	20	2	1,700	6	
	6/20/2002	530	<50	100	19	15	27	52	
	9/20/2002	720	98	180	29	19	34	75	
	12/31/2002	900	96	130	58	22	55	140	
	3/25/2003	590	<125	160	50	21	35	63	
	7/1/2003	220	<50	68	11	7	15	52	
	10/2/2003	460	740	1,500	190	250	370	25	
	12/9/2003	220	<50	53	8	8	13	22	
	3/2/2004	2,700	200	1,300	8	180	19	7	
	6/8/2004	160	110	43	4.4	7.4	7.3	<1	
	9/14/2004	<500	<50	41	3.1	6.5	7.5	<0.5	
	12/28/2004	1,100	360	460	4.9	24	5.5	<0.5	
	3/29/2005	3,400	240	940	76	82	73	0.6	
	6/28/2005	450	<50	72	25	13	32.1	0.8	
	9/27/2005	310	<50	58	8.2	8.3	17.4	<0.5	
	12/14/2005	**260**	**<50**	**71**	**13**	**5.6**	**9.6**	**0.7**	
MW-15 @ 30'	5/4/2005	110,000	250,000	21,000	19,000	1,000	5,700	22,000	
	6/27/2005	100,000	320,000	22,000	22,000	940	5,400	23,000	
	9/27/2005	77,000	160,000	20,000	18,000	590	3,500	23,000	
	12/13/2005	**69,000**	**70,000**	**18,000**	**12,000**	**530**	**3,200**	**20,000**	
MW-15 @ 60'	5/4/2005	920	<50	190	140	9.2	48	59	
	6/27/2005	1,900	<50	470	450	26	120	33	
	9/27/2005	63,000	200,000	12,000	9,300	500	2,900	20,000	
	12/13/2005	**2,800**	**<50**	**760**	**490**	**24**	**122**	**140**	
MW-15 @ 83'	5/4/2005	3,400	<50	580	780	43	210	7.3	
	6/27/2005	8,300	<50	1,900	1,500	99	440	68	
	9/27/2005	17,000	90	7,200	7,300	290	1,630	280	
	12/13/2005	**7,300**	**60**	**1,800**	**1,200**	**87**	**430**	**120**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
MW-15 @ 140'	5/4/2005	100,000	230,000	20,000	18,000	920	5,200	19,000	
	6/27/2005	93,000	240,000	20,000	20,000	1,100	5,300	20,000	
	9/27/2005	77,000	190,000	19,000	17,000	590	3,500	22,000	
	12/13/2005	**73,000**	**73,000**	**23,000**	**16,000**	**820**	**4,800**	**22,000**	
MW-16	5/3/2005	<100	<50	1.1	1.0	1.0	4.2	120	
	6/27/2005	460	<50	80	37	12	44	83	
	9/27/2005	<100	<50	5.0	5.3	2.7	12.7	41	
	12/14/2005	**120**	**<50**	**30**	**16**	**1.7**	**8.3**	**27**	
MW-17	5/3/2005	<100	<50	0.6	0.7	0.9	3.7	32	
	6/28/2005	110	<50	15	8.8	2.7	11.4	35	
	9/27/2005	<100	<50	2.3	4.8	2.2	11.5	4.5	
	12/14/2005	**<100**	**<50**	**21**	**13**	**1.4**	**7.3**	**3.9**	
DW-1020	6/30/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/1/1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	1/5/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	2/8/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	3/28/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	4/21/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	5/26/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5	
	6/26/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	7/21/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	8/29/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	9/29/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	10/3/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	12/7/2000	140	<50	<0.5	0.58	<0.5	1.3	2	Sample was flagged. See analytical report for details
	12/29/2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	1/5/2001	<50	---	<0.5	<0.5	<0.5	<0.5	<2.0	Sample analyzed by Sparger Technology Inc
	1/5/2001	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	Sample analyzed by Entech Analytical Labs Inc
	1/29/2001	<50	---	<0.5	<0.5	<0.5	<0.5	<5.0	Sample was flagged. See analytical report for details
	2/9/2001	<50	89	<0.5	<0.5	<0.5	<0.5	<5.0	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							
DW-1020	2/22/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	2/28/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	3/6/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<2.0	
	4/6/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	5/14/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	6/21/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	7/13/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	8/22/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	9/18/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5.0	
	10/8/2001	<50	160	<0.5	<0.5	<0.5	<0.5	<5	
	11/20/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5	
	12/19/2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5	
	1/15/2002	<50	<250	<1	<1	<1	<1	<1	
	2/14/2002	<50	<50	<0.50	<0.50	<0.50	<0.50	<2.0	
	3/20/2002	<50	<50	<1	<1	<1	<1	<1	
	4/11/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<5	
	5/15/2002	<50	<50	<0.5	<0.5	<0.5	<0.5	<5	
	6/20/2002	<50	<50	<1	<1	<1	<1	<1	
	7/10/2002	<50	<50	<0.5	<0.5	<0.5	<1	<5	
	8/8/2002	<50	<50	<0.5	<0.5	<0.5	<1	<5	
	9/20/2002	<50	<50	<0.5	<0.5	<0.5	<1	<5	
	12/31/2002	<50	<50	<0.5	<0.5	<0.5	<1	<1	
	3/25/2003	<250	<125	<1	<1	<1	<1	<1	
	7/1/2003	<50	<50	<1	<1	<1	<1	<1	
	10/2/2003	<50	<50	<1	<1	<1	<1	<1	
	12/9/2003	<50	<50	<1	<1	<1	<1	<1	
	3/2/2004	<50	77	<1	<1	<1	<1	<1	
	6/8/2004	<25	<50	<0.5	<0.5	<0.5	<1	<1	
	9/14/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	<0.5	
	12/28/2004	<50	<50	<0.5	<0.5	<0.5	<1.5	<0.5	
	3/29/2005	<100	<50	<0.5	<0.5	<0.5	<1.5	<0.5	
	6/27/2005	<100	<50	0.6	0.9	<0.5	<1.5	<0.5	
	7/25/2005	<100	---	<0.5	<0.5	<0.5	<1.5	<0.5	
	9/27/2005	<100	<50	<0.5	<0.5	<0.5	<1.5	<0.5	
	12/14/2005	**<100**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<1.5**	**<0.5**	

Table 2. Analytical Results for Ground Water - 1100 Bennett Valley Road, Santa Rosa, California

Well ID	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl benzene	Xylenes	MTBE	Notes
		<---------- ppb ---------->							

Explanation TPH(G) = Total Petroleum Hydrocarbons as Gasoline
TPH(D) = Total Petroleum Hydrocarbons as Diesel.
MTBE = Methyl tert butyl ether
ppb = parts per billion

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-4	9/18/1998	ND	5,900	ND	ND	ND	
	1/4/1999	ND	7,800	ND	ND	ND	
	3/10/1999	ND	3,600	ND	ND	ND	
	6/30/1999	ND	3,000	ND	ND	ND	
	10/1/1999	---	---	---	---	---	
	1/5/2000	ND	6,000	ND	ND	ND	
	3/29/2000	ND	9,000	ND	ND	ND	
	7/11/2000	ND	5,100	ND	ND	ND	
	9/29/2000	ND	3,900	ND	ND	ND	
	12/7/2000	ND	1,300	ND	ND	ND	
	3/6/2001	620	860	ND	ND	ND	
	6/21/2001	ND	340	ND	ND	ND	
	9/18/2001	ND	730	ND	ND	ND	
	12/19/2001	ND	1,500	ND	ND	ND	
	3/20/2002	ND	200	ND	ND	1	
	6/20/2002	ND	87	ND	ND	ND	
	9/20/2002	220	720	ND	ND	ND	
	12/31/2002	40	77	ND	ND	ND	
	3/25/2003	<200	3	<1	<1	<1	
	7/1/2003	<200	10	<1	<1	<1	
	10/2/2003	<200	2	<1	<1	<1	
	12/9/2003	8	47	<1	<1	<1	
	3/2/2004	10	49	<1	<1	<1	
	6/8/2004	<1	<1	<1	<1	<1	
	9/14/2004	44	37	<0.5	<0.5	<0.5	
	12/28/2004	460	1,300	<1	<1	13	
	3/29/2005	51	180	<0.5	<0.5	1.8	
	6/27/2005	59	130	<0.5	<0.5	0.7	
	9/27/2005	380	210	<0.5	<0.5	1.6	
	12/14/2005	**360**	**130**	**<0.5**	**<0.5**	**0.9**	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-5	9/18/1998	ND	15,000	ND	ND	ND	
	1/4/1999	ND	8,400	ND	ND	ND	
	3/10/1999	ND	6,800	ND	ND	ND	
	6/30/1999	ND	4,900	ND	ND	ND	
	10/1/1999	---	---	---	---	---	
	1/5/2000	ND	8,000	ND	ND	ND	
	3/29/2000	ND	6,500	ND	ND	ND	
	7/11/2000	ND	6,500	ND	ND	ND	
	9/29/2000	ND	7,700	ND	ND	ND	
	12/7/2000	ND	6,500	ND	ND	ND	
	3/6/2001	1,200	2,300	ND	ND	ND	
	6/21/2001	ND	6,200	ND	ND	ND	
	9/18/2001	ND	3,600	ND	ND	ND	
	12/19/2001	1,200	3,300	ND	ND	ND	
	3/20/2002	ND	2,200	ND	ND	ND	
	6/20/2002	ND	3,200	ND	ND	ND	
	9/20/2002	1,000	3,000	ND	ND	ND	
	12/31/2002	2,200	2,400	ND	ND	ND	
	3/25/2003	1,400	1,600	<1	<1	18	
	7/1/2003	1,800	2,200	<1	<1	20	
	10/2/2003	910	2,500	<1	<1	23	
	12/9/2003	780	1,600	<1	<1	15	
	3/2/2004	600	1,000	<1	<1	11	
	6/8/2004	<500	1,300	<500	<500	<500	
	9/14/2004	1,100	1,100	<0.5	0.61	12	
	12/28/2004	900	660	<25	<25	<25	
	3/29/2005	590	720	<0.5	<0.5	11	
	6/27/2005	980	620	<0.5	<0.5	12	
	9/27/2005	810	540	<0.5	<0.5	10	
	12/14/2005	**710**	**490**	**<0.5**	**<0.5**	**7.2**	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-6	9/18/1998	ND	10	ND	ND	ND	
	1/4/1999	ND	180	ND	ND	ND	
	3/10/1999	ND	91	ND	ND	ND	
	6/30/1999	ND	120	ND	ND	ND	
	10/1/1999	ND	<250	ND	ND	ND	
	1/5/2000	ND	260	ND	ND	ND	
	3/29/2000	ND	<50	ND	ND	ND	
	7/13/2000	ND	<13	ND	ND	ND	
	9/29/2000	ND	610	ND	ND	ND	
	12/7/008	---	---	---	---	---	
	3/6/2001	640	120	ND	ND	ND	
	6/21/2001	ND	<1,250	ND	ND	ND	
	9/18/2001	ND	<1,000	ND	ND	ND	
	12/19/2001	590	790	ND	ND	ND	
	3/20/2002	ND	810	ND	ND	ND	
	6/20/2002	ND	960	ND	ND	ND	
	9/20/2002	1,200	1,500	ND	ND	ND	
	12/31/2002	2,200	2,300	ND	ND	ND	
	3/25/2003	1,200	1,000	<1	<1	7	
	7/1/2003	1,100	1,400	<1	<1	9	
	10/2/2003	670	1,900	<1	<1	11	
	12/9/2003	130	280	<1	<1	2	
	3/2/2004	28	47	<1	<1	1	
	6/8/2004	<10	<10	<10	<10	<10	
	9/14/2004	<5	1	<0.5	<0.5	<0.5	
	12/28/2004	---	---	---	---	---	
	3/29/2005	59	29	<0.5	<0.5	<0.5	
	6/27/2005	110	28	<0.5	<0.5	<0.5	
	9/27/2005	12	3.1	<0.5	<0.5	<0.5	
	12/14/2005	**31**	**170**	**<0.5**	**<0.5**	**0.8**	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-7	9/18/1998	ND	<1	ND	ND	ND	
	1/4/1999	ND	35	ND	ND	ND	
	3/10/1999	ND	18	ND	ND	ND	
	6/30/1999	ND	<125	ND	ND	ND	
	10/1/1999	ND	<100	ND	ND	ND	
	1/5/2000	ND	<50	ND	ND	ND	
	3/29/2000	ND	<50	ND	ND	ND	
	7/11/2000	ND	12	ND	ND	ND	
	9/29/2000	ND	<25	ND	ND	ND	
	12/7/2000	ND	<25	ND	ND	ND	
	3/6/2001	83	<2.0	ND	ND	7.5	
	6/21/2001	ND	<500	ND	ND	ND	
	9/18/2001	ND	<50	ND	ND	ND	
	12/19/2001	ND	<50	ND	ND	ND	
	3/20/2002	ND	---	ND	ND	ND	
	6/20/2002	ND	<20	ND	ND	ND	
	9/20/2002	130	7.7	ND	ND	ND	
	12/31/2002	130	5	ND	ND	ND	
	3/25/2003	<200	41	<1	<1	<1	
	7/1/2003	<200	49	<1	<1	<1	
	10/2/2003	<200	31	<1	<1	<1	
	12/9/2003	27	24	<1	<1	<1	
	3/2/2004	210	17	<1	<1	<1	
	6/8/2004	<10	<10	<10	<10	<10	
	9/14/2004	89	6	<0.5	<0.5	<0.5	
	12/28/2004	360	3.7	<0.5	<0.5	<0.5	
	3/29/2005	110	2	<1	<1	<1	
	6/28/2005	47	1.7	<0.5	<0.5	<0.5	
	9/27/2005	32	1.4	<0.5	<0.5	<0.5	
	12/14/2005	**91**	**3.1**	**<0.5**	**<0.5**	**<0.5**	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-8	9/18/1998	ND	<1	ND	ND	ND	
	1/4/1999	ND	<5.0	ND	ND	ND	
	3/10/1999	ND	<5.0	ND	ND	ND	
	6/30/1999	ND	<5.0	ND	ND	ND	
	10/1/1999	ND	<5.0	ND	ND	ND	
	1/5/2000	ND	<2.0	ND	ND	ND	
	3/29/2000	ND	<0.5	ND	ND	ND	
	7/11/2000	ND	<0.5	ND	ND	ND	
	9/29/2000	ND	<0.5	ND	ND	ND	
	12/7/2000	ND	<0.5	ND	ND	ND	
	3/6/2001	ND	<2.0	ND	ND	ND	
	6/21/2001	ND	<5.0	ND	ND	ND	
	9/18/2001	ND	<5.0	ND	ND	ND	
	12/19/2001	ND	<5	ND	ND	ND	
	3/20/2002	ND	<1	ND	ND	ND	
	6/20/2002	ND	4	ND	ND	ND	
	9/20/2002	ND	<5	ND	ND	ND	
	12/31/2002	ND	<1	ND	ND	ND	
	3/25/2003	<200	<1	<1	<1	<1	
	7/1/2003	<200	<1	<1	<1	<1	
	10/2/2003	<200	<1	<1	<1	<1	
	12/9/2003	<5	<1	<1	<1	<1	
	3/2/2004	<5	1	<1	<1	<1	
	6/8/2004	<1	<1	<1	<1	<1	
	9/14/2004	<5	<0.5	<0.5	<0.5	<0.5	
	12/28/2004	<5	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	<5	1.9	<0.5	<0.5	0.6	
	6/27/2005	<5	2.8	<0.5	<0.5	0.8	
	9/27/2005	<5	1.0	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**0.7**	**<0.5**	**<0.5**	**<0.5**	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-9	7/11/2000	ND	<0.5	ND	ND	ND	
	9/29/2000	ND	<0.5	ND	ND	ND	
	12/7/2000	ND	<0.5	ND	ND	ND	
	3/6/2001	ND	<2.0	ND	ND	ND	
	6/21/2001	ND	<5.0	ND	ND	ND	
	9/18/2001	ND	<5.0	ND	ND	ND	
	12/19/2001	ND	<5	ND	ND	ND	
	3/20/2002	ND	<1	ND	ND	ND	
	6/20/2002	ND	5	ND	ND	ND	
	9/20/2002	ND	<5	ND	ND	ND	
	12/31/2002	ND	<1	ND	ND	ND	
	3/25/2003	<200	<1	<1	<1	<1	
	7/1/2003	<200	<1	<1	<1	<1	
	10/2/2003	<200	<1	<1	<1	<1	
	12/9/2003	<5	<1	<1	<1	<1	
	3/2/2004	<5	1	<1	<1	<1	
	6/8/2004	<1	<1	<1	<1	<1	
	9/14/2004	<5	<0.5	<0.5	<0.5	<0.5	
	12/28/2004	<5	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	<5	<0.5	<0.5	<0.5	<0.5	
	6/28/2005	<5	<0.5	<0.5	<0.5	<0.5	
	9/27/2005	<5	<0.5	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**0.7**	**<0.5**	**<0.5**	**<0.5**	
MW-10	7/11/2000	ND	8.1	ND	ND	ND	
	9/29/2000	ND	12	ND	ND	ND	
	12/7/2000	ND	13	ND	ND	ND	
	3/6/2001	ND	12	ND	ND	ND	
	6/21/2001	ND	34	ND	ND	ND	
	9/18/2001	ND	39	ND	ND	ND	
	12/19/2001	ND	47	ND	ND	ND	
	3/20/2002	ND	26	ND	ND	ND	
	6/20/2002	ND	60	ND	ND	ND	
	9/20/2002	ND	66	ND	ND	ND	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-10 cont.	12/31/2002	16	64	ND	ND	ND	
	3/25/2003	<200	63	<1	<1	<1	
	7/1/2003	<200	71	<1	<1	<1	
	10/2/2003	<200	110	<1	<1	<1	
	12/9/2003	<5	96	<1	<1	<1	
	3/2/2004	<5	83	<1	<1	<1	
	6/8/2004	<1	54	<1	<1	<1	
	9/14/2004	11	35	<0.5	<0.5	<0.5	
	12/28/2004	<5	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	<5	29	<1	<1	<1	
	6/28/2005	<5	41	<0.5	<0.5	<0.5	
	9/27/2005	<5	33	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**42**	**<0.5**	**<0.5**	**<0.5**	
MW-11	7/11/2000	ND	12	ND	ND	ND	
	9/29/2000	ND	33	ND	ND	ND	
	12/7/2000	ND	<2.5	ND	ND	ND	
	3/6/2001	ND	<2.0	ND	ND	ND	
	6/21/2001	ND	<25	ND	ND	ND	
	9/18/2001	ND	<25	ND	ND	ND	
	12/19/2001	ND	<5	ND	ND	ND	
	3/20/2002	ND	<1	ND	ND	ND	
	6/20/2002	ND	6	ND	ND	ND	
	9/20/2002	ND	<5	ND	ND	ND	
	12/31/2002	ND	<1	ND	ND	ND	
	3/25/2003	<200	<1	<1	<1	<1	
	7/1/2003	<200	<1	<1	<1	<1	
	10/2/2003	<200	<1	<1	<1	<1	
	12/9/2003	<5	<1	<1	<1	<1	
	3/2/2004	<5	1	<1	<1	<1	
	6/8/2004	<1	<1	<1	<1	<1	
	9/14/2004	<5	<0.5	<0.5	<0.5	<0.5	
	12/28/2004	<5	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	<5	<0.5	<0.5	<0.5	<0.5	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-11 con	6/28/2005	<5	<0.5	<0.5	<0.5	<0.5	
	9/27/2005	<5	<0.5	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**0.9**	**<0.5**	**<0.5**	**<0.5**	
MW-12	7/11/2000	ND	3.3	ND	ND	ND	
	9/29/2000	ND	4.7	ND	ND	ND	
	12/7/2000	ND	---	ND	ND	ND	
	3/6/2001	ND	---	ND	ND	ND	
	6/21/2001	ND	<25	ND	ND	ND	
	9/18/2001	ND	11	ND	ND	ND	
	12/19/2001	ND	22	ND	ND	ND	
	3/20/2002	ND	8	ND	ND	ND	
	6/20/2002	ND	14	ND	ND	ND	
	9/20/2002	ND	36	ND	ND	ND	
	12/31/2002	ND	---	ND	ND	ND	
	3/25/2003	<200	8	<1	<1	<1	
	7/1/2003	<200	6	<1	<1	<1	
	10/2/2003	<200	27	<1	<1	<1	
	12/9/2003	<5	14	<1	<1	<1	
	3/2/2004	9	7	<1	<1	<1	
	6/8/2004	<1	1.5	<1	<1	<1	
	9/14/2004	<5	2	<0.5	<0.5	<0.5	
	12/28/2004	<5	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	<5	0.6	<0.5	<0.5	<0.5	
	6/28/2005	8	0.9	<0.5	<0.5	<0.5	
	9/27/2005	8.1	1.6	<0.5	<0.5	0.75	
	12/14/2005	**<5**	**2.3**	**<0.5**	**<0.5**	**<0.5**	
MW-13	8/8/2000	ND	ND	ND	ND	ND	
	9/29/2000	ND	<5.0	ND	ND	ND	
	12/7/2000	ND	<2.5	ND	ND	ND	
	3/6/2001	ND	<2.0	ND	ND	ND	
	6/21/2001	ND	<25	ND	ND	ND	
	9/18/2001	ND	<50	ND	ND	ND	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-13 cont.	12/19/2001	21	<5	ND	ND	ND	
	3/20/2002	ND	<1	ND	ND	ND	
	6/20/2002	ND	10	ND	ND	ND	
	9/20/2002	ND	<5	ND	ND	ND	
	12/31/2002	21	<1	ND	ND	ND	
	3/25/2003	<200	<1	<1	<1	<1	
	7/1/2003	<200	<1	<1	<1	<1	
	10/2/2003	<200	<1	<1	<1	<1	
	12/9/2003	<5	<1	<1	<1	<1	
	3/2/2004	6	2	<1	<1	<1	
	6/8/2004	<1	<1	<1	<1	<1	
	9/14/2004	<5	<0.5	<0.5	<0.5	<0.5	
	12/28/2004	<5	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	<5	<0.5	<0.5	<0.5	<0.5	
	6/28/2005	17	<0.5	<0.5	<0.5	<0.5	
	9/27/2005	<5	<0.5	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**0.8**	**<0.5**	**<0.5**	**<0.5**	
MW-14	3/20/2002	ND	6	ND	ND	ND	
	6/20/2002	ND	52	ND	ND	ND	
	9/20/2002	32	75	ND	ND	ND	
	12/31/2002	86	140	ND	ND	ND	
	3/25/2003	<200	63	<1	<1	<1	
	7/1/2003	<200	52	<1	<1	<1	
	10/2/2003	<200	25	<1	<1	<1	
	12/9/2003	11	22	<1	<1	<1	
	3/2/2004	61	7	<1	<1	<1	
	6/8/2004	<1	<1	<1	<1	<1	
	9/14/2004	<5	<0.5	<0.5	<0.5	<0.5	
	12/28/2004	14	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	25	0.6	<0.5	<0.5	<0.5	
	6/28/2005	9	0.8	<0.5	<0.5	<0.5	
	9/27/2005	5.2	<0.5	<0.5	<0.5	<0.5	
	12/14/2005	**7.4**	**0.7**	**<0.5**	**<0.5**	**<0.5**	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
MW-15 @ 30'	5/4/2005	2,100	22,000	5	<5	59	
	5/27/2005	2,600	23,000	0.8	5.5	50	
	9/27/2005	1,600	23,000	<0.5	6.3	46	
	12/13/2005	**2,700**	**20,000**	**0.9**	**6.3**	**38**	
MW-15 @ 60'	5/4/2005	7	59	<0.5	<0.5	0.6	
	5/27/2005	<5	33	<0.5	<0.5	<0.5	
	9/27/2005	2,500	20,000	<0.5	4.6	35	
	12/13/2005	**11**	**140**	**<0.5**	**<0.5**	**0.6**	
MW-15 @ 83'	5/4/2005	<5	7.3	<0.5	<0.5	0.6	
	5/27/2005	<5	68	<0.5	<0.5	<0.5	
	9/27/2005	<5	280	<0.5	<0.5	1.1	
	12/13/2005	**8.0**	**120**	**<0.5**	**<0.5**	**0.8**	
MW-15 @ 140'	5/4/2005	2,100	19,000	<5	<5	52	
	5/27/2005	2,500	20,000	<5	<5	55	
	9/27/2005	1,500	22,000	<0.5	5.1	51	
	12/13/2005	**5,600**	**22,000**	**0.8**	**5.8**	**40**	
MW-16	5/3/2005	51	120	<0.5	<0.5	0.6	
	6/27/2005	93	83	<0.5	<0.5	<0.5	
	9/27/2005	11	41	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**27**	**<0.5**	**<0.5**	**<0.5**	
MW-17	5/3/2005	<5	32	<0.5	<0.5	<0.5	
	6/28/2005	<5	35	<0.5	<0.5	<0.5	
	9/27/2005	<5	4.5	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**3.9**	**<0.5**	**<0.5**	**<0.5**	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
DW-1020	6/30/1999	ND	<5.0	ND	ND	ND	
	10/1/1999	ND	<5.0	ND	ND	ND	
	1/5/2000	ND	<5.0	ND	ND	ND	
	2/8/2000	ND	<2.0	ND	ND	ND	
	3/28/2000	ND	<0.5	ND	ND	ND	
	4/21/2000	ND	<2.0	ND	ND	ND	
	5/26/2000	ND	<0.5	ND	ND	ND	
	6/26/2000	ND	<2.0	ND	ND	ND	
	7/21/2000	ND	<2.0	ND	ND	ND	
	8/29/2000	ND	<2.0	ND	ND	ND	
	9/29/2000	ND	<2.0	ND	ND	ND	
	10/3/2000	ND	<2.0	ND	ND	ND	
	12/7/2000	ND	2	ND	ND	ND	
	12/29/2000	ND	<2.0	ND	ND	ND	
	1/5/2001	ND	<2.0	ND	ND	ND	
	1/5/2001	ND	<5.0	ND	ND	ND	
	1/29/2001	ND	<5.0	ND	ND	ND	
	2/9/2001	ND	<5.0	ND	ND	ND	
	2/22/2001	ND	<2.0	ND	ND	ND	
	2/28/2001	ND	<5.0	ND	ND	ND	
	3/6/2001	ND	<2.0	ND	ND	ND	
	4/6/2001	ND	<5.0	ND	ND	ND	
	5/14/2001	ND	<5.0	ND	ND	ND	
	6/21/2001	ND	<5.0	ND	ND	ND	
	7/13/2001	ND	<5.0	ND	ND	ND	
	8/22/2001	ND	<5.0	ND	ND	ND	
	9/18/2001	ND	<5.0	ND	ND	ND	
	10/8/2001	ND	<5	ND	ND	ND	
	11/20/2001	ND	<5	ND	ND	ND	
	12/19/2001	ND	<5	ND	ND	ND	
	1/15/2002	ND	<1	ND	ND	ND	
	2/14/2002	ND	<2.0	ND	ND	ND	
	3/20/2002	ND	<1	ND	ND	ND	
	4/11/2002	ND	<5	ND	ND	ND	

Table 3. Analytical Results for Ground Water - Oxygenates - Redwood Oil Service Station, 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Sample Date	t-Butyl alcohol (TBA)	Methyl t-butyl ether (MTBE)	Diisopropyl ether (DIPE)	Ethyl t-butyl ether (ETBE)	t-Amyl methyl ether (TAME)	Notes
		<----------ppb---------->					
DW-1020 cont.	5/15/2002	ND	<5	ND	ND	ND	
	6/20/2002	ND	<1	ND	ND	ND	
	7/10/2002	ND	<5	ND	ND	ND	
	8/8/2002	ND	<5	ND	ND	ND	
	9/20/2002	ND	<5	ND	ND	ND	
	12/31/2002	ND	<1	ND	ND	ND	
	3/25/2003	<200	<1	<1	<1	<1	
	7/1/2003	<200	<1	<1	<1	<1	
	10/2/2003	<200	<1	<1	<1	<1	
	12/9/2003	<5	<1	<1	<1	<1	
	3/2/2004	<5	<1	<1	<1	<1	
	6/8/2004	<1	<1	<1	<1	<1	
	9/14/2004	<5	<0.5	<0.5	<0.5	<0.5	
	12/28/2004	<5	<0.5	<0.5	<0.5	<0.5	
	3/29/2005	<5	<0.5	<0.5	<0.5	<0.5	
	6/27/2005	<5	<0.5	<0.5	<0.5	<0.5	
	7/25/2005	<5	<0.5	<0.5	<0.5	<0.5	
	9/27/2005	<5	<0.5	<0.5	<0.5	<0.5	
	12/14/2005	**<5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	

Explanation:

ppb = parts per billion

Table 4. Analytical Results for Influent Samples - 1100 Bennett Valley Road, Santa Rosa, California

Sample ID	Date	TPPH(G)	TPH(D)	Benzene	Toluene	Ethyl Benzene	Xylenes	MTBE	comments/lab footnotes
		<----------parts per billion----------							
Influent	12/8/2003	25,000	800	4,000	1,100	510	1,900	440	TBA detected at 320 ppb.
	2/27/2004	31,000	930	5,700	2,200	520	1,600	330	
	4/28/2004	18,000	<50	2,800	1,600	450	1,800	140	1,600 ppb hydrocarbon detected. No diesel pattern present.
	5/21/2004	12,000	<250	1,900	830	320	1,000	78	2,100 ppb hydrocarbon detected. No diesel pattern present.
	7/22/2004	160,000	<10,000	2,100	3,100	2,500	16,000	<200	TPH(D) value reported is possibly aged gasoline. 116,000 ppb hydrocarbons (C8-C18), possible gasoline in the TPH-Diesel range.
	7/6/2005	15,000	<50	5,100	460	510	1,400	150	1,400 ppb higher boiling gasoline compounds. No diesel pattern present.
	10/3/2005	19,000	<50	1,300	2,200	600	3,400	<100	2,000 ppb higher boiling gasoline compounds. No diesel pattern present.
	1/11/2006	**6,500**	**<50**	**1,300**	**390**	**160**	**640**	**57**	570 ppb higher boiling gasoline compounds. No diesel pattern present.

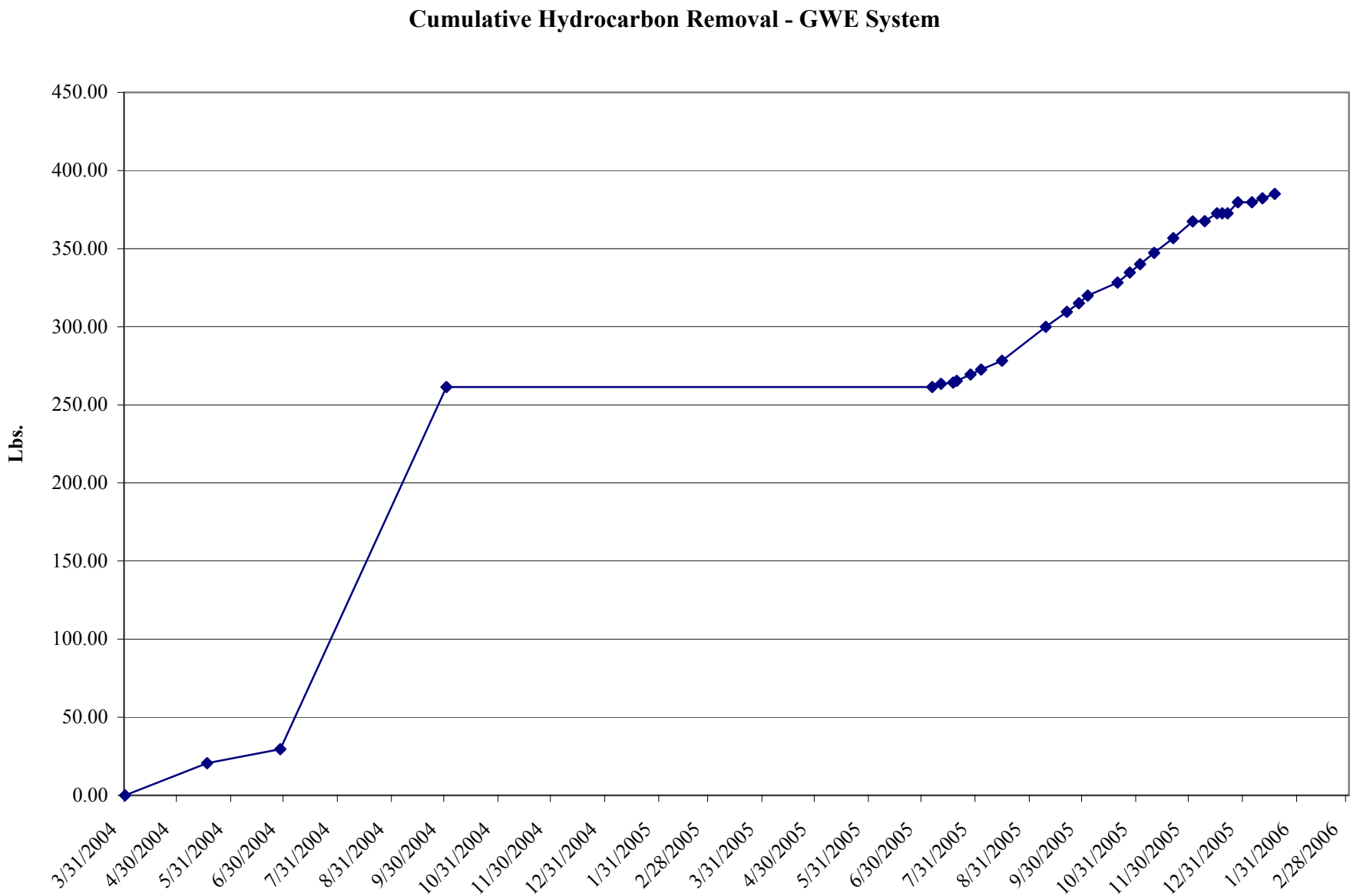
TPPH(G)= Total Purgeable Petroleum Hydrocarbons as Gasoline
TPH(D)= Total Petroleum Hydrocarbons as Diesel
MTBE= Methyl tertiary-Butyl Ether

Table 5. Ground Water Extraction System Performance Data - Former Redwood Oil Bulk Plant, 2060 Eloise Avenue, South Lake Tahoe, California

Date	totalizer reading	flow (gallons)	daily flow rate	flow (GPM)	influent concentration TPH(G)+ TPH(D) µg/L	hydrocarbon removal (kg)	cumulative hydrocarbon removal (kg)	notes
3/31/2004	386,510	337,546			31,930	40.79	0.00	
5/17/2004	724,056	302,846	6,444	4.5	18,000	20.63	20.63	
6/28/2004	1,026,902	196,826	4,686	3.3	12,000	8.94	29.57	
10/1/2004	1,223,728	382,847	4,030	2.8	160,000	231.85	261.42	
7/6/2005	1,233,652	---	---	---	---	0.00	261.42	System off for modification.
7/11/2005	1,269,127	35,475	7,095	4.9	15,000	2.01	263.44	System restarted.
7/18/2005	1,283,613	14,486	2,069	1.4	15,000	0.82	264.26	
7/20/2005	1,302,929	19,316	9,658	6.7	15,000	1.10	265.36	
7/28/2005	1,375,885	72,956	9,120	6.3	15,000	4.14	269.50	
8/3/2005	1,430,256	54,371	9,062	6.3	15,000	3.09	272.59	
8/15/2005	1,528,525	98,269	8,189	5.7	15,000	5.58	278.17	
9/9/2005	1,912,607	384,082	15,363	10.7	15,000	21.81	299.97	
9/21/2005	2,081,415	168,808	14,067	9.8	15,000	9.58	309.56	
9/28/2005	2,177,587	96,172	13,739	9.5	15,000	5.46	315.02	
10/3/2005	2,246,794	69,207	13,841	9.6	19,000	4.98	319.99	
10/20/2005	2,360,758	113,964	6,704	4.7	19,000	8.20	328.19	
10/27/2005	**2,452,479**	**91,721**	**13,103**	**9.1**	**19,000**	**6.60**	**334.79**	
11/2/2005	**2,526,749**	**74,270**	**12,378**	**8.6**	**19,000**	**5.34**	**340.13**	
11/10/2005	**2,625,446**	**98,697**	**12,337**	**8.6**	**19,000**	**7.10**	**347.22**	
11/21/2005	**2,757,922**	**132,476**	**12,043**	**8.4**	**19,000**	**9.53**	**356.75**	
12/2/2005	**2,907,384**	**149,462**	**13,587**	**9.4**	**19,000**	**10.75**	**367.50**	
12/9/2005	**2,909,257**	**1,873**	**268**	**0.2**	**19,000**	**0.13**	**367.63**	
12/16/2005	**2,978,517**	**69,260**	**9,894**	**6.9**	**19,000**	**4.98**	**372.62**	System turned off.
12/19/2005	**2,979,572**	**1,055**	**352**	**0.2**	**19,000**	**0.08**	**372.69**	System on for flow rate testing. Off on departure.
12/22/2005	**2,979,572**	**0**	**0**	**0.0**	**19,000**	**0.00**	**372.69**	System restarted.
12/28/2005	**3,076,041**	**96,469**	**16,078**	**11.2**	**19,000**	**6.94**	**379.63**	System turned off per Sonoma County Sewer District.
1/5/2006	**3,076,041**	**0**	**0**	**0.0**	**19,000**	**0.00**	**379.63**	System restarted.
1/11/2006	**3,182,058**	**106,017**	**17,670**	**12.3**	**6,500**	**2.61**	**382.24**	
1/18/2006	**3,293,183**	**111,125**	**15,875**	**11.0**	**6,500**	**2.73**	**384.97**	

Formula: kg= (G x 3.785L/G x µg/L) / 1,000,000,000

where:
kg= kilograms
G= flow in gallons
L= liters
µg= micrograms



Graph 1. Ground Water Extraction System Performance Data - Former Redwood Oil Bulk Plant, 2060 Eloise Avenue, South Lake Tahoe, California

APPENDIX C

CHAIN OF CUSTODY
AND
LABORATORY ANALYTICAL REPORTS

512177

SAMPLE CHAIN OF CUSTODY

CM 12-16-05

V5/D05

Page # 1 of 2

Send Report To DAVE HAZARD

Company ECM Group

Address PO Box 802

City, State, ZIP Benicia, CA 94510

Phone # (707) 751-0655 Fax # (707) 751-0653

SAMPLERS (signature)

PROJECT NAME/NO. 98-511-14 BENNETT VALLEY

PO #

REMARKS SUBMIT AS EDF

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8260B	Fuel Oxygenates	Lead Scavengers							Notes
MW-4	01AF	12/14/05	14:35	W	6	X	X	X	X								
MW-5	02AF		14:15	W	6	X	X	X	X								
MW-6	03A-F		10:30	W	6	X	X	X	X								
MW-7	04A-F		13:40	W	6	X	X	X	X								
MW-8	05AF		14:00	W	6	X	X	X	X								
MW-9	06A-F		13:20	W	6	X	X	X	X								
MW-10	07A-E		12:05	W	6	X	X	X	X								
MW-11	08AF		12:25	W	6	X	X	X	X								
MW-12	09A-F		11:30	W	6	X	X	X	X								
MW-13	10A-F		13:05	W	6	X	X	X	X								

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		MICHAEL S. JACKSON	ECM GROUP		
Received by:		Nhan Phan	Friedman & Bruya	12/16/05	10:00
Relinquished by:					
Received by:					

512177

SAMPLE CHAIN OF CUSTODY

CM 12-16-05 V5/D05

Page # 2 of 2

Send Report To: DAVE HAZARD

Company: ECM Group

Address: PO Box 802

City, State, ZIP: Benicia, CA 94510

Phone #: (707) 751-0655 Fax #: (707) 751-0653

SAMPLERS (signature):

PROJECT NAME/NO.: BENNETT VALLEY 98-511-14

PO #:

REMARKS: SUBMIT AS EDF

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
- Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

ANALYSES REQUESTED

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8260B	Fuel Oxygenates	Lead Scavengers							Notes
MW-14	11 A-F	12/14/05	12:40	W	6	X	X	X	X								
MW-15d 30	12 A-F	12/13/05	13:30	W	6	X	X	X	X								
MW-15d 60	13 A-F	↓	13:45	W	6	X	X	X	X								
MW-15d 83	14 A-F	↓	14:05	W	6	X	X	X	X								
MW-15d 140	15 A-F	↓	14:25	W	6	X	X	X	X								
MW-16	16 A-F	12/14/05	10:45	W	6	X	X	X	X								
MW-17	17 A-F	↓	11:05	W	6	X	X	X	X								
DW-1020	18 A-F	↓	11:10	W	6	X	X	X	X								

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	MICHAEL S. JACKSON	ECM GROUP		
Received by:	Nhan Phan	Friedman & Bruya	12/16/05	10:00
Relinquished by:				
Received by:				

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Charlene Morrow, M.S.
Yelena Aravkina, M.S.
Bradley T. Benson, B.S.
Kurt Johnson, B.S.

3012 16th Avenue West
Seattle, WA 98119-2029
TEL: (206) 285-8282
FAX: (206) 283-5044
e-mail: fbi@isomedia.com

January 5, 2006

Jim Green, Project Manager
ECM Group
P.O. Box 802
Benicia, CA 94510

Dear Mr. Green:

Included are the results from the testing of material submitted on December 16, 2005 from the 98-511-14 Bennett Valley, F&BI 512177 project. There are 37 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manger

Enclosures
ECM0105R.DOC

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

CASE NARRATIVE

This case narrative encompasses samples received on December 16, 2005 by Friedman & Bruya, Inc. from the ECM Group 98-511-14 Bennett Valley, F&BI 512177 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	ECM Group
512177-01	MW-4
512177-02	MW-5
512177-03	MW-6
512177-04	MW-7
512177-05	MW-8
512177-06	MW-9
512177-07	MW-10
512177-08	MW-11
512177-09	MW-12
512177-10	MW-13
512177-11	MW-14
512177-12	MW-15d 30
512177-13	MW-15d 60
512177-14	MW-15d 83
512177-15	MW-15d 140
512177-16	MW-16
512177-17	MW-17
512177-18	DW-1020

A surrogate recovery was above established acceptance criteria for several samples. Review of the data indicates that benzene may be biased high. In addition, the RPD for the LCS/LCSD ananlysis of ethanol was above established criteria. Ethanol was not detected in any of the associated samples, therefore sample results are not affected. All other quality control requirements were acceptable.

Date of Report: 01/05/06
Date Received: 12/16/05
Project: 98-511-14 Bennett Valley, F&BI 512177
Date Extracted: 12/19/05
Date Analyzed: 12/20/05 and 12/21/05

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING EPA METHOD 8015M

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Gasoline Range (C_6-C_{10})	Surrogate (% Recovery) (Limit 52-150)
MW-4 d 512177-01	2,300	87
MW-5 d 512177-02	110,000	95
MW-6 512177-03	520	88
MW-7 d 512177-04	3,400	97
MW-8 512177-05	<100	83
MW-9 512177-06	<100	83
MW-10 512177-07	<100	83
MW-11 512177-08	<100	83
MW-12 512177-09	<100	84
MW-13 512177-10	120	84
MW-14 512177-11	260	86

d - The sample was diluted.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/05/06
Date Received: 12/16/05
Project: 98-511-14 Bennett Valley, F&BI 512177
Date Extracted: 12/19/05
Date Analyzed: 12/20/05 and 12/21/05

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING EPA METHOD 8015M

Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Gasoline Range (C_6-C_{10})	Surrogate (% Recovery) (Limit 52-150)
MW-15d 30 d 512177-12	69,000	87
MW-15d 60 d 512177-13	2,800	86
MW-15d 83 d 512177-14	7,300	90
MW-15d 140 d 512177-15	73,000	88
MW-16 512177-16	120	85
MW-17 512177-17	<100	83
DW-1020 512177-18	<100	83
Method Blank	<100	90

d - The sample was diluted.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/05/06
Date Received: 12/16/05
Project: 98-511-14 Bennett Valley, F&BI 512177
Date Extracted: 12/19/05
Date Analyzed: 12/27/05

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Surrogate (% Recovery) (Limit 52-134)
MW-4 512177-01	<50	69
MW-5 512177-02	4,800	74
MW-6 512177-03	<50	63
MW-7 512177-04	<50	73
MW-8 512177-05	<50	72
MW-9 512177-06	<50	73
MW-10 512177-07	<50	80
MW-11 512177-08	<50	72
MW-12 512177-09	<50	72
MW-13 512177-10	<50	77
MW-14 512177-11	<50	69

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/05/06
Date Received: 12/16/05
Project: 98-511-14 Bennett Valley, F&BI 512177
Date Extracted: 12/19/05
Date Analyzed: 12/27/05

RESULTS FROM THE ANALYSIS OF THE WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M
Sample Extracts Passed Through a Silica Gel Column Prior to Analysis
Results Reported as µg/L (ppb)

Sample ID Laboratory ID	Diesel Range (C_{10}-C_{25})	Surrogate (% Recovery) (Limit 52-134)
MW-15d 30 512177-12	70,000	71
MW-15d 60 512177-13	<50	63
MW-15d 83 512177-14	60	71
MW-15d 140 512177-15	73,000	65
MW-16 512177-16	<50	74
MW-17 512177-17	<50	74
DW-1020 512177-18	<50	73
Method Blank	<50	65

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-4	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-01
Date Analyzed:	12/22/05	Data File:	122215.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	110	75	141
1,2-Dichloroethane-d4	132	59	155
Toluene-d8	117	69	145
4-Bromofluorobenzene	110	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	360
Methyl t-butyl ether (MTBE)	130
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	0.9
Benzene	270 ve
Toluene	44
Ethylbenzene	25
m,p-Xylene	55
o-Xylene	18

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-4	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-01 1/10
Date Analyzed:	12/27/05	Data File:	122708.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	118	75	141
1,2-Dichloroethane-d4	154	59	155
Toluene-d8	118	69	145
4-Bromofluorobenzene	113	75	151

Compounds:	Concentration ug/L (ppb)
Benzene	310

Note: The sample was diluted due to the presence of high levels of material.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-5	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-02
Date Analyzed:	12/22/05	Data File:	122221.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	89	75	141
1,2-Dichloroethane-d4	120	59	155
Toluene-d8	102	69	145
4-Bromofluorobenzene	123	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	710
Methyl t-butyl ether (MTBE)	380 ve
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	7.2
Benzene	2,700 ve
Toluene	1,300 ve
Ethylbenzene	810 ve
m,p-Xylene	2,100 ve
o-Xylene	1,000 ve

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-5	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-02 1/200
Date Analyzed:	12/27/05	Data File:	122709.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	120	75	141
1,2-Dichloroethane-d4	155	59	155
Toluene-d8	120	69	145
4-Bromofluorobenzene	114	75	151

Compounds:	Concentration ug/L (ppb)
Methyl t-butyl ether (MTBE)	490
Benzene	24,000
Toluene	3,700
Ethylbenzene	2,800
m,p-Xylene	7,800
o-Xylene	2,100

Note: The sample was diluted due to the presence of high levels of material.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-6	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-03
Date Analyzed:	12/22/05	Data File:	122216.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	112	75	141
1,2-Dichloroethane-d4	140	59	155
Toluene-d8	113	69	145
4-Bromofluorobenzene	104	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	31
Methyl t-butyl ether (MTBE)	170
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	0.8
Benzene	120
Toluene	29
Ethylbenzene	17
m,p-Xylene	21
o-Xylene	11

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-7	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-04
Date Analyzed:	12/22/05	Data File:	122217.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	114	75	141
1,2-Dichloroethane-d4	137	59	155
Toluene-d8	113	69	145
4-Bromofluorobenzene	105	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	91
Methyl t-butyl ether (MTBE)	3.1
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	880 ve
Toluene	50
Ethylbenzene	64
m,p-Xylene	41
o-Xylene	18

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-7	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-04 1/10
Date Analyzed:	12/27/05	Data File:	122711.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	123	75	141
1,2-Dichloroethane-d4	160 vo	59	155
Toluene-d8	122	69	145
4-Bromofluorobenzene	116	75	151

Compounds:	Concentration ug/L (ppb)
Benzene	1,500 s

Note: The sample was diluted due to the presence of high levels of material.

vo - The value reported fell outside the control limits established for this analyte.

s - The surrogate associated with the analyte is out of control limits.
The reported concentration may be biased high.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-8	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-05
Date Analyzed:	12/22/05	Data File:	122205.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	113	75	141
1,2-Dichloroethane-d4	141	59	155
Toluene-d8	122	69	145
4-Bromofluorobenzene	106	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	0.7
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	20
Toluene	7.1
Ethylbenzene	1.4
m,p-Xylene	2.4
o-Xylene	2.9

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-9	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-06
Date Analyzed:	12/22/05	Data File:	122206.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	109	75	141
1,2-Dichloroethane-d4	137	59	155
Toluene-d8	116	69	145
4-Bromofluorobenzene	101	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	0.7
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	12
Toluene	9.5
Ethylbenzene	1.1
m,p-Xylene	2.6
o-Xylene	3.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-10	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-07
Date Analyzed:	12/22/05	Data File:	122207.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	110	75	141
1,2-Dichloroethane-d4	135	59	155
Toluene-d8	108	69	145
4-Bromofluorobenzene	103	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	42
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	18
Toluene	14
Ethylbenzene	1.2
m,p-Xylene	2.9
o-Xylene	3.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-11	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-08
Date Analyzed:	12/22/05	Data File:	122208.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	116	75	141
1,2-Dichloroethane-d4	144	59	155
Toluene-d8	114	69	145
4-Bromofluorobenzene	107	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	0.9
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	14
Toluene	11
Ethylbenzene	1.2
m,p-Xylene	2.7
o-Xylene	3.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-12	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-09
Date Analyzed:	12/22/05	Data File:	122209.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	116	75	141
1,2-Dichloroethane-d4	140	59	155
Toluene-d8	113	69	145
4-Bromofluorobenzene	106	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	2.3
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	14
Toluene	9.9
Ethylbenzene	1.1
m,p-Xylene	2.7
o-Xylene	3.4

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-13	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-10
Date Analyzed:	12/22/05	Data File:	122210.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	125	75	141
1,2-Dichloroethane-d4	154	59	155
Toluene-d8	121	69	145
4-Bromofluorobenzene	114	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	0.8
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	25
Toluene	11
Ethylbenzene	2.2
m,p-Xylene	4.6
o-Xylene	4.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-14	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-11
Date Analyzed:	12/22/05	Data File:	122211.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	107	75	141
1,2-Dichloroethane-d4	131	59	155
Toluene-d8	105	69	145
4-Bromofluorobenzene	99	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	7.4
Methyl t-butyl ether (MTBE)	0.7
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	71
Toluene	13
Ethylbenzene	5.6
m,p-Xylene	5.6
o-Xylene	4.0

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 30	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-12
Date Analyzed:	12/23/05	Data File:	122222.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	104	75	141
1,2-Dichloroethane-d4	132	59	155
Toluene-d8	105	69	145
4-Bromofluorobenzene	103	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	2,500 ve
Methyl t-butyl ether (MTBE)	4,500 ve
Ethyl t-butyl ether (ETBE)	6.3
Diisopropyl ether (DIPE)	0.9
t-Amyl methyl ether (TAME)	38
Benzene	2,800 ve
Toluene	2,400 ve
Ethylbenzene	340 ve
m,p-Xylene	970 ve
o-Xylene	680 ve

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.

Note: The sample was analyzed 3 minutes outside of 12 hour shift.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 30	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-12 1/200
Date Analyzed:	12/27/05	Data File:	122712.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	133	75	141
1,2-Dichloroethane-d4	171 vo	59	155
Toluene-d8	132	69	145
4-Bromofluorobenzene	126	75	151

Compounds:	Concentration ug/L (ppb)
t-Butyl alcohol (TBA)	2,700
Methyl t-butyl ether (MTBE)	20,000
Benzene	18,000 s
Toluene	12,000
Ethylbenzene	530
m,p-Xylene	2,000
o-Xylene	1,200

Note: The sample was diluted due to the presence of high levels of material.

vo - The value reported fell outside the control limits established for this analyte.

s - The surrogate associated with the analyte is out of control limits.
The reported concentration may be biased high.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 60	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-13
Date Analyzed:	12/22/05	Data File:	122218.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	114	75	141
1,2-Dichloroethane-d4	136	59	155
Toluene-d8	110	69	145
4-Bromofluorobenzene	103	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	11
Methyl t-butyl ether (MTBE)	140
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	0.6
Benzene	590 ve
Toluene	400 ve
Ethylbenzene	24
m,p-Xylene	80
o-Xylene	42

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 60	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-13 1/100
Date Analyzed:	12/27/05	Data File:	122713.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	115	75	141
1,2-Dichloroethane-d4	146	59	155
Toluene-d8	112	69	145
4-Bromofluorobenzene	106	75	151

Compounds:	Concentration ug/L (ppb)
Benzene	760
Toluene	490

Note: The sample was diluted due to the presence of high levels of material.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 83	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-14
Date Analyzed:	12/22/05	Data File:	122219.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	115	75	141
1,2-Dichloroethane-d4	137	59	155
Toluene-d8	111	69	145
4-Bromofluorobenzene	105	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	8.0
Methyl t-butyl ether (MTBE)	120
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	0.8
Benzene	990 ve
Toluene	770 ve
Ethylbenzene	87
m,p-Xylene	280
o-Xylene	150

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 83	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-14 1/20
Date Analyzed:	12/27/05	Data File:	122714.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	123	75	141
1,2-Dichloroethane-d4	160 vo	59	155
Toluene-d8	121	69	145
4-Bromofluorobenzene	116	75	151

Compounds:	Concentration ug/L (ppb)
Benzene	1,800 s
Toluene	1,200

Note: The sample was diluted due to the presence of high levels of material.

vo - The value reported fell outside the control limits established for this analyte.

s - The surrogate associated with the analyte is out of control limits.
The reported concentration may be biased high.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 140	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-15
Date Analyzed:	12/22/05	Data File:	122220.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	107	75	141
1,2-Dichloroethane-d4	124	59	155
Toluene-d8	100	69	145
4-Bromofluorobenzene	104	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	4,700 ve
Methyl t-butyl ether (MTBE)	4,000 ve
Ethyl t-butyl ether (ETBE)	5.8
Diisopropyl ether (DIPE)	0.8
t-Amyl methyl ether (TAME)	40
Benzene	2,600 ve
Toluene	2,400 ve
Ethylbenzene	390 ve
m,p-Xylene	430 ve
o-Xylene	800 ve

ve - The value reported exceeded the calibration range established for the analyte. The reported concentration is an estimate.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-15d 140	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-15 1/200
Date Analyzed:	12/27/05	Data File:	122715.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	124	75	141
1,2-Dichloroethane-d4	161 vo	59	155
Toluene-d8	121	69	145
4-Bromofluorobenzene	115	75	151

Compounds:	Concentration ug/L (ppb)
t-Butyl alcohol (TBA)	5,600
Methyl t-butyl ether (MTBE)	22,000
Benzene	23,000 s
Toluene	16,000
Ethylbenzene	820
m,p-Xylene	3,100
o-Xylene	1,700

Note: The sample was diluted due to the presence of high levels of material. Detection limits are raised due to dilution.

vo - The value reported fell outside the control limits established for this analyte.

s - The surrogate associated with the analyte is out of control limits.
The reported concentration may be biased high.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-16	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-16
Date Analyzed:	12/22/05	Data File:	122212.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	110	75	141
1,2-Dichloroethane-d4	139	59	155
Toluene-d8	109	69	145
4-Bromofluorobenzene	104	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	27
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	30
Toluene	16
Ethylbenzene	1.7
m,p-Xylene	3.7
o-Xylene	4.6

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	MW-17	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	512177-17
Date Analyzed:	12/22/05	Data File:	122213.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	113	75	141
1,2-Dichloroethane-d4	139	59	155
Toluene-d8	110	69	145
4-Bromofluorobenzene	103	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	3.9
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	21
Toluene	13
Ethylbenzene	1.4
m,p-Xylene	3.2
o-Xylene	4.1

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	DW-1020	Client:	ECM Group
Date Received:	12/16/05	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	512177-18
Date Analyzed:	12/27/05	Data File:	122707.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	120	75	141
1,2-Dichloroethane-d4	159 vo	59	155
Toluene-d8	129	69	145
4-Bromofluorobenzene	111	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	<0.5
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylene	<1
o-Xylene	<0.5

vo - The value reported fell outside the control limits established for this analyte.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	Method Blank	Client:	ECM Group
Date Received:	Not Applicable	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/22/05	Lab ID:	051691 mb
Date Analyzed:	12/22/05	Data File:	122204.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	111	75	141
1,2-Dichloroethane-d4	136	59	155
Toluene-d8	117	69	145
4-Bromofluorobenzene	102	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	<0.5
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylene	<1
o-Xylene	<0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Analysis For Volatile Compounds By EPA Method 8260B SIM

Client Sample ID:	Method Blank	Client:	ECM Group
Date Received:	Not Applicable	Project:	98-511-14 Bennett Valley, F&BI 512177
Date Extracted:	12/27/05	Lab ID:	051694 mb
Date Analyzed:	12/27/05	Data File:	122706.D
Matrix:	water	Instrument:	GCMS5
Units:	ug/L (ppb)	Operator:	YA

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Dibromofluoromethane	117	75	141
1,2-Dichloroethane-d4	154	59	155
Toluene-d8	127	69	145
4-Bromofluorobenzene	110	75	151

Compounds:	Concentration ug/L (ppb)
Ethanol	<1,000
t-Butyl alcohol (TBA)	<5
Methyl t-butyl ether (MTBE)	<0.5
Ethyl t-butyl ether (ETBE)	<0.5
Diisopropyl ether (DIPE)	<0.5
t-Amyl methyl ether (TAME)	<0.5
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylene	<1
o-Xylene	<0.5

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/05/06
Date Received: 12/16/05
Project: 98-511-14 Bennett Valley, F&BI 512177

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS GASOLINE USING EPA METHOD 8015M

Laboratory Code: 512177-06 (Duplicate)

Analyte	Reporting Units	Sample Result	Duplicate Result	Relative Percent Difference (Limit 20)
Gasoline	µg/L (ppb)	<100	<100	nm

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Gasoline	µg/L (ppb)	1,000	73	81	66-124	10

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

Date of Report: 01/05/06
Date Received: 12/16/05
Project: 98-511-14 Bennett Valley, F&BI 512177

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF WATER SAMPLES FOR TOTAL PETROLEUM HYDROCARBONS AS DIESEL USING EPA METHOD 8015M

Laboratory Code: Laboratory Control Sample

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Diesel Extended	µg/L (ppb)	2,500	106	110	68-144	4

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara. CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: JIM GREEN	Phone No.: 707-751-0655	Purchase Order No (Reqd).:	Send Invoice to (if Different) / Phone
Company Name: ECM GROUP	Fax No.: 707-751-0653	Project Number: 98-511-66	Company: REDWOOD OIL CO.
Mailing Address: P.O. BOX 802	email:	Project Name: BENNETT VALLEY	Billing Address (if Different)
City: BENICIA	State: CA / Zip: 94510	Project Location:	City: / State / Zip

Sampler: MIKE JACKSON
Field Org. Code:
Global ID:

Turn Around Time
- ☐ Same Day
- ☐ 1 Day
- ☐ 2 Day
- ☐ 3 Day
- ☐ 4 Day
- ☐ 5 Day
- ☒ Standard (10 Day)

Order ID:

Client ID:	Field PT	Lab. No.	Sampling Date	Sampling Time	Matrix	Composite	Grab	Containers	Preservative	Volatile Organics by GCMS: 624 ☐ / 601/602 ☐	Fuel Oxygenates by 8010 by 8260 ☐ / 8260B ☒	MTBE by 8260B ☐	Pesticides-8081 ☐	PCBs - 8082 ☐	TPH as Gas/BTEX ☒	TPH as Gas/BTEX/MTBE ☐	Base/Neutral/Acid Organics 8270 ☐ / 8270-SIM ☐	PNA ☐	Fuel Scan Extractable ☐ Purgeable ☐	Diesel ☒ w/ Si-gel Standard Cleanup ☒	Motor Oil ☐ w/ Si-gel Column Cleanup ☐	pH	CN	TRPH ☐	Oil & Grease ☐			Metals - Circle Below Total ☐ / Dissolved ☐	STLC	TTLC	Remarks
INFLUENT			10/3/05	11:35	W		X	5	HCL		X				X					X													45674-001
MID			10/3/05	12:00	W		X	5	HCL		X				X					X													-002

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	10/4/05	0940
[signature]	[signature]	10/6/05	1126

Special Instructions or Comments

- ☐ NPDES Detection Limits
- ☐ EDD Report Required
- ☐ EDF Report Required
- ☐ PDF File Required

Metals:
Al, As, Sb, Ba, Be, B, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Hg, Mo, Ni, K, Si, Ag, Na, Se, Sr, Tl, Sn, Ti, V, Zn, W : RCRA-8 ☐ CAM-17 ☐ Plating ☐ PPM-13 ☐ LUFT-5 ☐

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Jim Green
ECM Group
290 W. Channel Rd.
Benicia, CA 94510

Certificate Number: 45674
Issued: 10/17/2005

Order / Lab Number: 45674
P.O. Number: 98-511-66
Global ID: T0609700639

Project Number: 98-511-66
Project Name: Bennett Valley

Certificate of Analysis - Final Report

On October 06, 2005, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test	Comments
Liquid	EDF	
	TPH-Extractable-SGCU	
	EPA 8260B EPA 624	
	TPH as Gasoline - GC-MS	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Erin Cunniffe
Laboratory Operations Manager

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

ECM Group
290 W. Channel Rd.
Benicia, CA 94510
Attn: Jim Green

Date Received: 10/6/2005 12:02:48 PM

Project Number: 98-511-66
Project Name: Bennett Valley
GlobalID: T0609700639
P.O. Number: 98-511-66
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 45674-001 **Sample ID: Influent** **Matrix:** Liquid **Sample Date:** 10/3/2005 11:35 AM

EPA 3510C EPA 8015 MOD.(Extractable with Silica Gel Cleanup) **TPH-Extractable-SGCU**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		2.0	100	µg/L	10/7/2005	DW051007BS	10/13/2005	DW051007BS

2000ppb higher boiling gasoline compound(C8-C18). No Diesel pattern.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	45.9	16 - 137

Analyzed by: EricKum
Reviewed by: dba

EPA 5030C EPA 8260B EPA 624 **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	1300		100	50	µg/L	N/A	N/A	10/13/2005	WM1051013
Toluene	2200		100	50	µg/L	N/A	N/A	10/13/2005	WM1051013
Ethyl Benzene	600		100	50	µg/L	N/A	N/A	10/13/2005	WM1051013
Xylenes, Total	3400		100	50	µg/L	N/A	N/A	10/13/2005	WM1051013
Methyl-t-butyl Ether	ND		100	100	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Butyl Ethyl Ether	ND		100	500	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Butanol (TBA)	ND		100	1000	µg/L	N/A	N/A	10/13/2005	WM1051013
Diisopropyl Ether	ND		100	500	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Amyl Methyl Ether	ND		100	500	µg/L	N/A	N/A	10/13/2005	WM1051013

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	92.0	70 - 130
Dibromofluoromethane	110	70 - 130
Toluene-d8	105	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

EPA 5030C GC-MS **TPH as Gasoline - GC-MS**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	19000		100	5000	µg/L	N/A	N/A	10/13/2005	WM1051013

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	103	70 - 130
Dibromofluoromethane	100	70 - 130
Toluene-d8	98.7	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

ECM Group
290 W. Channel Rd.
Benicia, CA 94510
Attn: Jim Green

Date Received: 10/6/2005 12:02:48 PM

Project Number: 98-511-66
Project Name: Bennett Valley
GlobalID: T0609700639
P.O. Number: 98-511-66
Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 45674-002 **Sample ID: MID** **Matrix:** Liquid **Sample Date:** 10/3/2005 12:00 PM

EPA 3510C EPA 8015 MOD.(Extractable with Silica Gel Cleanup) **TPH-Extractable-SGCU**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	10/7/2005	DW051007BS	10/12/2005	DW051007BS

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	46.8	16 - 137

Analyzed by: EricKum
Reviewed by: ECunniffe

EPA 5030C EPA 8260B EPA 624 **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Xylenes, Total	ND		1.0	0.50	µg/L	N/A	N/A	10/13/2005	WM1051013
Methyl-t-butyl Ether	82		1.0	1.0	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Butanol (TBA)	99		1.0	10	µg/L	N/A	N/A	10/13/2005	WM1051013
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	10/13/2005	WM1051013
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	10/13/2005	WM1051013

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.7	70 - 130
Dibromofluoromethane	118	70 - 130
Toluene-d8	108	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

EPA 5030C GC-MS **TPH as Gasoline - GC-MS**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	81		1.0	50	µg/L	N/A	N/A	10/13/2005	WM1051013

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	108	70 - 130
Dibromofluoromethane	108	70 - 130
Toluene-d8	102	70 - 130

Analyzed by: XBian
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8015 MOD.(Extractable with Silica Gel Cleanup) - TPH-Extractable-SGCU

QC/Prep Batch ID: DW051007BS Validated by: dba - 10/10/05

QC/Prep Date: 10/7/2005

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	**18.3**	16 - 137

Laboratory Control Sample / Duplicate - Liquid - EPA 8015 MOD.(Extractable with Silica Gel Cleanup) - TPH-Extractable-SGCU

QC/Prep Batch ID: DW051007BS Reviewed by: dba - 10/10/05

QC/Prep Date: 10/7/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	836	µg/L	83.6	35 - 109
TPH as Motor Oil	<200	1000	705	µg/L	70.5	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	**69.1**	16 - 137

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	874	µg/L	87.4	**4.5**	25.0	35 - 109
TPH as Motor Oil	<200	1000	655	µg/L	65.5	**7.4**	25.0	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	**68.9**	16 - 137

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051013

Validated by: MaiChiTu - 10/14/05

QC Batch Analysis Date: 10/13/2005

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**91.7**	70 - 130
Dibromofluoromethane	**113**	70 - 130
Toluene-d8	**110**	70 - 130

Laboratory Control Sample / Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051013

Reviewed by: MaiChiTu - 10/14/05

QC Batch ID Analysis Date: 10/13/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
Benzene	<0.50	20	20.3	µg/L	102	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.7	µg/L	88.5	70 - 130
Toluene	<0.50	20	21.2	µg/L	106	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.6**	70 - 130
Dibromofluoromethane	**104**	70 - 130
Toluene-d8	**98.7**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	<0.50	20	20.2	µg/L	101	**0.49**	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.7	µg/L	88.5	**0.0**	25.0	70 - 130
Toluene	<0.50	20	20.7	µg/L	104	**2.4**	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.2**	70 - 130
Dibromofluoromethane	**100**	70 - 130
Toluene-d8	**97**	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Matrix Spike / Matrix Spike Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM1051013

Reviewed by: MaiChiTu - 10/14/05

QC Batch ID Analysis Date: 10/13/2005

MS Sample Spiked: 45677-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	ND	20	20.5	µg/L	10/13/2005	102	70 - 130
Toluene	ND	20	22.0	µg/L	10/13/2005	110	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.6**	70 - 130
Dibromofluoromethane	**100**	70 - 130
Toluene-d8	**98.9**	70 - 130

MSD Sample Spiked: 45677-001

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	ND	20	20.3	µg/L	10/13/2005	102	0.98	25.0	70 - 130
Toluene	ND	20	21.4	µg/L	10/13/2005	107	2.8	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**86.3**	70 - 130
Dibromofluoromethane	**100**	70 - 130
Toluene-d8	**96.8**	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM1051013

Validated by: MaiChiTu - 10/14/05

QC Batch Analysis Date: 10/13/2005

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	**106**	70 - 130
Dibromofluoromethane	**103**	70 - 130
Toluene-d8	**103**	70 - 130

Laboratory Control Sample / Duplicate - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM1051013

Reviewed by: MaiChiTu - 10/14/05

QC Batch ID Analysis Date: 10/13/2005

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	120	131	µg/L	105	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**99.3**	70 - 130
Dibromofluoromethane	**93.6**	70 - 130
Toluene-d8	**97.8**	70 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	120	125	µg/L	100	**4.3**	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	**99.1**	70 - 130
Dibromofluoromethane	**93.1**	70 - 130
Toluene-d8	**97.2**	70 - 130

Entech Analytical Labs, Inc.

3334 Victor Court (408) 588-0200
Santa Clara, CA 95054 (408) 588-0201 - Fax

Chain of Custody / Analysis Request

Attention to: JIM GREEN	Phone No.: 707-751-0655	Purchase Order No.:	Invoice to: (If Different)	Phone:
Company Name: ECM GROUP	Fax No.: 707-751-0653	Project No.: 98-511-66	Company: ~~[illegible]~~ REDWOOD OIL CO.	Quote No.:
Mailing Address: P.O. BOX 802	Email Address:	Project Name: BENNETT VALLEY	Billing Address: (If Different)	
City: BENICIA	State: CA Zip Code: 94510	Project Location:	City: State: Zip:	

Sampler: MIKE JACKSON

Field Org. Code:

Global ID:

Turn Around Time
- ☐ Same Day ☐ 1 Day
- ☐ 2 Day ☐ 3 Day
- ☐ 4 Day ☐ 5 Day
- ☒ 10 Day

Order ID: 47354

Client ID / Field Point	Lab. No.	Date	Time	Matrix	No. of Containers	EPA 8260B	BTEX ☒ MTBE ☐ TPH Gas ☒ by 8260B	5 Oxygenates (MTBE, TBA, ETBA, DPE, TAME) ☒ Lead Scavengers (1,2-DCA & EDB) ☐ Ethanol ☐	Base/Neutral/Acid Organics 8270C ☐ PAH - 8270C ☐ PAH - 8270C SIM ☐	TPH Extractable Diesel ☒ Motor Oil ☐ Other ☐ w/ Sulfur Cleanup ☒	Pesticides-8081 ☐ PCBs - 8082 ☐	TPH as Gas/BTEX ☐ MTBE ☐ by 8015M/8020	Methanol by 8015M	Anions F ☐ Cl ☐ Br ☐ SO4 ☐ NO3 ☐ NO2 ☐ PO4 ☐	pH ☐ TSS ☐ SC ☐ TOC ☐ TRPH ☐ O & G ☐	Metals - Circle Below Total ☐ Dissolved ☐ STLC ☐ TCLP ☐	Remarks
MID	47354-001	1/11/06	15:05	W	5		X	X		X							
INF	002	1/11/06	14:55	W	5		X	X		X							

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	1/13/06	1:48
[signature]	[signature]	1/13/06	11:50

Special Instructions or Comments

- ☐ EDD Report
- ☒ EDF Report
- ☐ Plating
- ☐ LUFT-5
- ☐ RCRA-8
- ☐ PPM-13
- ☐ CAM-17

Metals:
Al, As, Sb, Ba, Be, Bi, B, Cd, Ce, Ca, Cr, Co, Cs, Cu, Fe, Pb, Mg, Mn, Ga, Ge, Hg, In, Li, Mo, Ni, P, K, Si, Ag, Na, S, Se, Sr, Ta, Te, Tl, Sn, Ti, Zn, V, W, Zr

June 2004

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Jim Green
ECM Group
290 W. Channel Rd.
Benicia, CA 94510

Lab Certificate Number: 47354
Issued: 01/24/2006

Project Number: 98-511-66
Project Name: Bennett Valley

Global ID: T0609700639

Certificate of Analysis - Final Report

On January 13, 2006, samples were received under chain of custody for analysis.
Entech analyzes samples "as received" unless otherwise noted. The following results are included:

Matrix	Test	Comments
Liquid	Electronic Deliverables EPA 8260B - GC/MS TPH as Gasoline by GC/MS TPH-Extractable w/SGCU	

Entech Analytical Labs, Inc. is certified for environmental analyses by the State of California (#2346).
If you have any questions regarding this report, please call us at 408-588-0200 ext. 225.

Sincerely,

Laurie Glantz-Murphy
Laboratory Director

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

ECM Group
290 W. Channel Rd.
Benicia, CA 94510
Attn: Jim Green

Samples Received: 01/13/2006

Project Number: 98-511-66
Project Name: Bennett Valley

GlobalID: T0609700639

Certificate of Analysis - Data Report

Sample Collected by: Client

Lab # : 47354-001 **Sample ID: MID** **Matrix:** Liquid **Sample Date:** 1/11/2006 3:05 PM

EPA 3510C EPA 8015 MOD.(Extractable with Silica Gel Cleanup) **TPH-Extractable-SGCU**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	1/13/2006	WD060113BS	1/17/2006	WD060113BS

610ppb higher boiling gasoline compounds (C8-C20). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	79.3	16 - 137

Analyzed by: EricKun
Reviewed by: dhu

EPA 5030C EPA 8260B for Groundwater and Water EPA 624 for Wastewater **8260Petroleum**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	45		1.0	0.50	µg/L	N/A	N/A	1/18/2006	WM2060118
Toluene	ND		1.0	0.50	µg/L	N/A	N/A	1/18/2006	WM2060118
Ethyl Benzene	ND		1.0	0.50	µg/L	N/A	N/A	1/18/2006	WM2060118
Xylenes, Total	2.1		1.0	0.50	µg/L	N/A	N/A	1/18/2006	WM2060118
Methyl-t-butyl Ether	22		1.0	1.0	µg/L	N/A	N/A	1/18/2006	WM2060118
tert-Butyl Ethyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	1/18/2006	WM2060118
tert-Butanol (TBA)	100		1.0	10	µg/L	N/A	N/A	1/18/2006	WM2060118
Diisopropyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	1/18/2006	WM2060118
tert-Amyl Methyl Ether	ND		1.0	5.0	µg/L	N/A	N/A	1/18/2006	WM2060118

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	102	60 - 130
Dibromofluoromethane	92.0	60 - 130
Toluene-d8	102	60 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

EPA 5030C GC-MS **TPH as Gasoline - GC-MS**

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	160		1.0	50	µg/L	N/A	N/A	1/18/2006	WM2060118

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	93.1	60 - 130
Dibromofluoromethane	93.9	60 - 130
Toluene-d8	95.3	60 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

ECM Group
290 W. Channel Rd.
Benicia, CA 94510
Attn: Jim Green

Samples Received: 01/13/2006

Project Number: 98-511-66
Project Name: Bennett Valley

GlobalID: T0609700639

Sample Collected by: Client

Certificate of Analysis - Data Report

Lab # : 47354-002 **Sample ID: INF** **Matrix:** Liquid **Sample Date:** 1/11/2006 2:55 PM

EPA 3510C EPA 8015 MOD.(Extractable with Silica Gel Cleanup) — TPH-Extractable-SGCU

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Diesel	ND		1.0	50	µg/L	1/13/2006	WD060113BS	1/17/2006	WD060113BS

570ppb higher boiling gasoline compounds (C8-C18). No Diesel pattern present.

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	61.6	16 - 137

Analyzed by: EricKum
Reviewed by: dba

EPA 5030C EPA 8260B for Groundwater and Water EPA 624 for Wastewater — 8260Petroleum

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
Benzene	1300		20	10	µg/L	N/A	N/A	1/18/2006	WM2060118
Toluene	390		20	10	µg/L	N/A	N/A	1/18/2006	WM2060118
Ethyl Benzene	160		20	10	µg/L	N/A	N/A	1/18/2006	WM2060118
Xylenes, Total	640		20	10	µg/L	N/A	N/A	1/18/2006	WM2060118
Methyl-t-butyl Ether	57		20	20	µg/L	N/A	N/A	1/18/2006	WM2060118
tert-Butyl Ethyl Ether	ND		20	100	µg/L	N/A	N/A	1/18/2006	WM2060118
tert-Butanol (TBA)	ND		20	200	µg/L	N/A	N/A	1/18/2006	WM2060118
Diisopropyl Ether	ND		20	100	µg/L	N/A	N/A	1/18/2006	WM2060118
tert-Amyl Methyl Ether	ND		20	100	µg/L	N/A	N/A	1/18/2006	WM2060118

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	104	60 - 130
Dibromofluoromethane	94.8	60 - 130
Toluene-d8	101	60 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

EPA 5030C GC-MS — TPH as Gasoline - GC-MS

Parameter	Result	Qual	D/P-F	Detection Limit	Units	Prep Date	Prep Batch	Analysis Date	QC Batch
TPH as Gasoline	6500		20	1000	µg/L	N/A	N/A	1/18/2006	WM2060118

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	95.8	60 - 130
Dibromofluoromethane	96.7	60 - 130
Toluene-d8	94.3	60 - 130

Analyzed by: TAF
Reviewed by: MaiChiTu

Detection Limit = Detection Limit for Reporting.
D/P-F = Dilution and/or Prep Factor includes sample volume adjustments.
ND = Not Detected at or above the Detection Limit.
Qual = Data Qualifier

Entech Analytical Labs, Inc.

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Method Blank - Liquid - EPA 8015 MOD.(Extractable with Silica Gel Cleanup) - TPH-Extractable-SGCU

QC/Prep Batch ID: WD060113BS

Validated by: dba - 01/17/06

QC/Prep Date: 1/13/2006

Parameter	Result	DF	PQLR	Units
TPH as Diesel	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
o-Terphenyl	69.0	16 - 137

Laboratory Control Sample / Duplicate - Liquid - EPA 8015 MOD.(Extractable with Silica Gel Cleanup) - TPH-Extractable-SGCU

QC/Prep Batch ID: WD060113BS

Reviewed by: dba - 01/17/06

QC/Prep Date: 1/13/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Diesel	<50	1000	655	µg/L	65.5	35 - 109
TPH as Motor Oil	<200	1000	648	µg/L	64.8	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	77.4	16 - 137

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Diesel	<50	1000	712	µg/L	71.2	8.3	25.0	35 - 109
TPH as Motor Oil	<200	1000	775	µg/L	77.5	18	25.0	30 - 132

Surrogate	% Recovery	Control Limits
o-Terphenyl	79.4	16 - 137

Entech Analytical Labs, Inc.

3334 Victor Court , Santa Clara, CA 95054 Phone: (408) 588-0200 Fax: (408) 588-0201

Method Blank - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2060118

Validated by: MaiChiTu - 01/20/06

QC Batch Analysis Date: 1/18/2006

Parameter	Result	DF	PQLR	Units
Benzene	ND	1	0.50	µg/L
Diisopropyl Ether	ND	1	5.0	µg/L
Ethyl Benzene	ND	1	0.50	µg/L
Methyl-t-butyl Ether	ND	1	1.0	µg/L
tert-Amyl Methyl Ether	ND	1	5.0	µg/L
tert-Butanol (TBA)	ND	1	10	µg/L
tert-Butyl Ethyl Ether	ND	1	5.0	µg/L
Toluene	ND	1	0.50	µg/L
Xylenes, Total	ND	1	0.50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	102	60 - 130
Dibromofluoromethane	92.3	60 - 130
Toluene-d8	100	60 - 130

Method Blank - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM2060118

Validated by: MaiChiTu - 01/20/06

QC Batch Analysis Date: 1/18/2006

Parameter	Result	DF	PQLR	Units
TPH as Gasoline	ND	1	50	µg/L

Surrogate for Blank	% Recovery	Control Limits
4-Bromofluorobenzene	93.7	60 - 130
Dibromofluoromethane	94.2	60 - 130
Toluene-d8	94.0	60 - 130

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Laboratory Control Sample / Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2060118 Reviewed by: MaiChiTu - 01/20/06

QC Batch ID Analysis Date: 1/18/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
1,1-Dichloroethene	<0.50	20	16.1	µg/L	80.5	70 - 130
Benzene	<0.50	20	18.1	µg/L	90.6	70 - 130
Chlorobenzene	<0.50	20	19.7	µg/L	98.4	70 - 130
Methyl-t-butyl Ether	<1.0	20	17.0	µg/L	85.0	70 - 130
Toluene	<0.50	20	17.7	µg/L	88.6	70 - 130
Trichloroethene	<0.50	20	20.6	µg/L	103	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	104.0	60 - 130
Dibromofluoromethane	93.3	60 - 130
Toluene-d8	97.2	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
1,1-Dichloroethene	<0.50	20	16.6	µg/L	82.9	2.9	25.0	70 - 130
Benzene	<0.50	20	18.5	µg/L	92.5	2.1	25.0	70 - 130
Chlorobenzene	<0.50	20	20.1	µg/L	100	1.9	25.0	70 - 130
Methyl-t-butyl Ether	<1.0	20	18.2	µg/L	90.9	6.7	25.0	70 - 130
Toluene	<0.50	20	17.9	µg/L	89.7	1.3	25.0	70 - 130
Trichloroethene	<0.50	20	21.8	µg/L	109	5.8	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	105.0	60 - 130
Dibromofluoromethane	93.1	60 - 130
Toluene-d8	97.7	60 - 130

Laboratory Control Sample / Duplicate - Liquid - GC-MS - TPH as Gasoline - GC-MS

QC Batch ID: WM2060118 Reviewed by: MaiChiTu - 01/20/06

QC Batch ID Analysis Date: 1/18/2006

LCS

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	Recovery Limits
TPH as Gasoline	<25	250	269	µg/L	108	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	95.4	60 - 130
Dibromofluoromethane	95.5	60 - 130
Toluene-d8	93.7	60 - 130

LCSD

Parameter	Method Blank	Spike Amt	SpikeResult	Units	% Recovery	RPD	RPD Limits	Recovery Limits
TPH as Gasoline	<25	250	265	µg/L	106	1.4	25.0	65 - 135

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	95.8	60 - 130
Dibromofluoromethane	94.7	60 - 130
Toluene-d8	94.4	60 - 130

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Matrix Spike / Matrix Spike Duplicate - Liquid - EPA 8260B - 8260Petroleum

QC Batch ID: WM2060118

Reviewed by: MaiChiTu - 01/20/06

QC Batch ID Analysis Date: 1/18/2006

MS Sample Spiked: 47377-005

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	Recovery Limits
Benzene	0.261	20	20.3	µg/L	1/18/2006	100	70 - 130
Methyl-t-butyl Ether	ND	20	22.4	µg/L	1/18/2006	112	70 - 130
Toluene	ND	20	19.4	µg/L	1/18/2006	97.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	113.0	60 - 130
Dibromofluoromethane	110.0	60 - 130
Toluene-d8	101.0	60 - 130

MSD Sample Spiked: 47377-005

Parameter	Sample Result	Spike Amount	Spike Result	Units	Analysis Date	% Recovery	RPD	RPD Limits	Recovery Limits
Benzene	0.261	20	19.8	µg/L	1/18/2006	97.7	2.6	25.0	70 - 130
Methyl-t-butyl Ether	ND	20	21.5	µg/L	1/18/2006	108	3.9	25.0	70 - 130
Toluene	ND	20	19.3	µg/L	1/18/2006	96.6	0.41	25.0	70 - 130

Surrogate	% Recovery	Control Limits
4-Bromofluorobenzene	111.0	60 - 130
Dibromofluoromethane	111.0	60 - 130
Toluene-d8	103.0	60 - 130

APPENDIX D

WATER SAMPLING DATA SHEETS

WATER LEVEL & PRODUCT MEASUREMENTS

ECM group

PROJECT NAME & NUMBER: BENNETT VALLEY 98-511-14

DATE: 12/14/05

BY: MSS

WELL ID	TIME MEASURED	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH	COMMENTS: (well condition, odor, etc.)
MW-4			8.70	18.85	2"
MW-5			9.52	19.00	2"
MW-6			9.66	19.05	2"
MW-7			10.42	19.30	2"
MW-8			7.01	18.75	2"
MW-9			7.49	20.15	2"
MW-10			9.15	20.00	2"
MW-11			9.60	20.00	2"
MW-12			9.75	20.00	2"
MW-13			10.72	19.95	2"
MW-14			10.09	20.10	2"
MW-16			10.55	40.50	2"
MW-17			12.22	40.10	2"

WATER LEVEL & PRODUCT MEASUREMENTS

ECM group

PROJECT NAME & NUMBER: BENNETT VALLEY 98-511-04

DATE: 12/14/05

BY: MSS

WELL ID	TIME MEASURED	DEPTH TO PRODUCT (ft)	DEPTH TO WATER (ft)	TOTAL DEPTH	COMMENTS: (well condition, odor, etc.)
MW-15 d 30			10.73	35.00	ML
MW-15 d 60			11.23	65.00	ML
MW-15 d 83			10.95	88.00	ML
MW-15 d 140			10.75	145.00	ML
PZ-1			15.23	—	1"

WATER SAMPLING DATA

Job Name: BENNETT VALLEY Job Number: 98-511-24
Well Number: MW-4 Date: 12/14/05 Time: _____
Well Diameter: 2" Well Depth (spec.): _____ Well Depth (sounded): 18.85
Depth to Water (static): 8.70 TOC elev.: _____
G.W. Elev.: _____ Maximum Drawdown Limit (if applicable): _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₅" casing = 0.826 gal/ft
V₆" casing = 1.47 gal/ft

Initial height of water in casing: 10.15 Volume: 1.65 gallons
Total to be evacuated = 3 x Initial Volume 4.96 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No After _____ gallons Recovery Rate _____
Water color: _____ Odor: _____
Description of sediments or material in sample: _____
Additional Comments: _____

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	63.1	64.6	65.8				
pH	7.45	7.25	7.22				
EC (umhos/cm)	940	996	1059				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

14:35

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-5 Date 12/14/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 19.00

Depth to Water (static) 9.52 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{5.5}$" casing = 0.926 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 9.48 Volume 1.54 gallons

Total to be evacuated = 3 x Initial Volume 4.63 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Y X No After ___ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	64.0	66.4	66.2				
pH	6.82	6.67	6.71				
EC (umhos/cm)	1457	1412	1426				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

14:15

WATER SAMPLING DATA

Job Name: BENNETT VALLEY
Job Number: 98-511-14
Well Number: MW-6
Date: 12/14/05
Time:
Well Diameter: 2"
Well Depth (spec.):
Well Depth (sounded): 19.05
Depth to Water (static): 9.66
TOC elev.:
G.W. Elev.:
Maximum Drawdown Limit (if applicable):

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_1" casing = 0.163 gal/ft
$V_{1/2}$" casing = 0.367 gal/ft
V_2" casing = 0.653 gal/ft
$V_{2/2}$" casing = 0.826 gal/ft
V_4" casing = 1.47 gal/ft

Initial height of water in casing: 9.39
Volume: 1.53 gallons
Total to be evacuated = 3 x Initial Volume: 4.59 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No
After ___ gallons
Recovery Rate
Water color
Odor
Description of sediments or material in sample:
Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	60.8	63.3	64.1				
pH	7.67	7.28	7.12				
EC (umhos/cm)	841	868	835				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

10:30

WATER SAMPLING DATA

Job Name: BENNETT VALLEY Job Number: 98-511-14

Well Number: MW-7 Date: 12/14/05 Time:

Well Diameter: 2" Well Depth (spec.): Well Depth (sounded): 19.30

Depth to Water (static): 10.42 TOC elev.:

G.W. Elev.: Maximum Drawdown Limit (if applicable):

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{5.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing: 8.88 Volume: 1.44 gallons

Total to be evacuated = 3 x initial Volume: 4.34 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After ____ gallons Recovery Rate

Water color: Odor:

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	63.2	65.0	64.8				
pH	7.02	7.36	7.36				
EC (umhos/cm)	1319	1364	1320				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

13:40

WATER SAMPLING DATA

Job Name: BENNETT VALLEY
Job Number: 98-511-14
Well Number: MW-8
Date: 12/14/05
Time:
Well Diameter: 2"
Well Depth (spec.):
Well Depth (sounded): 18.75
Depth to Water (static): 7.01
TOC elev.:
G.W. Elev.:
Maximum Drawdown Limit (if applicable):

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_1" casing = 0.163 gal/ft
V_2" casing = 0.367 gal/ft
V_3" casing = 0.653 gal/ft
V_4" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing: 11.74
Volume: 1.91 gallons
Total to be evacuated = 3 x Initial Volume: 5.74 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No
After ___ gallons
Recovery Rate
Water color
Odor
Description of sediments or material in sample:
Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	63.2	64.9	64.6				
pH	7.15	6.97	7.05				
EC (umhos/cm)	1371	1380	1375				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

14:00

WATER SAMPLING DATA

Job Name: BENNETT VALLEY Job Number: 98-511-14
Well Number: MW-9 Date: 12/14/05 Time:
Well Diameter: 2" Well Depth (spec.): Well Depth (sounded): 20.15
Depth to Water (static): 7.49 TOC elev.:
G.W. Elev.: Maximum Drawdown Limit (if applicable):

Initial height of water in casing 12.66 Volume 2.06 gallons
Total to be evacuated = 3 x Initial Volume 6.19 gallons

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_1" casing = 0.163 gal/ft
V_2" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{4.5}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No After ___ gallons Recovery Rate
Water color Odor
Description of sediments or material in sample:
Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	61.5	64.0	64.6				
pH	7.58	7.27	7.20				
EC (umhos/cm)	815	855	852				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

13:20

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-10 Date 12/14/05 Time

Well Diameter 2" Well Depth (spec) Well Depth (sounded) 20.00

Depth to Water (static) 9.15 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_1" casing = 0.163 gal/ft
V_2" casing = 0.367 gal/ft
V_3" casing = 0.653 gal/ft
V_{4}" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 10.85 Volume 1.76 gallons

Total to be evacuated = 3 x Initial Volume 5.30 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
•Gallons							
Temp. (degree F)	65.1	67.0	67.6				
pH	7.22	7.16	6.95				
EC (umhos/cm)	865	864	881				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12/05

WATER SAMPLING DATA

Job Name: BENNETT VALLEY Job Number: 98-511-14

Well Number: MW-11 Date: 12/14/05 Time: _____

Well Diameter: 2" Well Depth (spec.): _____ Well Depth (sounded): 20.00

Depth to Water (static): 9.60 TOC elev.: _____

G.W. Elev.: _____ Maximum Drawdown Limit (if applicable): _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₅.₅" casing = 0.826 gal/ft
V₆" casing = 1.47 gal/ft

Initial height of water in casing: 10.40 Volume: 1.69 gallons

Total to be evacuated = 3 x Initial Volume: 5.08 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No After _____ gallons Recovery Rate _____

Water color: _____ Odor: _____

Description of sediments or material in sample: _____

Additional Comments: _____

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	62.3	64.7	65.6				
pH	7.48	7.04	6.91				
EC (umhos/cm)	594	620	626				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Date (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12:25

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-12 Date 12/14/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 20.00

Depth to Water (static) 9.75 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Initial height of water in casing 10.25 Volume 1.67 gallons

Total to be evacuated = 3 x Initial Volume 5.01 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	61.1	63.1	63.5				
pH	7.02	7.63	7.39				
EC (umhos/cm)	470	466	475				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

11:30

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-13 Date 12/14/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 19.95

Depth to Water (static) 10.72 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₅.₂" casing = 0.926 gal/ft
V₆" casing = 1.47 gal/ft

Initial height of water in casing 9.23 Volume 1.50 gallons

Total to be evacuated = 3 x Initial Volume 4.51 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No After ___ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	59.9	62.0	62.6				
pH	7.42	7.36	7.15				
EC (umhos/cm)	788	810	813				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

13:05

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-14 Date 12/14/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 20.10

Depth to Water (static) 10.09 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_1" casing = 0.163 gal/ft
V_2" casing = 0.367 gal/ft
V_3" casing = 0.653 gal/ft
V_4" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 10.01 Volume 1.63 gallons

Total to be evacuated = 3 x Initial Volume 4.89 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	61.3	62.7	63.7				
pH	7.13	7.36	7.36				
EC (umhos/cm)	762	739	740				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

12:40

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-15d 30 Date _____ Time _____

Well Diameter MULTI-LEVEL Well Depth (spec.) _____ Well Depth (sounded) 35.00

Depth to Water (static) _____ TOC elev. _____

G.W. Elev. _____ Maximum Drawdown Limit (if applicable) _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₄" casing = 0.367 gal/ft
V₆" casing = 0.653 gal/ft
V₈" casing = 0.826 gal/ft
V₁₂" casing = 1.47 gal/ft

Initial height of water in casing _____ Volume _____ gallons

Total to be evacuated = 3 x Initial Volume _____ gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No After _____ gallons Recovery Rate _____

Water color _____ Odor _____

Description of sediments or material in sample: _____

Additional Comments: _____

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	64.1	65.5	64.9				
pH	6.84	6.78	6.74				
EC (umhos/cm)	2982	3226	3321				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

13:30

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-15 d 60 Date _____ Time _____

Well Diameter MULTI-LEVEL Well Depth (spec.) _____ Well Depth (sounded) 65.00

Depth to Water (static) _____ TOC elev. _____

G.W. Elev. _____ Maximum Drawdown Limit (if applicable) _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₄.₅" casing = 0.826 gal/ft
V₆" casing = 1.47 gal/ft

Initial height of water in casing _____ Volume _____ gallons

Total to be evacuated = 3 x Initial Volume _____ gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate _____

Water color _____ Odor _____

Description of sediments or material in sample: _____

Additional Comments: _____

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	64.3	65.4	66.0				
pH	7.13	7.15	7.23				
EC (umhos/cm)	930	937	929				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

13:45

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-15d 83 Date _____ Time _____

Well Diameter MULTI-LEVEL Well Depth (spec.) _____ Well Depth (sounded) 88.00

Depth to Water (static) _____ TOC elev. _____

G.W. Elev. _____ Maximum Drawdown Limit (if applicable) _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₅.₅" casing = 0.826 gal/ft
V₆" casing = 1.47 gal/ft

Initial height of water in casing _____ Volume _____ gallons

Total to be evacuated = 3 x Initial Volume _____ gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate _____

Water color _____ Odor _____

Description of sediments or material in sample: _____

Additional Comments: _____

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	63.8	64.9	65.9				
pH	6.88	6.95	7.17				
EC (umhos/cm)	679	699	656				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

14:05

WATER SAMPLING DATA

Job Name: BENNETT VALLEY Job Number: 98-511-14

Well Number: MW-15d 140 Date: 12/13/05 Time: _____

Well Diameter: MULTI-LEVEL Well Depth (spec.): _____ Well Depth (sounded): 145.00

Depth to Water (static): _____ TOC elev. _____

G.W. Elev. _____ Maximum Drawdown Limit (if applicable) _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₅.₅" casing = 0.826 gal/ft
V₆" casing = 1.47 gal/ft

Initial height of water in casing _____ Volume _____ gallons

Total to be evacuated = 3 x Initial Volume _____ gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No After _____ gallons Recovery Rate _____

Water color _____ Odor _____

Description of sediments or material in sample: _____

Additional Comments: _____

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	64.3	65.3	65.1				
pH	6.67	6.70	6.64				
EC (umhos/cm)	2976	2888	3027				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

14:25

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-16 Date 12/14/05 Time

Well Diameter 2" Well Depth (spec.) Well Depth (sounded) 40.50

Depth to Water (static) 10.55 TOC elev.

G.W. Elev. Maximum Drawdown Limit (if applicable)

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V_2" casing = 0.163 gal/ft
V_3" casing = 0.367 gal/ft
V_4" casing = 0.653 gal/ft
$V_{5.8}$" casing = 0.826 gal/ft
V_6" casing = 1.47 gal/ft

Initial height of water in casing 29.95 Volume 4.88 gallons

Total to be evacuated = 3 x Initial Volume 8.14 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___Yes X No After _____ gallons Recovery Rate

Water color Odor

Description of sediments or material in sample:

Additional Comments:

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	60.9	63.0	63.8				
pH	7.21	7.06	7.04				
EC (umhos/cm)	975	954	1007				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (Init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

10:45

WATER SAMPLING DATA

Job Name BENNETT VALLEY Job Number 98-511-14

Well Number MW-17 Date _____ Time _____

Well Diameter 2" Well Depth (spec.) _____ Well Depth (sounded) 40.10

Depth to Water (static) 12.22 TOC elev. _____

G.W. Elev. _____ Maximum Drawdown Limit (if applicable) _____

Formulas/Conversions
r = well radius in ft
h = ht of water col. in ft
vol. in cyl. = $\pi r^2 h$
7.48 gal/ft³
V₂" casing = 0.163 gal/ft
V₃" casing = 0.367 gal/ft
V₄" casing = 0.653 gal/ft
V₆" casing = 0.826 gal/ft
V₈" casing = 1.47 gal/ft

Initial height of water in casing 27.88 Volume 4.54 gallons

Total to be evacuated = 3 x Initial Volume 7.80 gallons

Stop Time	Start Time	Bailed	Pumped	Cum. Gal.

Pumped or Bailed Dry? ___ Yes X No After _____ gallons Recovery Rate _____

Water color _____ Odor _____

Description of sediments or material in sample: _____

Additional Comments: _____

CHEMICAL DATA

Reading No.	1	2	3	4	5	6	7
Time							
Gallons							
Temp. (degree F)	60.9	62.7	63.8				
pH	7.26	7.19	7.21				
EC (umhos/cm)	772	833	862				
Special Conditions							

SAMPLES COLLECTED

Sample ID ml	Bottle/ cap	Filtered (size, u)	Preservative (type)	Refrig. (R, NR)	Lab (init)	Analysis Requested

Bottles: P = Polyethylene; Pp = Polypropylene; C or B = Clear/Brown Glass; O = Other (describe)
Cap Codes: Py = Polyseal; V = VOA/Teflon septa; M = Metal

11:05

SAMPLE CHAIN OF CUSTODY

Page # 1 of 2

Send Report To: DAVE HAZARD
Company: ECM Group
Address: PO Box 802
City, State, ZIP: Benicia, CA 94510
Phone #: (707) 751-0655 Fax #: (707) 751-0653

SAMPLERS (signature): [signature]
PROJECT NAME/NO.: 98-511-14 BENNETT VALLEY
PO #:
REMARKS: SUBMIT AS EDF

TURNAROUND TIME
☒ Standard (2 Weeks)
☐ RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
☐ Dispose after 30 days
☐ Return samples
☐ Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8260B	Fuel Oxygenates	Lead Scavengers							Notes
MW-4		12/14/05	14:35	W	6	X	X	X	X								
MW-5			14:15	W	6	X	X	X	X								
MW-6			10:30	W	6	X	X	X	X								
MW-7			13:40	W	6	X	X	X	X								
MW-8			14:00	W	6	X	X	X	X								
MW-9			13:20	W	6	X	X	X	X								
MW-10			12:05	W	6	X	X	X	X								
MW-11			12:25	W	6	X	X	X	X								
MW-12			11:30	W	6	X	X	X	X								
MW-13			13:05	W	6	X	X	X	X								

ANALYSES REQUESTED

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by: [signature]	MICHAEL S. JACKSON	ECM GROUP		
Received by:				
Relinquished by:				
Received by:				

SAMPLE CHAIN OF CUSTODY

Send Report To: DAVE HAZARD
Company: ECM Group
Address: PO Box 802
City, State, ZIP: Benicia, CA 94510
Phone #: (707) 751-0655 Fax #: (707) 751-0653

SAMPLERS (signature):
PROJECT NAME/NO.: BENNETT VALLEY 98-511-14
PO #:
REMARKS: SUBMIT AS EDF

Page # 2 of 2

TURNAROUND TIME
- [x] Standard (2 Weeks)
- [ ] RUSH
Rush charges authorized by:

SAMPLE DISPOSAL
- [ ] Dispose after 30 days
- [ ] Return samples
- [ ] Will call with instructions

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of containers	TPH-Diesel	TPH-Gasoline	BTEX by 8260B	Fuel Oxygenates	Lead Scavengers							Notes
MW-14		12/14/05	12:40	W	6	X	X	X	X								
MW-15d 30		12/13/05	13:30	W	6	X	X	X	X								
MW-15d 60		↓	13:45	W	6	X	X	X	X								
MW-15d 83		↓	14:05	W	6	X	X	X	X								
MW-15d 140		↓	14:25	W	6	X	X	X	X								
MW-16		12/14/05	10:45	W	6	X	X	X	X								
MW-17		↓	11:05	W	6	X	X	X	X								
DW-1020		↓	11:10	W	6	X	X	X	X								

ANALYSES REQUESTED

	SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:		MICHAEL S. JACKSON	ECM GROUP		
Received by:					
Relinquished by:					
Received by:					

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282
Fax (206) 283-5044

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 10/27/00 Time: 12:00 Project Number: 98-511-66

System Status: (On) / Off Compressor Hours: N/A Totalizer: 02,452,979

GROUND WATER SYSTEM

Ex-1: On / Off Psi: 30 Valve Position: F 10

Ex-2: On / Off Psi: 30 Valve Position: F 10

Ex-3: On / Off Psi: 30 Valve Position: F 10

Pre-Filter Inlet Psi: ____ Pre-Filter Outlet Psi: ____ Filter Changed: Yes / No

LEL Meter: 0 % Electric Meter: 39545 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-2: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-3: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-4: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-5: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-6: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

Air Regulator Setting: ____ psi

COMMENTS

[illegible] - D.T.W.
PZ-1 - 16.05
MW-6 - 11.19
MW-7 - 11.95
MW-16 - 12.16
MW-17 - 13.52

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 1/2/05 Time: 10:15 Project Number: 98-511-66

System Status: (On) / Off Compressor Hours: ____ Totalizer: 02536.749

GROUND WATER SYSTEM

Ex-1: (On) / Off Psi: 30 Valve Position: F/O

Ex-2: (On) / Off Psi: 30 Valve Position: F/O

Ex-3: (On) / Off Psi: 30 Valve Position: F/O

Pre-Filter Inlet Psi: ____ Pre-Filter Outlet Psi: ____ ~~*Filter Changed: Yes / No~~

LEL Meter: Ø % Electric Meter: 49720 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-2: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-3: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-4: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-5: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-6: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

Air Regulator Setting: ____ psi

COMMENTS

FIELD REPORT

Project Number BENNET VALLEY Project Name 98-511-66 ☐ (SSOW)

Date 11/10/05

Name M. JACKSON

Project Manager _____

Activity Description

11:20 A.M. SYSTEM ON VAN ARKNEL
TOTALIZER - 02,625,446

EX-1 - ON - 30 PSI F/O
EX-2 - ON - 30 PSI F/O
EX-3 - ON - 30 PSI F/O

LEL METER: 0 % ELETRIC METER: 40956 KWH

REMOVED LEAVE, TRASH, ETC. FROM PAD.

ALL GOOD, NO PROBLEM.

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 11/21/25 Time: 12:10 Project Number: 98-511-66

System Status: On / Off Compressor Hours: -- Total Hours: 02,757,922

GROUND WATER SYSTEM

Ex-1: On / Off Psi: 30 Valve Position: F/O

Ex-2: On / Off Psi: 30 Valve Position: F/O

Ex-3: On / Off Psi: 30 Valve Position: F/O

~~Pre-Filter Inlet Psi:~~ ___ ~~Pre-Filter Outlet Psi:~~ ___ ~~Filter Changed: Yes / No~~

LEL Meter: 0 % Electric Meter: 40874 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-2: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-3: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-4: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-5: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-6: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

~~Air Regulator Setting:~~ ___ psi

COMMENTS

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 12/2/05 Time: 10:00 Project Number: 98-511-66

System Status: On / Off Compressor Hours: ____ Totalizer: 02907384

GROUND WATER SYSTEM

Ex-1: On / Off Psi: 40 Valve Position: F/O

Ex-2: On / Off Psi: 40 Valve Position: F/O

Ex-3: On / Off Psi: 40 Valve Position: F/O

~~Pre-Filter Inlet Psi:~~ ____ ~~Pre-Filter Outlet Psi:~~ ____ ~~Filter Changed: Yes / No~~

LEL Meter: 0 % Electric Meter: 40656 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-2: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-3: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-4: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-5: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-6: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

Air Regulator Setting: ____ psi

COMMENTS

PZ-1: 15.12
MW-6: 9.50
MW-5: 10.29
MW-16: 10.45
MW-17: 12.52

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 12/9/05 Time: 3:00 P.M. Project Number: 98-511-66

System Status: On / Off Compressor Hours: ____ Totalizer: 02,909,257

GROUND WATER SYSTEM

Ex-1: On / Off Psi: 30 Valve Position: F/O

Ex-2: On / Off Psi: 30 Valve Position: F/O

Ex-3: On / Off Psi: 30 Valve Position: F/O

~~Pre-Filter Inlet Psi:~~ ____ ~~Pre-Filter Outlet Psi:~~ ____ ~~Filter Changed: Yes / No~~

LEL Meter: 0 % Electric Meter: 40662 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-2: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-3: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-4: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-5: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

SP-6: On / Off Air Pressure: ____ psi Flow Rate: ____ scfm

Air Regulator Setting: ____ psi

COMMENTS

BELT WORKED IT'S AWAY OFF, PUT BACK ON RE-START.

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 12/6/05 Time: 13:00 Project Number: 98-511-66

System Status: On / Off Compressor Hours: — Totalizer: 02,978,517

PER. MANDNEY

GROUND WATER SYSTEM

Ex-1: On / Off Psi: — Valve Position: —

Ex-2: On / Off Psi: — Valve Position: —

Ex-3: On / Off Psi: — Valve Position: —

~~Pre-Filter Inlet Psi:~~ ___ ~~Pre-Filter Outlet Psi:~~ ___ ~~Filter Changed: Yes / No~~

LEL Meter: — % Electric Meter: 40825 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-2: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-3: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-4: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-5: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-6: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

Air Regulator Setting: ___ psi

COMMENTS

FIELD REPORT

Project Number BENNETT VALLEY Project Name 98-511-66 = (ESOW)

Date 12/19/05

Name M. JACKSON

Project Manager _____

****

PUMPING RATE / WATER DISCHARGE SOURCE CAP. 235

Activity Description

TOTAL H: 389 3X3X4

REMAINDER PUMPS RUNNING WHEN TRAN. PUMP IS ON.

LOW SWITCH AT 3.85 70 GAL (100 GAL)

HIGH SWITCH AT 2.60

.65

START TEST

CYCLE #	ON	OFF	OFF 11:24	
#1	11:28	11:32	02,978,583	
#2	11:36	11:39	02,978,793	210 ÷ 2 = 105
#3	11:43	11:46	02,978,889	96
#4	11:50	11:53	02,978,985	96
#5	11:57	12:00	02,979,078	93
#6	12:04	12:07	02,979,190	116
#7	12:11	12:15	02,979,286	103
#8	12:19	12:23	02,979,389	89
#9	12:26	12:30	02,979,478	94
#10	12:34	12:38	02,979,572	94

This message has been scanned for known viruses.

From: John Mahoney
To: ccmgrp@aol.com
Subject: FAIRGROUNDS
Date: Thu, 22 Dec 2005 13:12:51 -0800

Jim,

I turned the system back on at 1115 today. Stuck around for a couple of cycles and it was all running good. I know Mikey did it already but it's time to vac out some more leaves. The tree is bare now so this should be the last leaf removal event.

John W. Mahoney

Redwood Oil Company

50 Professional Center Dr.

Rohnert Park, CA 94928

ph: (707) 584-7000 ext. 170

fax: (707) 584-7076

e-mail: jmahoney@redwoodoil.net

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 10/28/05 Time: 12:00 Project Number: 98-511-66

System Status: On / Off Compressor Hours: _____ Totalizer: 03,076,041

GROUND WATER SYSTEM

Ex-2: On / Off Psi: 30 Valve Position: F/O

Ex-4: On / Off Psi: 30 Valve Position: F/O

Ex-5: On / Off Psi: 30 Valve Position: F/O

~~Pre Filter Inlet Psi: _____ Post Filter Outlet Psi: _____ Filter Changed: Yes / No~~

LEL Meter: 0 % Electric Meter: 41056 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-2: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-3: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-4: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-5: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-6: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

Air Regulator Setting: _____ psi

COMMENTS

SYSTEM SHUTOFF PER CITY BECAUSE OF STORM RUNOFF SAT.

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 1/5/06 Time: 11:30 Project Number: 98-511-66

System Status: On / Off Compressor Hours: — Totalizer: 03,076,072

GROUND WATER SYSTEM

Ex-1: On / Off Psi: 30 Valve Position: F/O

Ex-2: On / Off Psi: 30 Valve Position: F/O

Ex-3: On / Off Psi: 30 Valve Position: F/O

~~Pre-Filter Inlet Psi:~~ ~~Pre-Filter Outlet Psi:~~ ~~Filter Change? Yes / No~~

LEL Meter: 0 % Electric Meter: 41062 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-2: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-3: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-4: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-5: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-6: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

Air Regulator Setting: _____ psi

COMMENTS

REMOVE LEAVES/TRASH FROM PAD.

SKIMMED OFF PRODUCT FROM TANK 0.09 WS.

RESTARTED SYSTEM AFTER STORM SHUT-DOWN

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 1/11/06 Time: 14:45 Project Number: 98-511-66

System Status: On / Off ~~Compressor Hours:~~ Total Hours: 03,182,058

GROUND WATER SYSTEM

Ex-1: On / Off Psi: 30 Valve Position: F/O

Ex-2: On / Off Psi: 30 Valve Position: F/O

Ex-3: On / Off Psi: 30 Valve Position: F/O

~~Pre-Filter Inlet Psi:~~ ~~Pre-Filter Outlet Psi:~~ ~~Filter Changed: Yes / No~~

LEL Meter: 0 % Electric Meter: 41311 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-2: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-3: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-4: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-5: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

SP-6: On / Off Air Pressure: _____ psi Flow Rate: _____ scfm

Air Regulator Setting: _____ psi

COMMENTS

EFFLUENT SAMPLING
INF - 14:35
MID - 15:05
EFF - 15:00

Bennett Valley Ground Water System
Operation and Maintenance Log

Date: 1/18/06 Time: 13:15 Project Number: 98-511-66

System Status: On / Off Compressor Hours: ——— Totalizer: 03,293,183

GROUND WATER SYSTEM

Ex-1: On / Off Psi: 30 Valve Position: F/O

Ex-2: On / Off Psi: 30 Valve Position: F/O

Ex-3: On / Off Psi: 30 Valve Position: F/O

~~Pre-Filter Inlet Psi:~~ ___ ~~Pre-Filter Outlet Psi:~~ ___ Filter Changed: Yes / No

LEL Meter: 0 % Electric Meter: 41566 kwh

AIR SPARGE SYSTEM

SP-1: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-2: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-3: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-4: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-5: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

SP-6: On / Off Air Pressure: ___ psi Flow Rate: ___ scfm

Air Regulator Setting: ___ psi

COMMENTS

SUMP PUMP WORKING FINE.

APPENDIX E

ECM STANDARD OPERATING PROCEDURE

ECM STANDARD OPERATING PROCEDURE

GROUND WATER SAMPLING

The following describes sampling procedures used by ECM field personnel to collect and handle ground water samples. Before samples are collected, careful consideration is given to the type of analysis to be performed so that precautions are taken to prevent loss of volatile components or contamination of the sample, and to preserve the sample for subsequent analysis. Wells will be sampled no less than 24 hours after well development. Collection methods specific to ground water sampling are presented below.

Prior to sampling, each well is purged of a minimum of three well casing volumes of water using a steam-cleaned PVC bailer, or a pre-cleaned pump. Temperature, pH and electrical conductivity are measured at least three times during purging. Purging is continued until these parameters have stabilized (i.e., changes in temperature, pH or conductivity do not exceed 10%).

Ground water samples are collected from the wells/borings with steam-cleaned or disposable Teflon bailers. The water samples are decanted into the appropriate container for the analysis to be performed. Pre-preserved sample containers may be used or the analytic laboratory may add preservative to the sample upon arrival. Duplicate samples are collected from each well as a back-up sample and/or to provide quality control. The samples are labeled to include the project number, sample ID, date, preservative, and the field person's initials. The samples are placed in polyethylene bags and in an ice chest (maintained at 4˚C with blue ice or ice) for transport under chain-of-custody to the laboratory.

The chain-of-custody form includes the project number, analysis requested, sample ID, date analysis and the ECM field person's name. The form is signed and dated (with the transfer time) by each person who yields or receives the samples beginning with the field personnel and ending with the laboratory personnel.