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SCS ENGINEERS

Results of the 3rd Quarter 2005 Groundwater Monitoring and Sampling Event

Ghilotti Construction Company
246 Ghilotti Avenue
Santa Rosa, California
(SCDHS-EHD Site #02017; NCRWQCB Site #1TSO501)
(Assessor's Parcel No. 134-171-053)

File Number 01203312.00

Prepared by:

SCS Engineers
3645 Westwind Boulevard
Santa Rosa, California 95403

To:

Mr. Cliff Ives
Sonoma County Department of Health Services
475 Aviation Blvd., Suite 220
Santa Rosa, California 95403

October 24, 2005

LIMITATIONS/DISCLAIMER

This report has been prepared for the Ghilotti Construction Company with specific application to a Quarterly Monitoring event for the property located at 246 Ghilotti Avenue, Santa Rosa, California. Field activities and sampling were conducted in accordance with the care and skill generally exercised by reputable professionals, under similar circumstances, in this or similar localities. No other warranty, either expressed or implied, is made as to the professional advice presented herein.

Access to the property and the surrounding area was and is limited by buildings, roadways, underground and above-ground utilities and other miscellaneous site and site vicinity features. Therefore, the field exploration and points of subsurface observation were and are somewhat restricted.

Changes in site use and conditions may occur due to variations in rainfall, temperature, water usage, or other factors. Additional information which was not available to the consultant at the time of this quarterly monitoring event or changes which may occur on the site or in the surrounding area may result in modification to the site that would impact the summary presented herein. This report is not a legal opinion.

We trust this report provides the information you require at this time. If you have any questions, or require any additional information, please contact SCS at (707) 546-9461.

Kevin L. Coker REA 7887
CA registration fees paid through 06/30/06

10-24-05
Date

PROFESSIONAL GEOLOGIST
STEPHEN KNUTTEL
No. 7674
STATE OF CALIFORNIA

Stephen Knuttel PG #7674
CA registration fees paid through 07/31/07

24. OCT, 2005
Date

Introduction

SCS Engineers (SCS) is pleased to present the results of the 3rd quarter 2005 groundwater monitoring and sampling event at 246 Ghilotti Avenue, Santa Rosa, California. A summary of historical site investigative activities is presented in previous reports (PNEG[1], 1996, 2002b; SCS, 2005a). The site is located as shown on the Site Location Map, Figure 1. General site features are as shown on the Site Plan, Figure 2.

Groundwater Monitoring

Depth to groundwater measurements were collected from MW-1 through MW-10 on August 19, 2005. Depths to groundwater ranged from approximately 7 to 9.5 feet below existing ground surface (bgs). Groundwater elevations, flow direction, and gradient were calculated from this data. The depth to groundwater measurements were combined with the well casing elevations to calculate the groundwater flow direction and gradient. Casing and groundwater elevations are reported in feet relative to mean sea level. Depths to groundwater are expressed in feet. For the 3rd quarter 2005 monitoring event, the groundwater flow direction was interpolated to be west to southwest at gradients ranging from 0.002 to 0.004. Historical and current groundwater elevation data are presented in Table 1, and on Figure 2.

Groundwater Sampling

After depth to groundwater measurements were taken on August 19, 2005, each of the project wells was checked for the presence of free product using an oil/water interface probe and by subjective evidence. No free product was reported during this sampling event. The wells were then purged of approximately 3 well casing volumes of groundwater, or at least 5 gallons, whichever was greater, or until it went dry, using a submersible pump. Temperature, pH, conductivity, turbidity, and dissolved oxygen were measured during purging to help demonstrate that fresh groundwater was entering the well casing for sampling. Each well was allowed to recover prior to sampling. Groundwater samples were collected using a separate disposable bailer for each well, and were transferred into the appropriate containers supplied by the laboratory for analysis. The groundwater samples were labeled, stored under refrigerated conditions, and transported under Chain-of-Custody documentation to Analytical Sciences (AS) in Petaluma, California. AS is a California Department of Health Services certified laboratory for the analyses requested. AS' current certifications have been reviewed and are on file at SCS. All samples were collected in accordance with SCS' Standard Soil and Water Sampling Procedures and QA/QC Protocol. Information obtained during sampling was recorded on groundwater field sampling forms and Well Purge Records were generated, copies of which are presented in appendix A. Purge water from recent groundwater sampling activities is stored at the site in 55-gallon UN/DOT-approved drums, pending disposal.

[1] Pacific Northwest EnviroNet Group, Inc. (PNEG) became a part of SCS in July 2003.

Groundwater Sampling – Domestic Well

A groundwater sample was collected from the on-site water supply well, DW-1 (also denoted as DW-246 in previous reports), on August 19, 2005. The sample was below the laboratory report detection limit (RDL) for all target analytes. This sample was handled and transported following the same procedures as those used for the monitoring well samples. This well is not currently used as a drinking water supply well. Water supply well analytical results are summarized on Table 2.

Laboratory Analysis

The monitoring well samples were analyzed for the five ether-based oxygenates [methyl tert-butyl ether (MTBE), diisopropyl ether (DIPE), ethyl tert butyl ether (ETBE), tert-amyl methyl ether (TAME), and tert-butyl alcohol (TBA)] using EPA Method 8260B.

Groundwater Analytical Results

For the most recent sampling event on August 19, 2005, MTBE was detected in samples collected from each of the wells, except for MW-5, MW-6, and MW-8, at concentrations ranging from 1.0 ug/L in MW-04 to 24 ug/L in MW-3. MTBE was not detected above the laboratory report detection limit (RDL) in the samples collected from MW-5, MW-6, and MW-8 for the third consecutive sampling event. All samples were below the laboratory RDL for the other fuel oxygenate analytes. Historical and recent monitoring well analytical results are summarized in Table 3. Analytical results to date for MTBE are plotted on the time versus concentration diagram (Diagram A), and contoured on the isoconcentration map for MTBE, Figure 3.

Discussion

As indicated on Figure 3, the lateral extent of the shallow MTBE groundwater impact has not been adequately assessed to the west/southwest of MW-10 and to the north of MW-07. The Sonoma County Department of Health Services (SCDHS) subsequently requested the submittal of a Work Plan for additional site characterization (SCDHS, 2005a). A Work Plan for additional site characterization was submitted to the SCDHS on September 9, 2005 (SCS, 2005c). Upon receipt of SCDHS approval, permitting and pre-field activities will be initiated.

In accordance with the SCDHS' directive (SCDHS, 2005b), an analytical test method which uses a TBA detection limit of 12 ug/L will be used for future sampling events at the Site to demonstrate that TBA is not present above this level in groundwater beneath the Site. If TBA is not detected above 12 ug/L during future sampling events at the Site, the additional oxygenates (TAME, DIPE, ETBA, and TBA) will be removed from the analytical suite, with SCDHS concurrence.

Attachments
File No. 01203312.00

Figures
Figure 1: Site Location Map
Figure 2: Site Plan - Groundwater Flow Direction and Gradient for 08/19/05
Figure 3: Isoconcentration Map – MTBE in Groundwater for 08/19/05

Diagram and Tables
Key to Diagrams and Tables
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Table 1: Groundwater Flow Direction and Gradient - 1996 to Present
Table 2: Domestic Well Analytical Results
Table 3: Groundwater Analytical Results – Monitoring Wells

Appendices
Appendix A: Well Purge Records, dated August 19, 2005
Appendix B: Analytical Sciences report #5082204, dated September 9, 2005

Reference List
File No. 01203312.00

PNEG, 1996. Monitoring Report, Sensitive Site Receptor Survey, and Request for Site Closure, 246 Ghilotti Avenue, Santa Rosa, California, October 15.
PNEG, 1997a. Monitoring Report and Request for Site Closure, 246 Ghilotti Avenue, Santa Rosa, February 5.
PNEG, 1997b. September 1997 Semiannual Groundwater Monitoring Report and Request for Site Closure, 246 Ghilotti Avenue, Santa Rosa, October 17.
PNEG, 1998a. Semiannual Groundwater Monitoring Report for June 1998 Sampling, 246 Ghilotti Avenue, Santa Rosa, August 1998.
PNEG, 1999a. Status Report for 246 Ghilotti Avenue, Santa Rosa, December 14.
PNEG, 1999b. Results of the December 1999 Quarterly Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, February 28.
PNEG, 2000a. Results of the March 2000 Quarterly Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, May 31.
PNEG, 2000b. Results of the 2nd Quarter 2000 Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, August 7.
PNEG, 2000c. Results of the 3rd Quarter 2000 Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, December 11.
PNEG, 2001a. Results of the 4th Quarter 2000 Monitoring Event and Domestic Well Sampling at 246 Ghilotti Avenue, Santa Rosa, February 23.
PNEG, 2001b. Results of the 2nd Quarter 2001 Groundwater Monitoring and Sampling and Domestic Well Sampling Event at 246 Ghilotti Avenue, Santa Rosa, June 6.

PNEG, 2001c. Results of the 3rd Quarter 2001 Groundwater Monitoring and Sampling and Domestic Well Sampling Event at 246 Ghilotti Avenue, Santa Rosa, September 7.
PNEG, 2001d. Results of the 4th Quarter 2001 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, November 30.
PNEG, 2002a. Results of the 1st Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, March 20.
PNEG, 2002b. Work Plan to Define the Lateral and Vertical Extent of MTBE Contamination- 246 Ghilotti Avenue, Santa Rosa, California, May 28.
PNEG, 2002c. Results of the 2nd Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, June 6.
PNEG, 2002d. Results of the 3rd Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, August 14.
PNEG, 2002e. Results of the 4th Quarter 2002 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, November 13.
PNEG, 2003a. Results of the 1st Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, March 17.
PNEG, 2003b. Results of the 2nd Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, May 8.
SCDHS, 2005a. Work Plan Directive from Mr. Cliff Ives to Mr. Richard Ghilotti, July 11.
SCDHS, 2005b. Regulatory letter from Mr. Cliff Ives to Mr. Richard Ghilotti re: recommendation to remove additional oxygenates, September 12.
SCS, 2003a. Results of the 3rd Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, August 13.
SCS, 2003b. Results of the 4th Quarter 2003 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, November 20.
SCS, 2004a. Results of the 1st Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, January 29.
SCS, 2004b. Results of the 2nd Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, May 7.
SCS, 2004c. Results of the 3rd Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, August 9.
SCS, 2004d. Results of the 4th Quarter 2004 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, December 29.
SCS, 2005a. Results of Additional Subsurface Investigation, at 246 Ghilotti Avenue, Santa Rosa, California, May 6.
SCS, 2005b. Results of the 2nd Quarter 2005 Groundwater Monitoring and Sampling Event at 246 Ghilotti Avenue, Santa Rosa, California, August 18.
SCS, 2005c. Work Plan for Additional Subsurface Investigation, at 246 Ghilotti Avenue, Santa Rosa, California, September 9.

Distribution List
File No. 01203312.00

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Figures

Source: Mappoint.com

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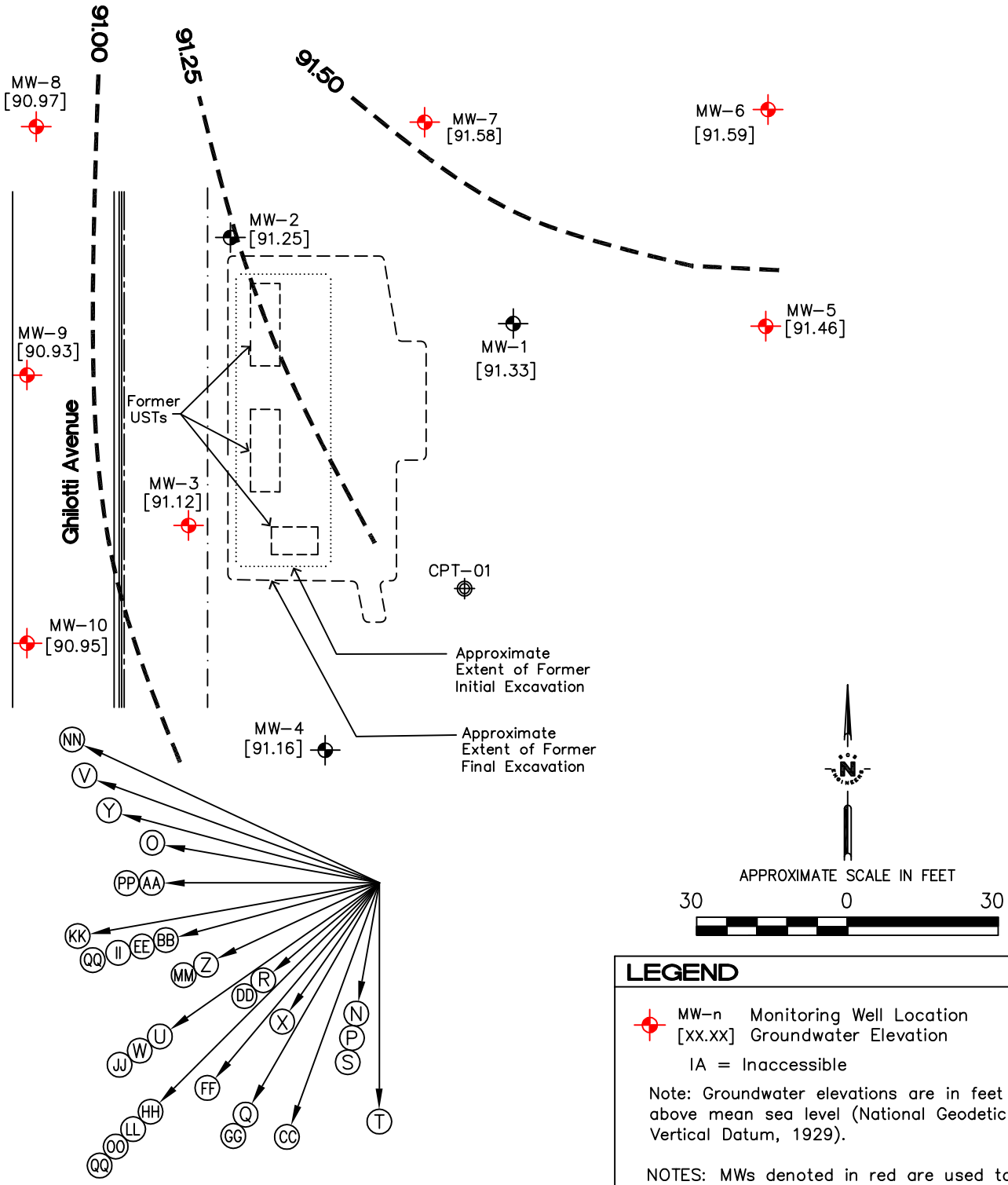
PROJ. NO: 01203312.00	TAKEN BY:	FILE: SiteLoc
DATE: 3/22/04	CREATED BY MRO	APP. BY:

SITE LOCATION MAP

Ghilotti Construction Company
246 Ghilotti Avenue
Santa Rosa, California

APPROX. SCALE

FIGURE 1



LEGEND

MW-n Monitoring Well Location
[XX.XX] Groundwater Elevation

IA = Inaccessible

Note: Groundwater elevations are in feet above mean sea level (National Geodetic Vertical Datum, 1929).

NOTES: MWs denoted in red are used to determine flow direction and gradient.

Cone Penetrometer Test Sounding (CPT) Location

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PROJ. NO.: 3312.00	DWN. BY: AJH	ACAD FILE: 3312.00-GW.QQ-3525
DATE: 10/18/05	CHK. BY:	APP. BY: SK

SHEET TITLE: SITE PLAN
GROUNDWATER FLOW DIRECTION AND GRADIENT FOR 8/19/05

PROJECT TITLE: GHILOTTI CONSTRUCTION COMPANY
246 GHILOTTI AVENUE
SANTA ROSA, CALIFORNIA

SCALE: 1" = 30'

FIGURE NO.: 2
SHEET 1 OF 2

GROUNDWATER FLOW LEGEND

Estimated Groundwater Flow Direction → (A)

Gradient Contour (Interval = 0.25 ft) — — — — — — —

Identifier Tag	Date	Est. Flow Direction	Gradient Slope
(N)	6/24/96	S10°W	i = 0.005
(O)	12/20/96	N80°W	i = 0.003
(P)	4/18/97	S10°W	i = 0.005
(Q)	9/11/97	S30°W	i = 0.006
(R)	6/19/98	S48°W	i = 0.002
(S)	3/3/99	S10°W	i = 0.002
(T)	6/2/99	Due South	i = 0.008
(U)	12/28/99	S55°W	i = 0.003
(V)	3/23/00	N68°W	i = 0.03
(W)	6/20/00	S55°W	i = 0.003
(X)	10/3/00	S35°W	i = 0.005
(Y)	1/9/01	N75°W	i = 0.002
(Z)	4/10/01	S65°W	i = 0.003
(AA)	7/11/01	West	i = 0.003
(BB)	10/10/01	S75°W	i = 0.004
(CC)	1/9/02	S20°W	i = 0.003
(DD)	4/5/02	S50°W	i = 0.002
(EE)	7/3/02	S75°W	i = 0.004
(FF)	10/24/02	S40°W	i = 0.005
(GG)	1/22/03	S30°W	i = 0.002
(HH)	4/17/03	S45°W	i = 0.002
(II)	7/14/03	S75°W	i = 0.003
(JJ)	10/7/03	S55°W	i = 0.004
(KK)	1/2/04	S80°W	i = 0.002
(LL)	4/6/04	S45°W	i = 0.002
(MM)	7/7/04	S65°W	i = 0.003
(NN)	11/11/04	N60°W	i = 0.003
(OO)	2/11/05	SW	i = 0.002
(PP)	7/6/05	West	i = 0.005
(QQ)	8/19/05	W to SW	i = 0.004 to 0.002

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PROJ. NO.: 3312.00	DWN. BY: AJH	ACAD FILE: 3312.00-GW.QQ-3525
DATE: 10/18/05	CHK. BY:	APP. BY: SK

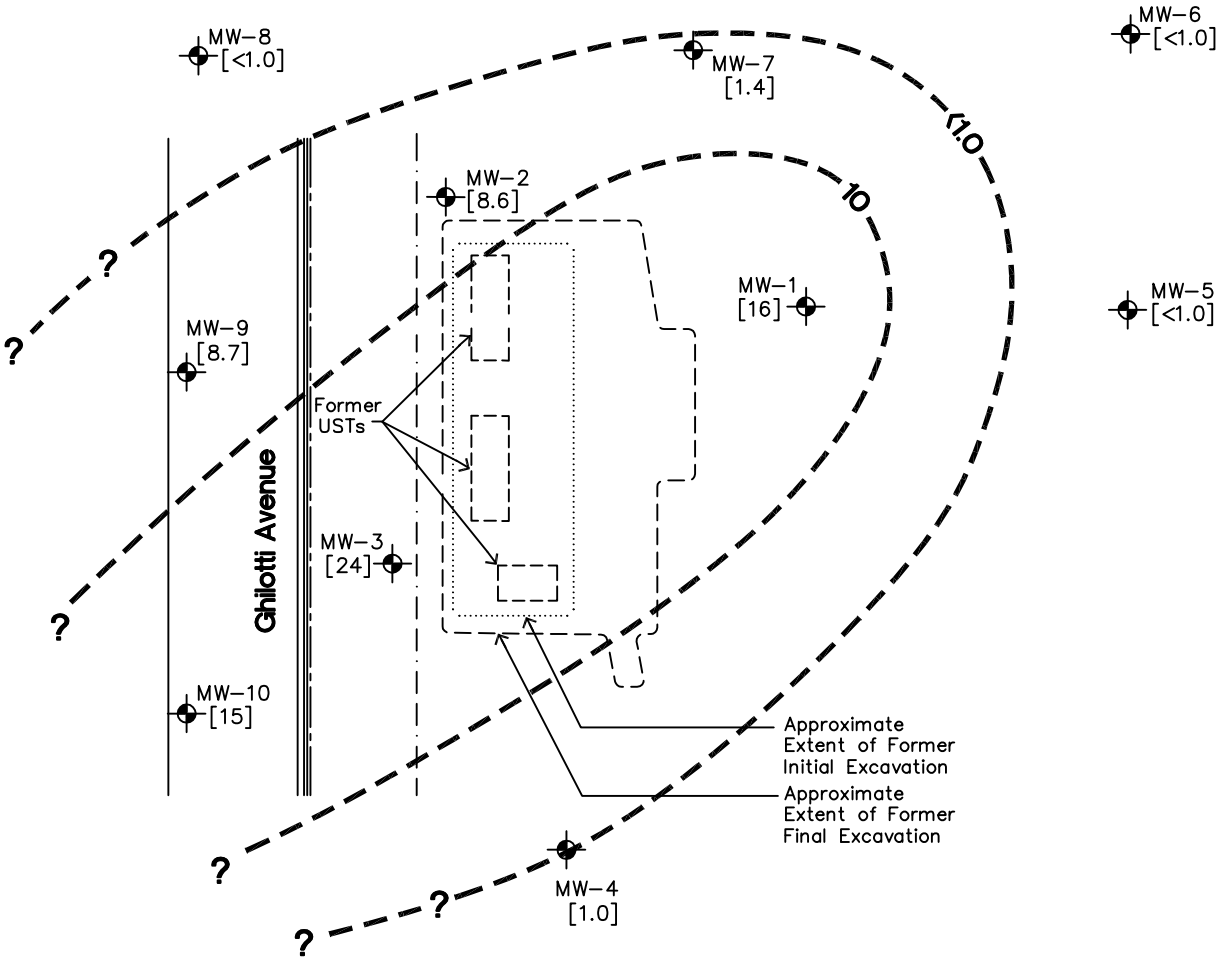
SHEET TITLE: SITE PLAN
GROUNDWATER FLOW DIRECTION AND GRADIENT FOR 8/19/05

PROJECT TITLE: GHILOTTI CONSTRUCTION COMPANY
246 GHILOTTI AVENUE
SANTA ROSA, CALIFORNIA

SCALE: 1" = 30'

FIGURE NO.: 2

SHEET 2 OF 2



APPROXIMATE SCALE IN FEET

30 0 30

LEGEND

Monitoring Well Location
IA = Well Inaccessible

Isoconcentration Line
MTBE, ug/L

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PROJ. NO.: 3312.00	DWN. BY: AJH	ACAD FILE: 3312.00-IS03-3525
DATE: 10/18/05	CHK. BY:	APP. BY: SK

SHEET TITLE: ISOCONCENTRATION MAP
MTBE IN GROUNDWATER FOR 8/19/05

PROJECT TITLE: GHILOTTI CONSTRUCTION COMPANY
246 GHILOTTI AVENUE
SANTA ROSA, CALIFORNIA

SCALE: 1" = 30'

FIGURE NO.: 3

Diagrams and Tables

Key to Diagram and Tables
246 Ghilotti Avenue, Santa Rosa

TPH-g	=	Total petroleum hydrocarbons in the gasoline range
B	=	Benzene
T	=	Toluene
E	=	Ethylbenzene
X	=	Xylenes
MTBE	=	Methyl tertiary butyl ether
Five Oxys	=	Five ether-based oxygenate compounds [diisopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tert-amyl methyl ether (TAME), MTBE, and tert-butyl alcohol (TBA)]
mg/kg	=	Milligrams per kilogram
μg/L	=	Micrograms per liter
NAPL	=	Non aqueous phase liquid

Table 1: Groundwater Flow Direction and Gradient - 1996 to Present
246 Ghilotti Avenue, Santa Rosa

Well #	Date Measured	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (feet)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-1	06/24/96	99.48	7.42	92.06	S10°W i = 0.005
MW-2		99.77	7.67	92.1	
MW-3		99.38	7.58	91.8	
MW-1	12/20/96	99.48	10.00	89.48	N80°W i = 0.003
MW-2		99.77	10.5	89.27	
MW-3		99.38	10.1	89.28	
MW-1	04/18/97	99.48	7.19	92.29	S10°W i = 0.005
MW-2		99.77	7.41	92.36	
MW-3		99.38	7.34	92.04	
MW-1	09/11/97	99.48	13.29	86.19	S30°W i = 0.006
MW-2		99.77	13.65	86.12	
MW-3		99.38	13.57	85.81	
MW-1	06/19/98	99.48	5.28	94.2	S48°W i = 0.002
MW-2		99.77	5.62	94.15	
MW-3		99.38	5.3	94.08	
MW-1	03/03/99	99.48	3.35	96.13	S10°W i = 0.002
MW-2		99.77	3.57	96.2	
MW-3		99.38	3.33	96.05	
MW-1	06/02/99	99.48	6.79	92.69	Due South i = 0.008
MW-2		99.77	6.91	92.86	
MW-3		99.38	7.04	92.34	
MW-1	12/28/99	99.48	12.73	86.75	S55°W i = 0.003
MW-2		99.77	13.16	86.61	
MW-3		99.38	12.86	86.52	
MW-1	03/23/00	99.48	4.85	94.63	N68°W i = 0.03
MW-2		99.77	5.33	94.44	
MW-3		99.38	4.91	94.47	
MW-1	06/20/00	99.48	8.44	91.04	S55°W i = 0.003
MW-2		99.77	8.84	90.93	
MW-3		99.38	8.57	90.81	
MW-1	10/03/00	99.48	13.6	85.88	S35°W i = 0.005
MW-2		99.77	13.98	85.79	
MW-3		99.38	13.87	85.51	
MW-1	01/09/01	99.48	13.31	86.17	N75°W i = 0.002
MW-2		99.77	13.71	86.06	
MW-3		99.38	13.31	86.07	
MW-1	04/10/01	99.48	6.79	92.69	S65°W i = 0.003
MW-2		99.77	7.22	92.55	
MW-3		99.38	6.92	92.46	
MW-1	07/11/01	99.48	11.39	88.09	West i = 0.003
MW-2		99.77	11.87	87.90	
MW-3		99.38	11.50	87.88	
MW-1	10/10/01	99.48	14.78	84.70	S75°W i = 0.004
MW-2		99.77	15.24	84.53	
MW-3		99.38	14.93	84.45	

Table 1: Groundwater Flow Direction and Gradient - 1996 to Present
246 Ghilotti Avenue, Santa Rosa

Well #	Date Measured	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (feet)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-1	01/09/02	99.48	3.75	95.73	S20°W i = 0.003
MW-2		99.77	4.06	95.71	
MW-3		99.38	3.85	95.53	
MW-1	04/05/02	99.48	5.09	94.39	S50°W i = 0.002
MW-2		99.77	5.44	94.33	
MW-3		99.38	5.15	94.23	
MW-1	07/03/02	99.48	9.25	90.23	S75°W i = 0.004
MW-2		99.77	9.74	90.03	
MW-3		99.38	9.44	89.94	
MW-1	10/24/02	99.48	13.70	85.78	S40°W i = 0.005
MW-2		99.77	14.13	85.64	
MW-3		99.38	14.01	85.37	
MW-1	01/22/03	99.48	4.65	94.83	S30°W i = 0.002
MW-2		99.77	4.97	94.80	
MW-3		99.38	4.69	94.69	
MW-1	04/17/03	99.48	5.20	94.28	S45°W i = 0.002
MW-2		99.77	5.55	94.22	
MW-3		99.38	5.25	94.13	
MW-1	07/14/03	99.48	8.44	91.04	S75°W i = 0.003
MW-2		99.77	8.90	90.87	
MW-3		99.38	8.59	90.79	
MW-1	10/07/03	99.48	11.75	87.73	S55°W i = 0.004
MW-2		99.77	12.01	87.76	
MW-3		99.38	12.21	87.17	
MW-1	01/02/04	99.48	6.68	92.80	S80°W i = 0.002
MW-2		99.77	7.08	92.69	
MW-3		99.38	6.72	92.66	
MW-1	04/06/04	99.48	5.21	94.27	S45°W i = 0.002
MW-2		99.77	5.58	94.19	
MW-3		99.38	5.32	94.06	
MW-1	07/07/04	99.48	9.71	89.77	S65°W i = 0.003
MW-2		99.77	10.18	89.59	
MW-3		99.38	9.92	89.46	
MW-1	11/23/04	99.48	11.71	87.77	N60°W i = 0.003
MW-2		99.77	12.17	87.60	
MW-3		99.38	11.73	87.65	
MW-1	02/11/05*	99.48	4.90	94.58	SW i = 0.002
MW-2		99.77	5.21	94.56	
MW-3		99.38	4.86	94.52	
MW-04		98.31	3.87	94.44	
MW-05		100.20	5.52	94.68	
MW-06		100.95	6.23	94.72	
MW-07		100.17	5.57	94.60	
MW-08		98.37	3.89	94.48	
MW-09		98.46	4.02	94.44	
MW-10		98.04	3.73	94.31	

Table 1: Groundwater Flow Direction and Gradient - 1996 to Present
246 Ghilotti Avenue, Santa Rosa

Well #	Date Measured	Top of Casing Elevation (ft. > msl)	Depth to Groundwater (feet)	Water Level Elevation (ft. > msl)	Groundwater Flow Direction & Gradient (i)
MW-1	06/13/05	99.48	Inaccessible		West i = 0.005
MW-2		99.77	Inaccessible		
MW-3		99.38	5.23	94.15	
MW-04		98.31	Inaccessible		
MW-05		100.20	5.39	94.81	
MW-06		100.95	6.46	94.49	
MW-07		100.17	5.86	94.31	
MW-08		98.37	4.19	94.18	
MW-09		98.46	4.35	94.11	
MW-10		98.04	4.00	94.04	
MW-1	08/19/05	99.48	8.15	91.33	W to SW i = 0.004 to 0.002
MW-2		99.77	8.52	91.25	
MW-3		99.38	8.26	91.12	
MW-04		98.31	7.15	91.16	
MW-05		100.20	8.74	91.46	
MW-06		100.95	9.36	91.59	
MW-07		100.17	8.59	91.58	
MW-08		98.37	7.40	90.97	
MW-09		98.46	7.53	90.93	
MW-10		98.04	7.09	90.95	

* MW-04 through MW-10 were surveyed to msl on March 9, 2005.

Table 2: Domestic Well Analytical Results
246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	TPH-g	TPH-d	B	T	E	X	MTBE*	OTHER OXY'S*
		µg/L							
DW-1	07/21/98	<50	NA	<50	<0.3	<0.5	<0.5	3.4	NA
	08/05/99	<50	NA	<50	<0.3	<0.5	<0.5	3	NA
	12/28/99	<50	NA	<50	<0.3	<0.5	<0.5	1	<1.0
	03/23/00	<50	<50	<50	<0.3	<0.5	<0.5	1.5	<1.0
	06/20/00	<50	<50	<50	<0.3	<0.5	<0.5	<1.0	<1.0
	10/03/00	NA	NA	NA	NA	NA	NA	1.5	<1.0
	01/09/01	NA	NA	NA	NA	NA	NA	1.1	<1.0
	04/10/01	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	07/10/01	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	10/10/01	NA	NA	NA	NA	NA	NA	<1.0	NA
	02/14/02	NA	NA	NA	NA	NA	NA	<1.0	NA
	04/05/02	NA	NA	NA	NA	NA	NA	0.59	<1.0
	07/03/02	NA	NA	NA	NA	NA	NA	<0.5	<1.0
	10/24/02	NA	NA	NA	NA	NA	NA	<0.5	<1.0
	02/14/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	04/17/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	07/14/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	10/07/03	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	01/02/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	04/06/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	07/07/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	11/23/04	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	02/11/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0
	08/19/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0 to <25

Note: * Analysis for MTBE by EPA Method 8020; Analysis for 5 oxy's (including MTBE) by EPA Method 8260B; <25 µg/L For TBA.

Table 3: Groundwater Analytical Results - Monitoring Wells
246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	TPH-g	TPH-d	B	T	E	X	MTBE*	DIPE	ETBE	TAME	TBA
		µg/L										
MW-1	06/24/96	<50	<50	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA
	12/20/96	<50	<50	<0.3	<0.3	<0.5	<0.5	**140**	NA	NA	NA	NA
	04/18/97	<50	NA	<0.3	<0.3	<0.5	<0.5	**130**	NA	NA	NA	NA
	09/11/97	<50	NA	<0.3	<0.3	<0.5	<0.5	**110**	NA	NA	NA	NA
	06/19/98	<50	NA	<0.3	<0.3	<0.5	<0.5	**96**	<1.0	<1.0	<1.0	<25
	03/03/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**800**	NA	NA	NA	NA
	03/24/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**360**	NA	NA	NA	NA
	03/26/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**250**	NA	NA	NA	NA
	06/02/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**230**	NA	NA	NA	NA
	12/28/99	<50	NA	<0.3	0.66	<0.5	<0.5	**230**	<1.0	<1.0	<1.0	<25
	03/23/00	<50	<50	<0.3	<0.3	<0.5	<0.5	**250**	<1.0	<1.0	<1.0	<25
	06/20/00	<50	<50	<0.3	<0.3	<0.5	<0.5	**150**	<1.0	<1.0	<1.0	<25
	10/03/00	NA	NA	NA	NA	NA	NA	**130**	<1.0	<1.0	<1.0	<25
	01/09/01	NA	NA	NA	NA	NA	NA	**210**	<1.0	<1.0	<1.0	<25
	04/10/01	NA	NA	NA	NA	NA	NA	**150**	NA	NA	NA	NA
	07/10/01	NA	NA	NA	NA	NA	NA	**310**	NA	NA	NA	NA
	10/10/01	NA	NA	NA	NA	NA	NA	**140**	NA	NA	NA	NA
	01/09/02	NA	NA	NA	NA	NA	NA	**180**	NA	NA	NA	NA
	04/05/02	NA	NA	NA	NA	NA	NA	**140**	<1.0	<1.0	<1.0	<25
	07/03/02	NA	NA	NA	NA	NA	NA	**94**	<1.0	<1.0	<1.0	<25
	10/24/02	NA	NA	NA	NA	NA	NA	**75**	<1.0	<1.0	<1.0	<25
	01/24/03	NA	NA	NA	NA	NA	NA	**71**	<1.0	<1.0	<1.0	<25
	04/17/03	NA	NA	NA	NA	NA	NA	**61**	<1.0	<1.0	<1.0	<25
	07/14/03	NA	NA	NA	NA	NA	NA	**63**	<1.0	<1.0	<1.0	<25
	10/07/03	NA	NA	NA	NA	NA	NA	**31**	<1.0	<1.0	<1.0	<25
	01/02/04	NA	NA	NA	NA	NA	NA	**20**	<1.0	<1.0	<1.0	<25
	04/06/04	NA	NA	NA	NA	NA	NA	**33**	<1.0	<1.0	<1.0	<25
	07/07/04	NA	NA	NA	NA	NA	NA	**27**	<1.0	<1.0	<1.0	<25
	11/23/04	NA	NA	NA	NA	NA	NA	**22**	NA	NA	NA	NA
	02/11/05	NA	NA	NA	NA	NA	NA	**44**	<1.0	<1.0	<1.0	<25
	06/13/05	Well inaccessible										
	08/19/05	NA	NA	NA	NA	NA	NA	**16**	<1.0	<1.0	<1.0	<25

Table 3: Groundwater Analytical Results - Monitoring Wells
246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	TPH-g	TPH-d	B	T	E	X	MTBE*	DIPE	ETBE	TAME	TBA
		µg/L										
MW-2	06/24/96	<50	<50	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA
	12/20/96	<50	<50	<0.3	<0.3	<0.5	<0.5	**37**	NA	NA	NA	NA
	04/18/97	<50	NA	<0.3	<0.3	<0.5	<0.5	**54**	NA	NA	NA	NA
	09/11/97	<50	NA	<0.3	<0.3	<0.5	<0.5	**72**	NA	NA	NA	NA
	06/19/98	<50	NA	<0.3	<0.3	<0.5	<0.5	**15**	<1.0	<1.0	<1.0	<25
	03/03/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**42**	NA	NA	NA	NA
	06/02/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**43**	NA	NA	NA	NA
	12/28/99	<50	NA	<0.3	<0.3	<0.5	<0.5	**45**	<1.0	<1.0	<1.0	<25
	03/23/00	<50	<50	<0.3	<0.3	<0.5	<0.5	**72**	<1.0	<1.0	<1.0	<25
	06/20/00	<50	<50	<0.3	<0.3	<0.5	<0.5	**76**	<1.0	<1.0	<1.0	<25
	10/03/00	NA	NA	NA	NA	NA	NA	**52**	<1.0	<1.0	<1.0	<25
	01/09/01	NA	NA	NA	NA	NA	NA	**93**	<1.0	<1.0	<1.0	<25
	04/10/01	NA	NA	NA	NA	NA	NA	**120**	NA	NA	NA	NA
	07/10/01	NA	NA	NA	NA	NA	NA	**140**	NA	NA	NA	NA
	10/10/01	NA	NA	NA	NA	NA	NA	**130**	NA	NA	NA	NA
	01/09/02	NA	NA	NA	NA	NA	NA	**86**	NA	NA	NA	NA
	04/05/02	NA	NA	NA	NA	NA	NA	**80**	<1.0	<1.0	<1.0	<25
	07/03/02	NA	NA	NA	NA	NA	NA	**120**	<1.0	<1.0	<1.0	<25
	10/24/02	NA	NA	NA	NA	NA	NA	**100**	<1.0	<1.0	<1.0	<25
	01/24/03	NA	NA	NA	NA	NA	NA	**80**	<1.0	<1.0	<1.0	<25
	04/17/03	NA	NA	NA	NA	NA	NA	**82**	<1.0	<1.0	<1.0	<25
	07/14/03	NA	NA	NA	NA	NA	NA	**140**	<1.0	<1.0	<1.0	<25
	10/07/03	NA	NA	NA	NA	NA	NA	**51**	<1.0	<1.0	<1.0	<25
	01/02/04	NA	NA	NA	NA	NA	NA	**54**	<1.0	<1.0	<1.0	<25
	04/06/04	NA	NA	NA	NA	NA	NA	**30**	<1.0	<1.0	<1.0	<25
	07/07/04	NA	NA	NA	NA	NA	NA	**27**	<1.0	<1.0	<1.0	<25
	11/23/04	NA	NA	NA	NA	NA	NA	**26**	<1.0	<1.0	<1.0	<25
	02/11/05	NA	NA	NA	NA	NA	NA	**28**	<1.0	<1.0	<1.0	<25
	06/13/05	Well inaccessible										
	08/19/05	NA	NA	NA	NA	NA	NA	**8.6**	<1.0	<1.0	<1.0	<25

Table 3: Groundwater Analytical Results - Monitoring Wells
246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	TPH-g	TPH-d	B	T	E	X	MTBE*	DIPE	ETBE	TAME	TBA
		µg/L										
MW-3	06/24/96	<50	<50	<0.3	<0.3	<0.5	<0.5	NA	NA	NA	NA	NA
	12/20/96	<50	<50	<0.3	<0.3	<0.5	<0.5	**32**	NA	NA	NA	NA
	04/18/97	<50	NA	<0.3	<0.3	<0.5	<0.5	**31**	NA	NA	NA	NA
	09/11/97	<50	NA	<0.3	<0.3	<0.5	<0.5	**39**	NA	NA	NA	NA
	06/19/98	<50	NA	<0.3	<0.3	<0.5	<0.5	**53**	<1.0	<1.0	<1.0	<25
	03/03/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**20**	NA	NA	NA	NA
	06/02/99	<50	<50	<0.3	<0.3	<0.5	<0.5	**16**	NA	NA	NA	NA
	12/28/99	<50	NA	<0.3	0.45	<0.5	<0.5	**35**	<1.0	<1.0	<1.0	<25
	03/23/00	<50	<50	<0.3	<0.3	<0.5	<0.5	**14**	<1.0	<1.0	<1.0	<25
	06/20/00	<50	<50	<0.3	<0.3	<0.5	<0.5	**12**	<1.0	<1.0	<1.0	<25
	10/03/00	NA	NA	NA	NA	NA	NA	**9.8**	<1.0	<1.0	<1.0	<25
	01/09/01	NA	NA	NA	NA	NA	NA	**63**	<1.0	<1.0	<1.0	<25
	04/10/01	NA	NA	NA	NA	NA	NA	**47**	NA	NA	NA	NA
	07/10/01	NA	NA	NA	NA	NA	NA	**76**	NA	NA	NA	NA
	10/10/01	NA	NA	NA	NA	NA	NA	**67**	NA	NA	NA	NA
	01/09/02	NA	NA	NA	NA	NA	NA	**38**	NA	NA	NA	NA
	04/05/02	NA	NA	NA	NA	NA	NA	**44**	<1.0	<1.0	<1.0	<25
	07/03/02	NA	NA	NA	NA	NA	NA	**55**	<1.0	<1.0	<1.0	<25
	10/24/02	NA	NA	NA	NA	NA	NA	**79**	<1.0	<1.0	<1.0	<25
	01/24/03	NA	NA	NA	NA	NA	NA	**40**	<1.0	<1.0	<1.0	<25
	04/17/03	NA	NA	NA	NA	NA	NA	**65**	<1.0	<1.0	<1.0	<25
	07/14/03	NA	NA	NA	NA	NA	NA	**98**	<1.0	<1.0	<1.0	<25
	10/07/03	NA	NA	NA	NA	NA	NA	**76**	<1.0	<1.0	<1.0	<25
	01/02/04	NA	NA	NA	NA	NA	NA	**46**	<1.0	<1.0	<1.0	<25
	04/06/04	NA	NA	NA	NA	NA	NA	**49**	<1.0	<1.0	<1.0	<25
	07/07/04	NA	NA	NA	NA	NA	NA	**74**	<1.0	<1.0	<1.0	<25
	11/23/04	NA	NA	NA	NA	NA	NA	**90**	<1.0	<1.0	<1.0	<25
	02/11/05	NA	NA	NA	NA	NA	NA	**54**	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	**23**	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	**24**	<1.0	<1.0	<1.0	<25

Table 3: Groundwater Analytical Results - Monitoring Wells
246 Ghilotti Avenue, Santa Rosa

ID	Date Sampled	TPH-g	TPH-d	B	T	E	X	MTBE*	DIPE	ETBE	TAME	TBA
		µg/L										
MW-04	02/11/05	<50	NA	<1.0	<1.0	<1.0	**1.1**	**1.9**	<1.0	<1.0	<1.0	<25
	06/13/05	Well inaccessible										
	08/19/05	NA	NA	NA	NA	NA	NA	**1.0**	<1.0	<1.0	<1.0	<25
MW-05	02/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
MW-06	02/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
MW-07	02/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	**6.9**	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	**1.9**	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	**1.4**	<1.0	<1.0	<1.0	<25
MW-08	02/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	<1.0	<1.0	<1.0	<1.0	<25
MW-09	02/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	**3.2**	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	**1.3**	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	**8.7**	<1.0	<1.0	<1.0	<25
MW-10	02/11/05	<50	NA	<1.0	<1.0	<1.0	<1.0	**20**	<1.0	<1.0	<1.0	<25
	06/13/05	NA	NA	NA	NA	NA	NA	**11**	<1.0	<1.0	<1.0	<25
	08/19/05	NA	NA	NA	NA	NA	NA	**15**	<1.0	<1.0	<1.0	<25

Note: *Analysis for MTBE by EPA Method 8020; Analysis for 5 oxy's (including MTBE) by EPA Method 8260B.

APPENDIX A

Well Purge Records, dated August 19, 2005

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW- 1**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs.**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 8.15

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

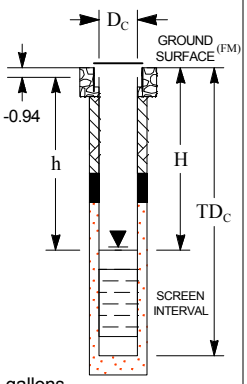
TOP: 9.0

BOTTOM: 19.0

TOTAL DEPTH (TD_C): 19.00

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 1.62 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	8.15 / 8.15
TAGGED WELL DEPTH FROM TOC:	17.51
PURGE VOLUME (3 CASING VOLUMES):	4.9 gallons
DEPTH TO WATER FOR 80% RECHARGE:	10.13 ft. below TOC
TIME OF SAMPLING:	13:55
DEPTH TO WATER AT TIME OF SAMPLING:	9.38 ft. below TOC
APPEARANCE OF SAMPLE:	Clear
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUC-TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER-ATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**13:35**	**13:37**	**1**	**1**	**0.62**	**7.55**	**0.697**	**10**	**19.6**	**2.91**	
8/19/05	**13:37**	**13:38**	**1**	**2**	**1.24**	**7.01**	**0.804**	**10**	**21.3**	**2.75**	
8/19/05	**13:38**	**13:40**	**3**	**5**	**3.09**	**7.00**	**0.699**	**10**	**21.2**	**3.00**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW- 2**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs.**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 8.52

NAPL: n.a.*

NAPL THICKNESS: n.a.*

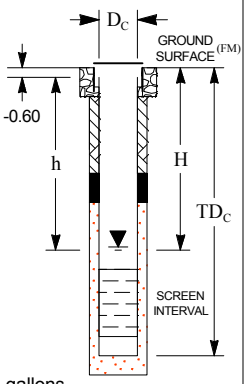
SCREEN DEPTH:

TOP: 7.0

BOTTOM: 17.0

TOTAL DEPTH (TD_C): 17.00

Diameters in (inches) : Depths in (feet)



ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 1.29 gallons

DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	8.51 / 8.52
TAGGED WELL DEPTH FROM TOC:	16.58
PURGE VOLUME (3 CASING VOLUMES):	3.9 gallons
DEPTH TO WATER FOR 80% RECHARGE:	10.10 ft. below TOC
TIME OF SAMPLING:	14:10
DEPTH TO WATER AT TIME OF SAMPLING:	10.01 ft. below TOC
APPEARANCE OF SAMPLE:	Clear
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**13:25**	**13:26**	**1**	**1**	**0.78**	**7.28**	**1.070**	**10**	**19.6**	**3.30**	
8/19/05	**13:26**	**13:27**	**3**	**4**	**3.11**	**7.17**	**1.230**	**10**	**19.5**	**1.73**	**Well went dry**

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW- 3**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs.**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 8.26

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

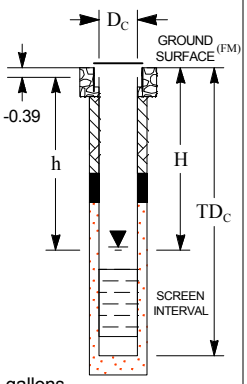
TOP: 9.0

BOTTOM: 19.0

TOTAL DEPTH (TD_C): 19.00

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 1.69 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	8.26 / 8.26
TAGGED WELL DEPTH FROM TOC:	17.69
PURGE VOLUME (3 CASING VOLUMES):	5.1 gallons
DEPTH TO WATER FOR 80% RECHARGE:	10.33 ft. below TOC
TIME OF SAMPLING:	14:15
DEPTH TO WATER AT TIME OF SAMPLING:	8.48 ft. below TOC
APPEARANCE OF SAMPLE:	Clear
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUC-TIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPER-ATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**12:54**	**12:55**	**1**	**1**	**0.59**	**7.33**	**0.670**	**10**	**18.9**	**5.43**	
8/19/05	**12:55**	**12:56**	**2**	**3**	**1.78**	**7.11**	**0.775**	**10**	**19.0**	**3.34**	
8/19/05	**12:56**	**12:57**	**2**	**5**	**2.96**	**7.08**	**0.793**	**10**	**18.9**	**1.25**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW-04**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs; MLE = Meter Limit Exceeded, i.e. >999 NTU's)**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 7.15

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

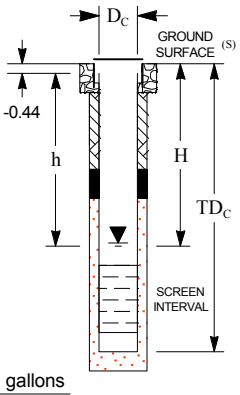
TOP: 5.1

BOTTOM: 20.1

TOTAL DEPTH (TD_C): 20.10

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 2.04 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	7.16 / 7.15
TAGGED WELL DEPTH FROM TOC:	19.25
PURGE VOLUME (3 CASING VOLUMES):	6.1 gallons
DEPTH TO WATER FOR 80% RECHARGE:	9.65 ft. below TOC
TIME OF SAMPLING:	14:35
DEPTH TO WATER AT TIME OF SAMPLING:	8.02 ft. below TOC
APPEARANCE OF SAMPLE:	Cloudy
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**13:53**	**13:54**	**1**	**1**	**0.49**	**7.11**	**0.920**	***MLE**	**21.7**	**2.01**	
8/19/05	**13:54**	**13:55**	**2**	**3**	**1.47**	**7.08**	**0.917**	***MLE**	**22.2**	**1.75**	
8/19/05	**13:55**	**13:56**	**3**	**6**	**2.94**	**6.91**	**0.907**	***MLE**	**22.2**	**0.75**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW-05**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs; MLE = Meter Limit Exceeded, i.e. >999 NTU's)**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 8.74

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

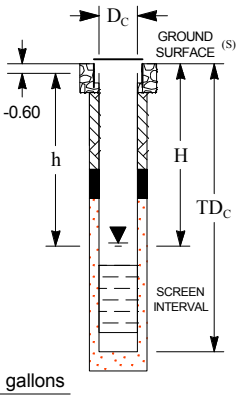
TOP: 5.2

BOTTOM: 20.2

TOTAL DEPTH (TD_C): 20.20

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 1.77 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	8.73 / 8.74
TAGGED WELL DEPTH FROM TOC:	19.23
PURGE VOLUME (3 CASING VOLUMES):	5.3 gallons
DEPTH TO WATER FOR 80% RECHARGE:	10.91 ft. below TOC
TIME OF SAMPLING:	11:40
DEPTH TO WATER AT TIME OF SAMPLING:	9.01 ft. below TOC
APPEARANCE OF SAMPLE:	Slightly cloudy
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**11:25**	**11:26**	**1**	**1**	**0.56**	**7.04**	**0.695**	***MLE**	**20.6**	**3.27**	
8/19/05	**11:26**	**11:27**	**2**	**3**	**1.69**	**6.60**	**0.720**	***MLE**	**21.1**	**1.01**	
8/19/05	**11:27**	**11:28**	**3**	**6**	**3.39**	**6.55**	**0.706**	***MLE**	**20.7**	**2.68**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW-06**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs; MLE = Meter Limit Exceeded, i.e. >999 NTU's)**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 9.36

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

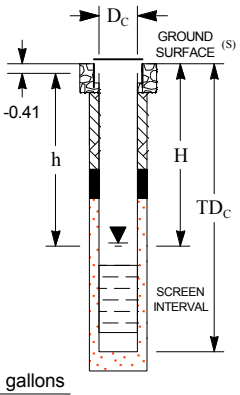
TOP: 5.3

BOTTOM: 20.3

TOTAL DEPTH (TD_C): 20.30

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
[TD_C - H] [3.14 (D_C / 2)^2] [7.48 gal/ft^3]: 1.72 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	9.36 / 9.36
TAGGED WELL DEPTH FROM TOC:	19.79
PURGE VOLUME (3 CASING VOLUMES):	5.2 gallons
DEPTH TO WATER FOR 80% RECHARGE:	11.47 ft. below TOC
TIME OF SAMPLING:	12:15
DEPTH TO WATER AT TIME OF SAMPLING:	9.53 ft. below TOC
APPEARANCE OF SAMPLE:	Slightly cloudy
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**11:34**	**11:35**	**1**	**1**	**0.58**	**6.97**	**0.728**	***MLE**	**20.0**	**2.96**	
8/19/05	**11:35**	**11:37**	**2**	**3**	**1.75**	**6.68**	**0.709**	***MLE**	**21.2**	**1.75**	
8/19/05	**11:37**	**11:39**	**2**	**5**	**2.91**	**6.72**	**0.703**	***MLE**	**21.7**	**1.52**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW-07**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs; MLE = Meter Limit Exceeded, i.e. >999 NTU's)**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 8.59

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

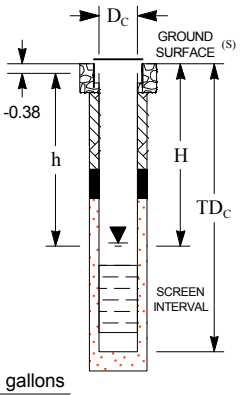
TOP: 5.4

BOTTOM: 20.4

TOTAL DEPTH (TD_C): 20.40

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 1.87 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	8.61 / 8.59
TAGGED WELL DEPTH FROM TOC:	19.99
PURGE VOLUME (3 CASING VOLUMES):	5.6 gallons
DEPTH TO WATER FOR 80% RECHARGE:	10.88 ft. below TOC
TIME OF SAMPLING:	13:10
DEPTH TO WATER AT TIME OF SAMPLING:	9.01 ft. below TOC
APPEARANCE OF SAMPLE:	Clear
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**11:45**	**11:46**	**1**	**1**	**0.54**	**7.19**	**1.310**	***MLE**	**20.7**	**2.20**	
8/19/05	**11:46**	**11:47**	**2**	**3**	**1.61**	**6.95**	**1.520**	***MLE**	**21.5**	**1.10**	
8/19/05	**11:47**	**11:48**	**3**	**6**	**3.22**	**6.95**	**1.500**	***MLE**	**21.2**	**2.18**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW-08**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs; MLE = Meter Limit Exceeded, i.e. >999 NTU's)**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 7.40

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

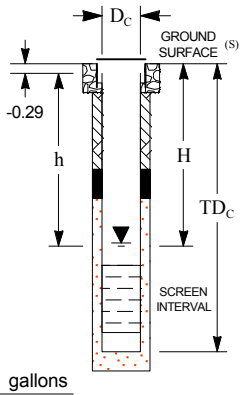
TOP: 5.3

BOTTOM: 20.3

TOTAL DEPTH (TD_C): 20.30

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 2.06 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	7.4 / 7.4
TAGGED WELL DEPTH FROM TOC:	19.99
PURGE VOLUME (3 CASING VOLUMES):	6.2 gallons
DEPTH TO WATER FOR 80% RECHARGE:	9.92 ft. below TOC
TIME OF SAMPLING:	13:35
DEPTH TO WATER AT TIME OF SAMPLING:	8.18 ft. below TOC
APPEARANCE OF SAMPLE:	Clear
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**12:14**	**12:15**	**2**	**2**	**0.97**	**7.53**	**1.330**	***MLE**	**19.3**	**2.71**	
8/19/05	**12:15**	**12:16**	**2**	**4**	**1.94**	**7.35**	**1.380**	**334**	**19.7**	**1.68**	
8/19/05	**12:16**	**12:19**	**2**	**6**	**2.92**	**7.23**	**1.390**	**10**	**19.3**	**1.40**	
8/19/05	**12:19**	**12:20**	**2**	**8**	**3.89**	**7.05**	**1.380**	**10**	**19.0**	**2.23**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW-09**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs; MLE = Meter Limit Exceeded, i.e. >999 NTU's)**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 7.53

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

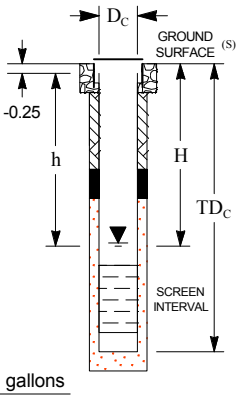
TOP: 5.3

BOTTOM: 20.3

TOTAL DEPTH (TD_C): 20.30

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
$[TD_C - H]\ [3.14\ (D_C / 2)^2]\ [7.48\ gal/ft^3]$: 2.04 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	7.52 / 7.53
TAGGED WELL DEPTH FROM TOC:	19.99
PURGE VOLUME (3 CASING VOLUMES):	6.1 gallons
DEPTH TO WATER FOR 80% RECHARGE:	10.03 ft. below TOC
TIME OF SAMPLING:	13:45
DEPTH TO WATER AT TIME OF SAMPLING:	8.29 ft. below TOC
APPEARANCE OF SAMPLE:	Clear
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**12:29**	**12:30**	**1**	**1**	**0.49**	**7.75**	**0.699**	***MLE**	**19.0**	**1.19**	
8/19/05	**12:30**	**12:31**	**2**	**3**	**1.47**	**7.15**	**0.636**	***MLE**	**19.6**	**1.17**	
8/19/05	**12:31**	**12:32**	**3**	**3**	**1.47**	**6.97**	**0.699**	***MLE**	**19.4**	**2.77**	

SCS ENGINEERS

WELL PURGE RECORD

2005 - 3rd Quarter

WELL NUMBER **MW-10**

PROJECT	*JOB NUMBER*	*SITE*	*RECORDED BY*
Ghilotti Construction Company	**01203312.00**	**246 Ghilotti Avenue**	**Amy Yardley**

	PURGING METHOD	*SAMPLING METHOD*
HAND PUMP		
SUBMERSIBLE PUMP	X	
BAILER		X
OTHER		

PURGING CRITERIA **Minimum of 3 wetted casing volumes (or 5 gallons minimum for 2" dia. wells), until water parameters (pH, temp., cond.) have stabilized (±10%), or until dry.**

REMARKS

*** Oil/water interface probe used to check for NAPLs; MLE = Meter Limit Exceeded, i.e. >999 NTU's)**

CASING DIAMETER (D_C): 2.0

DEPTH TO:

WATER (h): 7.09

NAPL: n.a.*

NAPL THICKNESS: n.a.*

SCREEN DEPTH:

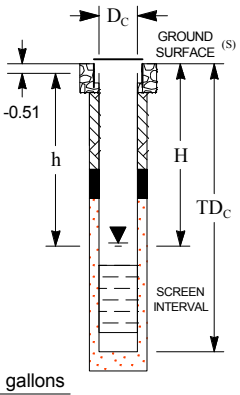
TOP: 5.5

BOTTOM: 20.5

TOTAL DEPTH (TD_C): 20.50

Diameters in (inches) : Depths in (feet)

ONE CASING VOLUME:
[TD_C - H] [3.14 (D_C / 2)^2] [7.48 gal/ft^3]: 2.11 gallons



DATE OF SAMPLING:	8/19/2005
WEATHER:	Overcast
TAGGED WATER LEVELS FROM TOC:	7.09 / 7.09
TAGGED WELL DEPTH FROM TOC:	20.01
PURGE VOLUME (3 CASING VOLUMES):	6.3 gallons
DEPTH TO WATER FOR 80% RECHARGE:	9.67 ft. below TOC
TIME OF SAMPLING:	14:25
DEPTH TO WATER AT TIME OF SAMPLING:	8.58 ft. below TOC
APPEARANCE OF SAMPLE:	Slightly cloudy
LABORATORY:	Analytical Sciences

SEE CHAIN OF CUSTODY FORM FOR ANALYTICAL INFORMATION.

PURGING DATA				CUMULATIVE TOTAL REMOVED		WATER CHARACTERISTICS					COMMENTS
DATE	TIME BEGIN	TIME FINISH	WATER REMOVED (GAL)	GAL	CASING VOLUMES	pH	CONDUCTIVITY (mmhos/cm)	TURBIDITY (NTU)	TEMPERATURE (°C)	DISSOLVED OXYGEN (ppm)	
8/19/05	**13:07**	**13:09**	**1**	**1**	**0.48**	**7.47**	**0.903**	***MLE**	**18.8**	**1.30**	
8/19/05	**13:09**	**13:11**	**3**	**4**	**1.90**	**7.27**	**0.888**	**562**	**19.7**	**4.06**	
8/19/05	**13:11**	**13:13**	**3**	**7**	**3.33**	**7.13**	**0.907**	***MLE**	**19.7**	**1.92**	

APPENDIX B

Analytical Sciences report #5082204
dated September 9, 2005

Analytical Sciences

September 09, 2005

Kevin Coker
SCS Engineers
3645 Westwind Blvd
Santa Rosa CA, 95403

Dear Kevin,

Enclosed you will find Analytical Sciences' final report 5082204 for your Ghilotti Construction project. An invoice for this work is enclosed.

Should you or your client have any questions regarding this report please contact me at your convenience. We appreciate you selecting Analytical Sciences for this work and look forward to serving your analytical chemistry needs on projects in the future.

Sincerely,

Analytical Sciences

Mark A. Valentini

Mark A. Valentini, Ph.D.

Laboratory Director

P.O. Box 750336
Petaluma, CA 94975-0336
Telephone: (707) 769-3128

110 Liberty Street
Petaluma, CA 94952

Analytical Sciences

Report Date: September 09, 2005

Laboratory Report

Kevin Coker
SCS Engineers
3645 Westwind Blvd
Santa Rosa CA, 95403

Project Name: **Ghilotti Construction** **01203312.00**

Lab Project: **5082204**

This 9 page report of analytical data has been reviewed and approved for release.

Mark A. Valentini, Ph.D.

Laboratory Director

P.O. Box 750336
Petaluma, CA 94975-0336
Telephone: (707) 769-3128

110 Liberty Street
Petaluma, CA 94952

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-01	**MW-1**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	16	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	21.0	105	70-130
Toluene-d8	19.8	99	70-130
4-Bromofluorobenzene	20.5	102	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-02	**MW-2**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	8.6	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.4	102	70-130
Toluene-d8	19.8	99	70-130
4-Bromofluorobenzene	20.6	103	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-03	**MW-3**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	24	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.5	102	70-130
Toluene-d8	19.7	98	70-130
4-Bromofluorobenzene	20.7	104	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-04	**MW-4**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	1.0	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.7	104	70-130
Toluene-d8	19.6	98	70-130
4-Bromofluorobenzene	20.6	103	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-05	**MW-05**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	19.5	98	70-130
Toluene-d8	19.7	98	70-130
4-Bromofluorobenzene	20.0	100	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-06	**MW-06**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	19.1	96	70-130
Toluene-d8	19.6	98	70-130
4-Bromofluorobenzene	20.2	101	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-07	**MW-07**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	1.4	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	18.6	93	70-130
Toluene-d8	19.6	98	70-130
4-Bromofluorobenzene	20.3	102	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-08	**MW-08**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	18.6	93	70-130
Toluene-d8	19.4	97	70-130
4-Bromofluorobenzene	20.5	102	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-09	**MW-09**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	8.7	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	18.6	93	70-130
Toluene-d8	19.7	98	70-130
4-Bromofluorobenzene	19.8	99	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-10	**MW-10**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	15	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.1	100	70-130
Toluene-d8	19.7	98	70-130
4-Bromofluorobenzene	20.3	102	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/22/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Oxygenated Gasoline Additives in Water

Lab#	Sample ID	Compound Name	Result (ug/L)	RDL (ug/L)
5082204-11	**DW-246**	t-Butyl alcohol (TBA)	ND	25
		Methyl tert-Butyl Ether (MTBE)	ND	1.0
		Di-isopropyl ether (DIPE)	ND	1.0
		Ethyl tert-Butyl Ether (ETBE)	ND	1.0
		Tert-Amyl Methyl Ether (TAME)	ND	1.0

Surrogates	Result (ug/L)	% Recovery	Acceptance Range (%)
Dibromofluoromethane	20.3	102	70-130
Toluene-d8	19.5	98	70-130
4-Bromofluorobenzene	20.7	104	70-130

Date Sampled:	08/19/05	Date Analyzed:	08/23/05	QC Batch: B000016
Date Received:	08/22/05	Method:	EPA 8260B	

Quality Assurance Report

Oxygenated Gasoline Additives in Water

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B000016 - EPA 5030B										
Blank (B000016-BLK1)				Prepared & Analyzed: 08/22/05						
t-Butyl alcohol (TBA)	ND	25	ug/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	ug/L							
Di-isopropyl ether (DIPE)	ND	1.0	ug/L							
Ethyl tert-Butyl Ether (ETBE)	ND	1.0	ug/L							
Tert-Amyl Methyl Ether (TAME)	ND	1.0	ug/L							
Surrogate: Dibromofluoromethane	*20.2*		*ug/L*	*20.0*		*101*	*70-130*			
Surrogate: Toluene-d8	*19.1*		*ug/L*	*20.0*		*96*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*20.6*		*ug/L*	*20.0*		*103*	*70-130*			
Matrix Spike (B000016-MS1)		**Source: 5082204-01**		Prepared & Analyzed: 08/22/05						
1,1-Dichloroethene	17.8	1.0	ug/L	25.0	ND	71	70-130			
Benzene	23.5	1.0	ug/L	25.0	ND	94	70-130			
Trichloroethene	24.5	1.0	ug/L	25.0	ND	98	70-130			
Toluene	26.0	1.0	ug/L	25.0	ND	104	70-130			
Chlorobenzene	25.1	1.0	ug/L	25.0	ND	100	70-130			
Surrogate: Dibromofluoromethane	*19.8*		*ug/L*	*20.0*		*99*	*70-130*			
Surrogate: Toluene-d8	*19.5*		*ug/L*	*20.0*		*98*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*20.6*		*ug/L*	*20.0*		*103*	*70-130*			
Matrix Spike Dup (B000016-MSD1)		**Source: 5082204-01**		Prepared & Analyzed: 08/22/05						
1,1-Dichloroethene	17.5	1.0	ug/L	25.0	ND	70	70-130	1	20	
Benzene	23.3	1.0	ug/L	25.0	ND	93	70-130	1	20	
Trichloroethene	24.3	1.0	ug/L	25.0	ND	97	70-130	1	20	
Toluene	26.4	1.0	ug/L	25.0	ND	106	70-130	2	20	
Chlorobenzene	25.4	1.0	ug/L	25.0	ND	102	70-130	2	20	
Surrogate: Dibromofluoromethane	*20.2*		*ug/L*	*20.0*		*101*	*70-130*			
Surrogate: Toluene-d8	*19.8*		*ug/L*	*20.0*		*99*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*20.5*		*ug/L*	*20.0*		*102*	*70-130*			

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
RPD	Relative Percent Difference

Analytical Sciences
P.O. Box 750336, Petaluma, CA 94975-0336
110 Liberty Street, Petaluma, CA 94952
(707) 769-3128

CHAIN OF CUSTODY

LAB PROJECT NUMBER: 5082204
SCS ENGINEERS PROJECT NAME: Ghilotti Construction
SCS ENGINEERS PROJECT NUMBER: 01203312.00

CLIENT INFORMATION

COMPANY NAME: SCS ENGINEERS
ADDRESS: 3645 WESTWIND BOULEVARD
SANTA ROSA, CA 95403
CONTACT: Kevin Coker
PHONE#: (707) 546-9461
FAX #: (707) 544-5769

BILLING INFORMATION

CONTACT: Stacey
COMPANY NAME: Ghilotti Construction
ADDRESS: 246 Ghilotti Ave
Santa Rosa, CA 95407
PHONE#: 707-585-1221
FAX #:

TURNAROUND TIME (check one)

MOBILE LAB [ ]
SAME DAY [ ]
24 HOURS [ ]
48 HOURS [ ]
72 HOURS [ ]
5 DAYS [ ]
NORMAL [✓]

GEOTRACKER EDF: X Y ___ N
GLOBAL ID: T0609700354

COOLER TEMPERATURE
_____ °C

COC

PAGE 1 OF 1

ANALYSIS

ITEM	CLIENT SAMPLE I..D.	DATE SAMPLED	TIME	MATRIX	# CONT.	PRESV. YES/NO	TPH/GAS/BTEX EPA 8015M/8020	TPH DIESEL / MOTOR OIL EPA 8015M	VOLATILE HYDROCARBONS EPA 8260 (FULL LIST)	EPA 8260 Full List + Oxy / Fuel Additives	BTEX & OXYGENATES + PB SCAVENGERS EPA 8260B	OXYGENATED FUEL ADDITIVES EPA 8260M	CHLORINATED SOLVENTS	SEMI-VOLATILE HYDROCARBONS EPA 8270	TRPH / TOG SM 5520F / EPA 418.1M	PESTICIDES / PCB'S EPA 8081 / 8141 / 8082	CAM 17 METALS / 5 LUFT METALS	TOTAL LEAD		COMMENTS	LAB SAMPLE #
1	MW-1	8/19/05	155	LIQ	3	YES						X									5082204-01
2	MW-2	8/19/05	210	LIQ																	5082204-02
3	MW-3	8/19/05	215	LIQ																	5082204-03
4	MW-4	8/19/05	235	LIQ																	5082204-04
5	MW-05	8/19/05	1140	LIQ																	5082204-05
6	MW-06	8/19/05	1215	LIQ																	5082204-06
7	MW-07	8/19/05	110	LIQ																	5082204-07
8	MW-08	8/19/05	135	LIQ																	5082204-08
9	MW-09	8/19/08	145	LIQ																	5082204-09
10	MW-10	8/19/05	225	LIQ																	5082204-10
11	DW-246	8/19/05	300	LIQ																	5082204-11

SIGNATURES

RELINQUISHED BY: Amy Yuedy — DATE:: 8/22/05 — TIME: 12:05
RECEIVED BY: — DATE:: — TIME:
RELINQUISHED BY: — DATE:: — TIME:
RECEIVED BY: — DATE: — TIME:

RECEIVED BY LABORATORY:
SIGNATURE — DATE: 8/22/05 — TIME: 1225 PM