

DAVID C. GLICK ASSOCIATES

542 BENVENUE AVE. LOS ALTOS, CA 94024 (415) 948-6740

Engineering Geology Consultants
Environmental Management Consultants
Technical Information Service

March 28, 1991

KTW & ASSOCIATES
43289 Osgood Road
Fremont, CA 94539
Attn: Mr. Kevin Krause

Subject: Monthly Ground Water Sampling Report for
Mitzi Stockel
3234 Castro Valley Blvd
Castro Valley, California

Gentlemen;

As requested and authorized, the attached Monthly Ground Water Sampling Report has been prepared to document the Monitoring Well sampling efforts performed at the subject site. The report presents the sampling protocol, recorded ground water elevations, and results of the analytical testing performed on the ground water samples.

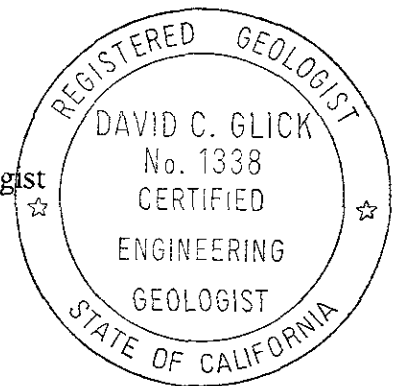
It has been a pleasure to be of service to you on this project. Questions or comments regarding the attached report should be addressed to the undersigned.

Respectfully submitted,

DAVID C. GLICK ASSOCIATES



David C. Glick, CEG 1338
Principal Engineering Geologist



Enclosure:

(1) Monthly Ground Water Sampling Report for Mitzi Stockel

91 APR -9 AM 11:15

MONTHLY
GROUND WATER SAMPLING REPORT
for
MITZI STOCKEL
3234 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA

PREPARED FOR
KRW & ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA

March 28, 1991

MONTHLY
GROUND WATER SAMPLING REPORT
for
MITZI STOCKEL
3234 CASTRO VALLEY BLVD.
CASTRO VALLEY, CALIFORNIA

INTRODUCTION

The project site is located at 3234 Castro Valley Blvd. in the City of Castro Valley, in Alameda County, California. The site is the location of a former automotive repair facility (see Figure 1) and private residence. A 657 gallon underground gasoline storage tank was located along the northern side of the automotive shop and was removed on March 8, 1990 by KTW & Associates. Five ground water monitoring wells exist surrounding the location of the former gasoline tank; however the traffic box and upper two feet of casing of Monitoring Well MW-2 was destroyed during site demolition and has been covered with concrete. As such Monitoring Well MW-2 could not be sampled. Sampling of the monitoring wells was performed on March 13, 1991.

MONITORING WELL SAMPLING

Free product measurements were obtained for each monitoring well at the time of each sample acquisition utilizing an acrylic bailer lowered into the well to obtain a water sample. The bailer was used to collect a water sample to observe the presence of hydrocarbon odors, visible sheen, or free product. Odors, sheens, or free product were not observed on the water samples obtained from the wells.

Prior to sampling the monitoring wells, a minimum of four well volumes were purged from each well through the use of a teflon bailer. Water samples for analytical testing were obtained through the use of the teflon bailer.

The water obtained from the monitoring wells during the purging and sampling activities was contained on-site in 55-gallon drums pending receipt of the laboratory test results.

The water samples were collected in sterilized glass vials with Teflon lined screw caps. The samples were immediately sealed in the vials and properly labeled including: the date, time, sample location, project number, and indication of any preservatives added to the sample. A travel blank was obtained from the analytical testing laboratory, transported to the field with the sample vials, and was submitted along with other samples for analysis (identified as MW-A). The samples were placed on ice immediately for transport to the laboratory under chain-of-custody documentation.

GRADIENT SURVEY

The elevation of the top of the casing of the four monitoring wells at the former gasoline tank site was established during previous investigations (vertical control of 0.01 foot). Prior to purging the monitoring wells, the depth to ground water (measured to the nearest 0.01 foot) was measured with an electronic water level meter in each of the four monitoring wells. Ground water elevations recorded suggest that the ground water flow across the site is in a southwesterly direction (see Figure 1) with Monitoring Well MW-5 in a down-gradient direction from the former gasoline tank.

ANALYTICAL TESTING

The ground water samples were submitted to and tested by Anametrix Laboratories located in San Jose, California. The samples from the four gasoline tank monitoring wells were tested for Total Petroleum Hydrocarbons as gasoline by Method GCFID (5030) and Volatile Aromatics by EPA Method 602. The travel blank was submitted for analysis for Volatile Aromatics by EPA Method 602. The analytical test data, along with the Chain-of-Custody Forms are presented in Appendix A.

SUMMARY OF FINDINGS

Ground water elevations recorded during the sampling suggest that ground water is at a depth of 3.5-4.75 feet below the ground surface and flows across the site in a southwesterly direction at a gradient of 0.03 ft/ft. The southwestern direction of ground water flow places Monitoring Well MW-5 in a "down-gradient" direction from the former underground gasoline storage tank.

The analytical test results for the ground water samples obtained for this sampling event indicate non-detectable quantities of TPH as gasoline or BTXE for the samples from Monitoring Wells MW-1, MW-3, and MW-4. The sample obtained from Monitoring Well MW-5 (down-gradient well) had detectable quantities of Benzene (0.6 parts per billion) and Total Petroleum Hydrocarbons (87 parts per billion). However, the analytical test summary from Anametrix states "the concentration reported as gasoline from sample MW5-WS1 is primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline".

DAVID C. GLICK ASSOCIATES

542 BENVENUE AVE., LOS ALTOS, CA 94024 (415) 948-6740

Monitoring Well MW-5 continues to indicate low concentrations of hydrocarbon products indicative of degradation of residual levels of products in the ground water. Continued sampling of the ground water on a quarterly schedule is recommended to monitor further product degradation.

LIMITATIONS

We have only observed a small portion of the pertinent subsurface and ground water conditions present at the site. The conclusions and recommendations made herein are based on the assumption that subsurface and ground water conditions do not deviate appreciably from those described in the reports and observed during the field investigation.

David C. Glick Associates provides consulting services in the fields of Geology and Engineering Geology performed in accordance with presently accepted professional practices. Professional judgments presented herein are based partly on information obtained from review of published documents, partly on evaluations of the technical information gathered, and partly on general experience in the fields of geology and engineering geology.

No attempt was made to verify the accuracy of the published information prepared by others used in preparation of this assessment report.

If you have questions regarding the findings, conclusions, or recommendations contained in this report, please contact us. We appreciate the opportunity to serve you.

The following Figures and Appendix are attached and complete this report:

- Figure 1 Ground Water Gradient Plan
- Appendix A Chain-of-Custody Form and Analytical Test Data

Respectfully submitted,

DAVID C. GLICK ASSOCIATES

DCG:dg

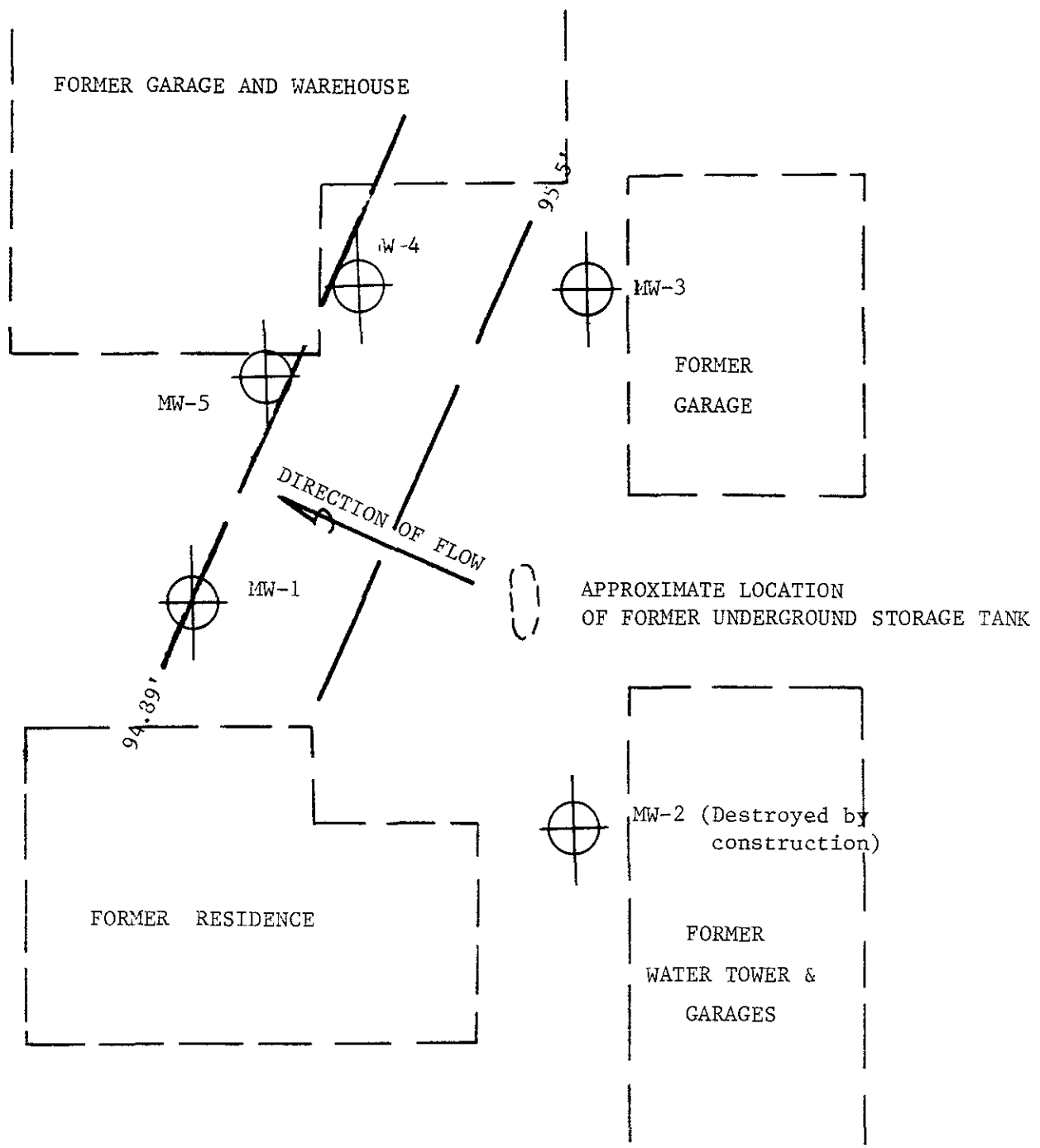
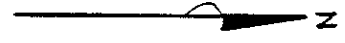
STOCKEL MONTHLY GROUNDWATER MONITORING WELL TABLE
3234 Castro Valley Boulevard, Castro Valley California

<u>Month No.</u>	<u>Date</u>	<u>Sampling No.</u>	<u>TPH-G</u>	<u>B</u>	<u>T</u>	<u>X</u>	<u>E</u>
1	9/06/90	MW-1	N/D	N/D	N/D	N/D	N/D
1	9/06/90	MW-2	N/D	N/D	N/D	N/D	N/D
1	9/06/90	MW-3	N/D	N/D	N/D	N/D	N/D
1	9/06/90	MW-4	N/D	N/D	N/D	N/D	N/D
1	9/06/90	MW-5	N/D	N/D	N/D	N/D	N/D
2	10/24/90	MW-1	N/D	N/D	N/D	N/D	N/D
2	10/24/90	MW-3	N/D	N/D	N/D	N/D	N/D
2	10/24/90	MW-4	N/D	N/D	N/D	N/D	N/D
2	10/24/90	MW-5	50	N/D	N/D	N/D	N/D
3	11/27/90	MW-1	N/D	N/D	N/D	N/D	N/D
3	11/27/90	MW-3	N/D	N/D	N/D	N/D	N/D
3	11/27/90	MW-4	N/D	N/D	N/D	N/D	N/D
3	11/27/90	MW-5	N/D	N/D	N/D	N/D	N/D
4	12/13/90	MW-1	N/D	N/D	N/D	N/D	N/D
4	12/13/90	MW-3	N/D	N/D	N/D	N/D	N/D
4	12/13/90	MW-4	N/D	N/D	N/D	N/D	N/D
4	12/13/90	MW-5	N/D	N/D	N/D	N/D	N/D
5	1/22/91	MW-1	N/D	N/D	N/D	N/D	N/D
5	1/22/91	MW-3	N/D	N/D	N/D	N/D	N/D
5	1/22/91	MW-4	N/D	N/D	N/D	1.6	N/D
5	1/22/91	MW-5	95	N/D	N/D	N/D	N/D
7	3/13/91	MW-1	N/D	N/D	N/D	N/D	N/D
7	3/13/91	MW-3	N/D	N/D	N/D	N/D	N/D
7	3/13/91	MW-4	N/D	N/D	N/D	N/D	N/D
7	3/13/91	MW-5	87	0.6	N/D	N/D	N/D

ABBREVIATIONS:

TPH-G	Total Petroleum Hydrocarbons as Gasoline
B	Benzene
T	Toluene
X	Xylenes
E	Ethylbenzene
ND	Non-detected

Note: All water samples are measured in micrograms per liter (ug/l) or parts per billion (ppb).



DAVID C. GLICK ASSOCIATES		
DATE 3-28-91	SCALE 1"=20'	DRAWN BY dcg
GROUND WATER GRADIENT PLAN		
STOCKEL	Figure 1	

Monthly Ground Water Sampling Report
Select Foods
Hayward, California

March 28, 1991

APPENDIX A
CHAIN-OF-CUSTODY FORM
AND
ANALYTICAL TEST DATA

CLIENT CHAIN-OF-CUSTODY RECORD

9103182

MSD
030

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis										Condition of Samples	Initial
P.O. A 2419-STK		KTW & ASSOCIATES STOCKEL						TPH9/BTEX											
Send Report Attention of:			Report Due		Verbal Due														
KEVIN KRAUSE			03/22/91		1 1														
Sample Number	Date	Time	Comp	Grab	Station Location														
1 MW3-WS1	3/13/91	1140			MON WS1/3	3EA	ACIDIFIED											From Mon Well 3, Mon Well 2, Mon Well 1	
2 MW4-WS1		1230			MON WS1/4													no bubbles	
3 MW5-WS1		1330			MON WELL 5													2000 w/lan, 1000 w/2000 bubble	
4 MW1-WS1		1412			MON WS1/1													1000 w/lan, 1000 w/2000 bubble	
5 MWA-WS1		1500			MON WELL A													no bubbles	
All samples cold, proper contained, acidified (NS)																			

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	3/14/91 0910	<i>[Signature]</i>	03/14/91 0910
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: STANDARD TURN AROUND

COMPANY: KTW & ASSOCIATES
 ADDRESS: 43287 05900D ROAD FREMONT CA
 PHONE: (415) 623 0480 FAX:

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
(GASOLINE WITH BTEX)
ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9103182
Matrix : WATER
Date Sampled : 03/13/91

Project Number : STOCKEL
Date Released : 03/25/91

Reporting Limit	Sample I.D.# MW3-WS1	Sample I.D.# MW4-WS1	Sample I.D.# MW5-WS1	Sample I.D.# MW1-WS1	Sample I.D.# MWA-WS1
COMPOUNDS (ug/L)	-01	-02	-03	-04	-05
Benzene	0.5	ND	ND	0.6	ND
Toluene	0.5	ND	ND	ND	ND
Ethylbenzene	0.5	ND	ND	ND	ND
Total Xylenes	0.5	ND	ND	ND	ND
TPH as Gasoline	50	ND	ND	87	ND
% Surrogate Recovery	141%	133%	129%	134%	122%
Instrument I.D.	HP12	HP12	HP12	HP12	HP12
Date Analyzed	03/19/91	03/19/91	03/19/91	03/19/91	03/19/91
RLMF	1	1	1	1	1

- ND - Not detected at or above the practical quantitation limit for the method.
- TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
- BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.
- RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Julius Jusisov 03-26-91
Analyst Date

Cheryl Balmer 3/26/91
Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS
 (GASOLINE WITH BTEX)
 ANAMETRIX, INC. - (408) 432-8192

Anamatrix W.O.: 9103182
 Matrix : WATER
 Date Sampled : 03/13/91

Project Number : STOCKEL
 Date Released : 03/25/91

COMPOUNDS	Reporting Limit (ug/L)	Sample I.D.# 12B0319A BLANK
Benzene	0.5	ND
Toluene	0.5	ND
Ethylbenzene	0.5	ND
Total Xylenes	0.5	ND
TPH as Gasoline	50	ND
% Surrogate Recovery		97%
Instrument I.D.		HP12
Date Analyzed		03/19/91
RLMF		1

-
- ND - Not detected at or above the practical quantitation limit for the method.
 - TPHg - Total Petroleum Hydrocarbons as gasoline is determined by GCFID using EPA Method 5030.
 - BTEX - Benzene, Toluene, Ethylbenzene, and Total Xylenes are determined by modified EPA 8020.
 - RLMF - Reporting Limit Multiplication Factor.
Anamatrix control limits for surrogate recovery are 53-147%.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

Steve Ince 03-26-91
 Analyst Date

Cheryl Baerner 3/26/91
 Supervisor Date

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. KEVIN KRAUSE
KRW & ASSOCIATES
43289 OSGOOD ROAD
FREMONT, CA 94539

Workorder # : 9103182
Date Received : 03/14/91
Project ID : STOCKEL
Purchase Order: A 2419-STK
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentration reported as gasoline for sample MW5-WS1 is primarily due to the presence of discrete hydrocarbon peaks not indicative of gasoline.

Cheryl Balmer 3/26/91
Department Supervisor Date

Steve Jusikoff 03-28-91
Chemist Date