TRC

Customer-Focused Solutions

December 13, 2002

Project 41-0236

Mr. Don Hwang
Alameda County Health Care Services Agency
Department of Environmental Health
Hazardous Materials Program
1131 Harbor Bay Parkway
Alameda, California 94502-6577

SITE: QUIK STOP MARKET NO. 56
3132 BEAUMONT AVENUE
OAKLAND, CALIFORNIA

RE: QUARTERLY GROUNDWATER MONITORING REPORT, FOURTH QUARTER 2002

Dear Mr. Hwang:

Enclosed is a copy of the *Fourth Quarter 2002 Quarterly Groundwater Monitoring Report* for the property located at 3132 Beaumont Avenue in Oakland, California. This report is submitted on behalf of our client, Quik Stop Markets, Inc.

Please direct all questions and correspondence to:

Mr. Mike Karvelot
Quik Stop Markets, Inc.
4567 Enterprise Street
Fremont, California 94538
Phone: (510) 657-8500

Sincerely,

Tracy L. Walker

Tracy L. Walker, RG
Associate

cc: Mr. Mike Karvelot, Quik Stop Markets, Inc.

5052 Commercial Circle • Concord, California 94520-1248
Telephone 925-688-1200 • Fax 925-688-0388

TRC

Customer-Focused Solutions

December 13, 2002 Project 41-0236

Mr. Mike Karvelot
Quik Stop Markets, Inc.
4567 Enterprise Street
Fremont, California 94538

SITE: QUIK STOP MARKET NO. 56
3132 BEAUMONT AVENUE
OAKLAND, CALIFORNIA

RE: QUARTERLY GROUNDWATER MONITORING REPORT, FOURTH QUARTER 2002

Dear Mr. Karvelot:

This *Fourth Quarter 2002 Groundwater Monitoring Report* presents the results of the Fourth Quarter 2002 fluid level monitoring and groundwater sampling at the above-referenced site. The work at this site was performed in accordance with the requirements of the Alameda County Health Care Services Agency, Department of Environmental Health (ACDEH).

1.0 FLUID-LEVEL MONITORING

Fluid levels were measured in onsite monitoring wells MW-1, MW-2 and MW-3 on October 21, 2002. Groundwater elevations averaged 127.64 feet above mean sea level (MSL). Groundwater flow direction was to the southwest at a gradient of 0.08 foot-per-foot. Refer to Table 1 for fluid-level monitoring data. Figure 2 is a groundwater elevation contour map based on the fluid-level measurements. A description of fluid-level monitoring procedures is included in Appendix A.

2.0 GROUNDWATER SAMPLING

On October 21, 2002, groundwater samples were collected from onsite wells MW-1, MW-2 and MW-3. Groundwater samples were submitted to a state-certified laboratory for analysis of total petroleum hydrocarbons as gasoline (TPH-G); benzene, toluene, ethylbenzene, and total xylenes (BTEX); and methyl tert-butyl ether (MTBE), using EPA Methods 8015B and 8260B. Refer to Table 1 and Figure 3 for a summary of analytical results. General Field Procedures, Official Laboratory Reports and Chain of Custody Documents are included in the Appendix.

Approximately 35 gallons of purge water was generated during groundwater sampling activities conducted on October 21, 2002. The purge water was stored onsite in one Department of Transportation-approved 55-gallon drum pending disposal.

5052 Commercial Circle • Concord, California 94520-1248
Telephone 925-688-1200 • Fax 925-688-0388

3.0 LIST OF ATTACHMENTS

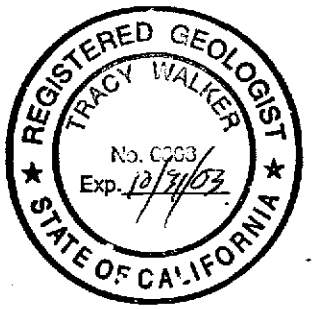
Figure 1:	Vicinity Map
Figure 2:	Groundwater Elevation Contour Map, October 21, 2002
Figure 3:	Dissolved-Phase Hydrocarbon Concentrations, October 21, 2002
Table 1:	Summary of Groundwater Levels and Chemical Analysis
Appendix A:	General Field Procedures, Official Laboratory Reports, and Chain of Custody Records

If you have any questions regarding this report, please call me at (925) 688-2476.

Sincerely,

Tracy L. Walker

Tracy L. Walker, RG
Associate



cc: Mr. Don Hwang, Alameda County Health Care Services Agency

FIGURES

1 MILE 3/4 1/2 1/4 0 1 MILE

SCALE 1 : 24,000

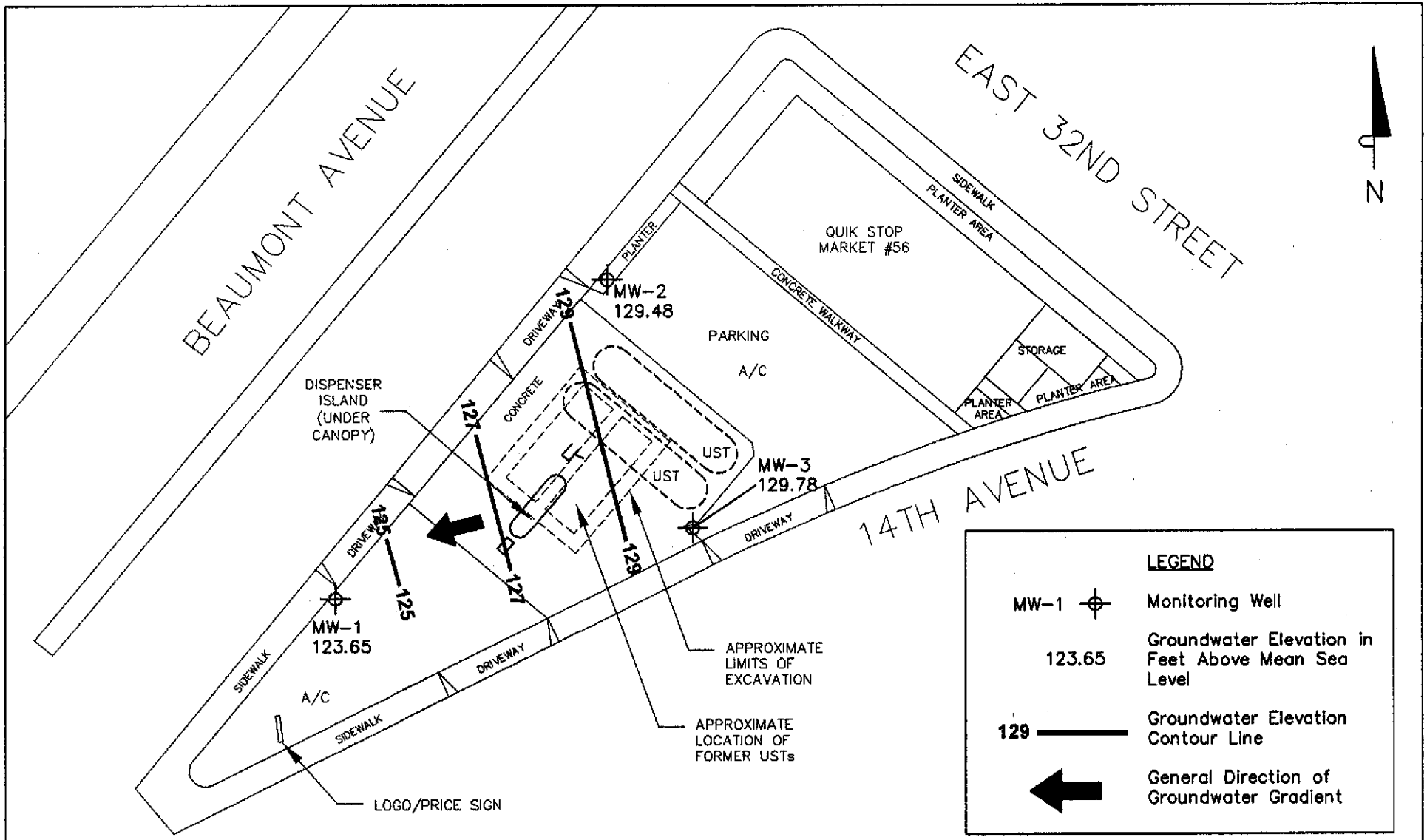
N

SOURCE:
United States Geological Survey
7.5 Minute Topographic Maps:
Oakland East and
Oakland West Quadrangles

VICINITY MAP

Quik Stop No. 56
3132 Beaumont Avenue
Oakland, California

TRC | **FIGURE 1**

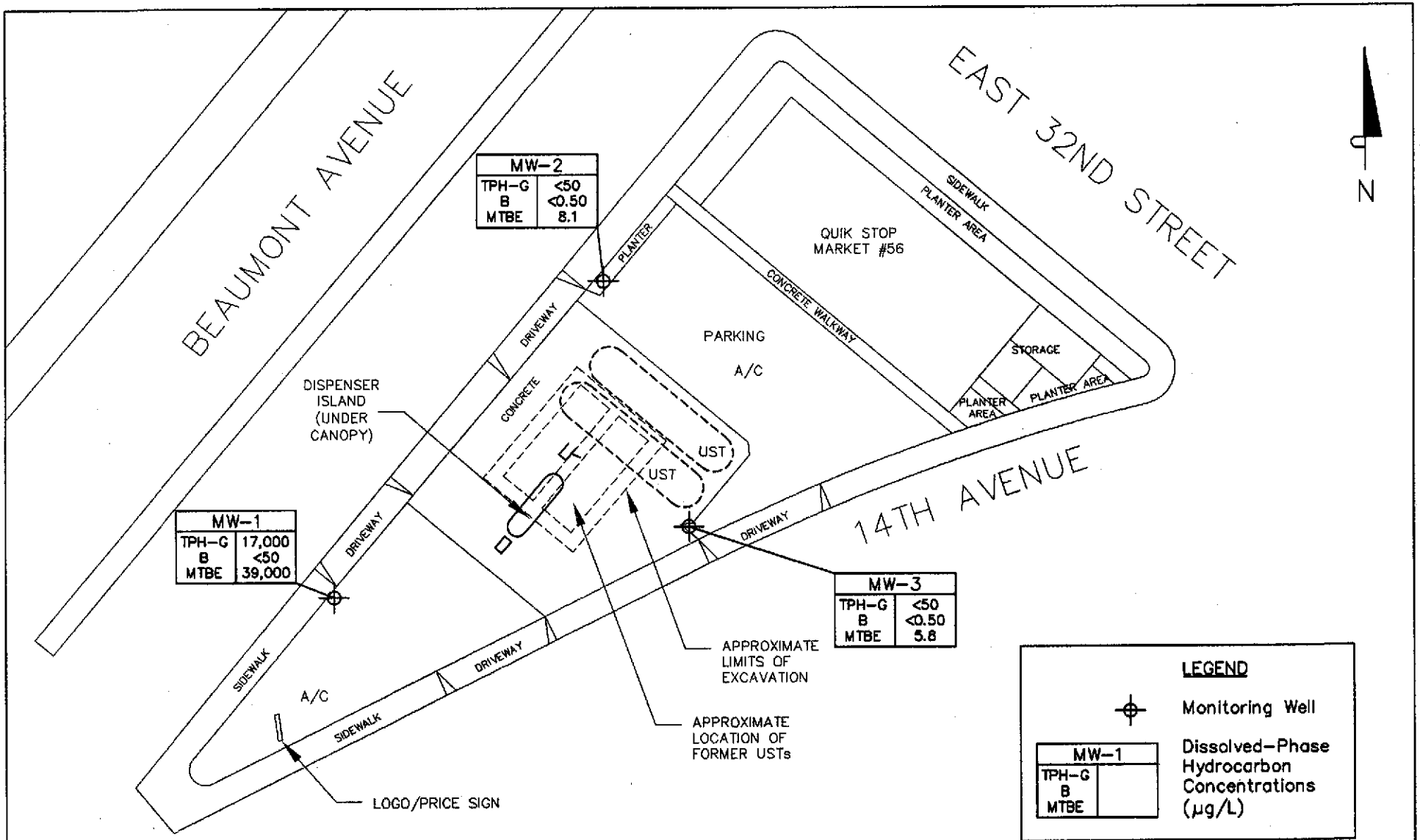


NOTES:
Contour lines are interpretive based on fluid level measurements taken on October 21, 2002.
Contour interval = 2 feet.

SOURCE: Client-provided drawings and Garlow, 1998. Site plan updated per 11/27/01 well survey by Doble Thomas Associates.

GROUNDWATER ELEVATION CONTOUR MAP
October 21, 2002
Quik Stop No. 56
3132 Beaumont Avenue
Oakland, California

TRC | **FIGURE 2**



NOTES:
Results are based on laboratory analysis of groundwater samples collected on October 21, 2002. µg/L = micrograms per liter; TPH-G = total petroleum hydrocarbons as gasoline; B = benzene; MTBE = methyl tert butyl ether; < = not detected at or above the stated method detection limit.

SOURCE: Client-provided drawings and Garlow, 1998. Site plan updated per 11/27/01 well survey by Doble Thomas Associates.

DISSOLVED-PHASE HYDROCARBON CONCENTRATIONS
October 21, 2002
Quik Stop No. 56
3132 Beaumont Avenue
Oakland, California

TRC

FIGURE 3

TABLE

Table 1

Summary of Groundwater Levels and Chemical Analysis

Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260 (µg/L)	DO (mg/L)
MW-1	03/02/00	131.58	10.33	121.25	670	<1.0	<1.0	<1.0	<1.0	2,200	0.62
MW-1	11/16/00	131.58	11.86	119.72	<500	<0.5	<0.5	<0.5	<0.5	18,000	0.34
MW-1	01/23/01	131.58	11.05	120.53	6,400	<10	<10	<10	<10	21,000	0.83
MW-1	04/25/01	131.58	12.06	119.52	12,000	<20	<20	<20	<20	17,000	0.39
MW-1	07/24/01	131.58	12.42	119.16	8,800	<13	<13	<13	<13	14,000	7.61
MW-1	11/08/01	131.58	12.00	119.58	18,000	<25	<25	<25	<25	28,000	—
MW-1	11/27/01	134.13	Well resurveyed to new reference point								
MW-1	02/05/02	134.13	10.99	123.14	28,000	<50	<50	<50	<50	44,000	—
MW-1	04/29/02	134.13	10.97	123.16	12,000	<25	<25	<25	<25	30,000	—
MW-1	07/29/02	134.13	10.20	123.93	16,000	<25	<25	<25	<25	22,000	—
MW-1	10/21/02	134.13	10.48	123.65	17,000	<50	<50	<50	<50	39,000	—
MW-2	03/02/00	132.63	5.88	126.75	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.45
MW-2	11/16/00	132.63	6.40	126.23	<50	<0.5	<0.5	<0.5	<0.5	<1.0	1.67
MW-2	01/23/01	132.63	5.67	126.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	1.20
MW-2	04/25/01	132.63	6.26	126.37	<50	<0.50	<0.50	<0.50	<0.50	<0.50	0.76
MW-2	07/24/01	132.63	6.38	126.25	<50	<0.50	<0.50	<0.50	<0.50	<0.50	2.92
MW-2	11/08/01	132.63	5.97	126.66	<50	<0.50	<0.50	<0.50	<0.50	2.7	—
MW-2	11/27/01	135.16	Well resurveyed to new reference point								
MW-2	02/05/02	135.16	4.95	130.21	<50	<0.50	<0.50	<0.50	<0.50	2.7	—
MW-2	04/29/02	135.16	5.03	130.13	<50	<0.50	<0.50	<0.50	<0.50	2.8	—
MW-2	07/29/02	135.16	5.46	129.70	<50	<0.50	<0.50	<0.50	<0.50	4.1	—
MW-2	10/21/02	135.16	5.68	129.48	<50	<0.50	<0.50	<0.50	<0.50	8.1	—
MW-3	03/02/00	133.78	6.41	127.37	<50	<0.50	<0.50	<0.50	<0.50	0.96	0.90
MW-3	11/16/00	133.78	6.46	127.32	<50	<0.5	<0.5	<0.5	<0.5	24	3.91
MW-3	01/23/01	133.78	5.75	128.03	<50	<0.50	<0.50	<0.50	<0.50	72	1.47
MW-3	04/25/01	133.78	5.90	127.88	<50	<0.50	<0.50	<0.50	<0.50	25	0.56
MW-3	07/24/01	133.78	6.56	127.22	<50	<0.50	0.79	0.73	0.68	5.2	6.67
MW-3	11/08/01	133.78	6.92	126.86	<50	<0.50	<0.50	<0.50	<0.50	14	—
MW-3	11/27/01	136.35	Well resurveyed to new reference point								
MW-3	02/05/02	136.35	5.13	131.22	<50	<0.50	<0.50	<0.50	<0.50	10	—
MW-3	04/29/02	136.35	5.67	130.68	<50	<0.50	<0.50	<0.50	<0.50	5.1	—
MW-3	07/29/02	136.35	6.11	130.24	<50	<0.50	<0.50	<0.50	<0.50	31	—
MW-3	10/21/02	136.35	6.57	129.78	<50	<0.50	<0.50	<0.50	<0.50	5.8	—

NOTES:
ft-MSL = feet above mean sea level
µg/L = micrograms per liter
mg/L = milligrams per liter
TPH-G = total petroleum hydrocarbons as gasoline
MTBE = methyl tert butyl ether
DO = dissolved oxygen
< = not detected at or above the stated detection limit

APPENDIX A

GENERAL FIELD PROCEDURES, FIELD MEASUREMENT FORMS, OFFICIAL LABORATORY REPORTS, AND CHAIN OF CUSTODY RECORDS

GENERAL FIELD PROCEDURES

General field procedures used during fluid-level monitoring and groundwater sampling activities are described below.

FLUID-LEVEL MONITORING

Fluid levels are monitored in the wells using an electronic interface probe with conductance sensors. The presence of liquid-phase hydrocarbons is verified using a hydrocarbon-reactive paste. The depth to liquid-phase hydrocarbons and water is measured relative to the well box top or top of casing. Well box or casing elevations are surveyed to within 0.02 foot relative to a county or city benchmark.

GROUNDWATER SAMPLING

Groundwater monitoring wells are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no liquid-phase hydrocarbons are purged of groundwater prior to sampling so that fluids sampled are representative of fluids within the formation. Temperature, pH, and specific conductance are typically measured after each well casing volume has been removed. Purging is considered complete when these parameters vary less than 10% from the previous readings, or when four casing volumes of fluid have been removed. Samples are collected without further purging if the well does not recharge within 2 hours to 80% of its volume before purging.

The purged water is stored in labeled drums prior to transport to an appropriate treatment or recycling facility. If an automatic recovery system (ARS) is operating at the site, purged water may be pumped into the ARS for treatment.

Groundwater samples are collected by lowering a 1.5-inch-diameter, bottom-fill, disposable polyethylene bailer just below the static water level in the well. The samples are carefully transferred from the check-valve-equipped bailer to 1-liter and 40-milliliter glass containers. The sample containers are filled to zero headspace and fitted with Teflon-sealed caps. Each sample is labeled with the project number, well number, sample date, and sampler's initials. Samples remain chilled at approximately 4□C prior to analysis by a state-certified laboratory.

TRC Alton Geoscience, Northern California Operations

FLUID MEASUREMENT FIELD FORM

Project No.: 41023606
Station No.: Quick Stop #56

TRC Alton Personnel: J. Chidester
Date: 10/21/02

Well Number	Screen Interval	Depth to Water	Depth to Product	Free Product Thickness (ft)	Free Product Recovery	Total Depth	Dissolved O_2 (mg/L)	Comments
MW-2		5.68				29.92		2"
MW-3		6.57				30.69		2"
MW-1		10.48				30.05		2"

TRC Alton Geoscience, Northern California Operations

GROUND WATER SAMPLING FIELD NOTES

Site: Quick Stop #56 Project No.: 41023606 Sampled By: J. Chidester Date: 10/21/02

Well No. MW-2 Purge Method: 2" electric
Total Depth (feet) 29.92 Depth to Product (feet): –
Depth to Water (feet): 5.68 Product Recovered (gallons): –
Water Column (feet): 24.24 Casing Diameter (Inches): 2"
80% Recharge Depth (feet): 10.53 1 Well Volume (gallons): 3.88

Time Start	Time Stop	Depth To Water (feet)	Volume Purged gallons	Conductivity (uS/cm)	Temperature (F, C)	pH
1124				1.19	72.1	6.77
				1.11	74.8	6.60
	1130			1.11	74.9	6.52
	Total Purged		12	Time Sampled		1220

Comments:
Turbidity=

Well No. MW-3 Purge Method: 2" electric
Total Depth (feet) 30.69 Depth to Product (feet): –
Depth to Water (feet): 6.57 Product Recovered (gallons): –
Water Column (feet): 24.12 Casing Diameter (Inches): 2"
80% Recharge Depth (feet): 11.39 1 Well Volume (gallons): 3.86

Time Start	Time Stop	Depth To Water (feet)	Volume Purged gallons	Conductivity (uS/cm)	Temperature (F, C)	pH
1138				0.80	70.3	6.96
				0.75	72.9	6.80
	1144			0.77	74.2	6.57
	Total Purged		12	Time Sampled		1240

Comments:
Turbidity=

Well No. MW-1 Purge Method: 2" electric
Total Depth (feet) 30.05 Depth to Product (feet): –
Depth to Water (feet): 10.48 Product Recovered (gallons): –
Water Column (feet): 19.57 Casing Diameter (Inches): 2"
80% Recharge Depth (feet): 14.39 1 Well Volume (gallons): 3.13

Time Start	Time Stop	Depth To Water (feet)	Volume Purged gallons	Conductivity (uS/cm)	Temperature (F, C)	pH
1153				0.78	72.2	6.87
				0.66	73.0	6.73
	1158			0.76	74.2	6.55
	Total Purged		9	Time Sampled		1255

Comments:
Turbidity=

Well No. ____ Purge Method: ____
Total Depth (feet) ____ Depth to Product (feet): ____
Depth to Water (feet): ____ Product Recovered (gallons): ____
Water Column (feet): ____ Casing Diameter (Inches): ____
80% Recharge Depth (feet): ____ 1 Well Volume (gallons): ____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged gallons	Conductivity (uS/cm)	Temperature (F, C)	pH
	Total Purged			Time Sampled		

Comments:
Turbidity=

Well No. ____ Purge Method: ____
Total Depth (feet) ____ Depth to Product (feet): ____
Depth to Water (feet): ____ Product Recovered (gallons): ____
Water Column (feet): ____ Casing Diameter (Inches): ____
80% Recharge Depth (feet): ____ 1 Well Volume (gallons): ____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged gallons	Conductivity (uS/cm)	Temperature (F, C)	pH
	Total Purged			Time Sampled		

Comments:
Turbidity=

Well No. ____ Purge Method: ____
Total Depth (feet) ____ Depth to Product (feet): ____
Depth to Water (feet): ____ Product Recovered (gallons): ____
Water Column (feet): ____ Casing Diameter (Inches): ____
80% Recharge Depth (feet): ____ 1 Well Volume (gallons): ____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged gallons	Conductivity (uS/cm)	Temperature (F, C)	pH
	Total Purged			Time Sampled		

Comments:
Turbidity=

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

ANALYTICAL REPORT

TRC-Alton Geoscience
5052 Commercial Circle
Concord, CA 94520
Job#: 41023606/Quick Stop#56

Attn: Tracy Walker
Phone: (925) 688-1200
Fax: (925) 688-0388

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B/DHS LUFT Manual
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration		Reporting Limit	Date Sampled	Date Analyzed
Client ID :	TPH Purgeable	ND		50 µg/L	10/21/02	10/25/02
MW-2	Methyl tert-butyl ether (MTBE)	8.1		0.50 µg/L	10/21/02	10/25/02
Lab ID :	Benzene	ND		0.50 µg/L	10/21/02	10/25/02
TRC02102320-01A	Toluene	ND		0.50 µg/L	10/21/02	10/25/02
	Ethylbenzene	ND		0.50 µg/L	10/21/02	10/25/02
	Xylenes, Total	ND		0.50 µg/L	10/21/02	10/25/02
Client ID :	TPH Purgeable	ND		50 µg/L	10/21/02	10/25/02
MW-3	Methyl tert-butyl ether (MTBE)	5.8		0.50 µg/L	10/21/02	10/25/02
Lab ID :	Benzene	ND		0.50 µg/L	10/21/02	10/25/02
TRC02102320-02A	Toluene	ND		0.50 µg/L	10/21/02	10/25/02
	Ethylbenzene	ND		0.50 µg/L	10/21/02	10/25/02
	Xylenes, Total	ND		0.50 µg/L	10/21/02	10/25/02
Client ID :	TPH Purgeable	17,000		10,000 µg/L	10/21/02	10/25/02
MW-1	Methyl tert-butyl ether (MTBE)	39,000		50 µg/L	10/21/02	10/25/02
Lab ID :	Benzene	ND	V	50 µg/L	10/21/02	10/25/02
TRC02102320-03A	Toluene	ND	V	50 µg/L	10/21/02	10/25/02
	Ethylbenzene	ND	V	50 µg/L	10/21/02	10/25/02
	Xylenes, Total	ND	V	50 µg/L	10/21/02	10/25/02

Reported in micrograms per liter, per client request.
V = Reporting Limits were increased due to high concentrations of target analytes.
ND = Not Detected

R Scholl Randy Gardner Walter Hinchman

Roger L. Scholl, Ph.D., Laboratory Director • • Randy Gardner, Laboratory Manager • • Walter Hinchman, Quality Assurance Officer
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Wichita, KS • (316) 722-5890 / info@alpha-analytical.com

11/5/02
Report Date

Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778

(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

VOC pH Report

Work Order: TRC02102320 **Project:** 41023606/Quick Stop#56

Alpha's Sample ID	Client's Sample ID	Matrix	pH
02102320-01A	MW-2	Aqueous	2
02102320-02A	MW-3	Aqueous	2
02102320-03A	MW-1	Aqueous	2

11/5/02

Report Date

Billing Information :

CHAIN-OF-CUSTODY RECORD

CA

Alpha Analytical, Inc.
255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778
TEL: (775) 355-1044 FAX: (775) 355-0406

WorkOrder : TRC02102320

Report Due By : 5:00 PM On : 06-Nov-02

Client:
TRC-Alton Geoscience
5052 Commercial Circle

Concord, CA 94520

Tracy Walker
TEL : (925) 688-1200
FAX : (925) 688-0388

EDD Required : No

Sampled by : James Chidester

Report Attention : Tracy Walker
CC Report :

Job : 41023606/Quick Stop#56
PO :
Client's COC # : none

Cooler Temp : 4 °C **23-Oct-02**

QC Level : 1 = Final Rpt Only

Alpha Sample ID	Client Sample ID	Matrix	Collection Date	No. of Bottles ORG	SUB	TAT	PWS #	Requested Tests TPH/P_W	VOC_W							Sample Remarks
TRC02102320-01A	MW-2	AQ	10/21/02 12:20	4	0	10		BTXE/GAS/ Mtbe	BTXE/GAS/ Mtbe							
TRC02102320-02A	MW-3	AQ	10/21/02 12:40	4	0	10		BTXE/GAS/ Mtbe	BTXE/GAS/ Mtbe							
TRC02102320-03A	MW-1	AQ	10/21/02 12:55	4	0	10		BTXE/GAS/ Mtbe	BTXE/GAS/ Mtbe							

Comments: Security seals intact, ice frozen. California samples. Need water RLs in ug/L. :

	Signature	Print Name	Company	Date/Time
Received by:	Graciela Navarrete	Graciela Navarrete	Alpha Analytical, Inc.	10/22/02 10:30

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense.
The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.
Matrix Type : AQ(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

CHAIN OF CUSTODY RECORD

Ship To: Alpha Analytical
Attn: Sample Control
255 Glendale Ave., Ste 21
Sparks, NV 89431

Page 1 of 1
Project Name: Quick Stop #56
Project No.: 41023606
Site Location: 3132 Beaumont Ave, Oakland
Date: 10/22/02

CA
10 days
02102320

Boring/Well No.	Sample No.	Depth	Date	Time	Sample Type: Water	Solid	Other	Comp.	Grab.	Sample Containers: Vol.	No.	Type	Pres.	Analysis: TPH-G	BTEX	MTBE	Remarks
MW-2			10/21/02	1220	X				X	40ml	4	VOA	HCl	X	X	X	STD TAT
MW-3			↓	1240	↓				↓	↓	↓	↓	↓	↓	↓	↓	
MW-1			↓	1255	↓				↓	↓	↓	↓	↓	↓	↓	↓	
																	Report to Tracy Walker

Total Number of Samples Shipped: 12 Shipper's Signature: James Clifford

	Signature	Company	Date	Time
Relinquished by:	James Clifford	TRC	10/22/02	1100
Received by:	Gabriela Navarrete	G. Navarrete	10/22/02	10:30
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Special Instructions / Shipment / Handling/ Storage Requirements:

The material(s) listed are received for analysis and/or treatability evaluation and remain the property of the client and not TRC. At the conclusion of the test work, all remaining material(s) will be returned to the client for eventual disposal at a licensed facility.

☐ TRC
21 Technology Drive
Irvine, California 92618
(949) 727-9336

☒ TRC
5052 Commercial Circle
Concord, California 94520
(925) 688-1200

A-Gen/Form (12/8/98/rmm)