

**TRC**  
Customer-Focused Solutions



October 21, 2005

Project 41-0236

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

Alameda County  
OCT 21 2005  
Environmental Health

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

RE: QUARTERLY GROUNDWATER MONITORING REPORT, THIRD QUARTER 2005

Dear Mr. Gholani:

Enclosed is a copy of the *Third Quarter 2005 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,

Jonathan Scheiner  
Associate

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





Customer-Focused Solutions

October 21, 2005

Project 41-0236

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

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

RE: QUARTERLY GROUNDWATER MONITORING REPORT, THIRD QUARTER 2005

Dear Mr. Karvelot:

This *Third Quarter 2005 Quarterly Groundwater Monitoring Report* presents the results of the Third Quarter 2005 fluid level monitoring and groundwater sampling at the above-referenced site (Figure 1). 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 September 13, 2005. Groundwater elevations averaged 126.92 feet above mean sea level (MSL). Groundwater flow direction was to the west-southwest at a gradient of 0.111 feet 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 the Appendix.

## 2.0 GROUNDWATER SAMPLING

On September 13, 2005, 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) by EPA Method 8015B, and for benzene, toluene, ethylbenzene, and total xylenes (BTEX), and methyl tert-butyl ether (MTBE) by EPA Method 8260B. Refer to Table 1 and Figure 3 for a summary of analytical results. General Field Procedures, Field Measurement Forms, Official Laboratory Reports, and Chain of Custody Records are included in the Appendix.

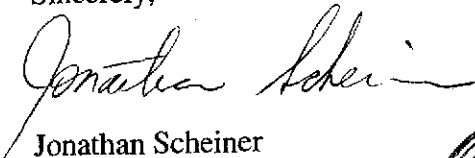
Approximately 50 gallons of purge water and equipment rinsate were generated during groundwater sampling activities conducted on September 13, 2005. The purge water was stored onsite in one Department of Transportation-approved 55-gallon drum pending disposal.

### 3.0 LIST OF ATTACHMENTS

- Figure 1: Vicinity Map
- Figure 2: Groundwater Elevation Contour Map, September 13, 2005
- Figure 3: Dissolved-Phase Hydrocarbon Concentrations, September 13, 2005
- Table 1: Summary of Groundwater Levels and Chemical Analysis
- Appendix: General Field Procedures, Field Measurement Forms, Official Laboratory Reports, and Chain of Custody Records

If you have any questions regarding this report, please call me at (925) 688-2473.

Sincerely,



Jonathan Scheiner  
Associate



Amy Wilson, Ph.D., P.E.  
Senior Project Engineer





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



SCALE 1 : 24,000



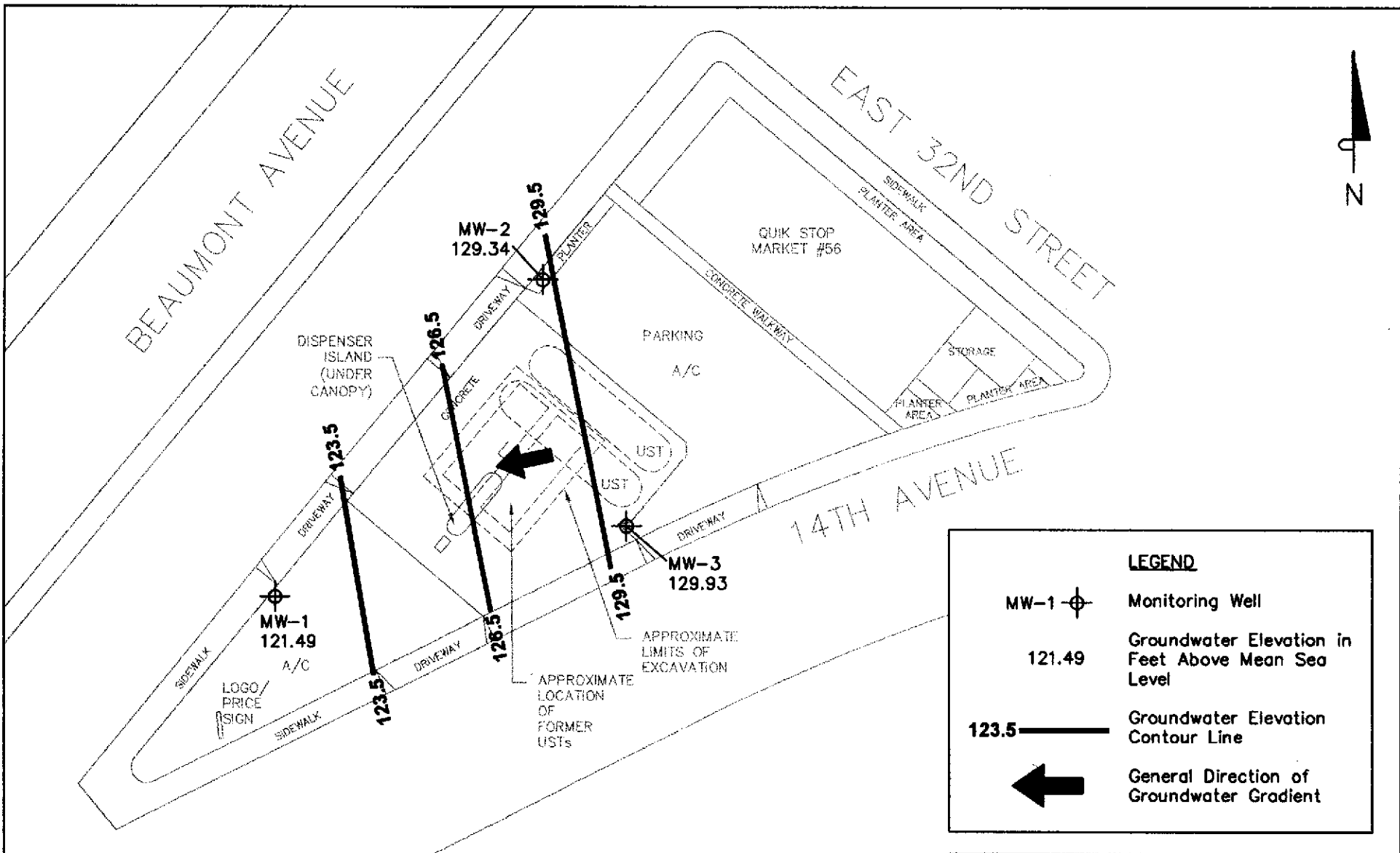
SOURCE:  
 United States Geological Survey  
 7.5 Minute Topographic Maps:  
 Oakland East and  
 Oakland West Quadrangles

**VICINITY MAP**

Quik Stop No. 56  
 3132 Beaumont Avenue  
 Oakland, California

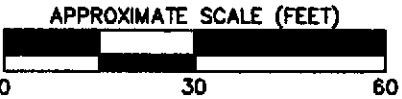
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**FIGURE 1**



LEGEND	
MW-1	Monitoring Well
121.49	Groundwater Elevation in Feet Above Mean Sea Level
123.5	Groundwater Elevation Contour Line
	General Direction of Groundwater Gradient

**GROUNDWATER ELEVATION  
 CONTOUR MAP**  
 September 13, 2005  
 Quik Stop No. 56  
 3132 Beaumont Avenue  
 Oakland, California



**NOTES:**  
 Contour lines are interpretive based on fluid level measurements taken on September 13, 2005.  
 Contour interval = 3 feet.  
**SOURCE:** Client-provided drawings and Garlow, 1998. Site plan updated per 11/27/01 well survey by Doble Thomas Associates.

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**FIGURE 2**



BEAUMONT AVENUE

EAST 32ND STREET

14TH AVENUE

MW-2	
TPH-G	<50
B	<0.50
MTBE	5.6

MW-1	
TPH-G	<20,000
B	<100
MTBE	32,000

MW-3	
TPH-G	<50
B	<0.50
MTBE	11

DISPENSER ISLAND (UNDER CANOPY)

QUIK STOP MARKET #56

PARKING A/C

STORAGE

UST

UST

LOGO/PRICE SIGN

APPROXIMATE LIMITS OF EXCAVATION

APPROXIMATE LOCATION OF FORMER USTs

**LEGEND**

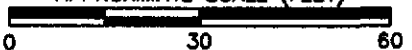


Monitoring Well

MW-1	
TPH-G	
B	
MTBE	

Dissolved-Phase Hydrocarbon Concentrations (µg/L)

**APPROXIMATE SCALE (FEET)**



**NOTES:**  
Results are based on laboratory analysis of groundwater samples collected on September 13, 2005. 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 reported 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**

September 13, 2005

Quik Stop No. 56  
3132 Beaumont Avenue  
Oakland, California

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**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	Depth to	Groundwater	TPH-G	Benzene	Toluene	Ethyl-	Total	MTBE	DO	
		Casing		Elevation								Elevation
		Elevation	Water	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	
		(ft-MSL)	(feet)	(feet)								
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-1	03/05/03	134.13	8.94	125.19	40,000	<100	<100	<100	<100	69,000	—	
MW-1	06/06/03	134.13	8.68	125.45	27,000	<50	<50	<50	<50	63,000	—	
MW-1	09/05/03	134.13	9.21	124.92	28,000	<25	<25	<25	<25	51,000	—	
MW-1	12/24/03	134.13	8.65	125.48	29,000	<50	<50	<50	<50	84,000	—	
MW-1	03/25/04	134.13	8.66	125.47	39,000	<100	<100	<100	<100	72,000	—	
MW-1	06/25/04	134.13	8.66	125.47	50,000	<100	<100	<100	<100	90,000	—	
MW-1	09/16/04	134.13	9.02	125.11	30,000	<50	<50	<50	<50	75,000	—	
MW-1	12/17/04	134.13	7.46	126.67	35,000	<50	<50	<50	<50	59,000	—	
MW-1	03/10/05	134.13	7.17	126.96	14,000	<25	<25	<25	<25	33,000	—	
MW-1	06/09/05	134.13	8.14	125.99	36,000	<50	<50	<50	<50	60,000	—	
MW-1	09/13/05	134.13	12.64	121.49	<20,000	<100	<100	<100	<100	32,000	—	
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-2	03/05/03	135.16	4.87	130.29	<50	1.4	<0.50	0.61	0.69	5.5	—	



**Table 1**  
**Summary of Groundwater Levels and Chemical Analysis**

Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of	Depth to	Groundwater	TPH-G	Benzene	Toluene	Ethyl-	Total	MTBE	DO
		Casing		Elevation							
		Elevation	(feet)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)
MW-2	06/06/03	135.16	4.88	130.28	<50	<0.50	<0.50	<0.50	<0.50	5.2	—
MW-2	09/05/03	135.16	5.60	129.56	<50	<0.50	<0.50	<0.50	0.66	6.4	—
MW-2	12/24/03	135.16	5.25	129.91	<50	<0.50	<0.50	<0.50	<0.50	5.4	—
MW-2	03/25/04	135.16	5.25	129.91	<50	<0.50	<0.50	<0.50	<0.50	5.3	—
MW-2	06/25/04	135.16	6.89	128.27	<50	<0.50	<0.50	<0.50	<0.50	5.4	—
MW-2	09/16/04	135.16	6.09	129.07	<50	<0.50	<0.50	<0.50	<0.50	5.5	—
MW-2	12/17/04	135.16	5.30	129.86	<50	<0.50	<0.50	<0.50	<0.50	5.4	—
MW-2	03/10/05	135.16	4.49	130.67	<50	<0.50	<0.50	<0.50	<0.50	3.7	—
MW-2	06/09/05	135.16	4.85	130.31	<50	<0.50	<0.50	<0.50	<0.50	4.8	—
MW-2	09/13/05	135.16	5.82	129.34	<50	<0.50	<0.50	<0.50	<0.50	5.6	—
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	—
MW-3	01/06/04	136.35	5.02	131.33	<50	<0.50	<0.50	<0.50	<0.50	4.9	—
MW-3	06/06/03	136.35	5.12	131.23	<50	<0.50	<0.50	<0.50	<0.50	6.6	—
MW-3	09/05/03	136.35	6.53	129.82	<50	<0.50	<0.50	<0.50	<0.50	4.4	—
MW-3	12/24/03	136.35	5.20	131.15	<50	<0.50	<0.50	<0.50	<0.50	1.2	—
MW-3	03/25/04	136.35	5.42	130.93	<50	<0.50	<0.50	<0.50	<0.50	3.2	—
MW-3	06/25/04	136.35	6.50	129.85	<50	<0.50	<0.50	<0.50	<0.50	13	—
MW-3	09/16/04	136.35	6.79	129.56	<50	<0.50	<0.50	<0.50	<0.50	3.0	—
MW-3	12/17/04	136.35	5.20	131.15	<50	<0.50	<0.50	<0.50	<0.50	1.6	—
MW-3	03/10/05	136.35	4.42	131.93	<50	<0.50	<0.50	<0.50	<0.50	3.8	—
MW-3	06/09/05	136.35	4.98	131.37	<50	<0.50	<0.50	<0.50	<0.50	3.6	—
MW-3	09/13/05	136.35	6.42	129.93	<50	<0.50	<0.50	<0.50	<0.50	11	—

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  
DO = dissolved oxygen  
< = not detected at or above the stated detection limit  
MTBE = methyl tert butyl ether

**APPENDIX**

**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  
**GROUND WATER SAMPLING FIELD NOTES**

Site: Quik Stop #56 Project No.: 41023609 Sampled By: J. Chidester Date: 9/13/05

Well No. MW-2 Purge Method: 2" electric  
 Total Depth (feet) 29.91 Depth to Product (feet): -  
 Depth to Water (feet): 5.82 Product Recovered (gallons): -  
 Water Column (feet): 24.09 Casing Diameter (Inches): 2"  
 80% Recharge Depth (feet): 10.64 1 Well Volume (gallons): 3.85

Well No. MW-3 Purge Method: 2" electric  
 Total Depth (feet) 30.62 Depth to Product (feet): -  
 Depth to Water (feet): 6.42 Product Recovered (gallons): -  
 Water Column (feet): 24.20 Casing Diameter (Inches): 2"  
 80% Recharge Depth (feet): 11.26 1 Well Volume (gallons): 3.87

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
652				1.21	21.7	6.55
				1.07	22.6	6.54
	703			1.18	22.5	6.53
Total Purged			12	Time Sampled		830

Comments:  
Turbidity=

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
718				0.81	20.8	6.70
				0.76	23.1	6.70
	725			0.82	22.4	6.82
Total Purged			12	Time Sampled		845

Comments:  
Turbidity=

Well No. MW-1 Purge Method: 2" electric  
 Total Depth (feet) 29.84 Depth to Product (feet): -  
 Depth to Water (feet): 12.64 Product Recovered (gallons): -  
 Water Column (feet): 17.20 Casing Diameter (Inches): 2"  
 80% Recharge Depth (feet): 16.08 1 Well Volume (gallons): 2.75

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
738				0.70	20.7	6.74
				0.78	22.6	6.58
	745			0.80	22.6	6.55
Total Purged			8	Time Sampled		900

Comments:  
Turbidity=

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): \_\_\_\_\_

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=

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  
1590 Solano Way Suite A  
Concord, CA 94520

Attn: James Chidester  
Phone: (925) 688-2485  
Fax: (925) 688-0388  
Date Received : 09/14/05

Job#: 41023609

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	0.050 mg/L	09/13/05	09/20/05
MW-2	Methyl tert-butyl ether (MTBE)	5.6	0.50 µg/L	09/13/05	09/20/05
Lab ID :	Benzene	ND	0.50 µg/L	09/13/05	09/20/05
TRC05091407-01A	Toluene	ND	0.50 µg/L	09/13/05	09/20/05
	Ethylbenzene	ND	0.50 µg/L	09/13/05	09/20/05
	Xylenes, Total	ND	0.50 µg/L	09/13/05	09/20/05
Client ID :	TPH Purgeable	ND	0.050 mg/L	09/13/05	09/20/05
MW-3	Methyl tert-butyl ether (MTBE)	11	0.50 µg/L	09/13/05	09/20/05
Lab ID :	Benzene	ND	0.50 µg/L	09/13/05	09/20/05
TRC05091407-02A	Toluene	ND	0.50 µg/L	09/13/05	09/20/05
	Ethylbenzene	ND	0.50 µg/L	09/13/05	09/20/05
	Xylenes, Total	ND	0.50 µg/L	09/13/05	09/20/05
Client ID :	TPH Purgeable	ND	V 20 mg/L	09/13/05	09/20/05
MW-1	Methyl tert-butyl ether (MTBE)	32,000	100 µg/L	09/13/05	09/20/05
Lab ID :	Benzene	ND	V 100 µg/L	09/13/05	09/20/05
TRC05091407-03A	Toluene	ND	V 100 µg/L	09/13/05	09/20/05
	Ethylbenzene	ND	V 100 µg/L	09/13/05	09/20/05
	Xylenes, Total	ND	V 100 µg/L	09/13/05	09/20/05

V = Reporting Limits were increased due to high concentrations of target analytes.

ND = Not Detected

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 / info@alpha-analytical.com

9/27/05

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

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## VOC Sample Preservation Report

**Work Order:** TRC05091407

**Project:** 41023609

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Alpha's Sample ID	Client's Sample ID	Matrix	pH
05091407-01A	MW-2	Aqueous	2
05091407-02A	MW-3	Aqueous	2
05091407-03A	MW-1	Aqueous	2

---

9/27/05  
**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

Date:  
29-Sep-05

## QC Summary Report

Work Order:  
05091407

### Method Blank

File ID: D:\MSDCHEM\MS12\DATA\050919\05091935.D	Type: <b>MBLK</b>	Test Code: EPA Method SW8015B/DHS LUFT Manual								
Sample ID: <b>MBLK MS120919D</b>	Units : mg/L	Batch ID: <b>MS12W0919D</b>								
Analyte	Result	Run ID: <b>MSD_12_050919B</b>								
	PQL	SpkVal SpkRefVal %REC LowLimit HighLimit RPDRefVal %RPD(Limit) Qual								
TPH Purgeable	ND	0.05								
Surr: 1,2-Dichloroethane-d4	0.0107		0.01		107	76	127			
Surr: Toluene-d8	0.00936		0.01		94	84	113			
Surr: 4-Bromofluorobenzene	0.00937		0.01		94	79	119			

### Laboratory Control Spike

File ID: D:\MSDCHEM\MS12\DATA\050919\05091933.D	Type: <b>LCS</b>	Test Code: EPA Method SW8015B/DHS LUFT Manual								
Sample ID: <b>GLCS MS120919D</b>	Units : mg/L	Batch ID: <b>MS12W0919D</b>								
Analyte	Result	Run ID: <b>MSD_12_050919B</b>								
	PQL	SpkVal SpkRefVal %REC LowLimit HighLimit RPDRefVal %RPD(Limit) Qual								
TPH Purgeable	0.444	0.05	0.4		111	78	127			
Surr: 1,2-Dichloroethane-d4	0.0108		0.01		108	76	127			
Surr: Toluene-d8	0.00934		0.01		93	84	113			
Surr: 4-Bromofluorobenzene	0.00947		0.01		95	79	119			

### Sample Matrix Spike

File ID: D:\MSDCHEM\MS12\DATA\050919\05091938.D	Type: <b>MS</b>	Test Code: EPA Method SW8015B/DHS LUFT Manual								
Sample ID: <b>05091408-04AGS</b>	Units : mg/L	Batch ID: <b>MS12W0919D</b>								
Analyte	Result	Run ID: <b>MSD_12_050919B</b>								
	PQL	SpkVal SpkRefVal %REC LowLimit HighLimit RPDRefVal %RPD(Limit) Qual								
TPH Purgeable	2.26	0.25	2	0	113	70	139			
Surr: 1,2-Dichloroethane-d4	0.0537		0.05		107	76	127			
Surr: Toluene-d8	0.0469		0.05		94	84	113			
Surr: 4-Bromofluorobenzene	0.0466		0.05		93	79	119			

### Sample Matrix Spike Duplicate

File ID: D:\MSDCHEM\MS12\DATA\050919\05091939.D	Type: <b>MSD</b>	Test Code: EPA Method SW8015B/DHS LUFT Manual								
Sample ID: <b>05091408-04AGSD</b>	Units : mg/L	Batch ID: <b>MS12W0919D</b>								
Analyte	Result	Run ID: <b>MSD_12_050919B</b>								
	PQL	SpkVal SpkRefVal %REC LowLimit HighLimit RPDRefVal %RPD(Limit) Qual								
TPH Purgeable	2.23	0.25	2	0	112	70	139	2.264	1.5(12)	
Surr: 1,2-Dichloroethane-d4	0.0529		0.05		106	76	127			
Surr: Toluene-d8	0.0469		0.05		94	84	113			
Surr: 4-Bromofluorobenzene	0.0474		0.05		95	79	119			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.





# Alpha Analytical, Inc.

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

Date:  
29-Sep-05

## QC Summary Report

Work Order:  
05091407

### Method Blank

Type: **MBLK** Test Code: **EPA Method SW8260B**

File ID: **D:\MSDCHEM\MS12\DATA\050919\05091935.D**

Batch ID: **MS12W0919C**

Analysis Date: **09/19/2005 22:09**

Sample ID: **MBLK MS120919C**

Units: **µg/L**

Run ID: **MSD\_12\_050919B**

Prep Date: **09/19/2005**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	ND	0.5								
Benzene	ND	0.5								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
Xylenes, Total	ND	0.5								
Surr: 1,2-Dichloroethane-d4	10.7		10		107	76	127			
Surr: Toluene-d8	9.36		10		94	84	113			
Surr: 4-Bromofluorobenzene	9.37		10		94	79	119			

### Laboratory Control Spike

Type: **LCS** Test Code: **EPA Method SW8260B**

File ID: **D:\MSDCHEM\MS12\DATA\050919\05091932.D**

Batch ID: **MS12W0919C**

Analysis Date: **09/19/2005 21:05**

Sample ID: **LCS MS120919C**

Units: **µg/L**

Run ID: **MSD\_12\_050919B**

Prep Date: **09/19/2005**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Benzene	10.6	0.5	10		106	81	122			
Toluene	9.58	0.5	10		96	80	120			
Ethylbenzene	10.6	0.5	10		106	80	120			
Xylenes, Total	21.2	0.5	20		106	81	128			
Surr: 1,2-Dichloroethane-d4	10.6		10		106	76	127			
Surr: Toluene-d8	9.48		10		95	84	113			
Surr: 4-Bromofluorobenzene	9.46		10		95	79	119			

### Sample Matrix Spike

Type: **MS** Test Code: **EPA Method SW8260B**

File ID: **D:\MSDCHEM\MS12\DATA\050919\05091936.D**

Batch ID: **MS12W0919C**

Analysis Date: **09/19/2005 22:29**

Sample ID: **05091408-04AMS**

Units: **µg/L**

Run ID: **MSD\_12\_050919B**

Prep Date: **09/19/2005**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Benzene	54.5	1.3	50		0 109	74	125			
Toluene	48.6	1.3	50		0 97	76	120			
Ethylbenzene	52.9	1.3	50		0 106	77	124			
Xylenes, Total	108	1.3	100		0 108	75	130			
Surr: 1,2-Dichloroethane-d4	54.6		50		109	76	127			
Surr: Toluene-d8	46.9		50		94	84	113			
Surr: 4-Bromofluorobenzene	47		50		94	79	119			

### Sample Matrix Spike Duplicate

Type: **MSD** Test Code: **EPA Method SW8260B**

File ID: **D:\MSDCHEM\MS12\DATA\050919\05091937.D**

Batch ID: **MS12W0919C**

Analysis Date: **09/19/2005 22:50**

Sample ID: **05091408-04AMS**

Units: **µg/L**

Run ID: **MSD\_12\_050919B**

Prep Date: **09/19/2005**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LowLimit	HighLimit	RPDRefVal	%RPD(Limit)	Qual
Benzene	52	1.3	50		0 104	74	124	54.52	4.8(13)	
Toluene	47.3	1.3	50		0 95	76	119	48.56	2.7(13)	
Ethylbenzene	51	1.3	50		0 102	77	124	52.91	3.7(13)	
Xylenes, Total	104	1.3	100		0 104	75	130	107.8	3.4(13)	
Surr: 1,2-Dichloroethane-d4	54		50		108	76	127			
Surr: Toluene-d8	47.5		50		95	84	113			
Surr: 4-Bromofluorobenzene	47.8		50		96	79	119			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

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 : TRC05091407

Report Due By : 5:00 PM On : 28-Sep-05

Client:  
 TRC-Alton Geoscience  
 1590 Solano Way Suite A  
 Concord, CA 94520

James Chidester  
 TEL : (925) 688-2485 238  
 FAX : (925) 688-0388  
 EMail jchidester@trcsolutions.com

EDD Required : Yes

Sampled by : James Chidester

Report Attention : James Chidester  
 CC Report :

Job : 41023609  
 PO :

Client's COC # : 05010

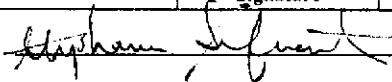
Cooler Temp : 4 °C

Date Printed:  
 14-Sep-05

QC Level : 1 = Final Rpt Only

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			PWS #	Requested Tests							Sample Remarks		
				ORG	SUB	TAT		TPHP_W	VOC_W								
TRC05091407-01A	MW-2	AQ	09/13/05 08:30	3	0	10		GAS-C	BTXE/MTB E_C								
TRC05091407-02A	MW-3	AQ	09/13/05 08:45	3	0	10		GAS-C	BTXE/MTB E_C								
TRC05091407-03A	MW-1	AQ	09/13/05 09:00	3	0	10		GAS-C	BTXE/MTB E_C								

Comments: Security seals intact, frozen ice. Global Id#990. Site @ Quik Stop #56. Total Xylenes. :

Received by:	Signature	Print Name	Company	Date/Time
		S. SIFUENTES	Alpha Analytical, Inc.	9/14/05 3:53

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

**Billing Information:**

Name TRC  
 Address 21 Technology Dr.  
 City, State, Zip Irvine, CA 92618  
 Phone Number (949) 753-0101 Fax (949) 753-0111



**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21  
 Sparks, Nevada 89431-5778  
 Phone (775) 355-1044  
 Fax (775) 355-0406

**Samples Collected From Which State?**

AZ \_\_\_ CA  NV \_\_\_ WA \_\_\_  
 ID \_\_\_ OR \_\_\_ OTHER \_\_\_ Page # 1 of 1

Client Name <u>TRC</u>			P.O. #	Job # <u>41023609</u>	Analyses Required				05010
Address <u>1590 Solano Way, Ste. A</u>			E-Mail Address <u>jchidester@tresolutions.com</u>		TPH-G BTEX MTBE				Required QC Level? I II III IV
City, State, Zip <u>Concord, CA 94520</u>			Phone # <u>(925) 688-1200</u>	Fax # <u>(925) 688-0388</u>					EDD/EDF? YES <input checked="" type="checkbox"/> NO ___
Time Sampled	Date Sampled	Matrix* See Key Below	Office Use Only Lab ID Number	Sampled by <u>James Chidester</u>					Report Attention <u>James Chidester</u>
				Sample Description					REMARKS
830	9/13/05	AQ	TRC05091407-01	MW-2	STD			3V	
845	9/13/05	AQ	02	MW-3	STD			3V	
900	9/13/05	AQ	03	MW-1	STD			3V	

**ADDITIONAL INSTRUCTIONS:**

Site @ Quik Stop # 56

Signature	Print Name	Company	Date	Time
Relinquished by <u>[Signature]</u>	<u>James Chidester</u>	<u>TRC</u>	<u>9/13/05</u>	<u>1200</u>
Received by <u>[Signature]</u>	<u>S. SIFUENTES</u>	<u>ALPHA</u>	<u>9-14-05</u>	<u>3:53</u>
Relinquished by				
Received by				
Relinquished by				
Received by				

\*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other \*\*; L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other

**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.