

# QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

ALBANY HILL MINI MART ALBANY, CALIFORNIA

Rec'd 10/4/01

Prepared for:

Mr. Mohinder S. & Dr. Joginder K. Sikand 1300 Ptarmigan Drive, #1 Walnut Creek, California 94595

October 2, 2001

## ADVANCED ASSESSMENT AND REMEDIATION SERVICES



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# ADVANCED ASSESSMENT AND REMEDIATION SERVICES (AARS)

2380 SALVIO STREET, SUITE 202 CONCORD, CALIFORNIA 94520-2137 TEL: (925) 363-1999 FAX: (925) 363-1998 e-mail: aars@ccnet.com

October 2, 2001

Ms. eva chu Alameda County Health Agency Department of Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

Subject:

Quarterly Groundwater Monitoring and Sampling Report for Albany Hill Mini Mart, 800 San Pablo Avenue, Albany, California

Dear Ms. chu:

The enclosed report presents the results and findings of the September 2001, quarterly groundwater monitoring and sampling for the above-referenced facility.

Should you have any questions regarding the report please contact Tridib Guha at (925) 363-1999.

Sincerely,

Advanced Assessment and Remediation Services

Tridib K. Guha, R.G., R.E.A.

**Principal** 

cc:

Mr. Mohinder Sikand & Dr. Joginder Sikand, Walnut Creek, CA

AHMMQ7.RPT

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# QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT

For

Albany Hill Mini Mart 800 San Pablo Avenue Albany, California

### 1.0 INTRODUCTION

This report presents the results and findings of the September 2001, quarterly groundwater monitoring and sampling performed at 800 San Pablo Avenue, Albany, California. This report is intended to fulfill quarterly self-monitoring requirements and to establish a groundwater monitoring history for the site. A site vicinity map is shown in Figure 1.

#### 2.0 GROUNDWATER MONITORING WELLS

This section presents the water level monitoring, field observations, sampling and analysis procedures, as well as the analytical results. The location of the monitoring wells is presented in Figure 2. The work and related field sampling activities were conducted in accordance with the guidelines and requirements of the Alameda County Environmental Health Department (ACEHD) and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

## 2.1 Groundwater Level Monitoring and Surveying

Groundwater levels in each well were measured to the nearest 0.01 foot from the top of the PVC casing, using an electronic sounder. A groundwater surface elevation map, based on interpretation of groundwater level measurements taken on September 7, 2001, and survey data is presented in Figure 3. The survey data and water level measurements are presented in Table 1.

#### 2.2 Field Observations

The purged water from monitoring, MW-1, MW-2 and MW-3 were clear initially and with continual purging the water turned turbid. However, water samples collected at the time of sampling were clear. No floating product was observed in the groundwater samples from all three monitoring wells. Sheen was observed only in groundwater samples from monitoring well MW-1. Strong petroleum odor was noticed in the groundwater samples from all three monitoring wells.

#### 2.3 Sampling and Analysis Procedures

Groundwater samples were collected on September 7, 2001, following water level measurements. Samples were analyzed by North State Environmental Laboratory of South San Francisco, California which is certified by the California Department of Health Services (DHS) to perform the specified analyses.

Before purging, water levels were measured in all wells with an electronic sounder tape. Purging preceded sampling in order to ensure collection of non-stagnant water. A minimum of three casing volumes were removed before sampling the wells MW-1, MW-2 and MW-3. The purged water was monitored for temperature, pH, and conductivity. Purging was considered complete when these parameters had stabilized. The wells were sampled after 90 percent recovery or greater. The groundwater monitoring well purge/sampling worksheets are presented Appendix A.

To prevent potential cross-contamination, all measuring, purging and sampling equipment was washed in an Alconox detergent solution, rinsed with tap water, and rinsed finally with distilled water between wells.

The sampling procedure for each monitoring well involved extracting well water with a clean PVC bailer on a clean nylon cord. Groundwater collected for analysis of Total Petroleum Hydrocarbon as gasoline (TPHg) and Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE) was decanted into two 40-milliliter volatile organic analysis vials with Teflonlined septa. Groundwater collected for analysis of Total Petroleum Hydrocarbon as diesel (TPHd) was decanted into one 1-liter amber glass bottles. Samples to be analyzed for TPHg/BTEX/MTBE were preserved using hydrochloric acid to a pH of 2.0. All samples were labeled and placed in an iced cooler, along with the chain-of-custody document (Appendix B). Samples transported to the laboratory were analyzed within the specified holding time.

Groundwater produced during purging and sampling was contained in 55-gallon steel drums. The drummed water was labelled with the source (i.e. well number) and date.

#### 2.4 Analytical Methods

Samples were analyzed for TPHg by Modified EPA SW-846 Methods 5030/8015 modified, for TPHd by EPA Methods 3510/8015 modified, and for BTEX/MTBE by EPA SW-846 Methods 8020.

A summary of the analytical results of groundwater samples from the monitoring wells is presented in Table 2. The certified analytical reports and chromatograms for this sampling events are included in Appendix B.

#### 3.0 INTERPRETATION OF RESULTS

The results of water level measurements and groundwater sampling are discussed in the following sections.

#### 3.1 Groundwater Elevations and Gradients

A relative groundwater elevation contours for September 7, 2001, is presented in Figure 3. The flow direction, based on groundwater level data, was toward the southeast with an average hydraulic gradient of 0.02 foot per foot for this monitoring period. The average depth to stabilized groundwater in these wells was approximately 10.8 feet below ground surface.

## 3.2 Analytical Results

The analytical results for groundwater samples from three monitoring wells (MW-1 through MW-3) are presented in Table 2, which also includes the groundwater sampling results from the previous site investigation. Groundwater samples from all three monitoring wells were found to contain TPHg ranging from 230 to 970 parts per billion (ppb); benzene ranging from 51 to 260 ppb; toluene concentrations ranging from non-detect to 17 ppb; ethylbenzene concentrations ranging from 8 to 44 ppb; xylenes concentrations ranging from 8 to 140 ppb; and MTBE concentrations ranging from 460 to 9400 ppb. Also, the detection of MTBE was confirmed by analyzing groundwater samples from MW-3 using GC/MS method 8260. TPHd was detected only in groundwater sample of MW-1, at a concentration of 400 ppb. Figure 4 shows the distribution of dissolved-phase petroleum hydrocarbons at the site.

## 4.0 SELF-MONITORING PROGRAM SCHEDULE AND RECOMMENDATIONS

The next monitoring event scheduled for the site is December, 2001. The additional site investigation conducted at the site in June 2001. The off-site soil and groundwater sampling confirmed the presence of elevated MTBE, TPHg and benzene concentrations. The ACEHD required additional investigations to delineate the extent of the plume. A work plan for additional site investigations will be submitted to ACEHD.

#### 5.0 CERTIFICATION

The information provided in this report is based on the groundwater sampling activities conducted at the site. All data presented in this report is believed to be factual and accurate, unless proven otherwise. Any conclusions or recommendations provided within are based on our expertise and experience conducting work for a similar nature.

Advanced Assessment and Remediation Services

Tridib K. Guha, R.G. 5836

#### TABLE 1: SURVEY AND WATER LEVEL MONITORING DATA Albany Hill Mini Mart 800 San Pablo Avenue, Albany, California Well No. Date of Top of Casing Elevation Depth to Groundwater Product Groundwater Elevation (Feet - Relative) Thickness (Feet - Relative) Measurement (Feet) (Feet) 08-06-99 11.95 0.00 89.73 101.68 MW-1 88.96 11-05-99 101.68 12.72 0.00 0.00 91.34 02-07-00 101.68 10.34 0.00 91.09 05-05-00 101.68 10.59 89.93 08-03-00 101.68 11.75 0.00 90.01 0.00 11-08-00 101.68 11.67 90.48 02-08-01 101.68 11.20 0.00 0.00 90.33 06-07-01 101.68 11.35 09-07-01 101.68 0.00 89.97 11.71 90.74 08-06-99 101.57 10.83 0.00 MW-2 11-05-99 101.57 0.00 89.91 11.66 02-07-00 101.57 9.23 0.00 92.34 92.03 05-05-00 101.57 9.54 0.00 0.00 90.88 08-03-00 101.57 10.69 90.95 11-08-00 0.00 101.57 10.62 02/08/01 101.57 0.00 91.40 10.17 06-07-01 101.57 10.30 0.00 91.27 09-07-01 101.57 10.65 0.00 90.90 08-06-99 100.33 10.58 0.00 89.75 MW-3 11-05-99 100.33 0.00 88.94 11,39 02-07-00 100.33 9.05 0.00 91.28 05-05-00 100.33 9.29 0.00 91.04 08-03-00 100.33 10.43 0.00 89.90 11-08-00 100.33 10.33 0.0090.00 02-08-01 100.33 9.94 0.00 90.39 06-07-01 100.33 10.04 0.00 90.29 09-07-01 90.02 100.33 10.31 0.00

Note: A bench mark, with an assumed elevation of 100.00 feet (Above Mean Sea Level), is located at the corner of Washington Avenue and San Pablo Avenue. The bench mark is the top of the southeast bolt (painted white) in the street signal light base; all well elevations are relative to this. The elevations at each well were taken on the top of the well casing.

#### TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING for TPHg, BTEX, MTBE and TPHd

Albany Hill Mini Mart

800 San Pablo Avenue, Albany, California

		80	0 San Pablo /	Avenue, Alban	y, California		· · · · · · · · · · · · · · · · · · ·				
Sample ID	Date of Sampling	TPHg (µg/L)	MTBE (μg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenze ne (µg/L)	Xylenes (μg/L)	TPHd µg/L			
MW-1	08/06/99	1500	ND	4.3	2.9	9.1	28	1200			
GW	08/06/99	Polynuclear Aromatic Hydrocarbon Analyses by EPA method 610 were non-detect with detection limit 1.0 µg/L									
	11/05/99	1800	ND	5.1	3.2	8.9	33	1400			
Ī	02/07/00	1100	ND	3.3	1.9	5,6	21	890			
	05/07/00	970	ND	2.9	1.7	4.9	18	650			
Ī	08/03/00	1200	360	190	43	41	160	270*			
ļ	11/08/00	4200	840**	990	200	130	560	230*			
	02/08/01	2800	390	630	130	51	250	380*			
Ī	06/07/01	650	320	97	13	20	62	190			
ļ	09/07/01	970	460	260	17	44	140	400			
MW-2	08/06/99	ND	ND	ND	ND	ND	ND	340			
GW	11/05/99	ND	ND	ND	ND	ND	0.7	420			
	02/07/00	ND	ND	ND	ND	ND	0.6	310			
-	05/05/00	ND	ND	ND	ND	ND	ND	280			
ľ	08/03/00	460	3300	79	3	43	8	70*			
	11/08/00	200	3000	57	2	13	8	120			
	02/08/01	290	3100	50	11	0.6	4	80			
	06/07/01	210	2000	. 18	0.6	3	5	80			
ľ	09/07/01	230	2409	51	ND	8	8	ND			
MW-3	08/06/99	ND	ND	ND	ND	ND	ND	ND			
GW	11/05/99	92	ND	ND	ND	0.6	1.7	54			
	02/07/00	120	ND	ND	0.6	0.8	2.2	71			
	05/05/00	100	ND	ND	ND	0.7	1.9	68			
	08/03/00	910	11000**	220	9	35	16	300*			
	11/08/00	990	8000	320	0.8	18	9	200			
	02/08/01	990	5200**	180	21	7	24	110			
	06/07/01	370	6600**	62	4	8	13	140			
	09/07/01	460	9400**	87	1	11	25	ND			
SB-1/FW	06/07/01	1400	33	120	160	48	240	250*			
SB-2/FW	06/07/01	8900	26	1100	1900	280	1300	770*			
SB-3/TW	06/07/01	2400	3600	280	31	110	340	430*			
SB-4/TW	06/07/01	8800	4500**	1400	190	86	230	19000*			
		<del> </del>	†	1	0.5	0.5	1.0	50			

Notes: ND-

Not Detected

Microgram per liter (parts per billion)

Total petroleum hydrocarbon as gasoline (EPA method modified 8015)

Total petroleum hydrocarbon as diesel (EPA method modified 8015)

Methyl Tertiary Butyl Ether (EPA method 8020)

Benzene, toluene, ethylbenzene, and total xylenes (EPA method 8015)

Polynuclear Aromatic Hydrocarbon (EPA method 610)

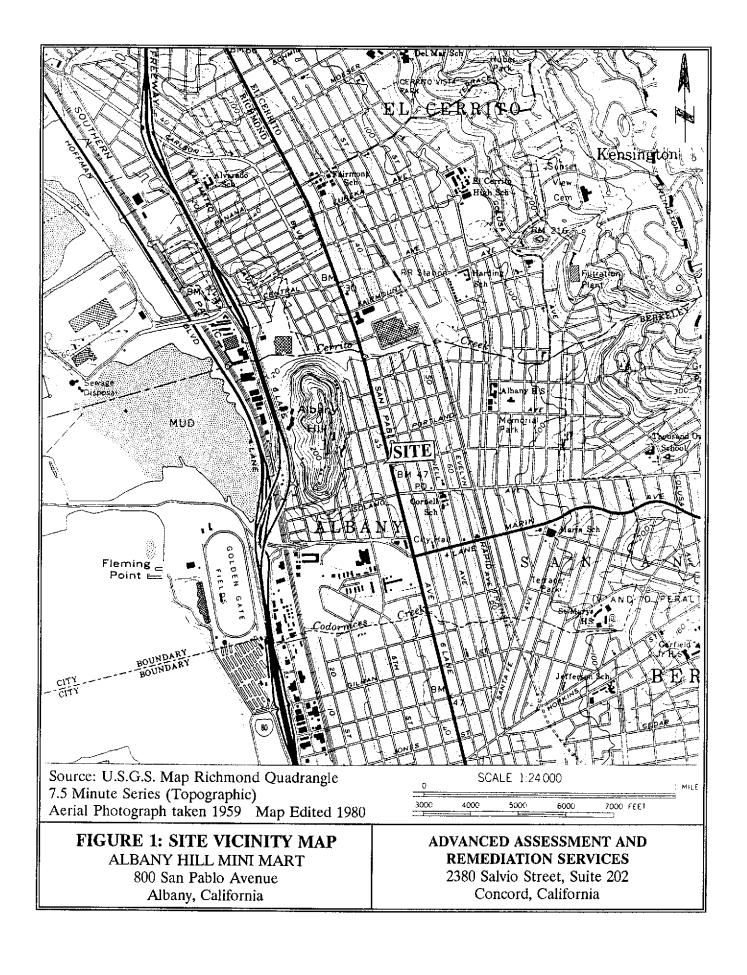
Ethanol, Di-isopropyl Ether, Tertiary Butyl Alcohol, Ethyl-t-Butyl Ether, t-Amyl Methyl Ether, MTBE (EPA Method 8260) were non-detect (06-07-01)

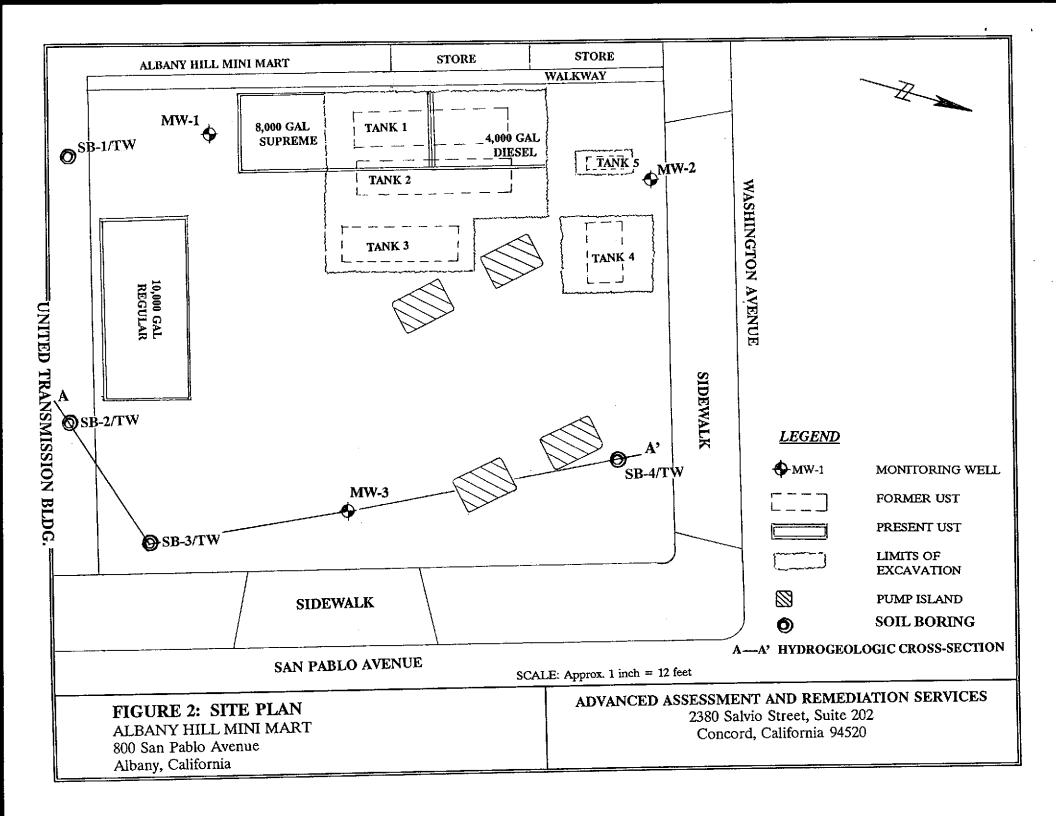
Does not natch diesel pattern µg/L-TPHg-TPHd-MTBE-

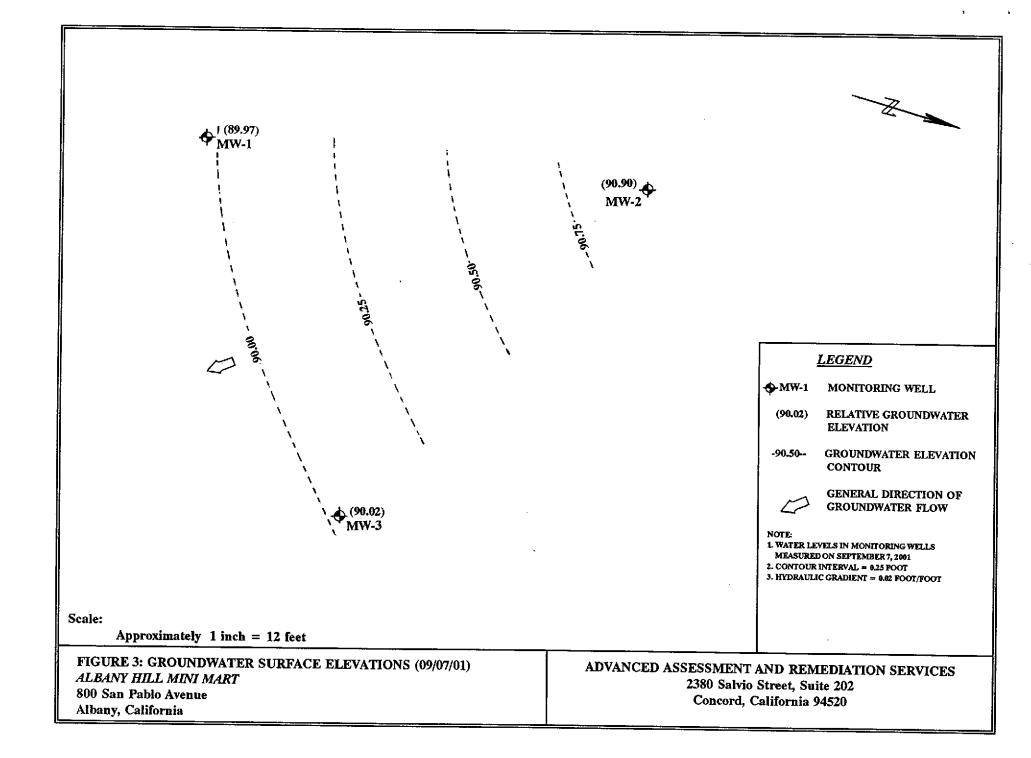
BTEX

PAH Fuel Oxygenates

Does not match diesel pattern \*\* Confirmed by GC/MS method 8260







TPHg 970
B 260
T 17
E 44
X 140
MTBE 460
TPHd 400

TPHg 230
B 51
T ND
E 8
X 8
MTBE 2400
TPHd ND



**LEGEND** 

♦ MW-1 MONITORING WELL

TPHg TOTAL PETROLEUM HYDROCARBON AS

GASOLINE

MTBE METHYL TERTIARY BUTYL ETHER
BENZENE

B BENZENE
T TOLUENE
E ETHYLBENZENE

X XYLENES

TPH4 TOTAL PETROLEUM HYDROCARBON AS DIESEL

NOTE:

1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (PARTS PER BILLION)

2. HYDROCARBON CONSTITUENTS WHICH WERE NOT DETECTED ARE NOT LISTED

**SCALE** 

Approx. 1 inch = 12 feet

FIGURE 4: DISTRIBUTION OF DISSOLVED-PHASE HYDROCARBONS ALBANY HILL MINI MART 800 San Pablo Avenue Albany, California

TPHg

X

MW-3

MTBE

TPHd

460

11

9400

ADVANCED ASSESSMENT AND REMEDIATION SERVICES 2380 Salvio Street, Suite 202 Concord, California 94520

## GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME:	Albany Hill Mini Mart	PROJECT NUMBER: 99005	
SITE ADDRESS:	800 San Pablo Avenue, Albany,	CA	
WELL NUMBER:	well casing dia.:	2" DATE: 9/7/C	71
Stagnant Volume Calcul Total Well Depth (ft) - 24	lation Initial Depth to Water = Wa	ater Column Height (ft) - 12.29	Time: 7:57
Water column Height (f	t) x Gallons/Linear Foot = Sta	gnant Volume (Gallons)	
(Gallons/Linear Foot: 2" dia	i. = 0.17; 4" dia. = 0.66; 6" dia. = 1.5)		

Groundwater Inspection

Floating Product (ft. or in.): MONE Sheen/Iridescence:

Odor: 🎉 🕏



Time	Volume Purged (gal)	Temperature (degrees F)	pН	Conductivity µS	Color/Turbidity/Other
10:05	O	66.3	6.73	2372	CLEAR
10:15	2	66.1	6.81	2407	SLIGHTLY TURBID BROWN
10:25	5	66.1	6.89	2419	n u ir
10:35	7	66.0	6.91	2426	14 K Lf

Purged Water Containment	Purge Method Used:		
	ms); Any previous drums?/_ Capacity <u></u>	<u>'s</u> -	
Groundwater Sampling Wat	ter Level Recovery (Depth to groundwater in	feet)	
(P) After purging: 12.77 (I) Initia	lly: 11.71 (S) Before sampling: 11.82	Time: 12:08	
(P-S)/P-I) x 100 = 100 % Total Reco	overy: 90 ·/.	SAMPLE TIME:	12:10
Sample Containers (How many? Pres	servatives?)		
1 liter amber glass:; 40 m	I VOA: 3 ; 500 ml polypropylene:	<del></del>	
REMARKS:			

SAMPLER: TRIDIB GUHA

SIGNATURE: Jaide L. ADVANCED ASSESSMENT AND REMEDIATION SERVICES

(Print)

## GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME:	Albany Hill Mini Mart	PROJECT	'NUMBER: 99	005	
SITE ADDRESS:	800 San Pablo Avenue,	Albany, CA			
WELL NUMBER: 🕅	WELL CASIN	G DIA.: 22''	DATE:	9/7/01	
Stagnant Volume Calcu Total Well Depth (ft)	- Initial Depth to Water	r = Water Column	Height (ft) -	Time:	7:53
Water column Height (	ft) x Gallons/Linear Foot O. 17	= Stagnant Volum	ne (Gallons)		
(Gallons/Linear Foot: 2" di	a. = 0.17; 4" dia. = 0.66; 6" dia	. = 1.5)			
Groundwater Inspection Floating Product (ft. or		Sheen/Iridescence:	HONE O	dor ***	*.

Time	Volume Purged (gal)	Temperature (degrees F)	рН	Conductivity µS	Color/Turbidity/Other		)ther
8:15	0	65.7	7-13	1237	CLEAR		
8:25	2_	65.4	7.09	1249	SLIGHTLY	TURBID	BROWHISE
8:35	5	65.3	7.08	1253	12	£,	4
8:45	フ	65.3	7.08	1251	ü	t <sub>1</sub>	ы

Purged Water Containment	Purge Method Used:
7 gals stored in 1 55 gal (drums); Any previous	drums? / Capacity SS SAC
Groundwater Sampling Water Level Recovery	(Depth to groundwater in feet)
(P) After purging: 11.66 (I) Initially: 10.65 (S) B	efore sampling: 10.71 Time: 11.48
(P-S)/P-I) x 100 = 100 % Total Recovery: $94./$	SAMPLE TIME 11:50
Sample Containers (How many? Preservatives?)	•
1 liter amber glass: 1 ; 40 ml VOA: 3	; 500 ml polypropylene:×
REMARKS:	. •

SAMPLER: TRIDIE GUHA

SIGNATURE: Tridle C.

(Print)

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

## GROUNDWATER MONITORING WELL PURGE/SAMPLING WORKSHEET

PROJECT NAME:	Albany l	Hill Mini Mart	PROJECT NU	MBER: 99005		
SITE ADDRESS:		Pablo Avenue, Alb	*			
WELL NUMBER:	M-3	WELL CASING D	IA.: 2"	DATE: 9/	7/01	
Stagnant Volume Calcu Total Well Depth (ft)		Depth to Water =	Water Column Hei	ght (ft) -	Time:	7;55
Water column Height (	•	ons/Linear Foot =	Stagnant Volume (0 2 · 3 3	Gallons)	·	
(Gallons/Linear Foot: 2" di	a. = 0.17; 4'	' dia. = 0.66; 6" dia. = 1	1.5)			
Groundwater Inspection Floating Product (ft. or		o~E Sh	een/Iridescence: 🚜	<i>∾ê</i> Odor	: <i>¥ES</i>	

Time	Volume Purged (gal)	Temperature (degrees F)	pН	Conductivity µS	Color	/Turbidity/Oth	er
9:00	0	68.4	7.09	1871	CCEAR	-	
9:10	2	68.1	7.06	1936	SCIGHTY	TURBID	GRAY
9:20	5-	68.1	7.08	1943	4	11	9
9:30	7	68.00	7.07	1937	17	11	"

Purged Water Containment Purge Method Used:	
7 gals stored in 1 55 gal (drums); Any previous drums? 1 Capacity 55 6	CAL
Groundwater Sampling Water Level Recovery (Depth to groundwater in feet)	)
(P) After purging: it, 36 (I) Initially: 10.31 (S) Before sampling: 10.37 Time	ne: 11:58
$(P-S)/P-I) \times 100 = 100 \%$ Total Recovery: $94 \%$ .	IMPLE TIME: 12:00
Sample Containers (How many? Preservatives?)	
1 liter amber glass: 1 ; 40 ml VOA: 3 ; 500 ml polypropylene: ×	<
REMARKS:	

SAMPLER: TRIDIE GUHA

SIGNATURE:

(Print)

ADVANCED ASSESSMENT AND REMEDIATION SERVICES



North State Environmental Laboratory

On South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

## CERTIFICATE OF ANALYSIS

Lab Number:

01-1324

Client:

Advanced Assessment & Remd.

Project:

Date Reported: 09/18/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	<u> Date Analyzed</u>
Sample: 01-1324-01	Client ID: 1	MW-1/GW		09/07/2001	WATER
Gasoline	8015M	970	ug/L		09/10/2001
Benzene	8020	260	ug/L		
Ethylbenzene	8020	44	$\mathtt{ug}/\mathtt{L}$		
MTBE	8020	460	$\mathtt{ug}/\mathtt{L}$		
Toluene	8020	17	$\mathtt{ug}/\mathtt{L}$		
Xylenes	8020	140	$\mathtt{ug}/\mathtt{L}$		
Diesel	8015M	0.4	mg/L		09/13/2001
Sample: 01-1324-02	Client ID: 1	MW-2/GW		09/07/2001	WATER
Gasoline	8015M	230	ug/L		09/11/2001
Benzene	8020	51	ug/L		•
Ethylbenzene	8020	8	ug/L		
MTBE	8020	2400	ug/L		
Toluene	8020	ND			
Xylenes	8020	8	ug/L		
Diesel	8015M	ND			09/13/2001
Sample: 01-1324-03	Client ID: 1	MW-3/GW		09/07/2001	WATER
Gasoline	8015M	460	ug/L		09/10/2001
Benzene	8020	87	ug/L		
Ethylbenzene	8020	11	ug/L		
MTBE	8020	*9400	ug/L		
Toluene	8020	1	ug/L		
					Page

## CERTIFICATE OF ANALYSIS

Lab Number:

01-1324

Client:

Advanced Assessment & Remd.

Project:

Date Reported: 09/18/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Diesel Range Hydrocarbons by Method 8015M

Analyte	Method	Result	Unit	Date Sampled	<u>Date Analyzed</u>
Sample: 01-1324-03	Client ID:	MW-3/GW		09/07/2001	WATER
Xylenes	8020	25	ug/L		
Diesel	8015M	ND			09/13/2001

90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • (650) 266-4563 • FAX (650) 266-4560

# CERTIFICATE OF ANALYSIS

Quality Control/Quality Assurance

Lab Number:

01-1324

Client:

Advanced Assessment & Remd.

Project:

Date Reported: 09/18/2001

Gasoline, BTEX and MTBE by Methods 8015M and 8020

Diesel Range Hydrocarbons by Method 8015M

		Reporting	Avg MS/MSD				
Analyte	Method	Limit	Unit	Blank	Recovery	RPD	
Gasoline	8015M	50	ug/L	ND	82	1	
Benzene	8020	0.5	ug/L	ND	91	7	
Toluene	8020	0.5	ug/L	ND	95	1	
Ethylbenzene	8020	0.5	ug/L	ND	99	2	
Kylenes	8020	1.0	ug/L	ND	98	0	
MTBE	8020	0.5	ug/L	ND	96	9	
Diesel	8015M	0.05	mg/L	ND	86/85	1	

ELAP Certificate NO:1753

Reviewed and Approved

John A.Murphy Laboratory Director

Page 3 of 3



# North State Environmental Analytical Laboratory

90 South Spruce Avenue, Suite W, South San Francisco, CA 94080

Phone: (650) 266-4563 Fax: (650) 266-4560

01-1324

Chain of Custody / Request for Analysis
Lab Job No.: Page 1 of 1

Client: ADVANCED ASSESSMENT + REMD. Sive.		Report	Report to: TRIDIB GUHS				Phone: 925: 363 - 1999				Turnaround Time		
Mailing Address: 2380 SALVIO STREET, #202 CONCORD, CA 94520		Billing	Billing to:				Fax: 925-363-1998				5 DAYS		
							PO# / Billing Reference:			:	Date: 8 - 7 - 01		
							BHMM				Sampler: T. GUHA		
Project / Site Address:				F	Analys Requested	is total	S. S	/ ر	$\overline{/}$	$\overline{}$	$\overline{}$	$\overline{}$	
Sample ID	Sample Type	Container No. / Type	Pres.		pling / Time	They.	TE TO						Comments / Hazards
MW-1/GW	WATER	3 VOA I AMBEL	Hec	9/7/01	12:10	$\times$	X						
MW-2/GW		3 VOA 1 AMBER	Hec	9/1/01	11:50	$\searrow$	$\times$						
MW-3/GW	J	3 VOA I AMBEL	Hel	9/7/01	12:00	$\times$	$\times$						
			· · · · · ·										
-the way				<u> </u>	·	· <del></del>							
			. ,										·
									20	bo			
Relinquished by:	idl.	V. K	D	ate: 9/7/	o/ Time:	12:15	Receiv	ed by:	M	Kengl	X)		Jamples recent in good Conclitions
Relinquished by:		Date: Time:			Received by:						Hangeles (Williams)		
Relinquished by:		Date: Time:			Received by:		0			good Conclined			

#### Quantitation Report

Misc : water 5ml Multiplr: 1.00

IntFile : events1.e

Data File: C:\HPCHEM\1\DATA\09101Y13.D\FID2B.CH Vial: 11
Acg On: 11 Sep 101 1:06 pm Operator: ec

Acq On : 11 Sep 101 1:06 pm Operator: ec Sample : 01-1324-01 Inst : Gas-BTEX

Misc : water 5ml Multiplr: 1.00

IntFile : AUTOINT1.E

Quant Time: Sep 11 13:29 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\1\METHODS\GBX.M (Chemstation Integrator)

Title : Gasoline Aromatics (BTEX-MTBE)

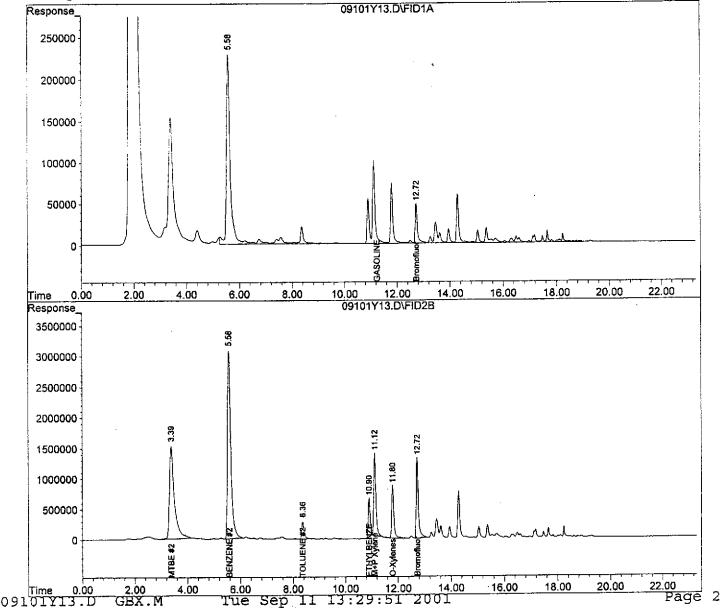
Last Update : Tue Sep 04 15:38:32 2001 Response via : Multiple Level Calibration

DataAcg Meth : GBX.M

Volume Inj. : 5 mL Purge volume

Signal #1 Phase : DB-624 30M  $\times$  0.53 Signal #2 Phase: DB-624 30M  $\times$  0.53mm

Signal #1 Info : OI FID Signal #2 Info : OI PID



#### Quantitation Report

Vial: 6 Data File : C:\HPCHEM\2\DATA\09121N06.D\FID1A.CH

Operator: ss : 12 Sep 20101 4:23 pm Acq On

Inst : GC/MS Ins : 01-1324-02r Sample Multiplr: 5.00

: water 1ml Misc IntFile : TRY1.E

Vial: 6 Data File : C:\HPCHEM\2\DATA\09121N06.D\FID2B.CH

4:23 pm Operator: ss : 12 Sep 101

Inst : GC/MS Ins : 01-1324-02r Sample

Multiplr: 5.00 Misc : water 1ml

: AUTOINT1.E IntFile

Quant Time: Sep 12 16:46 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\2\METHODS\GBX.M (Chemstation Integrator)

: Gasoline Aromatics (BTEX-MTBE) Title

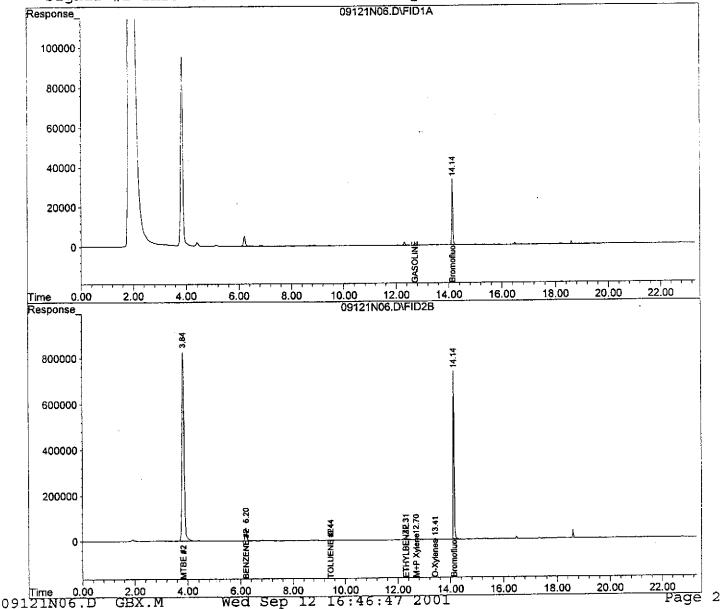
Last Update : Thu Sep 06 10:36:11 2001 Response via : Multiple Level Calibration

DataAcq Meth : GBX.M

Volume Inj. : 5 mL Purge volume

Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm

Signal #2 Info : OI PID Signal #1 Info : OI FID



### Quantitation Report

Data File : C:\HPCHEM\1\DATA\09111Y09.D\FID1A.CH

Vial: 9 Operator: ec : 11 Sep 20101 8:07 pm

Inst : Gas-BTEX Sample : 01-1324-03r Multiplr: 50.00 Misc : water 100ul

IntFile : events1.e

Data File : C:\HPCHEM\1\DATA\09111Y09.D\FID2B.CH Vial: 9 Operator: ec

: 11 Sep 101 8:07 pm : Gas-BTEX : 01-1324-03r Inst Sample Multiplr: 50.00 : water 100ul Misc

: AUTOINT1.E

Quant Time: Sep 11 20:30 19101 Quant Results File: GBX.RES

Quant Method : C:\HPCHEM\1\METHODS\GBX.M (Chemstation Integrator)

: Gasoline Aromatics (BTEX-MTBE) Title

Last Update : Tue Sep 04 15:38:32 2001 Response via : Multiple Level Calibration

DataAcq Meth : GBX.M

: 5 mL Purge volume Volume Inj.

Signal #1 Phase : DB-624 30M x 0.53 Signal #2 Phase: DB-624 30M x 0.53mm

Signal #2 Info : OI PID Signal #1 Info : OI FID

