

PROTECTION 00 DEC -5 PK 4: 22

Environmental & Water Resources Engineering Groundwater Consultants

December 4, 2000

Larry Seto Alameda County Environmental Health Services 1131 Harbor Bay Parkway Alameda, CA 94502-6577

Quarterly Groundwater Monitoring Report
Matheson Trucking
2500 Poplar Street, Oakland, California
Fuel Leak Case No. 1306

Dear Mr. Seto:

The enclosed report documents the following activities at the subject property:

- Measurement of water levels in four wells,
- Evaluation of the groundwater flow direction and magnitude, and
- Collection and analysis of groundwater samples from four monitoring wells.

If you have any questions, please call me at 510/620-0891.

Sincerely,

CC:

Hydro Analysis, Inc.

Kenneth B. Alexander, RG, CH

Principal Hydrogeologist

Brett Davis/Matheson Trucking, Elk Grove, California

CERTIFIED HYDROGEOLOGIST



Environmental & Water Resources Engineering Groundwater Consultants

QUARTERLY GROUNDWATER MONITORING REPORT

(Sampled October 27, 2000)

MATHESON TRUCKING

2500 Poplar Street Oakland, California

December 4, 2000

Hydro Analysis, Inc. Project No. 0277

TABLE OF CONTENTS

I.	INTRODUCTION1
II.	FIELD WORK2
	Monitoring Well Sampling2
	Wastewater Generation2
III.	RESULTS OF WATER LEVEL MEASUREMENTS
	Groundwater Flow Direction and Hydraulic Gradient3
	Floating Product
IV.	ANALYTICAL RESULTS4
	Laboratory Analysis4
	Analytical Results: Groundwater4
٧.	DATA ANALYSIS
TABL	ES (following text)
	TABLE 1 - Monitoring Well Completion Data
	TABLE 2 - Groundwater Elevation Measurements
	TABLE 3 - Groundwater Analytical Results
FIGUI	RES (following tables)
	FIGURE 1 - Location Map
	FIGURE 2 - Well Locations with Groundwater Elevations on October 27, 2000
	FIGURE 3 - Groundwater Analytical Results for October 27, 2000
ATTA	CHMENTS (following figures)
	ATTACHMENT A - Well Sampling Logs
	ATTACHMENT B - Groundwater Analytical Results

I. INTRODUCTION

The site location is the Matheson Trucking facility located at 2500 Poplar Street in Oakland, California (Figure 1). The site is situated on the southern side of 26th Street between Poplar and Union Streets in Oakland. The current layout of the property, along with the location of the previous tank excavations, is shown in Figure 2. The site has been historically operated as a truck maintenance, fueling, and dispatch facility.

This report describes groundwater monitoring activities completed in October 2000 at 2500 Poplar Street, Oakland, CA.

II. FIELD WORK: GROUNDWATER SAMPLING

Monitoring Well Sampling

On October 27, 2000, Hydro Analysis sampled four onsite groundwater monitoring wells (MW-1, MW-2, MW-3, and MW-4). The locations of the wells are shown in Figure 2. Well construction details are provided in Table 1.

Prior to sampling, several casing volumes of water were removed from each well. Field conductivity, temperature, and pH were monitored during purging. Purging continued until these parameters stabilized. Groundwater samples were subsequently collected using new, disposable sampling bailers. The water samples were placed inside appropriate 40-ml VOA vials free of any headspace. The samples were immediately placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the workday.

At the time each monitoring well was sampled, the following information was recorded in the field: (1) depth-to-water prior to purging, using an electrical well sounding tape, (2) observation of any floating product, sheen, or odor prior to purging, using a clear Teflon bailer, (3) pH, (4) temperature, and (5) specific conductance. Copies of the well sampling logs are included in Attachment A.

Wastewater Generation

All water and other liquid waste removed from the wells during purging was drummed and stored onsite. The water and liquid waste is periodically picked up by a licensed waste hauler and transported under manifest to an appropriate recycling and disposal facility.

III. RESULTS OF WATER LEVEL MEASUREMENTS

Groundwater Flow Direction and Hydraulic Gradient

On October 27, 2000, Hydro Analysis measured water level in the four monitoring wells (Table 2). Figure 2 presents a contour map for the groundwater beneath the site. As shown in Figure 2, the water level data indicate that groundwater flow in October 2000 was toward the seath-southwest direction.

The calculated hydraulic gradient for October 2000 was approximately 0.004 feet/feet (about 22 feet per mile).

Floating Product

IV. ANALYTICAL RESULTS

Laboratory Analysis

All analyses were performed by Entech Analytical Labs, Inc., of Sunnyvale, California, a California State Department of Health Services-certified laboratory. All samples were analyzed in accordance with U.S. EPA recommended procedures.

All soil and groundwater samples were analyzed for:

- Total Petroleum Hydrocarbons as Gasoline (modified EPA Method 8015)
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA Method 8020)
- Methyl Tertiary Buytl Ether (MTBE) (EPA Method 8260B)
- Total Petroleum Hydrocarbons as Diesel (modified EPA Method 8015)

Analytical Results: Groundwater

Table 3 presents the analytical results for the groundwater samples collected on October 27, 2000. Copies of the laboratory reports and chain-of-custody records are provided in Attachment B.

In general, the groundwater analytical results are unremarkable. As shown in Table 3, petroleum constituents were not detected in any of the groundwater samples, except for diesel (at a maximum concentration of 870 μ g/L) and gasoline (at a concentration of 62 μ g/L in the sample from well MW-4). Concentrations are similar to the previous quarterly monitoring results.

V. DATA ANALYSIS AND RECOMMENDATIONS

The results of the groundwater sampling revealed relatively low concentrations of diesel in the four monitoring wells. Gasoline was detected at a relatively low concentration in monitoring well MW-4. Otherwise, gasoline, BTEX, and MTBE were not detected in any of the groundwater samples. Groundwater analytical results are shown graphically on Figure 3.

The detection of diesel and gasoline is not indicative of a significant tank release, nor do the measured groundwater concentrations represent a significant risk to human health or the environment. We believe that contaminant migration is limited due to the very low permeability of the clay and silt encountered beneath the site. The detected diesel and gasoline will attenuate with time, primarily due to intrinsic biodegradation.

On the basis of the foregoing, we do not believe the detected petroleum hydrocarbons represent a significant risk to human health or the environment and we do not believe that further investigation or remediation is warranted. We recommend that groundwater monitoring be performed one more time in February 2001. If, at that time, the analytical results do not show evidence of increasing petroleum contamination, we will recommend the site for regulatory closure.

TABLE 1.

Monitoring Well Completion Data

Matheson Trucking, 2500 Poplar Street, Oakland, California

Well Number:	MW-1	MW-2	MW-3	April 18, 2000	
Date of Installation	January 29, 1996	January 29, 1996	April 18, 2000		
Installed By	Hageman- Aguiar, Inc.	Hageman- Aguiar, Inc.	Hageman- Aguiar, Inc.	Hageman- Aguiar, Inc.	
Installation Method	HSA	HSA	HSA	HSA	
Boring Diameter (inches)	8	8	8	8	
Measuring Point Description	Top of PVC casing	Top of PVC casing	Top of PVC casing	Top of PVC casing	
Measuring Point Elev. (feet)	9.19	8.03	8.82	8.80	
Approximate Seal Depth (feet)	2.5	2.5	4	4	
Total Depth (feet)	15	15	15	15	
Casing Diameter (inches)	2	2	2	2	
Screened Interval (ft) - depth	3 to 15	3 to 15	5 to 15	5 to 15	
elevation	6.2 to -5.8	5.0 to -7.0	3.8 to -6.2	3.8 to -6.2	
Sand Pack Interval (ft) - depth	2.5 to 15	2.5 to 15	4 to 15	4 to 15	
elevation	6.7 to -5.8	5.5 to -7.0	4.8 to -6.2	4.8 to -6.2	
Screen Specifications	SCH 40 PVC, 0.010-in slots	SCH 40 PVC, 0.010-in slots	SCH 40 PVC, 0.010-in slots	SCH 40 PVC, 0.010-in slot	

General Notes

- (a) Elevations referenced to Mean Sea Level.
- (b) Depths measured relative to ground surface.
- (c) HSA = Hollow-stem augers.

TABLE 2.

Groundwater Elevation Measurements Matheson Trucking, 2500 Poplar Street, Oakland, California

	WW	/-1	MW-2 MW-3		/-3	MW-4		
	MP Elev 9.19		MP Elev 8.03		MP Elev 8.82		MP Elevation = 8.80 feet	
Date	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev
May 1, 2000	6.30	2.89	5.09	2.94	7.25	1.57	7.02	1.78
August 23, 2000	7.59	1.60	6.14	1.89	8.09	0.73	7.28	1.52
October 27, 2000	7.96	1.23	5.89	2.14	6.55	2.27	7.45	1.35

General Notes

- (a) Depth measurements cited in units of feet below measuring point (MP). MP is top of PVC well casing.
- (b) Elevation measurements cited in units of feet above Mean Sea Level and referenced to top of casing elevation of former Findley Adhesives well MW-2 at 2433 Poplar Street. MW-2 TOC elevation is 8.03 feet above Mean Sea Level.

TABLE 3.

Groundwater Analytical Results

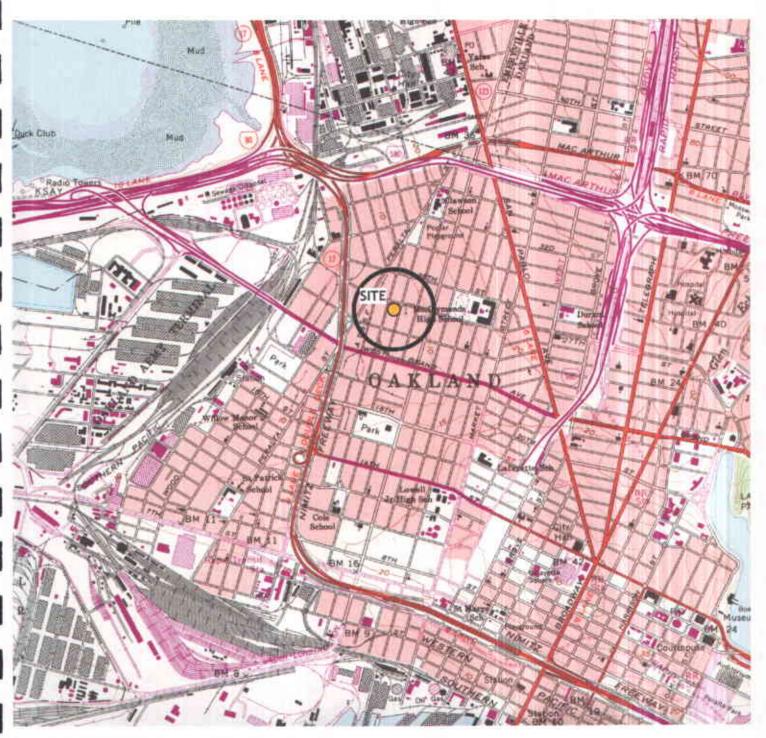
Matheson Trucking, 2500 Poplar Street, Oakland, California

Well Number	Date	TPH as Diesel (µg/L)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	(h&\r
MW-1	May 1, 2000	76	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	340	<50	<0.5	<0.5	<0.5	<0.5	<5
	Oct 27, 2000	870	<50	<0.5	<0.5	<0.5	<0.5	<5
MW-2	May 1, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	63	<50	<0.5	<0.5	<0.5	<0.5	<5
	Oct 27, 2000	170	<50	<0.5	<0.5	<0.5	<0.5	<5
MW-3	May 1, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Oct 27, 2000	300	<50	<0.5	<0.5	<0.5	<0.5	<5
MW-4	May 1, 2000	320	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 9, 2000	260	110	<0.5	<0.5	<0.5	<0.5	<5
	Oct 27, 2000	430	62	<0.5	<0.5	<0.5	<0.5	<5

Drinking Water Criteria	100	5	1	150	700	1,750	5
	(T&O)	(T&O)	(MCL)	(MCL)	(MCL)	(MCL)	(MCL)
EPA Method No.	Modified 8015	Modified 8015	8020	8020	8020	8020	8260B

General Notes

- (a) "<" = parameter below laboratory method reporting limit.
- (b) Drinking water criteria is for comparison purposes only. Source: Jon B. Marshack, A Compilation of Water Quality Goals, Central Valley Regional Water Quality Control Board, Sacramento, CA, March 1998. T&O = Taste and Odor Threshold. MCL = California Primary Maximum Contaminant Level.
- (c) Concentrations exceeding the drinking water criteria in bold italic.



Basemap: USGS 7.5-minute topographic quadrangle, Oakland West, Calif., Photorevised 1980.

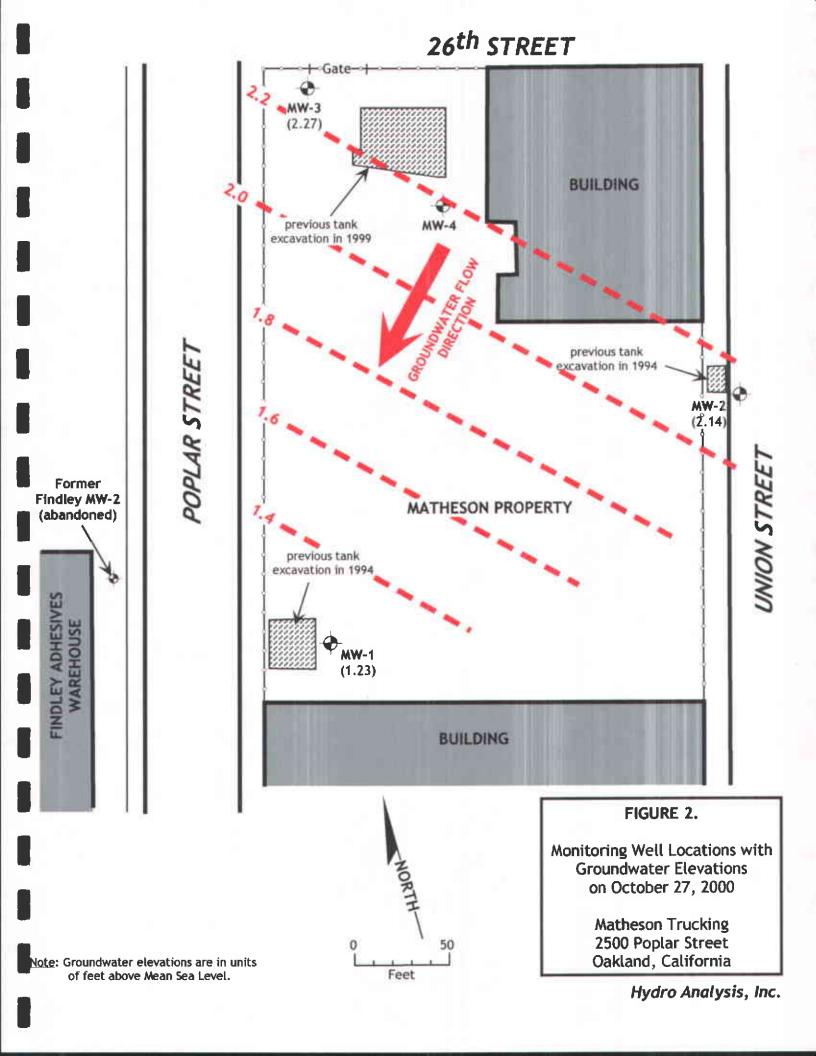
1,000 0 1,000 2,000 3,000 4,000 feet

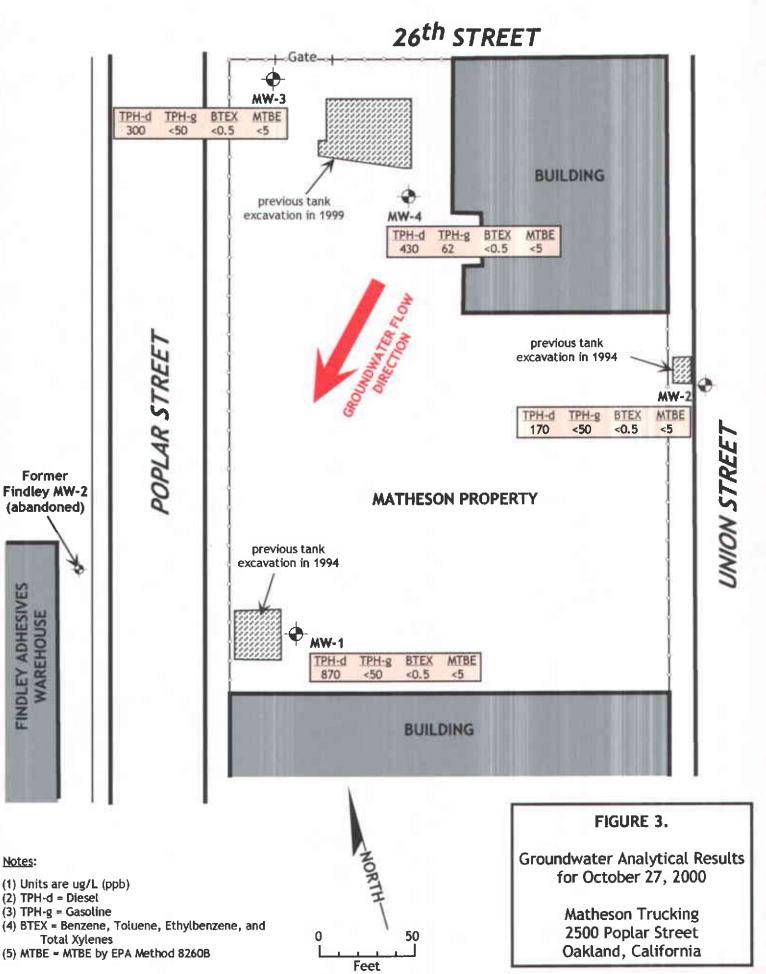
FIGURE 1.

Location Map

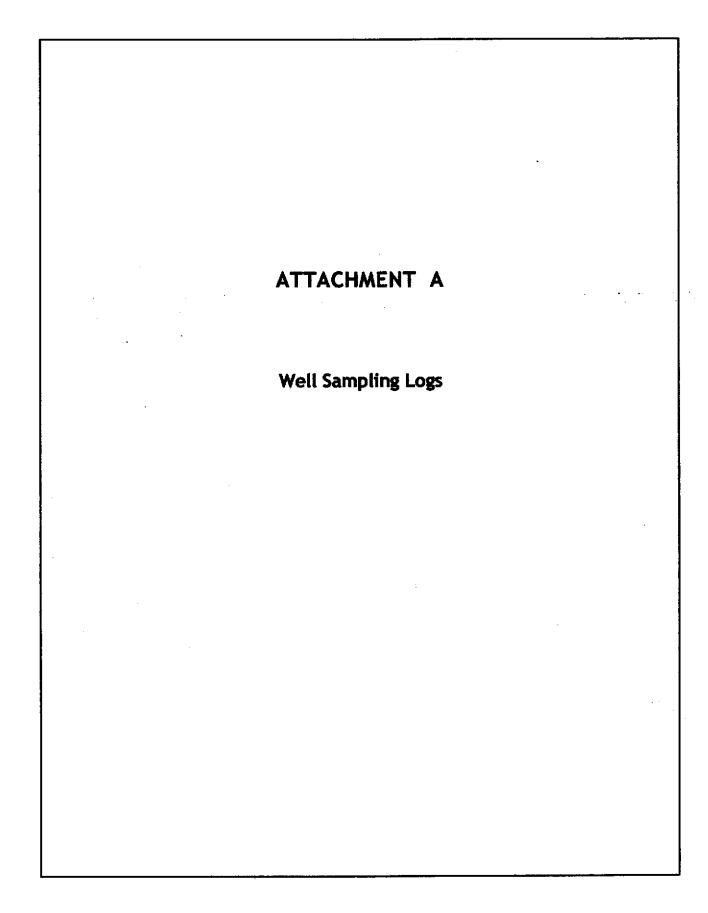
Matheson Trucking 2500 Poplar Street Oakland, California

Hydro Analysis, Inc.





Hydro Analysis, Inc.



HYDRO ANALYSIS, Inc. WELL MONITORING DATA SHEET

Project: Matheson - Oakland Date: 10/27/2000

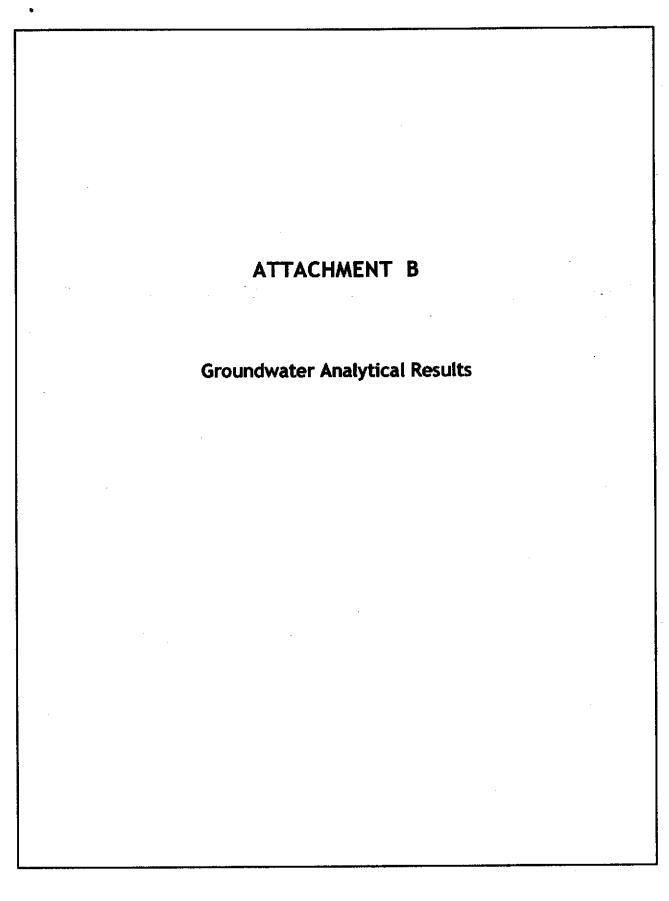
WELL#	DEPTH TO WATER	PRODUCT	WELL DEPTH	PRODUCT REMOVED	WATER REMOVED	COMMENTS
MW-I	7.96'	none	15.69'		4 gal	
MW-Z	5.89'	none	14,19'	-	6 gal	
MW-3	6.55'	none	14.99'	-	4901	
MW-4	7,45	sheen	15,25'	·	3 ga.l	
•		- · · · ·				
				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
,						
.						
-		-				
-48777						
						,
				<u>-</u> _		
				,		

Site Local		on - Oaklan			7/2000
		60°-70°			9:57
	•	wilson		Completed/	
, ,			· · ·		•
		EVAC	UATION DATA		
Description	on of Measuring Point	(MP): T.O.C.			
Total Sou of Well B	inded Depth elow MP	<u>13.92' +0.2</u> 7	,	Sample	Collected
- Depth	to Water Below MP	5,89'	Volat	tile Organics (VOA's)	6
= Water	Column in Well	8.30'	1 Lite	er Amber Glass	
x Casing	g Diameter Multiplier	0.169	2" Poly	thylene (plastic)	
= Gallor	ns in Casing	1.40	Othe	r _	
Gallons Pumper	d Prior to Sampling	6	Sam	ples Filtered _	no
Evacuatio	on Met hod: PVC Bailer	×	Sample	Method: Evacuation Bailer	X
	Acrillyc Bailer			Disposable Bailer	
	Pump			Pump	
	Other			Direct	
Inspection for Free (thickness to 0.01 fe	Product: <u>Novi</u> oot, if any)	SAMPLING DAT	TA/FIELD PAR		
Time	10:00	10:03	10:06	10:09	
Gals Removed	1,5	3	4,5	6	
Temperature	22.6	22,7	22.6	22,4	
Conductivity	883	913	964	904	
рH	7,22	<u> 7.11 </u>	7.09	7.08	
Color / Odor	Tan	Tan	<u>Ten</u>	<u>Tan</u>	
Turbidity	med	med_	<u>med</u>	med_	
Other		· ·			
Comments:					

Site Location	n <u>Mathe</u>	250n - Ookl	<u>an</u> d	Page	of 4			
Well Numb	er <u>Mw-</u>	<u> </u>		Date <u>10/2</u>	7/2000			
Weather	Sunny,	60°-70°		Time Began 10:47				
Sampling P	ersonnel <u>R</u>	wilson		Completed	1:06			
		EVAC	UATION DATA	\				
Description	of Measuring Point	(MP): <u>T.O.C.</u>						
Total Sound of Well Bak		<u> 15.42' + 0.2</u> 7'		Sample	Collected			
- Depth to	Water Below MP	7.96'	Vola	tile Organics (VOA's)	6			
= Water C	olumn in Well	7.73	1 Liter Amber Glass					
x Casing [Diameter Multiplier	0.169	ス" Poly	ethylene (plastic)				
= Gallons	in Casing	1.31	Oth	er <u> </u>	· · · · · · · · · · · · · · · · · · ·			
Gallons Pumped F	Prior to Sampling	<u> </u>	Samples Filtered					
Evacuation	Method: PVC Bailer		Sample	Method: Evacuation Bailer	X			
	Acrillyc Bailer			Disposable Bailer				
	Pump .		Pump					
	Other		Direct					
		CANADI INC. DAT	A (FIELD DAI	DANIETERS				
		SAMPLING DAT	A/FIELD PAR	VAIVIETERS				
Inspection for Free Pr (thickness to 0.01 foo	oduct: <u>None</u> t, if any)	e, clear			<i>c</i> .1-			
Time	10:49	10:52	10:54	10:56	sample 11:06			
Gals Removed	1			4	4			
Temperature	20.8	21.0	20,6	20.6	20,2			
Conductivity	1336	1438	<u> 1533</u>	1683	1672			
рН	6.90	6.86	6.85	6.87	6.91			
Color / Odor	Tan	<u>Tan</u>	Tan	Tan	<u>Ten</u>			
Turbidity	med	med	med	high	med			
Other		<u> </u>		dewatered				

Site Locat	ion <u>Mathe</u>	son - Oakla	nd_	Page	of <u>4</u>
Well Num	iber <u>MW-</u>	-1		Date 10/2	7/2000
Weather	Sunny.	60°-70°		Time Began	11:29
Sampling	PersonnelR_			Completed	11:45
, -					
		FVΔ	CUATION DATA		
Decembre	en of Manaurina Daird	•		<u> </u>	
·	on of Measuring Point	(MP): <u>T.O.C.</u>		<u>-</u>	
of Well B	nded Depth slow MP	14.98'+0.27	?	Sample	e Collected
- Depth t	to Water Below MP	7,45	Vola	tile Organics (VOA's)	6
= Water	Column in Well	7.80'	1 Lit	er Amber Glass	
x Casing	Diameter Multiplier	0.169	2 ⁴¹ Poly	ethylene (plastic)	
= Gallon	s in Casing	1,32	Othe	er _	.
Gallons Pumped	Prior to Sampling	3	Sam	ples Filtered	n <u>o</u>
Evacuatio	n Method: PVC Baller	x	Sample	e Method: Evacuation Bailer	X
*	Acrillyc Bailer			Disposable Bailer	
	Pump			Pump	
	Other			Direct	
		SAMPLING DA	TA / FIELD PAF	RAMETERS	
Inspection for Free F	Product: 5 h =	en, clear			
(thickness to 0.01 fo	oot, if any)		sample		
Time	11:32	11:35	11:45		
Gals Removed	1.5	3	3		
Temperature	21,2	261	20.6		
Conductivity	1902	1820	1813		
рН	6.89	6.88	6.93		
Color / Odor	Tan	Tan	Tan		
Turbidity	<u>med</u>	<u>high</u>	<u>med</u>		
Other	sheen	sheen	sheen	<u></u>	
		dewatered	-		
Comments:					

Site Loca	ation <u>Mathe</u>	son - Oaklar	ıd_	Page	of 4
Well Nu	mber <u>Nw-</u>	3		Dete 10/2	7/2000
Weather	SUNNY,	60°-70°		Time Began	2:10
Sampling	g Personnel	wilson		Completed	2:28
•					
		EVA	CUATION DATA		
Descript	ion of Measuring Point	(MP):			
	unded Depth Below MP	14.72'+0.27	×1	Sample	e Collected
- Depth	to Water Below MP	6.55'	Volatil	e Organics (VOA's)	6
= Wate	r Column in Well	8.44'	1 Liter	Amber Glass	2
, x Casin	g Diameter Multiplier	0,169	2 " Polyet	hylene (plastic)	
= Gailo	ns in Casing	1.43	Other		
Gallons Pumpe	d Prior to Sampling	4	Sample	les Filtered	no
Evacuati	on Method: PVC Bailer	X	Sample N	Vethod: Evacuation Bailer	x
	Acrillyc Bailer			Dispusable Bailer	
	Pump			Pump	
	Other			Direct	
		SAMPLING DA	TA/FIELD PARA	METEDS	
		SAMELING DA	IA/FIELD FAIV	AIVIL I LING	
Inspection for Free (thickness to 0.01 f	Product: Non	e, clear		· · · · · · · ·	
	12:13	12:16	12:18	5ample 12:28	
Gals Removed	1,5	3		4	
Temperature	22.1	22,0	<u>>1,9</u> .	21.8	-
Conductivity	1166	1172		1122	
рН	7,09	7.10	7.12	7,18	
Color / Odor	Tan	Tan	<u>Ten</u>	Tan	
Turbidity	med	med	med	mpd	
Other			dewetered		
Comments:					



3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

November 98, 2000

Randall Wilson

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530

Order: 22964

Date Collected: 10/27/00

Project Name: Matheson Oakland

Date Received: 11/1/00

Project Number:

P.O. Number:

Project Notes:

On November 01, 2000, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matria

Gas/BTEX

Method

Liquid

EFA 8015 MOD. (Purgeable)

BPA, 8020

MITBE by EPA \$250B

EPA 8260B

TPH as Diesel

EPA 8015 MOD. (Extraciable)

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Butech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-735-1550.

Sincerely.

nichelle L. Anderson

Lab Director

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Atta: Randail Wilson Date: 11/8/00

Date Received: 11/1/00

Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

100

Certified Analytical Report

				Cerune	CA D	BIYTICA	и керо	PFT			
Order ID:	22964		Lab Sa	mple ID:	2296	54-001 ⁻		Client Sam	ple ID: MV	7-1	
Sample fime:	11:06 AM	ι .	Sam	ρJe Date:	10/2	7/00		1	Matrix: Liq	uiđ	
Parameter		Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Dictel		870	x	5	50	250	µg/L	11/2/00	11/4/00	DW001101	EPA 8015 MOD. (Extractable)
						Serroge	ate.	Surr	ogate Recovery	Cent	rol Limits (%)
				•		Hexacos	ane		98	44	1 - 124
Order ID:	22964		Lab Sa	mple ID:	2296	4-002		Client Sam	ple ID: MV	/-2	
Sample Time:	10:09 AM		Sam	ple Date:	10/2	7/00		Matrix: Liquid			
Parameter		Result	Flag	ФF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel		170	x	1	50	50	µg/L	11/2/00	1/3/00	DW001101	EPA \$015 MOD. (Extractable)
						Sprrogs	te	Surre	ogate Recovery	Cont	rol Limits (%)
						Hexacos	ans		87	44	- 124
Order ID:	22964		Lab Sa	mple ID:	2296	4-003		Client Sam	ple ID: MW	7-3	
Sample Time:	12:28 PM		Sam	ple Date:	10/2	7/00		1	Matrix: Liqu	uid	
Parameter		Result	Fiag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel		300	X	2	50	100	μ g/ ኒ	11/2/00	11/7/00	DW001101	EPA 8015 MOD. (Extractable)
						Surregs	ite.	Surr	egate Recovery	Contr	rol Lhnits (%)

Hexacosane

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

44 - 124

Analysis performed by Entech Analytical Labs, Inc. (CA BLAP #2346)

Michale L. Anderson, Laboratory Director

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Attn: Randall Wilson Date: 11/8/00 Date Received: 11/1/00

Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 229	Lab Sa	mple II	2296	4-004		Client Sam	iple ID: MW	7-4			
Sample Time: 11:4	Sample Date: 10/27/00			Matrix: Liquid							
Parameter	Result	Flag	DF	PŲĽ	DER	Quits	Extraction Date	Analysia Date	QC Betch ID	Method	
TPH as Diesel	430		1	50	50	µg/L	11/2/00	11/3/60	DW001101	EPA 8015 MOD. (Extractable)	
					Surrega Hexacos		Sarr	ugate Recovery 100	Cont 44	rol Limits (%) 4 124	

DF = Dilution Factor

ND = Not Detected

DLR - Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelled Anderson, Laboratory Director

3334 Victor Court. • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Attn: Randall Wilson Date: 11/8/00

Date Received: 11/1/00

Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

										
Order ID: 2.	296 4	Lab Sa	mple ID:	2296	4-001		Client Sam	ple ID: M	W-I	
Sample Time: 1	1:06 AM	Sam	ple Date:	10/27	7/00		1	Matrix: Li	quid	
Parameter	Result	Flag	DF	PQI	DLR	Coits	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	$\mu \mathbf{g} \mathbf{T}$	N/A	11/2/00	WGC4001102	EPA 8020
Toluene	ND		ţ	0.5	0.5	$\mu g/L$	N/A	11/2/00	WGC4001102	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	μg/l	* N/A	11/2/00	WGC4001102	EPA 8020
Xylenes, Total	ND		1	0.5	6.5	μ g Ĺ	N/A	11/2/00	WGC4001102	EPA 8020
•					Surrega	lte.	Sure	ogate Recover	ry Centr	ol Limits (%)
				1.2	a-รีสไปข อ กจ	tolnene		98	65	135
Parameter	Result	Fiag	DF	PQŁ	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	μ g /L	N/A	11/2/00	WGC4001102	EPA 8015 MOD (Purgeable)
					Surroga	ite	Surr	agute Recove	ry Conta	oi Limits (%)
				42.	a-Trifluoro	toluene		107	63	135

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL - Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA BLAP #2346)

Michelle V. Anderson, Laboratory Director

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Attu: Randall Wilson Date: 11/8/00 Date Received: 11/1/00

Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 229	64	Lab Sa	mple 11): 2296	4-002		7-2							
Sample Time: 10:0	9 AM	Sample Date: 10/27/00					Matrix: Liquid							
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method				
Benzene	מא		1	0.5	0.5	μg∕ட	N/A	11/2/00	WGC4001102	EPA 8020				
Toluece	ND		1	0.5	0.5	μe/L	N/A	11/2/00	WGC4901102	EPA 8020				
Ethyl Bonzene	ND		1	0.5	0.5	µg/L	N/A	11/2/00	WGC4001102	EPA 8020				
Xylenes, Total	ND		1	0.5	0.5	μg⁄L	N/A	11/2/00	WGC4001102	EPA 8020				
•					Surroga	ite	Surr	ogate Recovery	Contr	of Limits (%)				
				934	a-Trifluoro	tolume	-	98	65	- 135				
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Butch ID	Method				
TPH as Casoline	ND		!	50	50	հան∖Ր	N/A	11/2/00	WGC4001102	EPA 8015 MOD (Purgeable)				
					Surroga	ite	Sarn	ogate Recovery	Contr	ol Limits (%)				
				est.	a-Trifluoro	toluene		107	65	- 135				

EF = Dilation Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Fig. (CA BLAP #2345)

lichelle/L. Maerson, Laboratory Director

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Attn: Randall Wilson Date: 11/8/00

Date Received: 11/1/00

Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 2296	54	Lab Sa	mple II	2296	4-00 3		Client Sam	ple ID: MV	V-3	
Sample Time: 12:2	8 PM	5am	ple Dat	e: 10/27	7/00]	Matrix: Liq	uid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Barch ID	Method
Benzene	ND		1	0.5	0.5	μg/L	N/A	11/3/00	WGC4001102	EPA 8020
Toluene	ND		1	0.5	0.5	$\mu g/L$	N/A.	11/3/90	WGC4001102	EPA \$020
Ethyl Benzepe	ND		1	0.5	0.5	ug L	N/A	11/3/00	WGC4001102	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	μgΊ	N/A	11/3/00	WGC4001102	EPA \$020
•					Sarroge	tte	Surr	ogate Recovery	Centr	ol Limits (%)
. •				aai	a-Triffuoro	toluene		98	65	• 135
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		3	50	50	μg/L	N/A	1.1/3/00	WGC4001102	EPA 8015 MOD (Purgeable)
					Surreg	110	Surr	ogate Recovery	Centr	oi Limits (%)
				221	e-Trifluoro	toluene		110	65	- 135

DF = Dilution Factor

ND = Not Detected

DLR - Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAF #2346)

Michellest Anderson, Laboratory Director

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Scite 200-A

El Cerrito, CA 94530 Atta: Randall Wilson Date: 11/8/00

Date Received: 11/1/00
Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

			· · · · · · ·			F -				
Order ID: 229	64	Lab Sa	anyle II	D: 2296	4 -0 0 4 °	•	Client Sam	ple ID: M	V-4	
Sample Time: 11:4	15 AM	Sam	ple Dat	e: 10/2′	7/00			Matrix: Liq	wid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzena	ND		1	0.5	0.5	µg/L	N/A	11/3/00	WGC4001102	EPA 8020
Totuene	ND		1	0.5	0.5	µg∕ī_	N/A	11/3/06	WGC4001162	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	μg/L	N/A	11/3/00	WGC4001192	EPA 8020
Xylanes, Total	ND		ı	0.5	0.5	μ g/L	N/A	11/3/00	WGC4 901102	EPA 8020
.*	•				Surroge	ife	Surn	ogate Recovery	Contr	ol Limits (%)
٧				aa	a-Trifluoro	toluene		97	. 65	- 135
Parameter	Result	Fing	DF	PQL	Dŧ.Ŗ	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	62	x	Į	50	3 6	μg/L	N/A	11/3/00	WGC4001102	EPA 8015 MOD (Purgeable)
					Surrogs	ite	Spri	ogate Recovery	Contr	of Limits (%)
				981	a-Trifluoro	toluene		107	65	- 135

DF = Dilution Factor

ND = Not Detected

DLR - Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by British Analytical Labs, Inc. (CA ELAF #2346)

Michelle L. Anderson, Laboratory Director

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Attn: Randall Wilson Date: 11/8/00

Date Received: 11/1/00
Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 22964 Lab Sample ID: 22964-001

Client Sample ID: MW-1

0.00, 20, 20,	V ¬	ZID DAIL	mar in.		,,,,	CH	me weedle wee		
Sample Time: 11:0)6 AM	Sampl	le Date:	10/27/0	0		Matrix:	Liquid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-hutyl Ether	ND		1	5	5	μ g/ L	11/2/00	WMS1001102	EPA 8260B
	Surroga	te		Surroga	te Recover	y	Control Limits	(%)	
	4-Bromo	fluorobenzen	i c		100		65 - 135		
	Dibrono	fluoromethac	ne .		92		55 - 135	4	
•	Toluene-	48			85		65 - 135		

DF = Dilution Factor

ND - Not Detected

DLR = Detection Limit Reported

PQL = Practical Quantitation Limit

Analysis performed by Entrol: Analysical Labs, Inc. (CA ELAP #2346)

Michelle Landerson, Laboratory Director

Environmental Analysis Since 1983

Page 1 of 4

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530

Attn: Randall Wilson

Date: 11/8/00

Date Received: 11/1/00

Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

Order ID:	22964	Lab Sam	ple ID:	22964-0	02	Clie	nt Sample ID:	MW-2	
Sample Time:	10:09 AM	Sampl	e Date:	10/27/00	0		Matrix:	Liquid	
Paramoter Methyl-t-butyl Sther	Result ND	F)ag	DF l	PQL 5	DLR 5	Units µg/L	Analysis Date 11/2/00	QC Batch ID WMS1001102	Method BPA \$260B
		ofluorobenzen ofluoromethan		-	te Recover 106 90 86	Σ	Control Limits (65 - 135 65 - 135 65 - 135	(%)	,

DF = Dilution Factor

ND - Not Detected

DLR = Detection Limit Reported

FQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

Page 2 of 4

3334 Victor Court. • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Attn: Randall Wilson Date: 11/8/00

Date Received: 11/1/00
Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

Order ID:	22964		Lab Sam	ple ID:	22964-0	003	Clie	nt Sample ID:	MW-3	
Sample Time:	12:28 PM	[Sampl	e Date:	10/27/0	D .		Matrix:	Liquid	
Parameter Methyl-t-bulyl Ether		Result ND	Flag	DF 1	PQL 5	DLR 5	Units µg/L	Analysis Date 11/2/00	QC Batch ID WMS1001102	Method EPA 8260B
		Surrega			•	te Recover	y	Control Limits	(%)	
		4-Brome	ofluorobenzem	₽		109		65 - 135		
		Dibrom	ofluoromethan	€ .		97		65 - 135		
•		Toluene	-d8			82		65 - 135	•	

DF = Dilution Factor

ND = Not Detected

DLR = Detection Limit Reported

PQL - Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L'Anderson, Laboratory Director

Environmental Analysis Since 1983

Page 3 of 4

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.

11100 San Pablo Avenue, Suite 200-A

El Cerrito, CA 94530 Attn: Randall Wilson Date: 11/8/00 Date Received: 11/1/00

Project Name: Matheson Oakland

Project Number: P.O. Number:

Sampled By: Randal Wilson

Certified Analytical Report

Order ID: 229	964	Lab Sam	ple ID:	22964-0	004	Clie	nt Sample ID:	MW-4	
Sample Time: 11:	45 AM	Sampl	e Date:	10/27/0	0		Matrix:	Liquid	
Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	סא	-	1	5	5	μg/L	1.1/2/00	WMS1001102	EPA 82608
	Surroge	ite		Sarroge	te Recover	y	Control Limits	(%)	
	4-Brom	of-uorobenze-i	e		95		65 - 135	•	
	Dibrom	ofluoromethan	ie		84		65 - 135		
*	Toluene	-d8			88 -		65 - 135		*. ·

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

STANDARD LAB QUALIFIERS (FLAGS)

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Description
Compound was analyzed for but not detected
Estimated value for tentatively identified compounds or if result is below PQL but above MDL
Presumptive evidence of a compound (for Tentatively Identified Compounds)
Analyte is found in the associated Method Blank
Compounds whose concentrations exceed the upper level of the calibration range
Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
Results within quantitation range; chromatographic pattern not typical of fuel

CHAIN OF CUSTODY RECORD

PROJECT NAME AN	D ADDRESS:			SAMPLER: (Sig	nature)				105	<u> </u>	7-7	77		77
Mathes 2500 Pap Caklens	Ver 51			Ran	ORO AN 00 San Pab El Cerrito, (ALYSIS, INC. In Ave., Suite 200-A CA 94530 (510)620-0894 (FA)	F		STED		2300		//	
CROSS REFERENCE NUMBER	DATE	TIME	D :		AMPLE L	OCATION		19X	1847. 18	Ser ex		R	IEMARK	(S
Mw-1	10/27/00	11:06		Monitor	well	# MW-1	×		LX L			2296	4-00	
MW-2	10/27/00	10:09		("	11	* MW-2	X	X	X			<u> </u>	700	
Mw-3	10/27/00	12128		< ч	4	* MW-3	X	X	X				- 003 a	9 HOU - 1
MW-4	10/27/01	11:45		S 4	*	# Mw-4		×	X.				- 24	<u>/</u>
				_				-					sal I	A77
												PIES	85C.	
										-				
RELINQUISHED BY	(Signature)	Wai	lana		DATE //	101/100 RECEIVED BY	سسمورا	5					DATE TIME	1/0/00
EUNQUISHED BY	: (Signature)				DATE TIME	RECEIVED BY	(S/gnajero)	/					DATE TIME	
ELINQUISHED BY	: (Signature)				DATE	RECEIVED BY	(Signature)						DATE TIME	
HEUNQUISHED BY	: (Signature)	:			DATE	RECEIVED FO	RLABORATO	RY BY:	Signature)			<u>-</u> .	DATE	

1.8 2060 2151PW

Ro.8813 P. 14/14