

FAX TRANSMITTAL

URS Greiner Woodward Clyde

October 14, 1999

DATE:

500 12th Street, Suite 200
Oakland, CA 94607-4014

PAGE 1 OF: 13

TEL: (510) 874-3027 FAX: (510) 874-3268

TO: Larry Seto

FROM:

Jay Clare

FIRM: Alameda County Environmental
Health ServicesSUBJECT: MTBE Results for Parcel T12 in Oakland,
California *Martin Luther King Way
STED 6/4/99*

FAX NO: 510-337-9335

CC: Nicholas Loukianoff, Shorestein
Alex Greenwood, City of Oakland
Andrew Clark-Clough, City of Oakland
David Ralph, City of Oakland
Bob Lyons, City of Oakland

To supplement the information provided in the URS Greiner Woodward Clyde (URSGWC) letter report dated September 29, 1999, we are pleased to provide MTBE results for the three wells sampled at the site.

Chromalab, Inc. provided the MTBE results based on the gas chromatography analyses (EPA Methods 8020 and 8015M) previously performed for TPH-gasoline and BTEX. The results are summarized in the attached Table 1. The revised analytical report is provided as an attachment.

The results indicate no detection of MTBE in the three wells and the duplicate sample for well W-1 (sample W-1-02). The detection limit for MTBE is 5 µg/L. Given the results, MTBE is not suspected of being a groundwater contaminant at the site.

Please let me know if you have any questions regarding this information.



Jay Clare, P.E.
Project Manager

**TABLE 1
SUMMARY OF GROUNDWATER LABORATORY ANALYSIS RESULTS**

Sample ID	Reporting Limit	Primary Maximum Contaminant Level (MCL)	W-1	W-2	W-3	W-1-02
Sampling Date			09/09/1999	09/09/1999	09/09/1999	09/09/1999
Depth to Water (ft TOC)			24.93	26.04	24.79	24.93
BTX and TPH by EPA Method 8015/8020 (ug/L)						
TPH-Gasoline	50	n/a	ND	ND	ND	ND
TPH-Diesel	50	n/a	ND	ND	ND	ND
Benzene	0.5	1.0	ND	ND	ND	ND
Toluene	0.5	150	ND	ND	ND	ND
Ethylbenzene	0.5	700	ND	ND	ND	ND
Xylenes	0.5	1750	ND	ND	ND	ND
MTBE	5.0	n/a	ND	ND	ND	ND
Title 22 Metals by EPA Method 6010 (mg/L)						
Antimony	0.005	0.006	ND	ND	ND	ND
Arsenic	0.005	0.05	ND	ND	0.005	ND
Barium	0.005	1.0	0.13	0.089	0.083	0.13
Beryllium	0.005	0.004	ND	ND	ND	ND
Calcium	0.002	0.005	ND	ND	ND	ND
Chromium	0.005	0.05	0.02	0.024	0.034	0.022
Cobalt	0.005	n/a	ND	ND	ND	ND
Copper	0.005	1.3	ND	ND	0.0099	ND
Lead	0.005	0.015	ND	ND	0.0098	ND
Mercury	0.0002	0.002	ND	ND	ND	ND
Molybdenum	0.005	n/a	ND	ND	ND	ND
Nickel	0.005	0.1	0.012	0.022	0.012	0.012
Selenium	0.005	0.05	ND	0.0065	0.0059	ND
Silver	0.005	n/a	ND	ND	ND	ND
Thallium	0.005	0.002	ND	ND	ND	ND
Vanadium	0.005	n/a	ND	ND	0.0063	ND
Zinc	0.01	n/a	0.04	0.03	0.053	0.053

Notes:

W-1-02 = Duplicate of W-1

ft bTOC = feet below top of casing

ND = Not detected (i.e., below the laboratory level of detection)

n/a = not available

Results exceeding Primary Maximum Contaminant Level (MCL) Cal EPA-DTSC 1994. Summary of California Drinking Water Standards, November 1994.

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0143

REVISED

Gas/BTEX

URS Greiner Woodward Clyde- Oakland	✉ 500 12th Street, Suite 200 Oakland, CA 94607-4014
Attn: Jay Clare	Phone: (510) 874-3027 Fax: (510) 874-3268
Project #: 510996706001	Project: Shorestien Parcel T12

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
W-3-090999	Water	09/09/1999 11:00	1
W-2-090999	Water	09/09/1999 13:15	2
W-1-090999	Water	09/09/1999 14:30	3
W-1-090999-02	Water	09/09/1999 14:35	4

1220 Quarry Lane * Pleasanton, CA 94566-4756
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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0143

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn.: Jay Clare

Prep Method: 5030 **REVISED**

Gas/BTEX

Sample ID: W-3-090999	Lab Sample ID: 1999-09-0143-001
Project: 510996706001 Shorenstien Parcel Til	Received: 09/09/1999 17:06
Sampled: 09/09/1999 11:00	Extracted: 09/15/1999 20:00
Matrix: Water	QC-Batch: 1999/09/15-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/15/1999 20:00	
Benzene	ND	0.50	ug/L	1.00	09/15/1999 20:00	
Toluene	ND	0.50	ug/L	1.00	09/15/1999 20:00	
Ethyl benzene	ND	0.50	ug/L	1.00	09/15/1999 20:00	
Xylene(s)	ND	0.50	ug/L	1.00	09/15/1999 20:00	
MTBE	ND	5.0	ug/L	1.00	09/15/1999 20:00	
Surrogate(s)						
Trifluorotoluene	96.2	58-124	%	1.00	09/15/1999 20:00	
4-Bromofluorobenzene-FID	87.6	50-150	%	1.00	09/15/1999 20:00	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0143

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn.: Jay Clare

Prep Method: 5030 REVISED

Gas/BTEX

Sample ID:	W-2-090999	Lab Sample ID:	1999-09-0143-002
Project:	510996706001 Shorenstien Parcel Til	Received:	09/09/1999 17:06
Sampled:	09/09/1999 13:15	Extracted:	09/15/1999 20:26
Matrix:	Water	QC-Batch:	1999/09/15-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/15/1999 20:26	
Benzene	ND	0.50	ug/L	1.00	09/15/1999 20:26	
Toluene	ND	0.50	ug/L	1.00	09/15/1999 20:26	
Ethyl benzene	ND	0.50	ug/L	1.00	09/15/1999 20:26	
Xylene(s)	ND	0.50	ug/L	1.00	09/15/1999 20:26	
MTBE	ND	5.0	ug/L	1.00	09/15/1999 20:26	
Surrogate(s)						
Trifluorotoluene	102.1	58-124	%	1.00	09/15/1999 20:26	
4-Bromofluorobenzene-FID	95.5	50-150	%	1.00	09/15/1999 20:26	

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Environmental Services (SDB)

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn.: Jay Clare

Prep Method: 5030

Gas/BTEX

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Sample ID:	W-1-090999	Lab Sample ID:	1999-09-0143-003
Project:	510996706001 Shorenstien Parcel Til	Received:	09/09/1999 17:08
Sampled:	09/09/1999 14:30	Extracted:	09/15/1999 18:40
Matrix:	Water	QC-Batch:	1999/09/15-01.02

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/15/1999 18:40	
Benzene	ND	0.50	ug/L	1.00	09/15/1999 18:40	
Toluene	ND	0.50	ug/L	1.00	09/15/1999 18:40	
Ethyl benzene	ND	0.50	ug/L	1.00	09/15/1999 18:40	
Xylene(s)	ND	0.50	ug/L	1.00	09/15/1999 18:40	
MTBE	ND	5.0	ug/L	1.00	09/15/1999 18:40	
Surrogate(s)						
Trifluorotoluene	107.9	58-124	%	1.00	09/15/1999 18:40	
4-Bromofluorobenzene-FID	96.8	50-150	%	1.00	09/15/1999 18:40	

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To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn: Jay Clare

Prep Method: 5030

Gas/BTEX

REVISED

Sample ID: W-1-090999-02	Lab Sample ID: 1999-09-0143-004
Project: 510996706001 Shorenstien Parcel Til	Received: 09/09/1999 17:06
Sampled: 09/09/1999 14:35	Extracted: 09/15/1999 19:08
Matrix: Water	QC-Batch: 1999/09/15-01.02

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	09/15/1999 19:08	
Benzene	ND	0.50	ug/L	1.00	09/15/1999 19:08	
Toluene	ND	0.50	ug/L	1.00	09/15/1999 19:08	
Ethyl benzene	ND	0.50	ug/L	1.00	09/15/1999 19:08	
Xylene(s)	ND	0.50	ug/L	1.00	09/15/1999 19:08	
MTBE	ND	5.0	ug/L	1.00	09/15/1999 19:08	
Surrogate(s)						
Trifluorotoluene	115.4	58-124	%	1.00	09/15/1999 19:08	
4-Bromofluorobenzene-FID	98.7	50-150	%	1.00	09/15/1999 19:08	

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Environmental Services (SDB)

Submission #: 1999-09-0143

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn.: Jay Clare

Prep Method: 5030

REVISED

**Batch QC Report
Gas/BTEX**

Method Blank	Water	QC Batch # 1999/09/15-01.02
MB: 1999/09/15-01.02-001		Date Extracted: 09/15/1999 06:27

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	09/15/1999 06:27	
Benzene	ND	0.5	ug/L	09/15/1999 06:27	
Toluene	ND	0.5	ug/L	09/15/1999 06:27	
Ethyl benzene	ND	0.5	ug/L	09/15/1999 06:27	
Xylene(s)	ND	0.5	ug/L	09/15/1999 06:27	
MTBE	ND	5.0	ug/L	09/15/1999 06:27	
Surrogate(s)					
4-Bromofluorobenzene-FID	98.8	50-150	%	09/15/1999 06:27	

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Environmental Services (SDB)

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn.: Jay Clare

Prep Method: 5030

REVISED

Batch QC Report
Gas/BTEX

Method Blank

Water

QC Batch # 1999/09/15-01.01

MB: 1999/09/15-01.01-001

Date Extracted: 09/15/1999 07:42

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	09/15/1999 07:42	
Benzene	ND	0.5	ug/L	09/15/1999 07:42	
Toluene	ND	0.5	ug/L	09/15/1999 07:42	
Ethyl benzene	ND	0.5	ug/L	09/15/1999 07:42	
Xylene(s)	ND	0.5	ug/L	09/15/1999 07:42	
MTBE	ND	5.0	ug/L	09/15/1999 07:42	
Surrogate(s)					
Trifluorotoluene	88.8	58-124	%	09/15/1999 07:42	
4-Bromofluorobenzene-FID	75.4	50-150	%	09/15/1999 07:42	

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0143

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn: Jay Clare

Prep Method: 5030

REVISED

Batch QC Report

Gas/BTEX

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 1999/09/15-01.02
LCS: 1999/09/15-01.02-002	Extracted: 09/15/1999 06:54	Analyzed: 09/15/1999 06:54
LCSD: 1999/09/15-01.02-003	Extracted: 09/15/1999 07:21	Analyzed: 09/15/1999 07:21

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	404	383	500	500	80.8	76.8	5.3	75-125	20		
Benzene	109	96.8	100.0	100.0	109.0	96.8	11.9	77-123	20		
Toluene	108	97.7	100.0	100.0	108.0	97.7	10.0	78-122	20		
Ethyl benzene	102	95.6	100.0	100.0	102.0	95.6	6.5	70-130	20		
Xylene(s)	310	289	300	300	103.3	96.3	7.0	75-125	20		
Surrogate(s)											
Trifluorotoluene	491	415	500	500	98.2	83.0		58-124			
4-Bromofluorobenzene-FI	449	466	500	500	89.8	93.2		50-150			

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CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 1999-09-0143

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn: Jay Clare

Prep Method: 5030

Batch QC Report

REVISED

Gas/BTEX

Laboratory Control Spike (LCS/LCSD)	Water	QC Batch # 1999/09/15-01.01
LCS: 1999/09/15-01.01-002	Extracted: 09/15/1999 08:09	Analyzed: 09/15/1999 08:09
LCSD: 1999/09/15-01.01-003	Extracted: 09/15/1999 10:00	Analyzed: 09/15/1999 10:00

Compound	Conc. [ug/L]		Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	463	513	500	500	92.6	102.6	10.2	75-125	20		
Benzene	104	112	100.0	100.0	104.0	112.0	7.4	77-123	20		
Toluene	102	111	100.0	100.0	102.0	111.0	8.5	78-122	20		
Ethyl benzene	102	109	100.0	100.0	102.0	108.0	6.6	70-130	20		
Xylene(s)	302	323	300	300	100.7	107.7	6.7	75-126	20		
Surrogate(s)											
Trifluorotoluene	518	605	500	500	103.6	121.0		58-124			
4-Bromofluorobenzene-F1	460	500	500	500	92.0	100.0		50-150			

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CHROMALAB, INC.

Environmental Services (SDB)

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn.: Jay Clare

Prep Method: 5030

Batch QC Report

REVISED

Gas/BTEX

Matrix Spike (MS / MSD)

Water

QC Batch # 1999/09/15-01.02

Sample ID: MW-1

Lab Sample ID: 1999-09-0139-001

MS: 1999/09/15-01.02-004 Extracted: 09/15/1999 15:24 Analyzed: 09/15/1999 15:24 Dilution: 1.0

MSD: 1999/09/15-01.02-005 Extracted: 09/15/1999 15:52 Analyzed: 09/15/1999 15:52 Dilution: 1.0

Compound	Conc [ug/L]			Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Gasoline	602	587	106	500	500	99.2	96.2	3.1	65-135	20		
Benzene	111	105	0.969	100.0	100.0	110.0	104.0	5.8	65-135	20		
Toluene	129	123	12.1	100.0	100.0	116.9	110.9	5.3	65-135	20		
Ethyl benzene	119	114	6.35	100.0	100.0	112.7	107.7	4.5	65-135	20		
Xylene(s)	375	356	40.4	300	300	111.5	105.2	5.8	65-135	20		
Surrogate(s)												
Trifluorotoluene	491	458		500	500	98.2	91.6		58-124			
4-Bromofluorobenzene	531	505		500	500	106.2	101.0		50-150			

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CHROMALAB, INC.

Environmental Services (SDB)

To: URS Greiner Woodward Clyde- Oakland

Test Method: 8020
8015M

Attn.: Jay Clare

Prep Method: 5030

Batch QC Report

REVISED

Gas/BTEX

Matrix Spike (MS / MSD)	Water	QC Batch # 1999/09/15-01.01
Sample ID: OC2		Lab Sample ID: 1999-09-0126-004
MS: 1999/09/15-01.01-004	Extracted: 09/15/1999 13:12	Analyzed: 09/15/1999 13:12 Dilution: 1.0
MSD: 1999/09/15-01.01-005	Extracted: 09/15/1999 14:33	Analyzed: 09/15/1999 14:33 Dilution: 1.0

Compound	Conc [ug/L]			Exp. Conc. [ug/L]		Recovery [%]		RPD [%]	Ctrl. Limits [%]		Flags	
	MS	MSD	Sample	MS	MSD	MS	MSD		Recovery	RPD	MS	MSD
Gasoline	612	818	ND	500	500	122.4	123.6	1.0	65-135	20		
Benzene	118	107	ND	100.0	100.0	118.0	107.0	9.8	65-135	20		
Toluene	111	103	ND	100.0	100.0	111.0	103.0	7.5	65-135	20		
Ethyl benzene	107	96.6	ND	100.0	100.0	107.0	96.6	10.2	65-135	20		
Xylene(s)	203	287	1.74	300	300	67.1	95.1	34.5	65-135	20		mso
Surrogate(s)												
Trifluorotoluene	579	518		500	500	115.8	103.5		58-124			
4-Bromofluorobenzene-	459	415		500	500	91.8	83.0		50-150			

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