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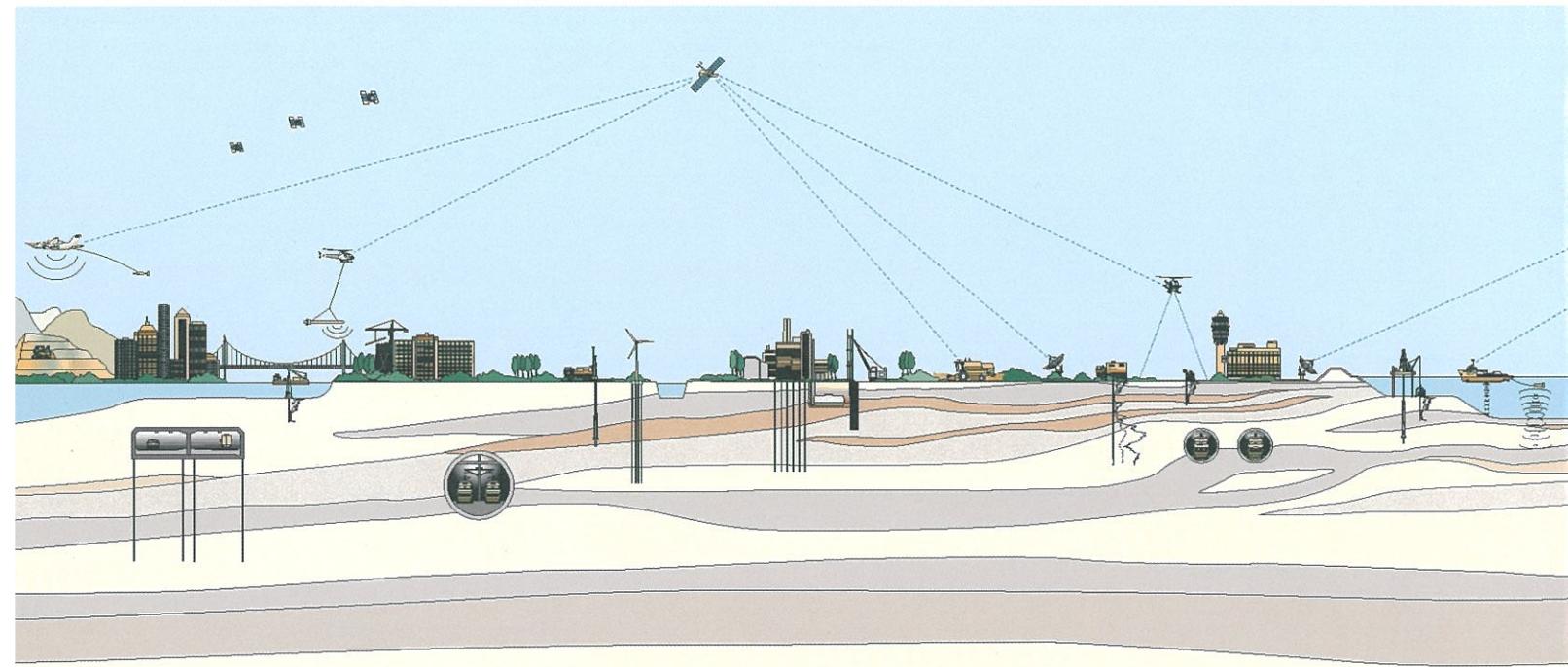
Alameda County  
Environmental Health



**SUMMER 2007 GROUNDWATER  
MONITORING REPORT  
2250 TELEGRAPH AVENUE  
OAKLAND, CALIFORNIA**

Prepared for:  
**BUTTNER PROPERTIES**

November 2007  
Fugro Project No. 609.004





## FUGRO WEST, INC.

November 14, 2007

Project No. 609.004

1000 Broadway, Suite 440  
Oakland, California 94607  
Tel: (510) 268-0461  
Fax: (510) 268-0545

Buttner Properties  
600 West Grand Avenue  
Oakland, California 94612

Attention: Ms. Marianne Robison

Subject: Summer 2007 Groundwater Monitoring Report, 2250 Telegraph Avenue,  
Oakland, California

Dear Ms. Robison:

Fugro West, Inc., (Fugro) is pleased to present this report, which records the results of the Summer 2007 groundwater monitoring event conducted in August 2007, for the 2250 Telegraph Avenue Property (Site). The groundwater monitoring program has been implemented in accordance with our February 2004 Work Plan and the Addendum to our Work Plan dated August 5, 2004. The Site location is shown on the Vicinity Map - Plate 1 and the Site Plan is presented on Plate 2.

During this monitoring event, Fugro sampled the four wells located onsite (MW-1, MW-2, MW-3, and MW-4) as well as two wells located offsite: MW-5 located to the south, within the parking lane and MW-6 located to the south, in the eastbound lanes of the heavily traveled West Grand Avenue.

### BACKGROUND

In August 1990, a 10,000-gallon gasoline underground gasoline storage tank (UST) and one 280-gallon waste oil UST were removed from the Site. Approximately 500 cubic yards of gasoline-impacted soil were excavated from the former UST and pump island areas, and with concurrence from the Alameda County Environmental Health (ACEH) the contaminated soils were aerated onsite in 1990 and 1991 and disposed at a Class III sanitary landfill. The excavations were backfilled with clean imported materials, placed and compacted under engineering supervision, and the area was resurfaced with asphalt pavement.

In February 1994, contaminated soils near the former waste oil tank were over-excavated and removed from the Site. Four groundwater monitoring wells (MW-1 through MW-4) were installed onsite and a groundwater monitoring program was implemented. In May 1996, five temporary well points were installed and grab groundwater samples were obtained as part of a supplemental investigation to assist in determining locations for two offsite monitoring wells. Wells MW-5 and MW-6 were installed at offsite locations, downgradient from the former UST excavations in June 1997. In response to ACEH letters dated June 16, 1998, and November 8, 1999, all groundwater monitoring wells (MW-1 through MW-6) were monitored and sampled on a semi-annual basis through 2001.



In their letter dated January 16, 2002, the ACEH recommended a risk assessment and sensitive receptor survey be conducted to determine whether the Site may be considered a "low risk site." While in the process of conducting these activities, a subsequent letter from the ACEH dated April 4, 2003, was received by the property owner. The April 2003 letter requested that additional source and site characterization studies, a preferential pathway study, and a well survey be conducted. In response to these requests, Fugro prepared a Preferential Pathway and Preliminary Risk Evaluation report dated February 19, 2004. Fugro conducted research at the City offices to identify the location of preferential pathways in the immediate vicinity and evaluated the presence of sensitive receptors in the area. Fugro also compared detected concentrations to the Environmental Screening Levels established by the Regional Water Quality Control Board (RWQCB) for classification of impacted sites. These Site studies indicated the following:

- Source material has been removed from the Site and the Site has been restored to allow continued use of the Site;
- Residual concentrations of Total Petroleum Hydrocarbons (TPH) in soil beneath the onsite structure and concentrations in groundwater do not pose an immediate or significant risk to human health or the environment, considering the current commercial use of the Site;
- Groundwater below West Grand Avenue is impacted by commingled petroleum hydrocarbon releases from various sources;
- No drinking water wells exist within a half-mile radius of the Site;
- No utility corridors were located on or offsite, which would create a preferential migration pathway for contaminants of concern. City infrastructure maps indicate that storm and sanitary sewer mainlines do not extend below West Grand Avenue, they extend below Telegraph Avenue, situated along the upgradient side of the Site, and below Valley Street further to the east. Only one shallow storm drain connector extends from the southeast corner of the Site to Valley Street, and the connector is located above the groundwater surface;
- Shallow groundwater in the downtown Oakland area is not considered nor currently used as a potable water source; and
- With the exception of possible upward migration of soil gas vapors, no exposure pathways currently exist. Given the current commercial use of the Site, as well as the fact that the Site is completely paved and/or covered by concrete slabs, soil vapor migration is not a completed exposure pathway.

Fugro developed a scope of work (Work Plan, February 2004, and Work Plan Addendum, August 2004) to define the lateral extent of onsite soil and groundwater impacts, and to evaluate the potential for soil gas vapors to impact current and future occupants considering that the Site would be redeveloped in the future. In their letter dated August 19, 2005, ACEH requested further clarification for the proposed scope of services. Fugro provided responses to ACEH comments in the Groundwater Monitoring Report and Supplemental Work Plan Addendum dated October 15, 2005. To date, no further written comments or

acknowledgement has been received from ACEH, and as such groundwater monitoring is the only activity being conducted at the Site.

Fugro has uploaded PDF copies of our Winter 2005, Spring 2006, Summer 2006, and Fall 2006 Groundwater Monitoring Reports to the ACEH ftp website. We also sent electronic copies of all attached tables in a Microsoft excel format, to ACEH as required.

### **GROUNDWATER MONITORING – SUMMER 2007**

Fugro conducted this monitoring event on August 8, 2007. Prior to sampling, the presence of free product was checked and the depth to groundwater was measured in all six wells. Fugro's field geologist noticed hydrocarbon odor during purging and sampling of monitoring wells MW-1, MW-3, MW-4, and MW-6; however, no free product was observed. Each well was then purged of approximately three casing volumes of water while monitoring for changes in pH, conductivity, and temperature. Once the water levels stabilized, the wells were sampled with clean disposable bailers. Samples were retained in glass containers pre-cleaned by the laboratory in accordance with Environmental Protection Agency (EPA) protocols. The containers were placed in an ice-filled cooler and kept chilled, pending delivery to the laboratory.

The samples for this event were submitted under chain-of-custody documents to Curtis & Tompkins, Ltd., a laboratory certified by the State of California Department of Health Services for hazardous waste and water testing. A sample from each well was analyzed for the following constituents:

- Total volatile hydrocarbons as gasoline (TVHg), EPA Methods 5030/8015;
- Total extractable hydrocarbons as diesel and motor oil (TEHd and mo), EPA Methods 8015m, using silica gel cleanup;
- Lead scavengers including: dichloroethane and dibromoethane;
- Five fuel oxygenates by EPA Methods 8260 including; Methyl tert butyl ether (MTBE), TBA, DIPE, ETBE, and TAME; and
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX).

Well sampling forms, chain-of-custody documents, and the analytical test reports are presented in Appendix A. Groundwater elevation data are summarized in Table 1. Analytical test results are summarized in Table 2.

The groundwater flow direction for this event is presented in the Rose Diagram on Plate 2. The gradient for this event was 0.013 feet/foot directed towards the southeast. Based on the groundwater elevation data presented in Table 1, the groundwater gradient remains generally consistent with previous measurements. Groundwater was encountered at lower elevations compared to the Spring 2007 event, which is expected.

TVHg was detected during this event in samples from wells MW-1 (300 µg/l), MW-3 (2,100 µg/l), MW-4 (6,100 µg/l) and MW-6 (2,100 µg/l). TEHd was detected in samples from wells MW-1 (95 µg/l), MW-3 (130 µg/l), MW-4 (9,200 µg/l) and MW-6 (680 µg/l). TEHmo was only detected in the sample from well MW-4 (12,000 µg/l). Concentrations of TVHg, TEHd, and TEHmo were significantly higher in well MW-4 than previous sampling events.

Analysis detected benzene concentrations in wells MW-3 (260 µg/l) and MW-4 (0.7 µg/l). Analysis also detected xylenes in MW-4 (0.5 µg/l) toluene (5.1 µg/l), ethylbenzene (5.8 µg/l), and xylenes (3.6 µg/l) in well MW-3. No concentrations of benzene, toluene, ethylbenzene, or total xylenes were detected in any of the remaining samples tested.

No MTBE concentrations were detected in any of the samples tested during this event. None of the lead scavengers or fuel oxygenates were detected in any of the samples analyzed.

### NEXT GROUNDWATER MONITORING EVENT

The next scheduled event will be conducted during the Winter of 2007/08. If you have any questions, please call either of the undersigned at (510) 268-0461.

Sincerely,  
FUGRO WEST, INC.



Hanako Zeidenberg  
Staff Geologist



Jeriann N. Alexander, P.E., R.E.A.  
Project Manager  
Civil Engineer 40469 (exp. 3/31/09)  
REA 03130 (exp. 7/08)



HZ/JNA:rh

Attachments: Table 1 - Groundwater Elevation Data  
Table 2 - Chemical Concentrations in Groundwater  
Plate 1 - Vicinity Map  
Plate 2 - Site Plan with Groundwater Rose Diagram  
Appendix A - Well Sampling Forms and Analytical Test Report  
and Chain of Custody Form

Copies Submitted: (1) Addressee  
(1) Mr. Tim Robison, Ph.D.  
(PDF) Ms. Donna Drogos, Alameda County Environmental Health

## **TABLES**

**Table 1**  
**Groundwater Elevation Data**  
**2250 Telegraph Avenue**  
**Oakland, California**

<b>Monitoring</b>		<b>TOC Elevation</b>	<b>DTW</b>	<b>Elevation</b>
<b>Well</b>	<b>Date</b>	<b>(feet) MSL</b>	<b>(feet)</b>	<b>(feet) MSL</b>
MW-1	3/3/1994	20.55	10.39	10.16
	3/10/1994		10.54	10.01
	6/6/1994		11.36	9.19
	9/7/1994		11.92	8.63
	12/22/1994		10.83	9.72
	3/17/1995		9.73	10.82
	6/27/1995		10.51	10.04
	9/18/1995		11.12	9.43
	5/30/1996		10.49	10.06
	7/9/1997		11.79	8.76
	8/21/1998		11.00	9.55
	10/6/1998		11.84	8.71
	2/24/1999		9.74	10.81
	6/30/2000		11.28	9.27
	4/27/2001		10.56	9.99
	4/14/2005		10.12	10.43
	8/1/2005		10.56	9.99
	11/9/2005		12.53	8.02
	3/21/2006		9.71	10.84
	8/7/2006		11.40	9.15
	10/27/2006		11.39	9.16
	3/20/2007		10.94	9.61
	8/8/2007		11.21	9.34
MW-2	3/3/1994	20.03	10.37	9.66
	3/10/1994		10.53	9.50
	6/6/1994		11.15	8.88
	9/7/1994		11.72	8.31
	12/22/1994		11.27	8.76
	3/17/1995		9.85	10.18
	6/27/1995		10.70	9.33
	9/18/1995		11.67	8.36
	5/30/1996		11.56	8.47
	7/9/1997		11.52	8.51
	8/21/1998		11.91	8.12
	10/6/1998		11.57	8.46
	2/24/1999		9.91	10.12
	6/30/2000		11.16	8.87
	4/27/2001		11.32	8.71
	4/14/2005		11.00	9.03
	8/1/2005		11.67	8.36
	11/9/2005		11.54	8.49
	3/21/2006		11.02	9.01
	8/7/2006		11.84	8.19
	10/27/2006		11.92	8.11
	3/20/2007		12.52	7.51
	8/8/2007		12.82	7.21



**Table 1**  
**Groundwater Elevation Data**  
**2250 Telegraph Avenue**  
**Oakland, California**

<b>Monitoring</b>		<b>TOC Elevation</b>	<b>DTW</b>	<b>Elevation</b>
	<b>Well</b>	<b>Date</b>	<b>(feet) MSL</b>	<b>(feet)</b>
MW-3		3/3/1994	18.97	9.50
		3/10/1994		9.51
		6/6/1994		10.28
		9/7/1994		10.75
		12/22/1994		9.74
		3/17/1995		8.85
		6/27/1995		9.94
		9/18/1995		10.54
		5/30/1996		9.69
		7/9/1997		10.60
		8/21/1998		10.36
		10/6/1998		10.64
		2/24/1999		8.58
		6/30/2000		10.21
		4/27/2001		9.85
		4/14/2005		9.58
		8/1/2005		10.24
		11/9/2005		10.45
		3/21/2006		8.77
		8/7/2006		10.30
		10/27/2006		10.63
		3/20/2007		9.72
		8/8/2007		10.48
				8.49
MW-4		3/3/1994	19.88	10.89
		3/10/1994		11.19
		6/6/1994		11.85
		9/7/1994		12.86
		12/22/1994		12.26
		3/17/1995		10.10
		6/27/1995		11.05
		9/18/1995		11.84
		5/30/1996		10.97
		7/9/1997		12.08
		8/21/1998		11.86
		10/6/1998		12.84
		2/24/1999		10.79
		6/30/2000		12.39
		4/27/2001		11.26
		4/14/2005		12.01
		8/1/2005		11.78
		11/9/2005		12.42
		3/21/2006		10.00
		8/7/2006		11.90
		10/27/2006		12.75
		3/20/2007		11.20
		8/8/2007		12.00
				7.88



**Table 1**  
**Groundwater Elevation Data**  
**2250 Telegraph Avenue**  
**Oakland, California**

<b>Monitoring</b>		<b>TOC Elevation</b>	<b>DTW</b>	<b>Elevation</b>
	<b>Well</b>	<b>Date</b>	<b>(feet) MSL</b>	<b>(feet)</b>
MW-5		6/26/1997	16.02	8.44
		7/9/1997		8.48
		8/21/1998		8.32
		10/6/1998		8.51
		2/24/1999		6.86
		6/30/2000		7.63
		4/27/2001		7.60
		4/15/2005		7.20
		8/1/2005		8.16
		11/9/2005		7.92
		3/21/2006		6.58
		8/7/2006		8.27
		10/27/2006		8.48
		3/20/2007		7.67
		8/8/2007		8.43
MW-6		6/26/1997	18.36	10.89
		7/9/1997		10.98
		8/21/1998		11.00
		10/6/1998		10.79
		2/24/1999		9.32
		6/30/2000		10.37
		4/27/2001		10.10
		4/15/2005		9.55
		8/1/2005		10.54
		11/9/2005		NA
		3/21/2006		9.11
		8/7/2006		10.59
		NA		NA
		3/20/2007		10.10
		8/8/2007		10.85

TOC = Top of Casing

DTW = Depth to Water

Elevation Reference: USGS benchmark W1197, 1969 with a reported

elevation of +21.06 feet MSL datum.

NA = Not Accessible During This Sampling Event



**Table 2**  
**Chemical Concentrations in Groundwater**  
**2250 Telegraph Avenue, Oakland, California**



Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics															
			TVH as Gasoline µg/l	TEH as Kerosene µg/l	TEH as Diesel µg/l	TEH as Motor Oil ug/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE -8020 µg/l	MTBE -8260 µg/l	TBA µg/l	DIPE µg/l	ETBE µg/l	TAME µg/l	1,1,1-TCA µg/l	1,2-DCA µg/l	1,2-DBA µg/l	PCE µg/l	Chloro-Benzene µg/l	
<b>Soil Gas ESL*</b>			NV	NV	NV	NV	540	380,000	170,000	160,000	24,000											
<b>Groundwater ESL**</b>			100	100	100	100	1	40	30	20	5											
Temp. Well 1	5/31/96	--	13,000	--	37,000	--	<50	<50	<50	380	--	--	--	--	--	<1	<1	--	<1	<1		
Temp. Well 2	5/30/96	--	250	--	<50	--	<0.5	<0.5	13	3.4	--	--	--	--	--	<1	<1	--	<1	<1		
Temp. Well 3	5/30/96	--	<50	--	83	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<1	20	--	<1	<1		
Temp. Well 4	5/31/96	--	11,000	--	1,900	--	130	66	340	260	--	--	--	--	--	<1	<1	--	<1	<1		
Temp. Well 5	5/30/96	--	70	--	180	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<1	<1	--	<1	<1		
MW-1	3/3/94	10.16	300	<50	<500	1.3	<0.5	2.7	3.1	--	--	--	--	--	<0.5	5.5	--	<0.5	<0.5			
	6/6/94	9.19	430	180+	<50	<500	10	2.2	6.1	7.6	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	9/7/94	8.63	410	<50	<50	<500	6.4	0.8	2.6	3.8	--	--	--	--	<0.5	3.8	--	<0.5	<0.5			
	12/22/94	9.72	130	<50	<50	<500	0.7	<0.5	0.6	0.8	--	--	--	--	<0.5	3.4	--	<0.5	<0.5			
	3/17/95	10.82	1,600	170	<50	<500	29	<0.5	9.1	6.9	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	6/27/95	10.04	1,100	<50	<500	14	<0.5	7.1	5	--	--	--	--	--	<0.5	3.3	--	<0.5	<0.5			
	9/18/95	9.43	370	--	110+	--	4.4	0.6	2	1.4	--	--	--	--	<0.5	2.4	--	<0.5	<0.5			
	8/21/98	9.55	170	--	62+	--	<0.5	0.76	0.79	<0.5	<2.0	--	--	--	--	--	--	--	--			
	2/24/99	10.81	20	--	280+	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--			
	6/30/00	13.47	240	--	<50	--	0.7	0.8	<0.5	0.74	4.0	--	--	--	--	--	--	--	--			
	4/27/01	9.99	160	--	<50	--	3.3	<0.5	0.86	<0.50	<2.0	--	--	--	--	--	--	--	--			
	4/15/05	10.43	520	--	99 LY	<300	3.3 <sup>c</sup>	1.8	<0.5	4.6	--	<0.5	<10	<0.5	<0.5	<0.5	0.6	<0.5	--			
	8/1/05	9.99	480	--	62 LY	<300	<0.5	<0.5	<0.5	2.3	--	<0.5	18	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	11/9/05	8.02	290 <sup>y</sup>	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	14	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	3/21/06	10.84	390	--	97 LY	<300	1	<0.5	0.6	<0.5	--	<0.5	16	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	8/7/06	9.15	720	--	130 LY	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	18	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	10/27/06	9.16	250	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	12	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	3/20/07	9.61	290 <sup>y</sup>	--	74 LY	<300	<0.5	<0.5	0.58	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	8/8/07	9.34	300 LY	--	95 LY	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5			
MW-2	3/3/94	9.66	110	<50	<500	<0.5	1.7	0.58	2.7	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	6/6/94	8.88	100	<50	<50	<500	11	<0.5	0.7	1.1	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	9/7/94	8.31	<50	<50	<50	<500	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	12/22/94	8.76	<50	<50	<50	<500	0.8	<0.5	<0.5	0.8	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	3/17/95	10.18	180	100	<50	<500	31	<0.5	1	1.8	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	6/27/95	9.33	80	<50	<50	<500	6	<0.5	<0.5	<0.5	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	9/18/95	8.36	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5			
	8/21/98	8.12	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--			
	2/24/99	10.12	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--			
	6/30/00	14.24	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	2.0	--	--	--	--	--	--	--	--			
	4/27/01	8.71	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--			
	4/15/05	9.03	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	8/1/05	8.36	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5			
	11/9/05	8.49	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5			

**Table 2**  
**Chemical Concentrations in Groundwater**  
**2250 Telegraph Avenue, Oakland, California**



Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics																			
			TVH as Gasoline µg/l	TEH as Kerosene µg/l	TEH as Diesel µg/l	TEH as Motor Oil ug/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE -8020 µg/l	MTBE -8260 µg/l	TBA µg/l	DIPE µg/l	ETBE µg/l	TAME µg/l	1,1,1-TCA µg/l	1,2-DCA µg/l	1,2-DBA µg/l	PCE µg/l	Chloro-Benzene µg/l					
Soil Gas ESL*			NV	NV	NV	NV	540	380,000	170,000	160,000	24,000															
Groundwater ESL**			100	100	100	100	1	40	30	20	5															
MW-3	3/3/94	9.47	85	<50	<50	<500	<0.5	0.77	<0.5	3.7	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5	<0.5					
	6/6/94	8.69	100	110+	<50	<500	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	2.5	0.8	--	2.1	<0.5						
	9/7/94	8.22	220	<50	<50	<500	11	1.8	2.6	3.5	--	--	--	--	--	<0.5	<0.5	--	0.6	<0.5						
MW-3 Contd	12/22/94	9.23	130	95+	<50	<500	3.8	0.5	0.6	1.2	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5						
	3/17/95	10.12	1,500	270	<50	<500	83	6	10	15	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5						
	6/27/95	9.03	2,500	<50	<50	<500	330	8.9	8.1	20	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5						
	9/18/95	8.43	1,500	--	770+	--	400	11	2.2	3.3	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5						
	8/21/98	8.61	2,300	--	600+	--	410	9.3	36	25	<10	--	--	--	--	--	--	--	--	--						
	2/24/99	10.39	55	--	110+	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--						
	6/30/00	10.83	110	--	83+	--	<0.5	<0.5	0.51	<0.5	<2.0	--	--	--	--	--	--	--	--	--						
	4/27/01	8.67	<50	--	690+	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--						
	4/14/05	9.12	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	8/1/05	9.39	410	--	150 <sup>HLY</sup>	750	17	<0.5	0.87c	1.4	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	11/9/05	8.73	1,100 <sup>y</sup>	--	110 <sup>LY</sup>	<300	150	3.4	6.1	3.8	--	<0.5	13	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	3/21/06	10.20	100	--	61 <sup>y</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	12	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	8/7/06	8.67	4,000 <sup>y</sup>	--	280 <sup>LY</sup>	<300	630	9	31	12	--	<0.5	18	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	10/27/06	8.34	5,300	--	240 <sup>LY</sup>	<300	950	13	17	11	--	<10	<200	<10	<10	<10	--	<10	<10	--	--					
	3/20/07	9.25	1,000 <sup>LY</sup>	--	180 <sup>LY</sup>	<300	100	1.5	2.1	3.3	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	8/8/07	8.49	2,100 <sup>LY</sup>	--	130 <sup>LY</sup>	<300	260	5.1	5.8	3.6	--	<2.0	<40	<2.0	<2.0	<2.0	--	<2.0	<2.0	--	--					
MW-4	3/3/94	8.99	4,300	<50	240	<500	220	20	7.5	17	--	--	--	--	--	<0.5	5.9	--	<0.5	4.4						
	6/6/94	8.03	4,400	<50	800+	<500	140	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	--	<0.5	<0.5						
	9/7/94	7.02	10,000	490+	280+	<500	84	<0.5	42	69	--	--	--	--	--	<0.5	4.4	--	0.5	4.3						
	12/22/94	7.62	2,400	450+	54+	<500	11	<0.5	7.1	11	--	--	--	--	--	<0.5	3.6	--	3.6	<0.5						
	3/17/95	9.78	2,200	380	160+	<500	<0.5	<0.5	7.9	10	--	--	--	--	--	<0.5	1.7	--	<0.5	4.5						
	6/27/95	8.83	3,100	<50	82	<500	<0.5	<0.5	13	19	--	--	--	--	--	<0.5	2.3	--	<0.5	4.8						
	9/18/95	8.04	3,000	--	1,231+	--	12	<0.7	6.9	8.3	--	--	--	--	--	<0.5	1.9	--	<0.5	4.0						
	8/21/98	8.02	1,700	--	600+	--	8.2	12	13	5.2	<2.0	-	--	--	--	--	--	--	--	--						
	2/24/99	9.09	2,700	--	2,100+	--	4.3	0.64	<0.5	0.54	--	<2.0	--	--	--	--	--	--	--	--						
	6/30/00	11.74	6,700	--	3,200+	--	3.1	1.7	11	16.7	27	--	--	--	--	--	--	--	--	--						
	4/27/01	8.62	1,900	--	710	--	<0.5	<0.5	<0.5	<0.5	14	--	--	--	--	--	--	--	--	--						
	4/14/05	7.87	2,900	--	2,200 <sup>HLY</sup>	2,500	<0.5	<0.5	<0.5	5.1	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	8/1/05	8.10	2,000	--	2,100 <sup>LY</sup>	3400 <sup>L</sup>	<0.5	<0.5	<0.5	5.8c	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	11/9/05	7.46	2,000 <sup>y</sup>	--	1,900 <sup>LY</sup>	2,300 <sup>L</sup>	1.2	<0.5	<0.5	0.8	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	3/21/06	9.88	2,200	--	2,800 <sup>LY</sup>	4,000 <sup>L</sup>	1.2	<0.5	<0.5	0.7	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	8/7/06	7.98	2,500 <sup>y</sup>	--	4,700 <sup>LY</sup>	7,200 <sup>L</sup>	0.6	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--	--					
	10/27/06	7.13	2,200 <sup>y</sup>	--	2,500 <sup>LY</sup>	3,200 <sup>L</sup> </																				

**Table 2**  
**Chemical Concentrations in Groundwater**  
**2250 Telegraph Avenue, Oakland, California**



Well	Date	Groundwater Elevation MSL (feet)	Petroleum Hydrocarbons				Volatile Organics													
			TVH as Gasoline µg/l	TEH as Kerosene µg/l	TEH as Diesel µg/l	TEH as Motor Oil ug/l	Benzene µg/l	Toluene µg/l	Ethyl-benzene µg/l	Xylenes µg/l	MTBE -8020 µg/l	MTBE -8260 µg/l	TBA µg/l	DIPE µg/l	ETBE µg/l	TAME µg/l	1,1,1-TCA µg/l	1,2-DCA µg/l	1,2-DBA µg/l	PCE µg/l
		Soil Gas ESL*	NV	NV	NV	NV	540	380,000	170,000	160,000	24,000									
		Groundwater ESL**	100	100	100	100	1	40	30	20	5									
MW-5	6/26/97	7.58	120	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	--	--	--	--	<0.5	<0.5	--	1.6	<0.5
	8/21/98	7.70	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--
	2/24/99	9.16	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	--	<2.0	--	--	--	--	--	--	--	--
	6/30/00	8.39	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	5.1	--	--	--	--	--	--	--	--	--
	4/27/01	8.42	<50	--	<50	--	<0.5	<0.5	<0.5	<0.5	<2.0	--	--	--	--	--	--	--	--	--
	4/14/05	8.82	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	8/1/05	7.86	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	11/9/05	8.10	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	3/21/06	9.44	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	8/7/06	7.75	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	10/27/06	7.54	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	3/20/07	8.35	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	8/8/07	7.59	<50	--	<50	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
MW-6	6/26/97	7.47	1,500+	--	450+	--	<0.5	<0.5	11	<0.5	-	-	--	--	--	<0.5	<0.5	--	<0.5	1.7
	8/21/98	7.36	1,400	--	540+	--	<0.5	3.6	5.6	0.4	5.7	3.2	--	--	--	--	--	--	--	--
	2/24/99	9.04	1,600	--	600+	--	<0.5	<0.5	0.56	<0.5	--	2.3	--	--	--	--	--	--	--	--
	6/30/00	8.04	1,900	--	360+	--	0.56	3	5.4	3.5	30	--	--	--	--	--	--	--	--	--
	4/27/01	8.26	1,600	--	440	--	<0.5	<0.5	<0.5	<0.5	3.3	--	--	--	--	--	--	--	--	--
	4/14/05	8.81	2,100	--	890 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	5.9	--	0.7	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	8/1/05	7.82	2,100	--	670 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	11/9/05	NA	NA	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/21/06	9.25	1,900	--	850 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	8/7/06	7.77	2,200 <sup>Y</sup>	--	940 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	10/27/06	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	3/20/07	8.26	2,000 <sup>Y</sup>	--	670L <sup>Y</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--
	8/8/07	7.51	2,100 <sup>HY</sup>	--	680 <sup>LY</sup>	<300	<0.5	<0.5	<0.5	<0.5	--	<0.5	<10	<0.5	<0.5	<0.5	--	<0.5	<0.5	--

Notes:

DCA = Dichloroethane

µg/l = micrograms per liter = parts per billion

DBA = Dibromoethane  
TCA = Trichloroethane  
PCE = Tetrachloroethene

C = Presence Confirmed, but RPD between columns exceeds 40%

MTBE = Methyl tert butyl ether

Y = Sample exhibits chromatographic pattern which does not resemble standard

TBA = Tert butyl alcohol

H = Heavier hydrocarbon contributed to the quantitation

DIPE = Isopropyl alcohol

L = Lighter hydrocarbon contributed to the quantitation

ETBE = Ethyl tert butyl ether

\* = Environmental Screening Levels established by the San Francisco Bay Regional Water Quality Control Board

TAME = Methyl tert amyl ether

Table E-1 Groundwater Screening Levels for Evaluation of Potential Vapor Intrusion Concerns

-- = Chemical not tested for

NR = Hydrocarbon range not reported by laboratory

+ = Uncategorized hydrocarbons quantified in ranges specified

\*\* = Environmental Screening Levels established by the San Francisco Bay Regional Water Quality Control Board

mg/l = milligrams per liter = parts per million

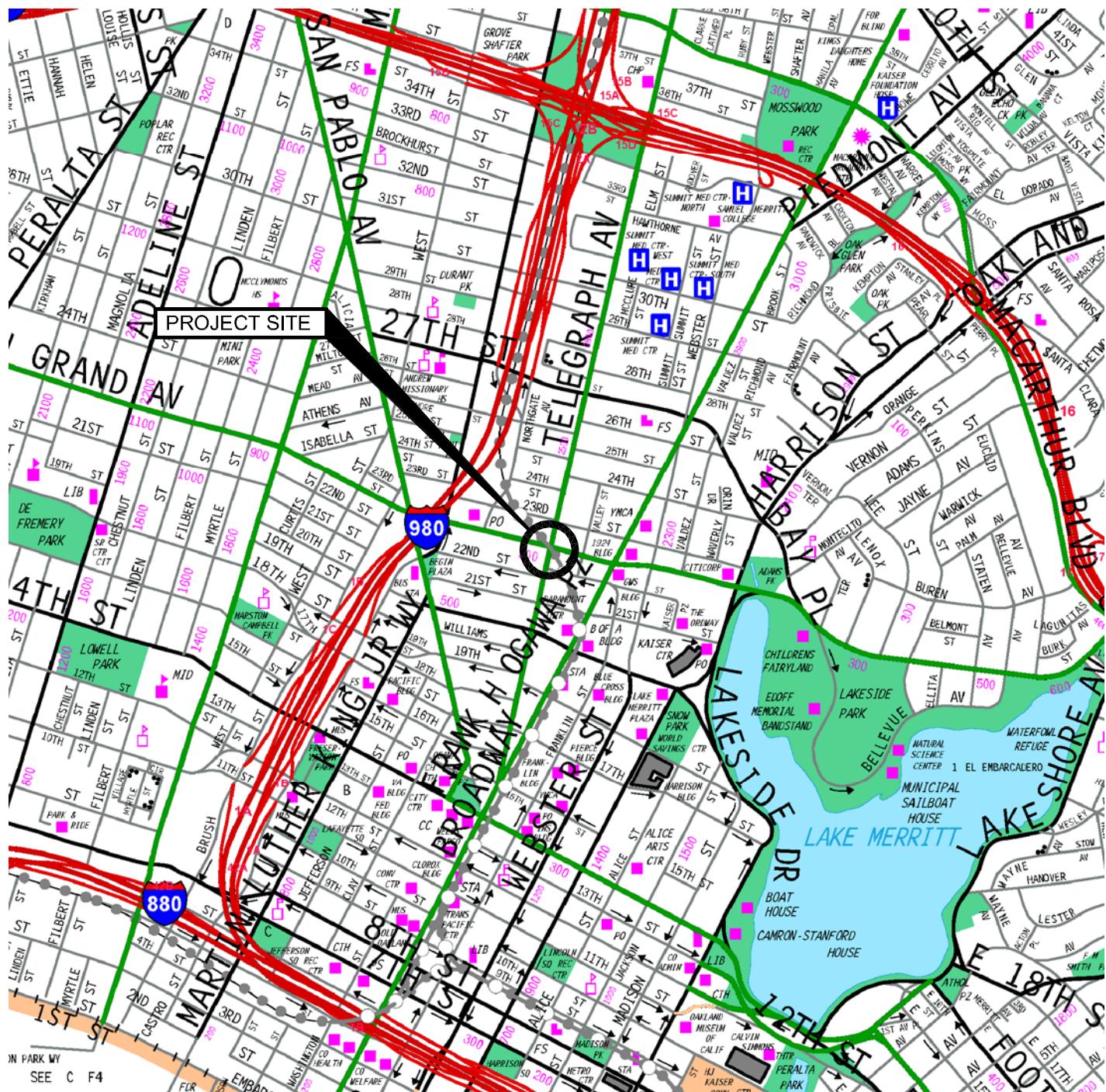
Table F-1a Groundwater Screening Levels (groundwater is a current potential drinking water resource)

NA = Not Accessible During This Sampling Event

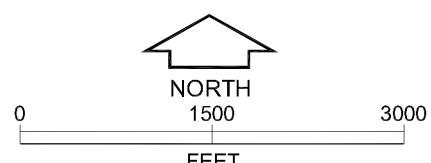
-- = Not Analyzed



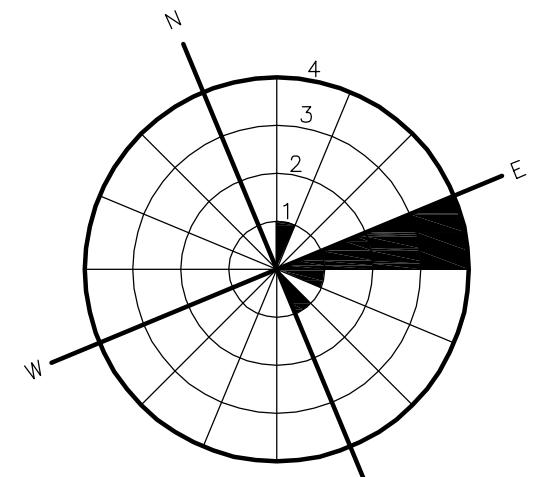
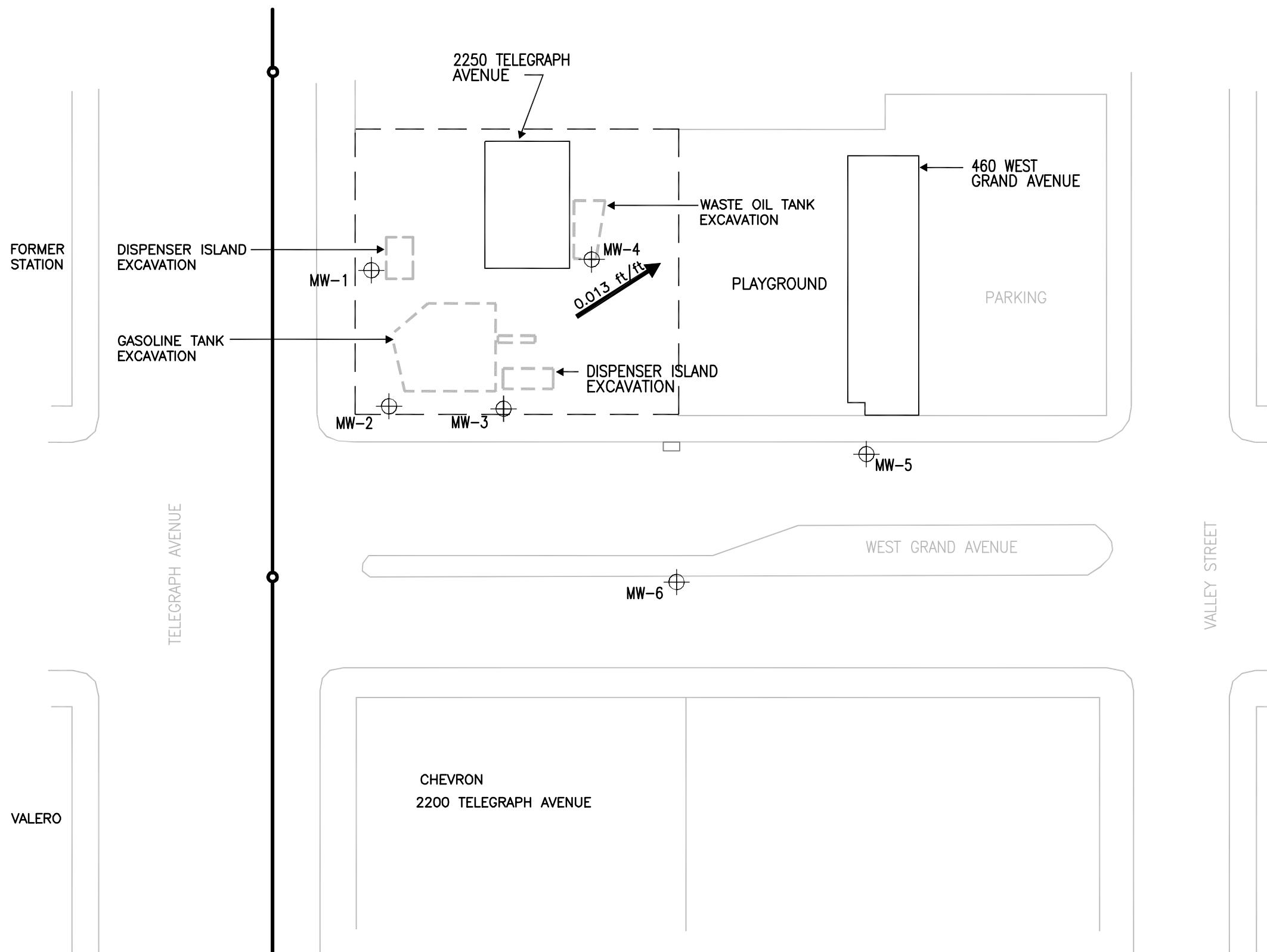
## **PLATES**



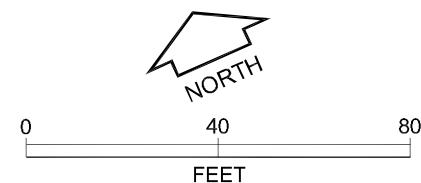
**SOURCE:** This Site Vicinity Map is based on The Thomas Guide Digital Edition 2003, Bay Area Metro, Alameda, Contra Costa, Marin, San Francisco, San Mateo, and Santa Clara Counties.



**VICINITY MAP**  
2250 Telegraph Avenue  
Oakland, California



- EXPLANATION
- EXISTING STRUCTURE
  - LIMITS OF EXCAVATIONS
  - MONITORING WELL LOCATION
  - APPROXIMATE GROUNDWATER FLOW DIRECTION



**SITE PLAN**  
2250 Telegraph Avenue  
Oakland, California

**APPENDIX A**  
**WELL SAMPLING FORMS, ANALYTICAL TEST REPORT**  
**AND CHAIN OF CUSTODY FORM**



**ES-E50 WELL SAMPLING FORM**

PROJECT NAME: Leggupn Hill  
PROJECT NO.: 569.004  
SAMPLED BY: Hana Zedentberg  
DATE: 3.8.07\*  
WEATHER: Sunny, warm

WELL NO.: 100-1  
WELL CASING DIAMETER: 2 1/2"  
TOE ELEVATION:

TOTAL DEPTH OF CASING (BTOC): 18.3 FEET

**CALCULATED PURGE VOLUME:** \_\_\_\_\_ gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 11.2 FEET

**FREE PRODUCT:**

FEET OF WATER IN WELL: 7.10 FEET

## PURGE METHOD:

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER \_\_\_\_\_

## FIELD MEASUREMENTS

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): \_\_\_\_\_ TIME SAMPLED: 120

TIME SAMPLED: 3:45

SAMPLING METHOD disposable vials

CONTAINERS / PRESERVATIVE: 5 / HCl 40 MI 1 / No HCl LITER

CONTAINERS / PRESERVATIVE: 5 ml 1 ml  
40 ML LITER

**Poly** OTHER

ANALYSES: (Note if any samples are field filtered)

TEHd, TEHmo (8015 w/ Silica gel)  
 TVHg, BTEX, MTBE (8015/8020)  
 VOCs (8260)  
 HVOCS (8260)  
 Title 22 Metals (6010/9000)      Pesticides (8080)  
 PCBs (8080)  
 Sulfate (300.0)  
 Nitrate (300.0)  
 Fe<sup>2+</sup> - Field Filtered

MISC FIELD OBSERVATION: new dasher, 007, insect with an



## **ES-F50 WELL SAMPLING FORM**

PROJECT NAME: 7-250 Telegraph Ave  
PROJECT NO.: 609.004  
SAMPLED BY: Hana Gerdnerberg  
DATE: 9/8/07  
WEATHER: Drove sunny, warm

WELL NO.: MW-2  
WELL CASING DIAMETER: 2"  
TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOC): 6,03 FEET

**CALCULATED PURGE VOLUME:** \_\_\_\_\_ gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC) 6.86 FEET

**FREE PRODUCT:**

FEET OF WATER IN WELL: 4.03 FEET

## PURGE METHOD:

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER \_\_\_\_\_

## FIELD MEASUREMENTS

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTG):

TIME SAMPLED: 1910

## SAMPLING METHOD

~~disposable~~ File

**CONTAINERS / PRESERVATIVE:**

5/11/04

1 / No Fla

ANALYSES: (Note if any samples are field filtered)

- TEHD, TEHmo (8015 w/ Silica gel)
- TVhg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCs (8260)
- Title 22 Metals (6010/9000)

Pesticides (8080)  
 PCBs (8080)  
 Sulfate (300.0)  
 Nitrate (300.0)  
 Fe<sup>2+</sup> - Field Filtered

#### MISC FIELD OBSERVATIONS

Title 22 Metals (6010/9000) Fe<sup>2+</sup> - Field Filtered  
TION: new gasket, new bolts, rinsed well

Equipment	Serial No.	Calibration
Conductivity		
pH		
Turbidity		
Temperature		



## **ES-F50 WELL SAMPLING FORM**

PROJECT NAME: 2250 Telegraph Hill.  
PROJECT NO.: 689.004  
SAMPLED BY: Jane Zudenberg  
DATE: 08-07  
WEATHER: sunny, warm

WELL NO.: MW-3  
WELL CASING DIAMETER: 2"  
TOC ELEVATION:

TOTAL DEPTH OF CASING (BTOC): 16.30 FEET

**CALCULATED PURGE VOLUME:** 128 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 12.48 FEET

FREE PRODUCT

FEET OF WATER IN WELL: 5 82 FEET

PURGE METHOD

**MEASUREMENT METHOD: ELECTRONIC SOUNDER** or OTHER \_\_\_\_\_

## FIELD MEASUREMENTS

**ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC):**

TIME SAMPLED: 1340

#### SAMPLING METHOD

INDWATER BEFORE SAMPLING (BTOS):  
disposable filter

**CONTAINERS / PRESERVATIVE:**

5 / 10 MI

1 / No HCl

LITER

ANALYSSES: (Note if any samples are field filtered)

- TEHd, TEHmo (8015 w/ Silica gel)
- TVHg, BTEX, MTBE (8015/8020)
- VOCs (8260)
- HVOCs (8260)
- Title 22 Metals (6010/9000)

- Pesticides (8080)
- PCBs (8080)
- Sulfate (300.0)
- Nitrate (300.0)
- Fe<sup>2+</sup> - Field Filtered

#### MICROFIELD OBSERVATIONS

Fe <sup>2+</sup> - Field Filtered  
like new gasket, new lock, rinsed well



**ES-F50 WELL SAMPLING FORM**

PROJECT NAME: 2230 Telegraph River  
PROJECT NO.: 669.004  
SAMPLED BY: Anna Zeldenberg  
DATE: 8-8-01  
WEATHER: sunny, warm

WELL NO.: ME-3  
WELL CASING DIAMETER: 2"  
TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOS): 1030 FEET

**CALCULATED PURGE VOLUME:** 50 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 12.00 FEET

FREE PRODUCT:

FEET OF WATER IN WELL: 0.50 FEET

## PIURGE METHODS

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER

## FIELD MEASUREMENTS

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC):

TIME SAMPLED: 10/10/04

## SAMPLING METHOD

5/17/06  
49 MI

**CONTAINERS / PRESERVATIVE:**

$\text{Li} / \text{Na} - \text{Hg}$

**ANALYSES:** (Note if any samples are field filtered)

TEHd, TEHmo (8015 w/ Silica gel)  
 TVHg, BTEX, MTBE (8015/8020)  
 VOCs (8260)  
 HVOCs (8260)  
 Title 22 Metals (6010/9000)

**MISC FIELD OBSERVATION:**

## Pesticides (8080)

#### PCBs (8080)

Sulfate (300,0)

### Nitrate (300.0)

### Fe<sup>2+</sup> - Field Filtered



## ES-F50 WELL SAMPLING FORM

PROJECT NAME: 2250 Telegraph Ave.  
 PROJECT NO.: 109-004  
 SAMPLED BY: Hana Zenderberg  
 DATE: 8.8.07  
 WEATHER: cloudy, overcast

WELL NO.: MW-5  
 WELL CASING DIAMETER: 2"  
 TOC ELEVATION: \_\_\_\_\_

TOTAL DEPTH OF CASING (BTOP): 17.40 FEETCALCULATED PURGE VOLUME: 4.39 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)DEPTH TO GROUNDWATER (BTOP): 8.43 FEET

FREE PRODUCT: \_\_\_\_\_

FEET OF WATER IN WELL: 8.97 FEETPURGE METHOD: None  
disposable bailer

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER \_\_\_\_\_

## FIELD MEASUREMENTS

GALLONS REMOVED	TIME	Temp	pH	CONDUCTIVITY ( $\mu$ MOS/CM)	TDS (g/L)	ORP (mV)	DO (mg/l)	COMMENTS (odor, color, ...)
Downhole (Pre-Purge)	1049	20.36	7.83	380	0.272	46.6	5.82	brown, no odor
1.5	1053	20.29	6.63	280	0.271	72.6	11.57	
3	1056	20.26	6.54	378	0.276	99.7	9.27	
4.5	1100	20.18	6.49	510	0.331	112.1	11.85	

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOP): \_\_\_\_\_ TIME SAMPLED: 1005SAMPLING METHOD: disposable bailerCONTAINERS / PRESERVATIVE: 6 HCl 1 / No HCl  
40 ML LITER/  
Poly/  
OTHER

ANALYSES: (Note if any samples are field filtered)

- |   |  |
|---|--|
| <input type="checkbox"/> TEHD, TEHmo (8015 w/ Silica gel) | <input type="checkbox"/> Pesticides (8080)                 |
| <input type="checkbox"/> TVHg, BTEX, MTBE (8015/8020)     | <input type="checkbox"/> PCBs (8080)                       |
| <input type="checkbox"/> VOCs (8260)                      | <input type="checkbox"/> Sulfate (300.0)                   |
| <input type="checkbox"/> HVOCs (8260)                     | <input type="checkbox"/> Nitrate (300.0)                   |
| <input type="checkbox"/> Title 22 Metals (6010/9000)      | <input type="checkbox"/> Fe <sup>2+</sup> - Field Filtered |

MISC FIELD OBSERVATION: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Equipment	Serial No.	Calibration
Conductivity		/
pH		
Turbidity		
Temperature		/



**ES-F50 WELL SAMPLING FORM**

PROJECT NAME: 2250 Telegraph Ave  
PROJECT NO.: 669.009  
SAMPLED BY: Hank Leidenberg  
DATE: 8/8/07  
WEATHER: overcast, mild, no winds

WELL NO.: MW-6  
WELL CASING DIAMETER: 2 1/2"  
TOE ELEVATION:

TOTAL DEPTH OF CASING (BTOC): 18.95 FEET

**CALCULATED PURGE VOLUME:** 3.97 gallons  
(feet of water \* casing dia<sup>2</sup> \* .0408 \* # of Volumes)

DEPTH TO GROUNDWATER (BTOC): 10.5 FEET

FREE PRODUCT:

FEET OF WATER IN WELL: 8.10 FEET

#### PURGE METHOD:

MEASUREMENT METHOD: ELECTRONIC SOUNDER or OTHER \_\_\_\_\_

## FIELD MEASUREMENTS

ACTUAL DEPTH TO GROUNDWATER BEFORE SAMPLING (BTOC): \_\_\_\_\_ TIME SAMPLED: 0138

**TIME SAMPLED:**

SAMPLING METHOD Disposa-Meter

CONTAINERS / PRESERVATIVE: 6 VOA S w/ HCl 1/ Liter - no HCl  
40 ML

CONTAINERS / PRESERVATIVE: 6/ VDAS w/ HCl

✓ Amber - no HCl

CONTAINERS / PRESERVATIVE: 6 VIALS 40 ML

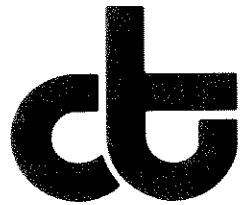
1169

**ANAL YSES:** (Note if any samples are field filtered)

TEHD; TEHmo (8015 w/ Silica gel)  
 TVHg, BTEX, MTBE (8015/8020)  
 VOCs (8260)  
 HVOCs (8260)  
 Title 22 Metals (6010/9000)

Pesticides (8080)  
 PCBs (8080)  
 Sulfate (300.0)  
 Nitrate (300.0)  
  $\text{Fe}^{2+}$  - Field Filtered

**MISC FIELD OBSERVATION:**



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 196608

Fugro West Inc.  
1000 Broadway  
Oakland, CA 94607

Project : 609.004  
Location : 2250 Telegraph Av. Oakland  
Level : II

Sample ID	Lab ID
MW-6	196608-001
MW-1	196608-002
MW-2	196608-003
MW-3	196608-004
MW-4	196608-005
MW-5	196608-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: Robert B. Baker  
Project Manager

Date: 08/16/2007

Signature: \_\_\_\_\_  
Operations Manager

Date: 08/16/2007

**CASE NARRATIVE**

Laboratory number: **196608**  
Client: **Fugro West Inc.**  
Project: **609.004**  
Location: **2250 Telegraph Av. Oakland**  
Request Date: **08/09/07**  
Samples Received: **08/09/07**

This hardcopy data package contains sample and QC results for six water samples, requested for the above referenced project on 08/09/07. The samples were received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B):**

Responses exceeding the instrument's linear range were observed for trifluorotoluene (FID) in the MS/MSD of MW-6 (lab # 196608-001), due to matrix interference; affected data was qualified with "b". The MS/MSD spike recoveries were within control limits. High surrogate recoveries were observed for bromofluorobenzene (FID) and trifluorotoluene (FID) in a number of samples, due to matrix interference. MW-4 (lab # 196608-005) had pH greater than 2, however the sample was analyzed within 7 days. No other analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

No analytical problems were encountered.

~~single~~ ~~1960's~~ 1960's

## **ES-F10 CHAIN OF CUSTODY**

PROJECT NAME: 225D Telegraph Ave.

PROJECT NO.: 609.004

PROJECT CONTACT: Terri Alexander

SAMPLED BY: Hana Zeidenberg

LAB: CATT

TURNAROUND: Standard

CHAIN OF CUSTODY RECORD				COMMENTS & NOTES:
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	* 1 liter Ambers do <u>not</u> contain HCl preservative for all samples
	8-9-07 11:45		8-9-07 11:45	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	
RELINQUISHED BY: (Signature)	DATE/TIME	RECEIVED BY: (Signature)	DATE/TIME	

Approved by Glenn Young, AC 62 Manager, Fugro West, Inc. 10/13/06

Note: If this is a printed copy, please check the online QMS to ensure that it is the latest version.



Curtis &amp; Tompkins, Ltd.

**Total Volatile Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Batch#:	128223	Analyzed:	08/09/07

Field ID: MW-6 Lab ID: 196608-001  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	2,100 H L Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	199 *	72-136
Bromofluorobenzene (FID)	142 *	78-131

Field ID: MW-1 Lab ID: 196608-002  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	300 L Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	72-136
Bromofluorobenzene (FID)	130	78-131

Field ID: MW-2 Lab ID: 196608-003  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	72-136
Bromofluorobenzene (FID)	119	78-131

Field ID: MW-3 Lab ID: 196608-004  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	2,100 L Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	172 *	72-136
Bromofluorobenzene (FID)	139 *	78-131

\*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



Curtis &amp; Tompkins, Ltd.

**Total Volatile Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Batch#:	128223	Analyzed:	08/09/07

Field ID: MW-4 Lab ID: 196608-005  
Type: SAMPLE Diln Fac: 5.000

Analyte	Result	RL
Gasoline C7-C12	6,100 L Y	250

Surrogate	%REC	Limits
Trifluorotoluene (FID)	198 *	72-136
Bromofluorobenzene (FID)	128	78-131

Field ID: MW-5 Lab ID: 196608-006  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	72-136
Bromofluorobenzene (FID)	105	78-131

Type: BLANK Diln Fac: 1.000  
Lab ID: QC400552

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	72-136
Bromofluorobenzene (FID)	102	78-131

\*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC400553	Batch#:	128223
Matrix:	Water	Analyzed:	08/09/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,970	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	137 *	72-136
Bromofluorobenzene (FID)	116	78-131

\*= Value outside of QC limits; see narrative



Curtis & Tompkins, Ltd.

## Batch QC Report

### Total Volatile Hydrocarbons

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Field ID:	MW-6	Batch#:	128223
MSS Lab ID:	196608-001	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/09/07
Diln Fac:	1.000		

Type: MS Lab ID: QC400554

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,069	2,000	4,221	108	79-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Trifluorotoluene (FID)	230 *	>LR b 72-136
Bromofluorobenzene (FID)	175 *	78-131

Type: MSD Lab ID: QC400555

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	4,127	103	79-120	2	20

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Trifluorotoluene (FID)	216 *	>LR b 72-136
Bromofluorobenzene (FID)	166 *	78-131

\*= Value outside of QC limits; see narrative

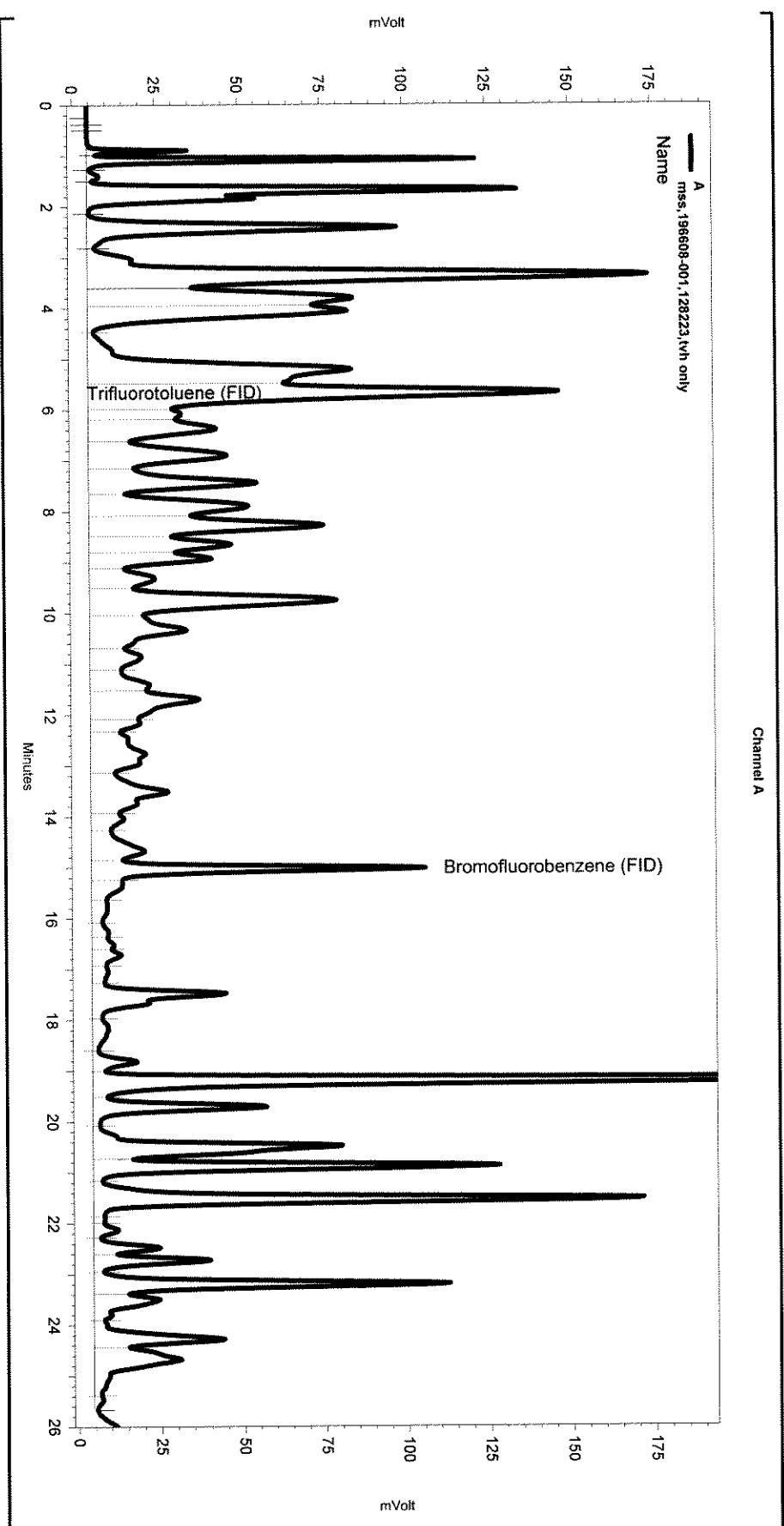
b= See narrative

>LR= Response exceeds instrument's linear range

RPD= Relative Percent Difference

Sequence File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Sequence\\221.seq  
Sample Name: mss\_196608-001,128223.tvh only  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221\_008  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Method\\tvhbtxe218.met

Software Version 3.1.7  
Run Date: 8/9/2007 7:13:32 PM  
Analysis Date: 8/10/2007 8:16:58 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: B.1.3



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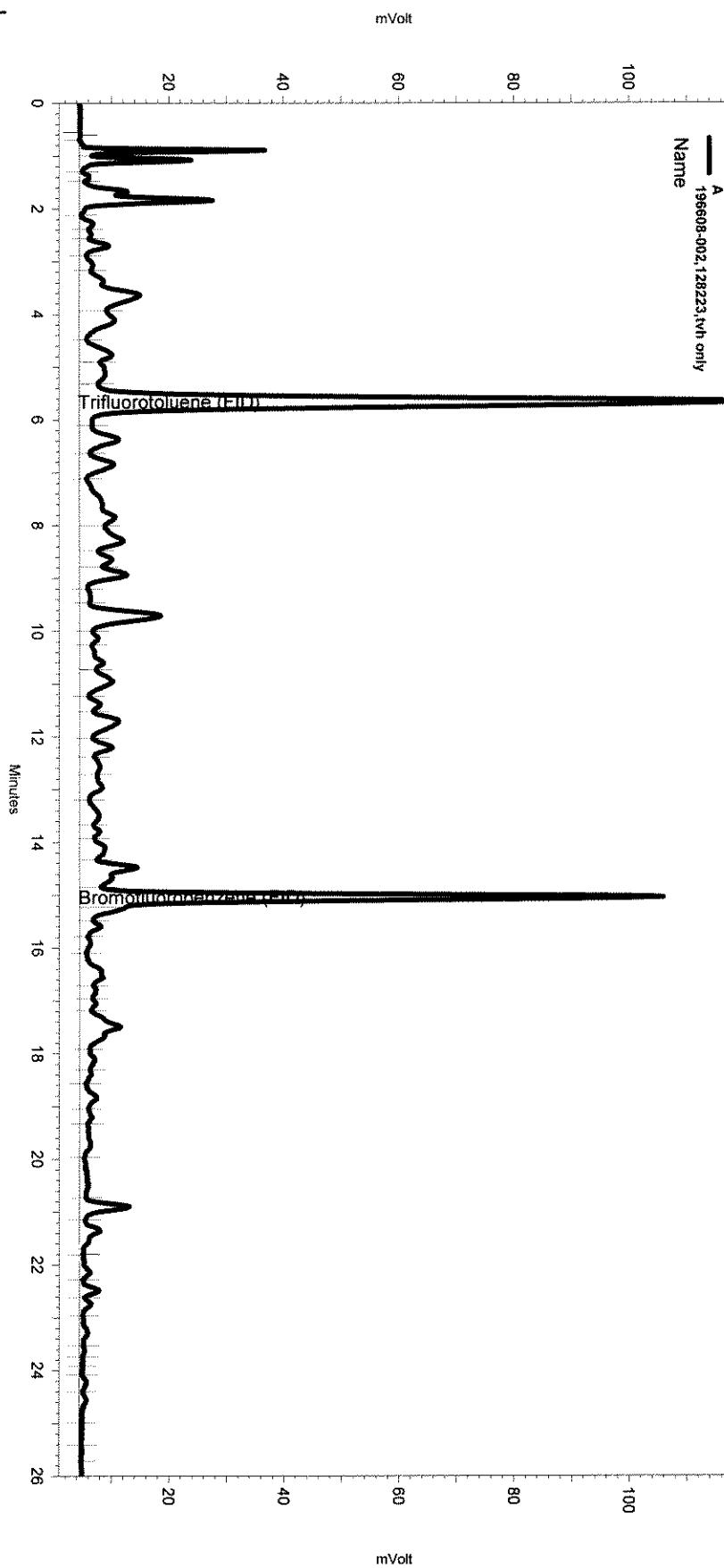
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Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

#### Manual Integration Fixes

Data File:	Start			
Enabled	Event Type	(Minutes)	(Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.489	26.017	0
Yes	Split Peak	15.253	0	0

Sequence File: \\Lims\gdrive\ezchrom\Projects\GC05\Sequence\221.seq  
Sample Name: 196608-002,128223.tvh only  
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\221\_009  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhbtex218.met

Software Version 3.1.7  
Run Date: 8/9/2007 7:50:03 PM  
Analysis Date: 8/10/2007 8:17:02 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: B1.3



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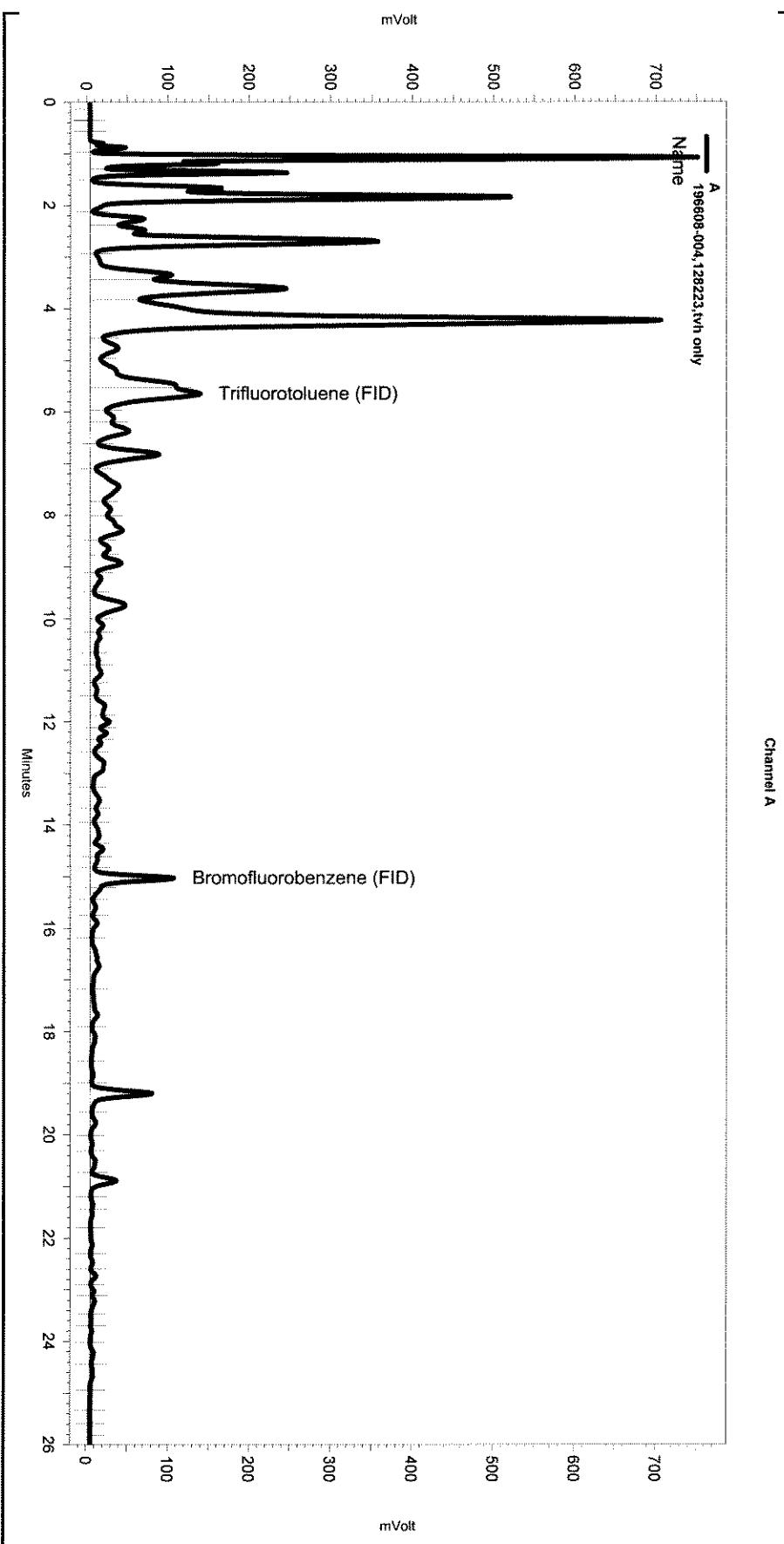
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Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

#### **Manual Integration Fixes**

Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\b221_009		Start	Stop	
Enabled	Event Type	(Minutes)		Value
Yes	Horizontal Baseline	0.721	26.017	0
Yes	Split Peak	15.23	0	0

Sequence File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Sequence\\221.seq  
Sample Name: 196608-004,128223,tvh only  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221\_011  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2, Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Method\\tvhbxe218.met

Software Version 3.1.7  
Run Date: 8/9/2007 9:03:04 PM  
Analysis Date: 8/10/2007 8:17:10 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: B1.3



--> General Method Parameters >

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Integration Events

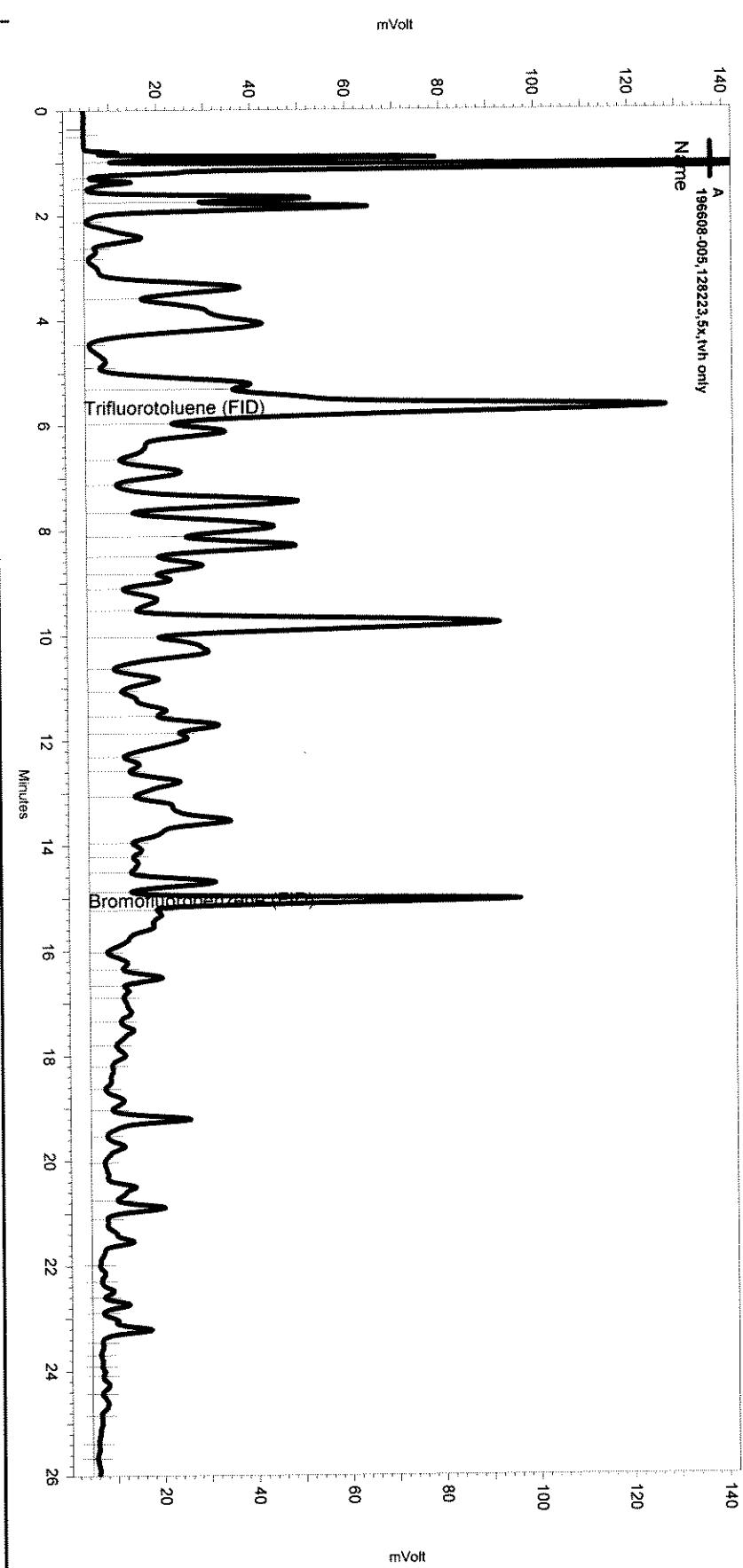
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Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.541	0	0
Yes	Split Peak	15.219	0	0

Sequence File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Sequence\\221.seq  
Sample Name: 196608-005,128223,5x,tvh only  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221\_005  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (jlims2k3)tvh2  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Method\\tvhtxe218.met

Software Version 3.1.7  
Run Date: 8/9/2007 4:19:08 PM  
Analysis Date: 8/10/2007 8:16:46 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: B7.0



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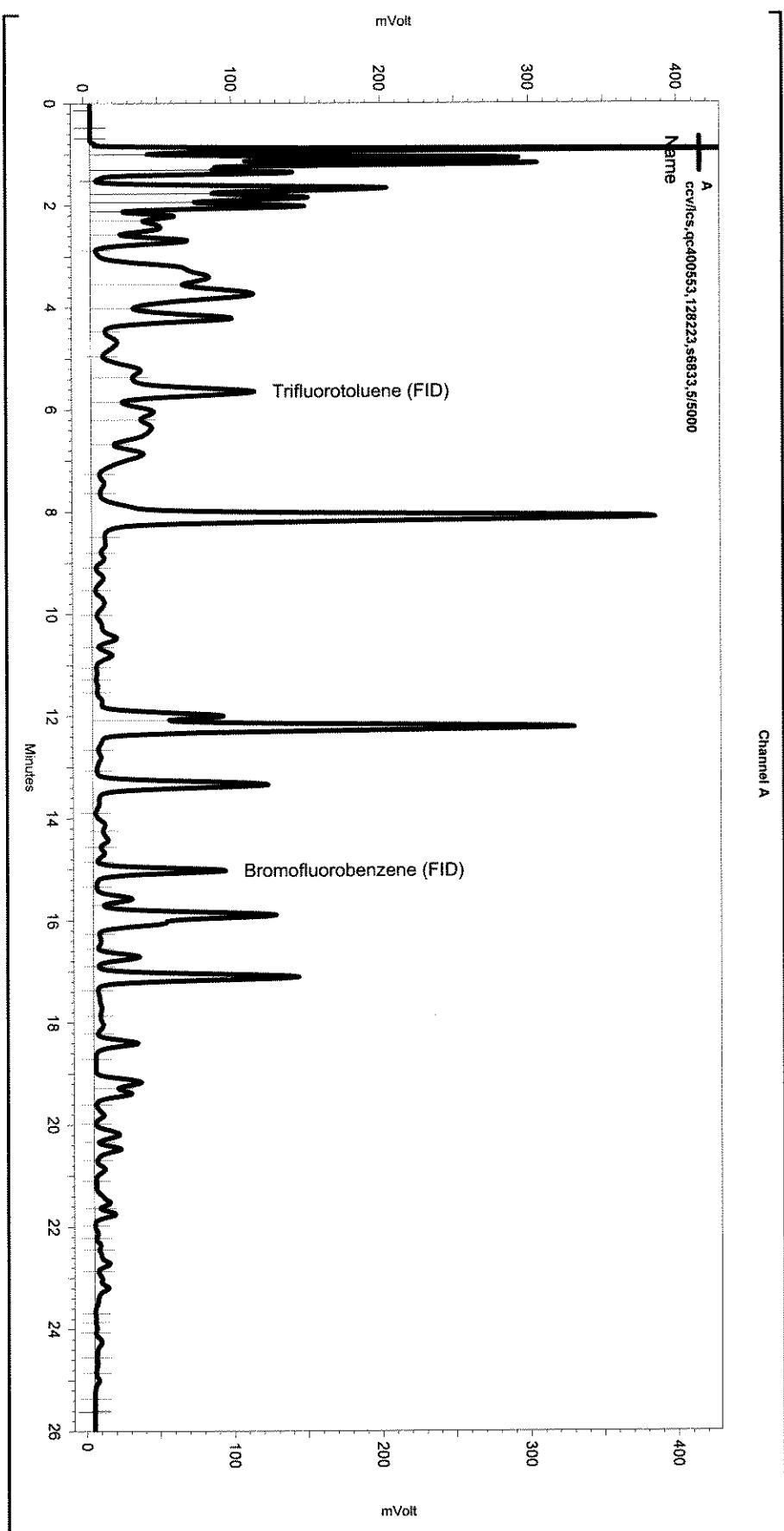
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Yes	Threshold	0	0	50

#### Manual Integration Fixes

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Sample Name: ccv\\ics qc400553,128223,s6833,5/5000  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221\_002  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Method\\tvhtxe218.met

Software Version 3.1.7  
Run Date: 8/9/2007 10:15:45 AM  
Analysis Date: 8/10/2007 8:16:29 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: {Data Description}



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Integration Events

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Data File:	\\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221_002			
Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value

None



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Diln Fac:	1.000	Prepared:	08/09/07
Batch#:	128242	Analyzed:	08/13/07

Field ID: MW-6 Lab ID: 196608-001  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	680 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	107	61-134

Field ID: MW-1 Lab ID: 196608-002  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	95 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	107	61-134

Field ID: MW-2 Lab ID: 196608-003  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	113	61-134

Field ID: MW-3 Lab ID: 196608-004  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	130 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	97	61-134

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 1 of 2



Curtis &amp; Tompkins, Ltd.

**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Diln Fac:	1.000	Prepared:	08/09/07
Batch#:	128242	Analyzed:	08/13/07

Field ID: MW-4 Lab ID: 196608-005  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	9,200 H L	50
Motor Oil C24-C36	12,000 H L	300

Surrogate	%REC	Limits
Hexacosane	101	61-134

Field ID: MW-5 Lab ID: 196608-006  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	100	61-134

Type: BLANK Cleanup Method: EPA 3630C  
Lab ID: QC400630

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	114	61-134

H= Heavier hydrocarbons contributed to the quantitation  
L= Lighter hydrocarbons contributed to the quantitation  
Y= Sample exhibits chromatographic pattern which does not resemble standard  
ND= Not Detected  
RL= Reporting Limit  
Page 2 of 2



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	128242
Units:	ug/L	Prepared:	08/09/07
Diln Fac:	1.000	Analyzed:	08/12/07

Type: BS Cleanup Method: EPA 3630C  
Lab ID: QC400631

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,524	101	58-130

Surrogate	%REC	Limits
Hexacosane	113	61-134

Type: BSD Cleanup Method: EPA 3630C  
Lab ID: QC400632

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,415	97	58-130	4	27

Surrogate	%REC	Limits
Hexacosane	108	61-134

RPD= Relative Percent Difference

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19.0



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	128242
MSS Lab ID:	196543-032	Sampled:	08/08/07
Lab ID:	QC400633	Received:	08/08/07
Matrix:	Water	Prepared:	08/09/07
Units:	ug/L	Analyzed:	08/13/07

Analyte	MSS Result	Result	RL	RPD	Lim
Diesel C10-C24	1,687	1,694	50.00	0	32
Motor Oil C24-C36	<300.0	ND	300.0	NC	30

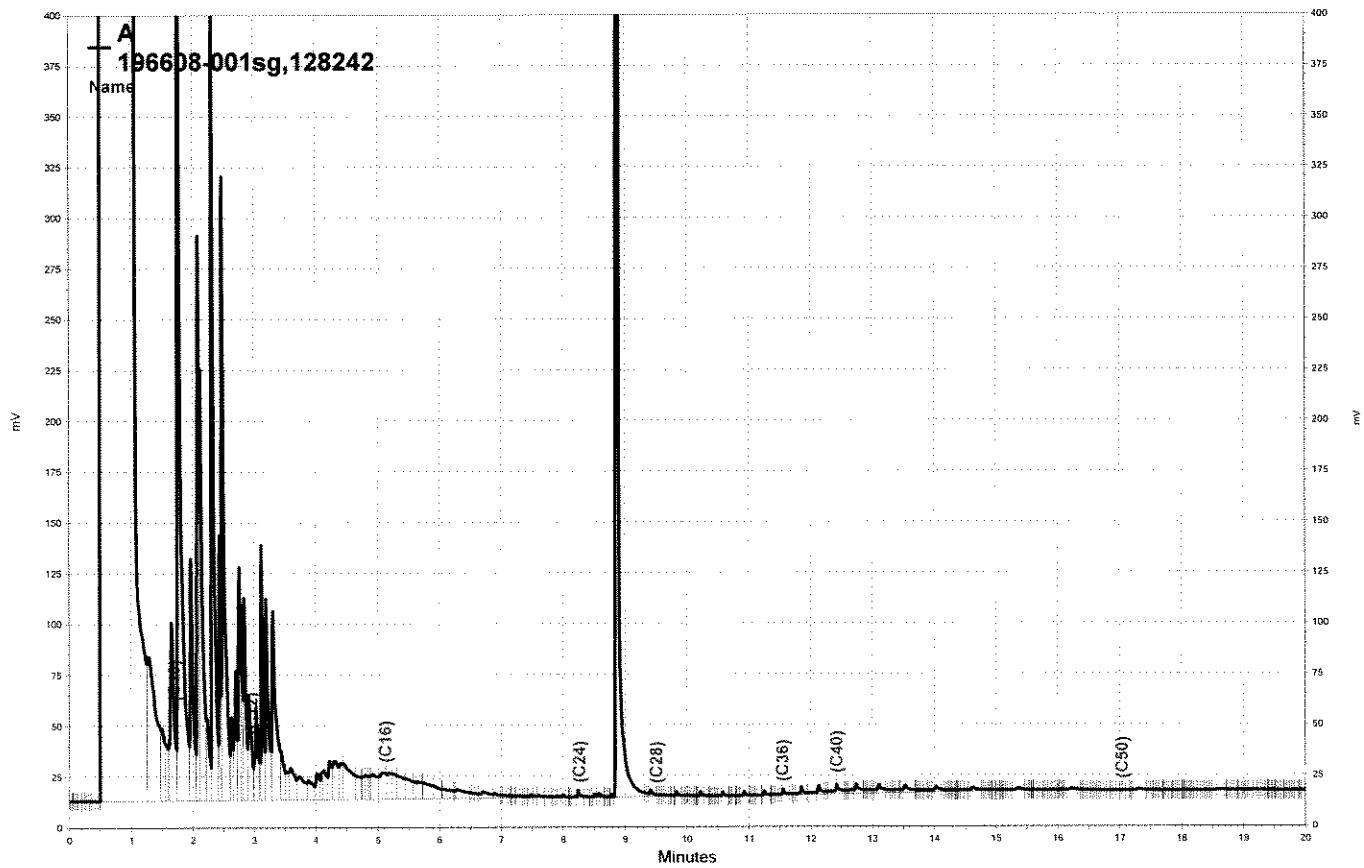
Surrogate	%REC	Limits
Hexacosane	119	61-134

NC= Not Calculated

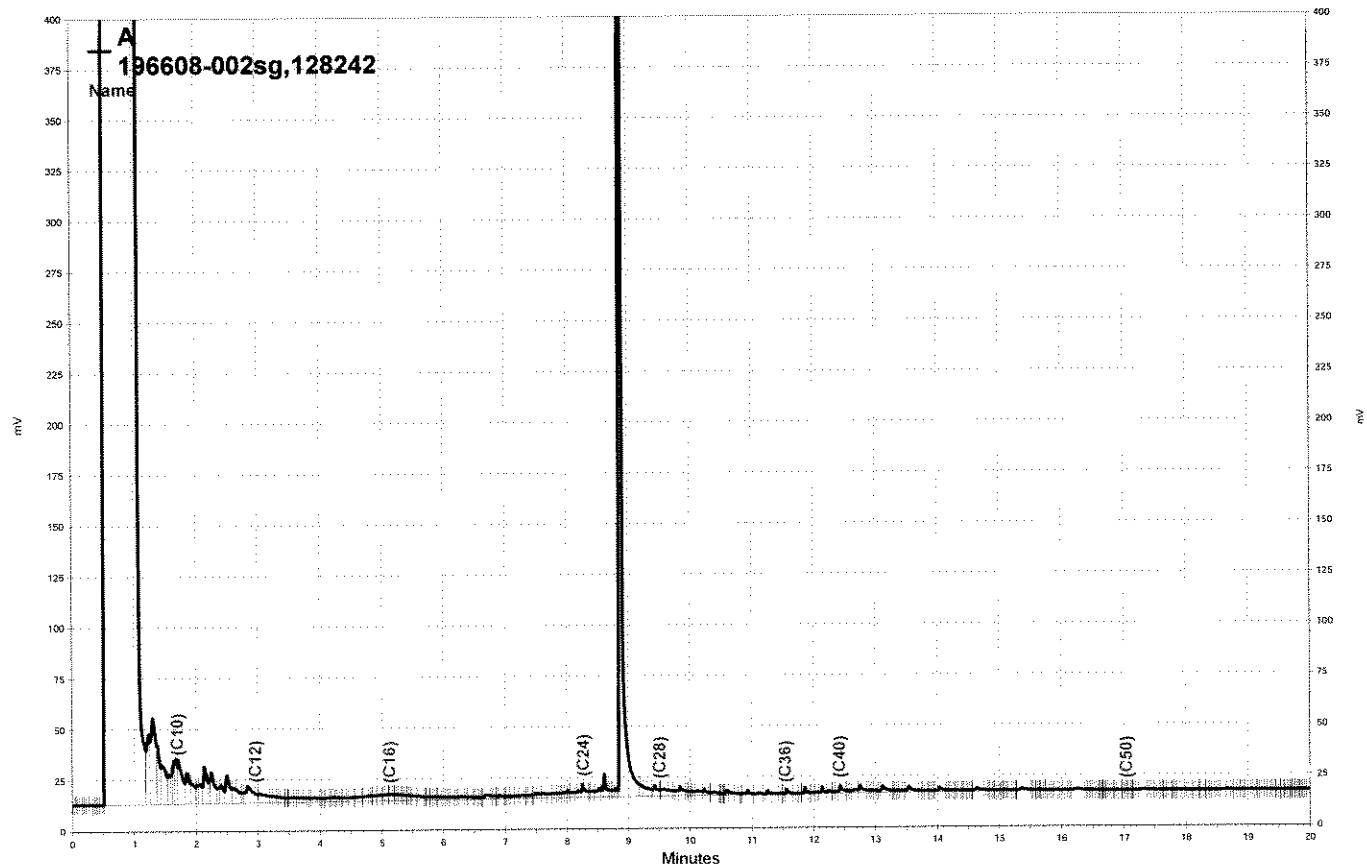
ND= Not Detected

RL= Reporting Limit

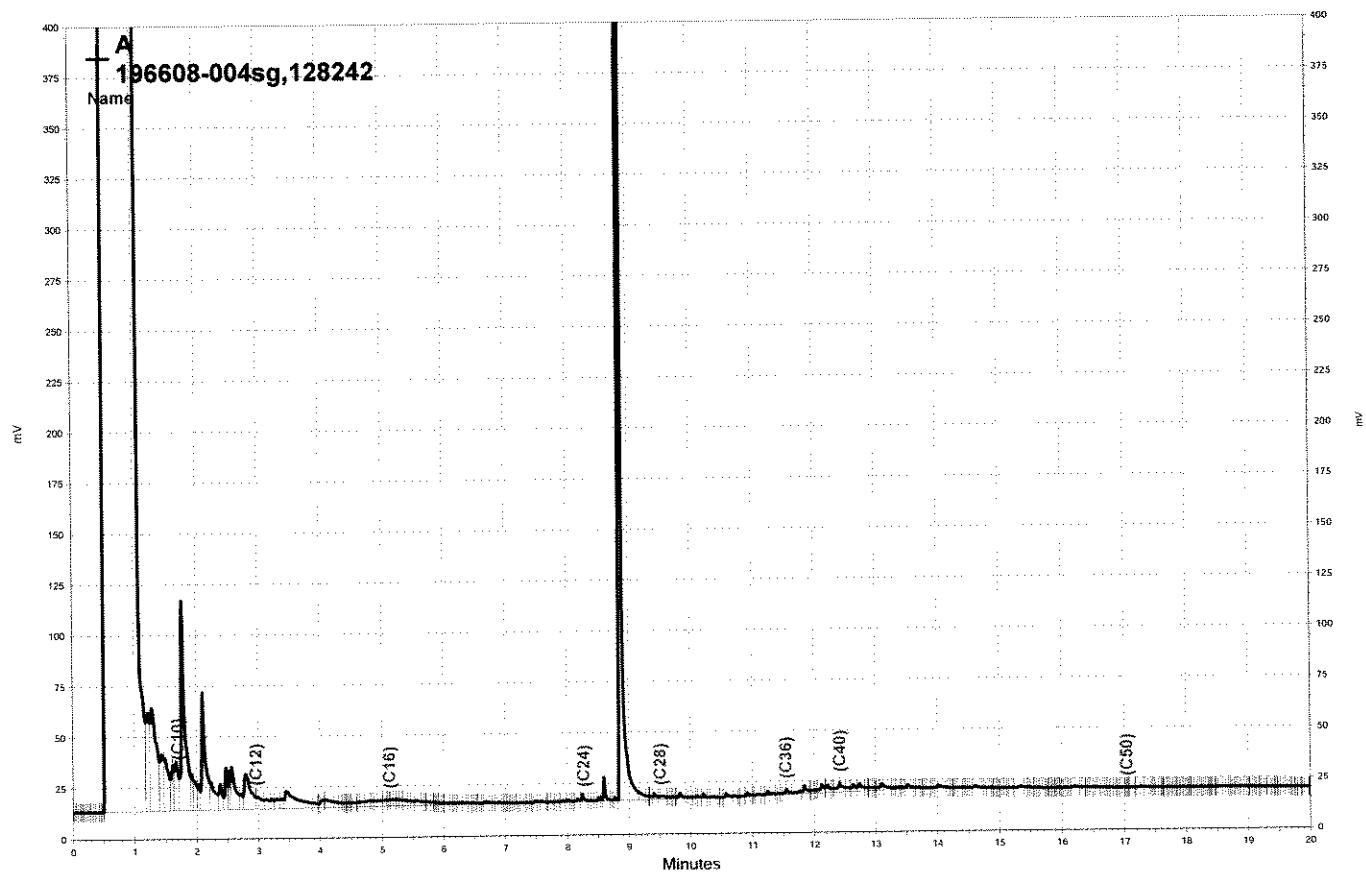
RPD= Relative Percent Difference



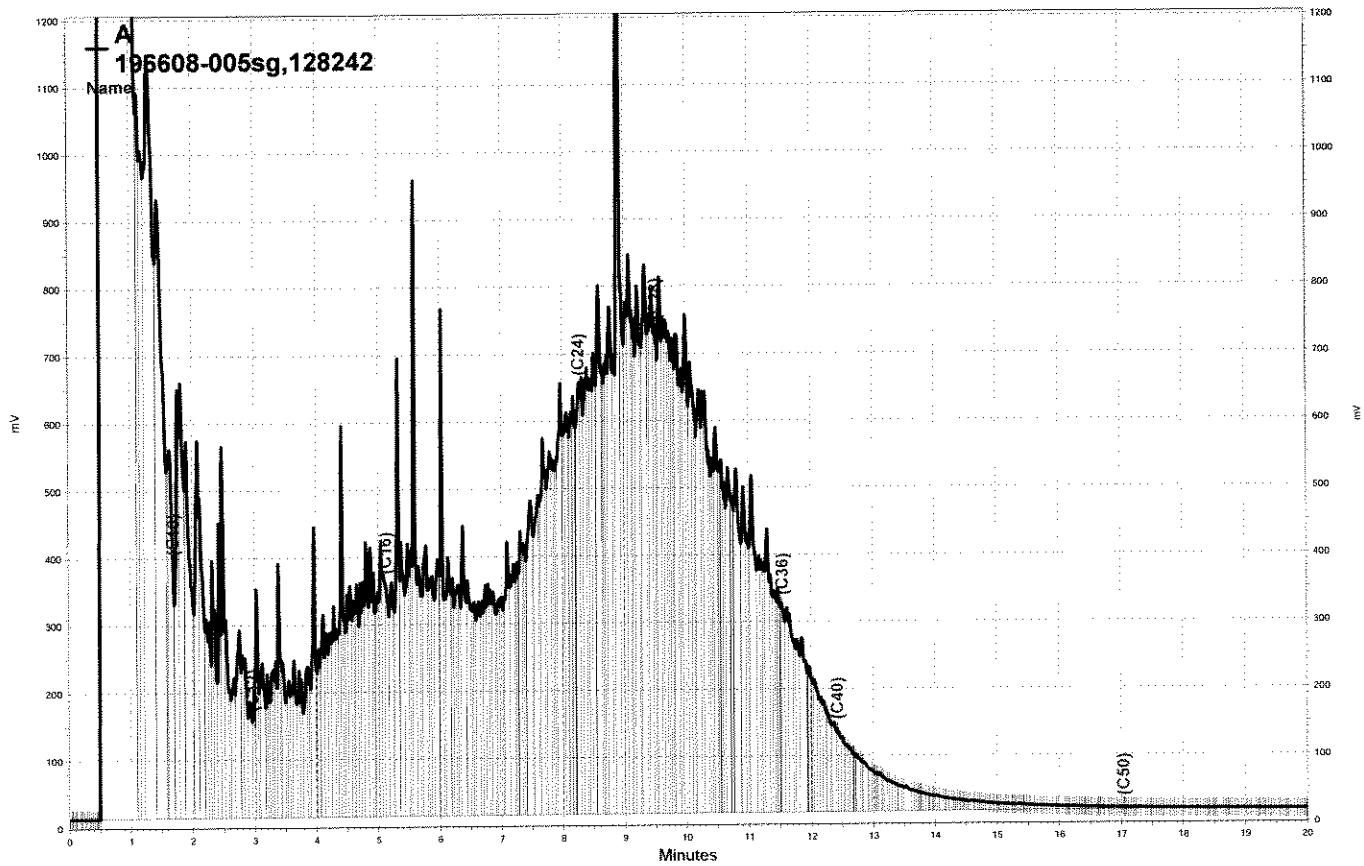
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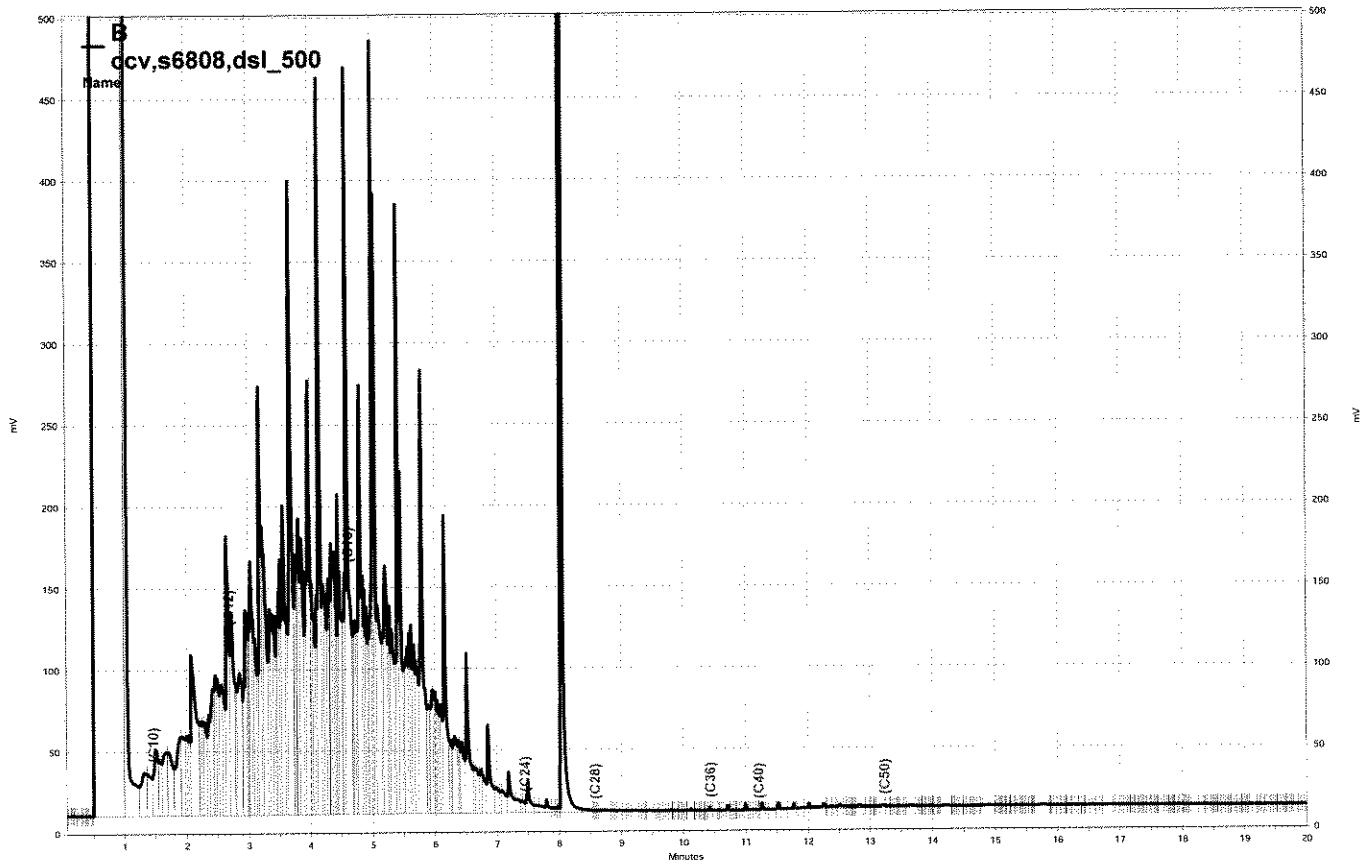
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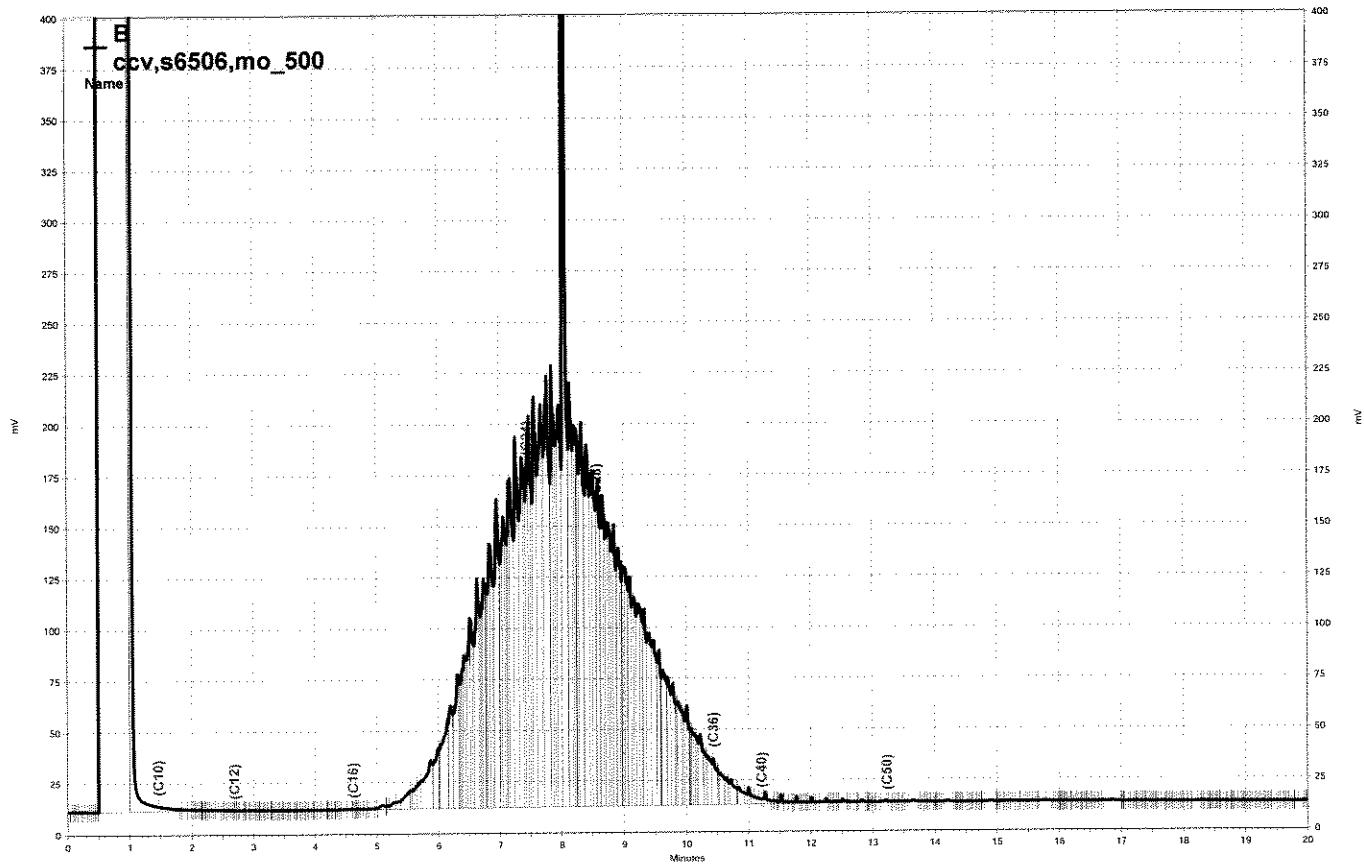
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— \\Lims\\gdrive\\ezchrom\\Projects\\GC17A\\Data\\224a018, A



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\\Lims\\gdrive\\ezchrom\\Projects\\GC15B\\Data\\224b005, B



Curtis &amp; Tompkins, Ltd.

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-6	Batch#:	128192
Lab ID:	196608-001	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/09/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-123
1,2-Dichloroethane-d4	104	79-134
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	128247
Lab ID:	196608-002	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-123
1,2-Dichloroethane-d4	106	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	97	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	128247
Lab ID:	196608-003	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-123
1,2-Dichloroethane-d4	104	79-134
Toluene-d8	104	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	128300
Lab ID:	196608-004	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/13/07
Diln Fac:	4.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	40
MTBE	ND	2.0
Isopropyl Ether (DIPE)	ND	2.0
Ethyl tert-Butyl Ether (ETBE)	ND	2.0
1,2-Dichloroethane	ND	2.0
Benzene	260	2.0
Methyl tert-Amyl Ether (TAME)	ND	2.0
Toluene	5.1	2.0
1,2-Dibromoethane	ND	2.0
Ethylbenzene	5.8	2.0
m,p-Xylenes	3.6	2.0
o-Xylene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	123	80-123
1,2-Dichloroethane-d4	121	79-134
Toluene-d8	109	80-120
Bromofluorobenzene	101	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	128247
Lab ID:	196608-005	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.7	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	0.5	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-123
1,2-Dichloroethane-d4	114	79-134
Toluene-d8	105	80-120
Bromofluorobenzene	103	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	128247
Lab ID:	196608-006	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	90	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

## Batch QC Report

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	128192
Units:	ug/L	Analyzed:	08/09/07
Diln Fac:	1.000		

Type: BS

Lab ID: QC400448

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	132.3	106	68-132
MTBE	25.00	21.39	86	71-120
Isopropyl Ether (DIPE)	25.00	19.14	77	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	19.55	78	75-124
1,2-Dichloroethane	25.00	25.30	101	79-121
Benzene	25.00	24.79	99	80-120
Methyl tert-Amyl Ether (TAME)	25.00	21.80	87	77-120
Toluene	25.00	26.59	106	80-120
1,2-Dibromoethane	25.00	26.89	108	80-120
Ethylbenzene	25.00	23.64	95	80-124
m,p-Xylenes	50.00	47.73	95	80-127
o-Xylene	25.00	23.81	95	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	106	80-120
Bromofluorobenzene	90	80-122

Type: BSD

Lab ID: QC400449

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	113.4	91	68-132	15	20
MTBE	25.00	24.36	97	71-120	13	20
Isopropyl Ether (DIPE)	25.00	21.97	88	65-120	14	20
Ethyl tert-Butyl Ether (ETBE)	25.00	22.16	89	75-124	13	20
1,2-Dichloroethane	25.00	24.97	100	79-121	1	20
Benzene	25.00	24.67	99	80-120	1	20
Methyl tert-Amyl Ether (TAME)	25.00	22.59	90	77-120	4	20
Toluene	25.00	25.65	103	80-120	4	20
1,2-Dibromoethane	25.00	25.89	104	80-120	4	20
Ethylbenzene	25.00	23.33	93	80-124	1	20
m,p-Xylenes	50.00	46.80	94	80-127	2	20
o-Xylene	25.00	23.57	94	80-124	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	100	80-120
Bromofluorobenzene	90	80-122

RPD= Relative Percent Difference

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12.0



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC400450	Batch#:	128192
Matrix:	Water	Analyzed:	08/09/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-123
1,2-Dichloroethane-d4	98	79-134
Toluene-d8	100	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

## Batch QC Report

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	128247
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Type: BS Lab ID: QC400645

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	116.8	93	68-132
MTBE	25.00	26.05	104	71-120
Isopropyl Ether (DIPE)	25.00	23.37	93	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	23.29	93	75-124
1,2-Dichloroethane	25.00	26.66	107	79-121
Benzene	25.00	24.72	99	80-120
Methyl tert-Amyl Ether (TAME)	25.00	23.81	95	77-120
Toluene	25.00	25.42	102	80-120
1,2-Dibromoethane	25.00	25.93	104	80-120
Ethylbenzene	25.00	24.60	98	80-124
m,p-Xylenes	50.00	48.88	98	80-127
o-Xylene	25.00	24.42	98	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-123
1,2-Dichloroethane-d4	103	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	91	80-122

Type: BSD Lab ID: QC400646

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	141.7	113	68-132	19	20
MTBE	25.00	27.29	109	71-120	5	20
Isopropyl Ether (DIPE)	25.00	23.44	94	65-120	0	20
Ethyl tert-Butyl Ether (ETBE)	25.00	24.29	97	75-124	4	20
1,2-Dichloroethane	25.00	26.66	107	79-121	0	20
Benzene	25.00	24.30	97	80-120	2	20
Methyl tert-Amyl Ether (TAME)	25.00	24.47	98	77-120	3	20
Toluene	25.00	25.34	101	80-120	0	20
1,2-Dibromoethane	25.00	26.21	105	80-120	1	20
Ethylbenzene	25.00	23.16	93	80-124	6	20
m,p-Xylenes	50.00	45.87	92	80-127	6	20
o-Xylene	25.00	23.26	93	80-124	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-123
1,2-Dichloroethane-d4	103	79-134
Toluene-d8	103	80-120
Bromofluorobenzene	87	80-122

RPD= Relative Percent Difference

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Curtis &amp; Tompkins, Ltd.

## Batch QC Report

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC400647	Batch#:	128247
Matrix:	Water	Analyzed:	08/10/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-123
1,2-Dichloroethane-d4	101	79-134
Toluene-d8	105	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## BTXE &amp; Oxygenates

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	128300
Units:	ug/L	Analyzed:	08/13/07
Diln Fac:	1.000		

Type: BS

Lab ID:

QC400838

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	145.8	117	68-132
MTBE	25.00	28.26	113	71-120
Isopropyl Ether (DIPE)	25.00	25.90	104	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	24.95	100	75-124
1,2-Dichloroethane	25.00	26.06	104	79-121
Benzene	25.00	24.55	98	80-120
Methyl tert-Amyl Ether (TAME)	25.00	24.55	98	77-120
Toluene	25.00	25.54	102	80-120
1,2-Dibromoethane	25.00	26.15	105	80-120
Ethylbenzene	25.00	22.57	90	80-124
m,p-Xylenes	50.00	44.76	90	80-127
o-Xylene	25.00	22.84	91	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-123
1,2-Dichloroethane-d4	101	79-134
Toluene-d8	104	80-120
Bromofluorobenzene	92	80-122

Type: BSD

Lab ID:

QC400839

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	144.3	115	68-132	1	20
MTBE	25.00	28.27	113	71-120	0	20
Isopropyl Ether (DIPE)	25.00	26.18	105	65-120	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.52	102	75-124	2	20
1,2-Dichloroethane	25.00	26.21	105	79-121	1	20
Benzene	25.00	25.18	101	80-120	3	20
Methyl tert-Amyl Ether (TAME)	25.00	24.84	99	77-120	1	20
Toluene	25.00	25.45	102	80-120	0	20
1,2-Dibromoethane	25.00	26.05	104	80-120	0	20
Ethylbenzene	25.00	23.50	94	80-124	4	20
m,p-Xylenes	50.00	45.84	92	80-127	2	20
o-Xylene	25.00	23.39	94	80-124	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	111	80-123
1,2-Dichloroethane-d4	101	79-134
Toluene-d8	105	80-120
Bromofluorobenzene	95	80-122

RPD= Relative Percent Difference

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16.0



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## BTXE &amp; Oxygenates

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC400840	Batch#:	128300
Matrix:	Water	Analyzed:	08/13/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	114	80-123
1,2-Dichloroethane-d4	106	79-134
Toluene-d8	108	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected

RL= Reporting Limit

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Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 196608

Fugro West Inc.  
1000 Broadway  
Oakland, CA 94607

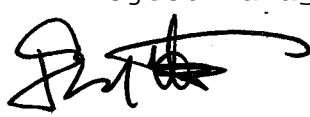
Project : 609.004  
Location : 2250 Telegraph Av. Oakland  
Level : II

<u>Sample ID</u>	<u>Lab ID</u>
MW-6	196608-001
MW-1	196608-002
MW-2	196608-003
MW-3	196608-004
MW-4	196608-005
MW-5	196608-006

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature:   
Project Manager

Date: 08/16/2007

Signature:   
Operations Manager

Date: 08/16/2007

## CASE NARRATIVE

Laboratory number: **196608**  
Client: **Fugro West Inc.**  
Project: **609.004**  
Location: **2250 Telegraph Av. Oakland**  
Request Date: **08/09/07**  
Samples Received: **08/09/07**

This hardcopy data package contains sample and QC results for six water samples, requested for the above referenced project on 08/09/07. The samples were received cold and intact.

**TPH-Purgeables and/or BTXE by GC (EPA 8015B):**

Responses exceeding the instrument's linear range were observed for trifluorotoluene (FID) in the MS/MSD of MW-6 (lab # 196608-001), due to matrix interference; affected data was qualified with "b". The MS/MSD spike recoveries were within control limits. High surrogate recoveries were observed for bromofluorobenzene (FID) and trifluorotoluene (FID) in a number of samples, due to matrix interference. MW-4 (lab # 196608-005) had pH greater than 2, however the sample was analyzed within 7 days. No other analytical problems were encountered.

**TPH-Extractables by GC (EPA 8015B):**

No analytical problems were encountered.

**Volatile Organics by GC/MS (EPA 8260B):**

No analytical problems were encountered.



Curtis &amp; Tompkins, Ltd.

**Total Volatile Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Batch#:	128223	Analyzed:	08/09/07

Field ID: MW-6 Lab ID: 196608-001  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	2,100 H L Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	199 *	72-136
Bromofluorobenzene (FID)	142 *	78-131

Field ID: MW-1 Lab ID: 196608-002  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	300 L Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	72-136
Bromofluorobenzene (FID)	130	78-131

Field ID: MW-2 Lab ID: 196608-003  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	72-136
Bromofluorobenzene (FID)	119	78-131

Field ID: MW-3 Lab ID: 196608-004  
Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	2,100 L Y	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	172 *	72-136
Bromofluorobenzene (FID)	139 *	78-131

\*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

**Total Volatile Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Batch#:	128223	Analyzed:	08/09/07

Field ID: MW-4 Lab ID: 196608-005  
 Type: SAMPLE Diln Fac: 5.000

Analyte	Result	RL
Gasoline C7-C12	6,100 L Y	250

Surrogate	%REC	Limits
Trifluorotoluene (FID)	198 *	72-136
Bromofluorobenzene (FID)	128	78-131

Field ID: MW-5 Lab ID: 196608-006  
 Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	72-136
Bromofluorobenzene (FID)	105	78-131

Type: BLANK Diln Fac: 1.000  
 Lab ID: QC400552

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	103	72-136
Bromofluorobenzene (FID)	102	78-131

\*= Value outside of QC limits; see narrative

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

Page 2 of 2

**Batch QC Report**
**Total Volatile Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC400553	Batch#:	128223
Matrix:	Water	Analyzed:	08/09/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,970	99	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	137 *	72-136
Bromofluorobenzene (FID)	116	78-131

\*= Value outside of QC limits; see narrative



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## Batch QC Report

## Total Volatile Hydrocarbons

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8015B
Field ID:	MW-6	Batch#:	128223
MSS Lab ID:	196608-001	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/09/07
Diln Fac:	1.000		

Type: MS Lab ID: QC400554

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,069	2,000	4,221	108	79-120

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Trifluorotoluene (FID)	230 *	>LR b 72-136
Bromofluorobenzene (FID)	175 *	78-131

Type: MSD Lab ID: QC400555

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	4,127	103	79-120	2	20

<b>Surrogate</b>	<b>%REC</b>	<b>Limits</b>
Trifluorotoluene (FID)	216 *	>LR b 72-136
Bromofluorobenzene (FID)	166 *	78-131

\*= Value outside of QC limits; see narrative

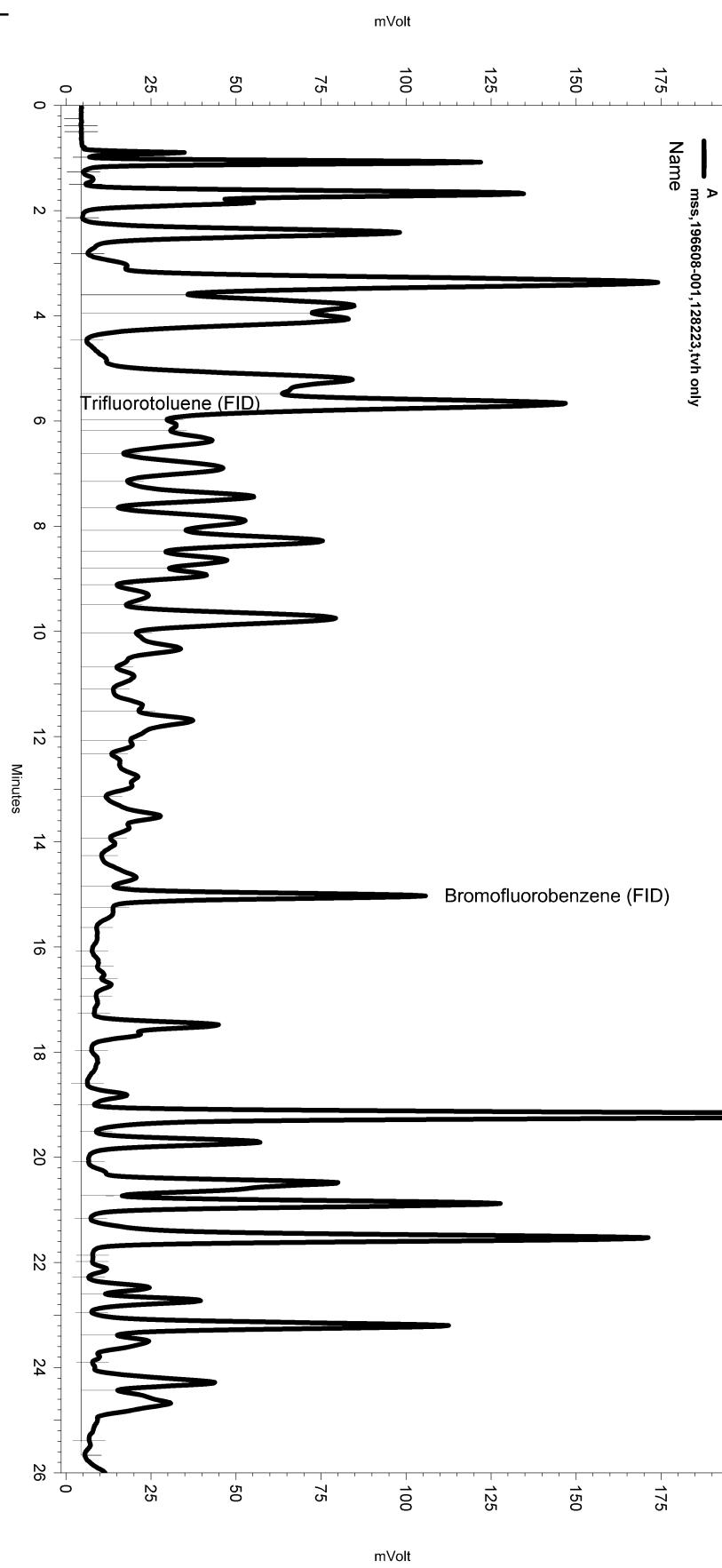
b= See narrative

>LR= Response exceeds instrument's linear range

RPD= Relative Percent Difference

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Sample Name: mss\_196608-001,128223,tvh only  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221\_008  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Method\\tvhtxe218.met

Software Version 3.1.7  
Run Date: 8/9/2007 7:13:32 PM  
Analysis Date: 8/10/2007 8:16:58 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: B1.3



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Integration Events

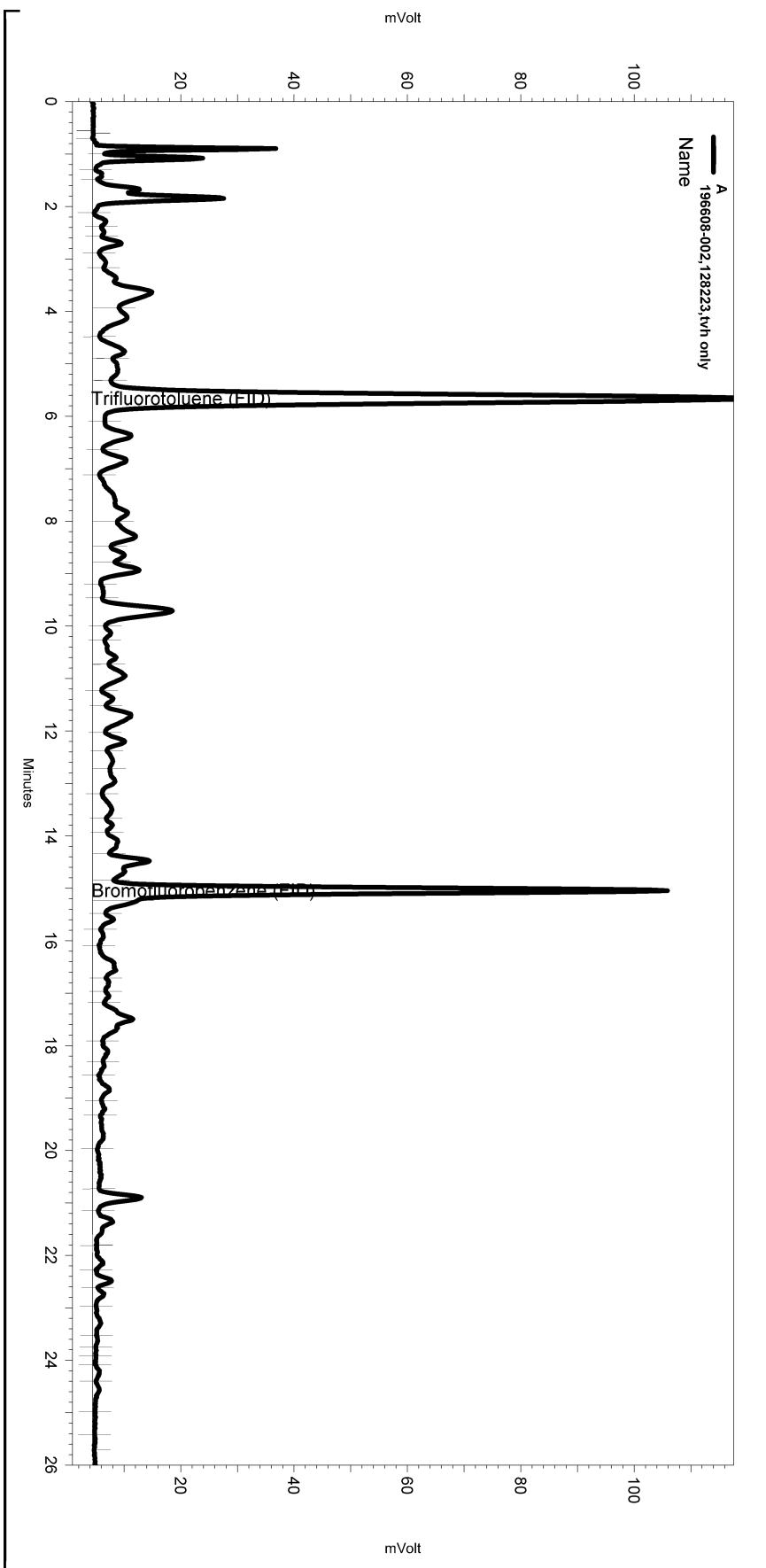
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Yes	Threshold	0	0	50

Manual Integration Fixes

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Lowest Point Horizontal Baseli	0.489	26.017	0
Yes	Split Peak	15.253	0	0

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Sample Name: 196608-002,128223,tvh only  
Data File: \\Lims1\gdrive\ezchrom\Projects\GC05\DATA\221\_009  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\tvh2)  
Method Name: \\Lims1\gdrive\ezchrom\Projects\GC05\Method\tvhtbx218.met

Software Version 3.1.7  
Run Date: 8/9/2007 7:50:03 PM  
Analysis Date: 8/10/2007 8:17:02 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: B1.3



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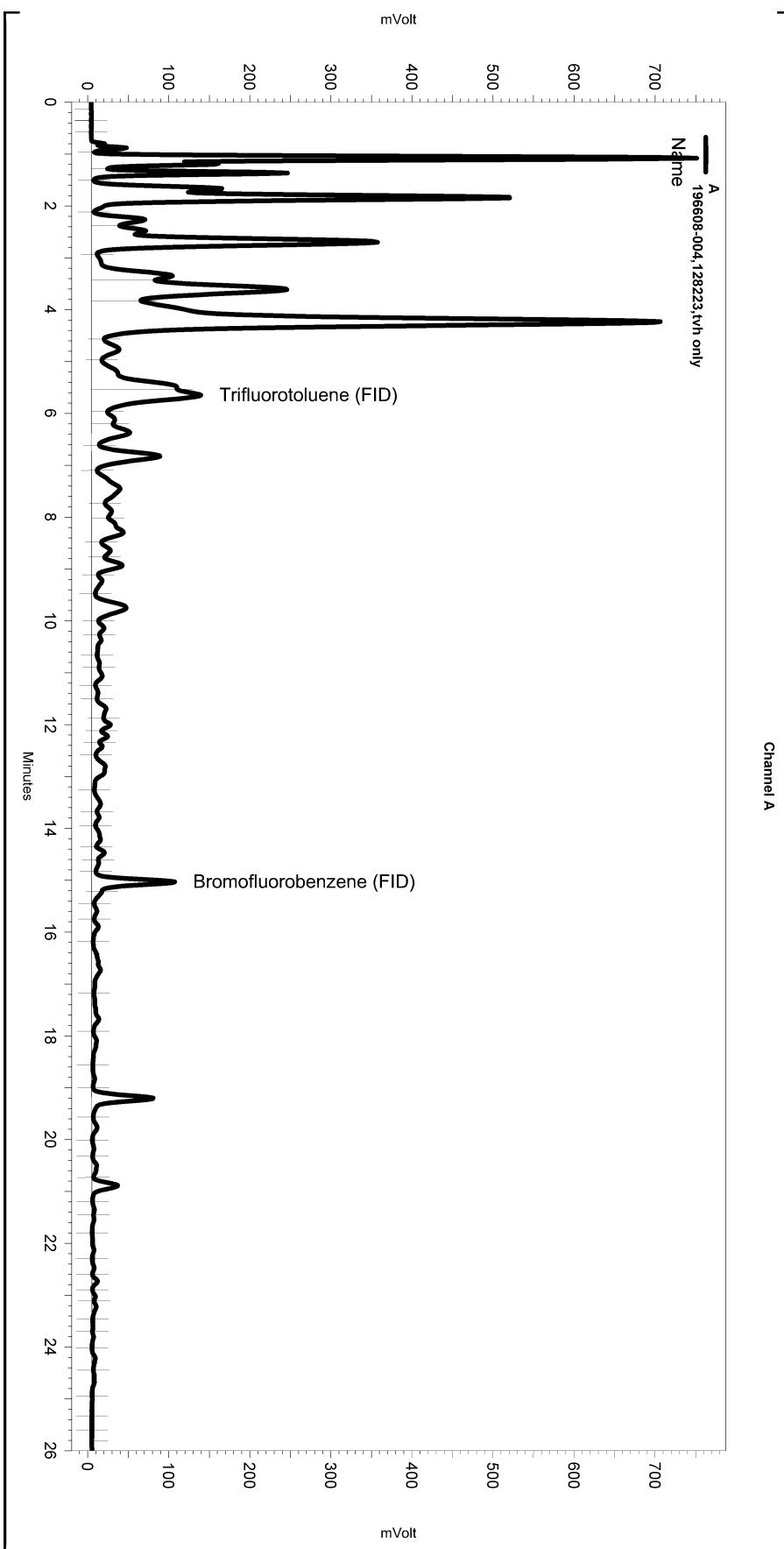
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Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

## Manual Integration Fixes

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Enabled	Event Type	(Minutes)		Value
Yes	Horizontal Baseline	0.721	26.017	0
Yes	Split Peak	15.23	0	0

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Sample Name: 196608-004,128223.tvh only  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221\_011  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Method\\tvhtxe218.met

Software Version 3.1.7  
Run Date: 8/9/2007 9:03:04 PM  
Analysis Date: 8/10/2007 8:17:10 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: B1.3



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---> General Method Parameters >-----

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Integration Events

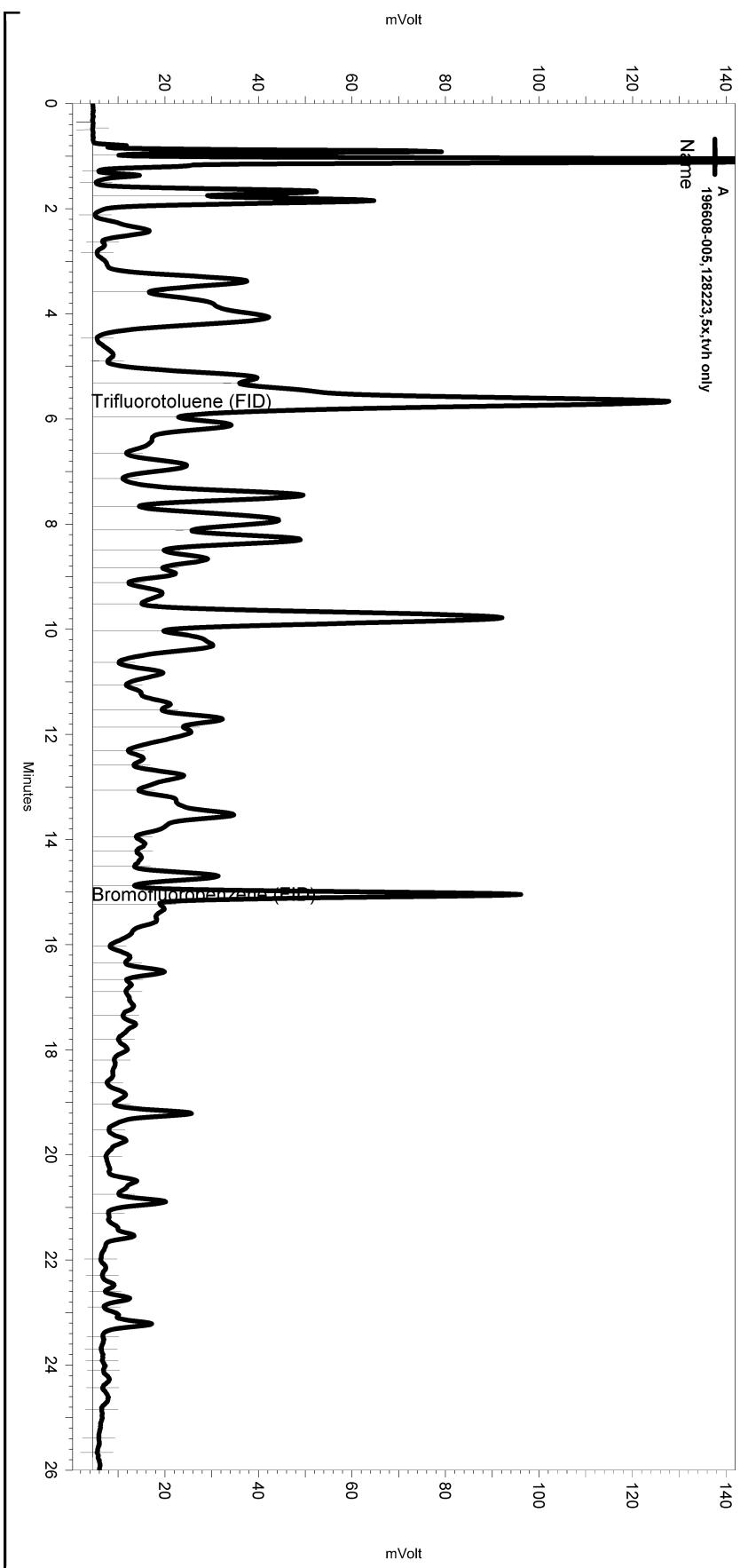
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Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Split Peak	5.541	0	0
Yes	Split Peak	15.219	0	0

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Sample Name: 196608-005,128223,5x,vh only  
Data File: \\Lims\gdrive\ezchrom\Projects\GC05\Data\221\_005  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3tvh2)  
Method Name: \\Lims\gdrive\ezchrom\Projects\GC05\Method\tvhtbx218.met

Software Version 3.1.7  
Run Date: 8/9/2007 4:19:08 PM  
Analysis Date: 8/10/2007 8:16:46 AM  
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Vial & pH or Core ID: B7.0



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## Integration Events

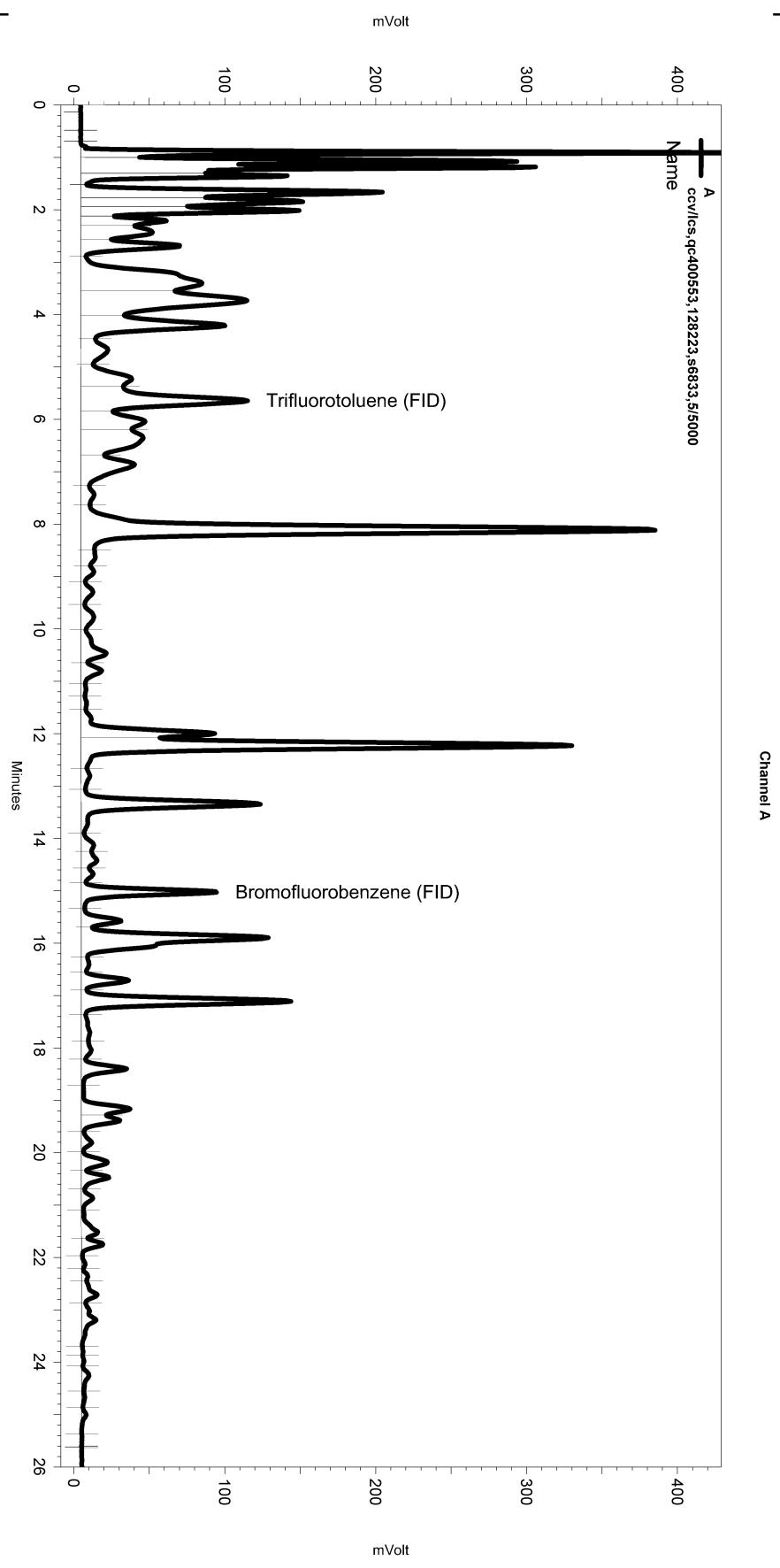
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Yes	Threshold	0	0	50

## Manual Integration Fixes

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Enabled	Event Type	(Minutes)	(Minutes)	Value
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Sample Name: ccv/lcs,qc400553,128223,s6833,5/5000  
Data File: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Data\\221\_002  
Instrument: GC05 (Offline) Vial: N/A Operator: Tvh 2. Analyst (lims2k3\\tvh2)  
Method Name: \\Lims\\gdrive\\ezchrom\\Projects\\GC05\\Method\\tvhtxe218.met

Software Version 3.1.7  
Run Date: 8/9/2007 10:15:45 AM  
Analysis Date: 8/10/2007 8:16:29 AM  
Sample Amount: 5 Multiplier: 5  
Vial & pH or Core ID: {Data Description}



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Integration Events

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
Yes	Width	0	0	0.2
Yes	Threshold	0	0	50

Manual Integration Fixes

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Enabled	Event Type	Start (Minutes)	Stop (Minutes)	Value
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**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609_004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Diln Fac:	1.000	Prepared:	08/09/07
Batch#:	128242	Analyzed:	08/13/07

Field ID: MW-6 Lab ID: 196608-001  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	680 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	107	61-134

Field ID: MW-1 Lab ID: 196608-002  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	95 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	107	61-134

Field ID: MW-2 Lab ID: 196608-003  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	113	61-134

Field ID: MW-3 Lab ID: 196608-004  
Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	130 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	97	61-134

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	08/08/07
Units:	ug/L	Received:	08/09/07
Diln Fac:	1.000	Prepared:	08/09/07
Batch#:	128242	Analyzed:	08/13/07

Field ID: MW-4 Lab ID: 196608-005  
 Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	9,200 H L	50
Motor Oil C24-C36	12,000 H L	300

Surrogate	%REC	Limits
Hexacosane	101	61-134

Field ID: MW-5 Lab ID: 196608-006  
 Type: SAMPLE Cleanup Method: EPA 3630C

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	100	61-134

Type: BLANK Cleanup Method: EPA 3630C  
 Lab ID: QC400630

Analyte	Result	RL
Diesel C10-C24	ND	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	114	61-134

H= Heavier hydrocarbons contributed to the quantitation

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	128242
Units:	ug/L	Prepared:	08/09/07
Diln Fac:	1.000	Analyzed:	08/12/07

Type: BS Cleanup Method: EPA 3630C  
 Lab ID: QC400631

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,524	101	58-130

Surrogate	%REC	Limits
Hexacosane	113	61-134

Type: BSD Cleanup Method: EPA 3630C  
 Lab ID: QC400632

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,415	97	58-130	4	27

Surrogate	%REC	Limits
Hexacosane	108	61-134

RPD= Relative Percent Difference

**Batch QC Report**
**Total Extractable Hydrocarbons**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 3520C
Project#:	609.004	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
Type:	SDUP	Batch#:	128242
MSS Lab ID:	196543-032	Sampled:	08/08/07
Lab ID:	QC400633	Received:	08/08/07
Matrix:	Water	Prepared:	08/09/07
Units:	ug/L	Analyzed:	08/13/07

Analyte	MSS Result	Result	RL	RPD	Lim
Diesel C10-C24	1,687	1,694	50.00	0	32
Motor Oil C24-C36	<300.0	ND	300.0	NC	30

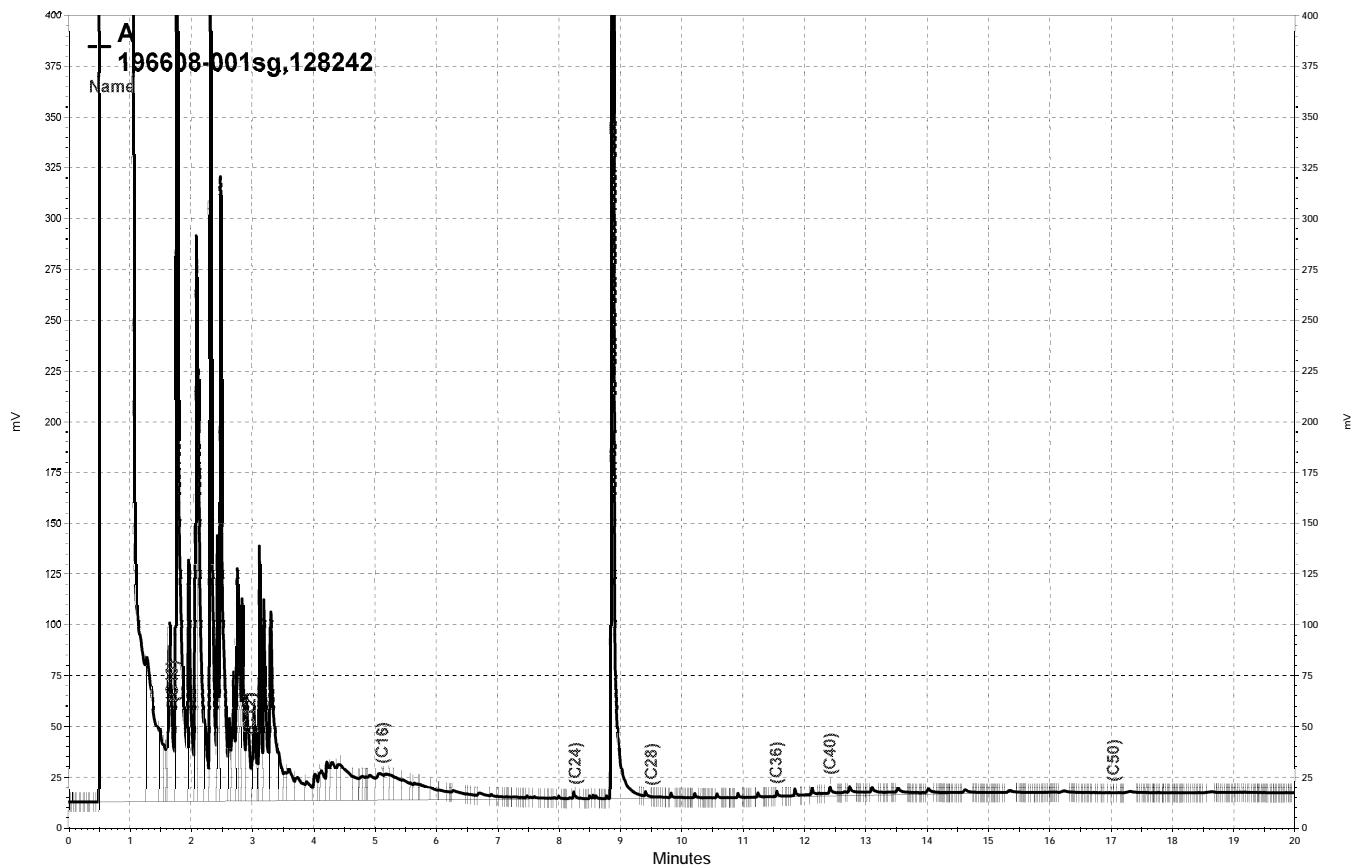
Surrogate	%REC	Limits
Hexacosane	119	61-134

NC= Not Calculated

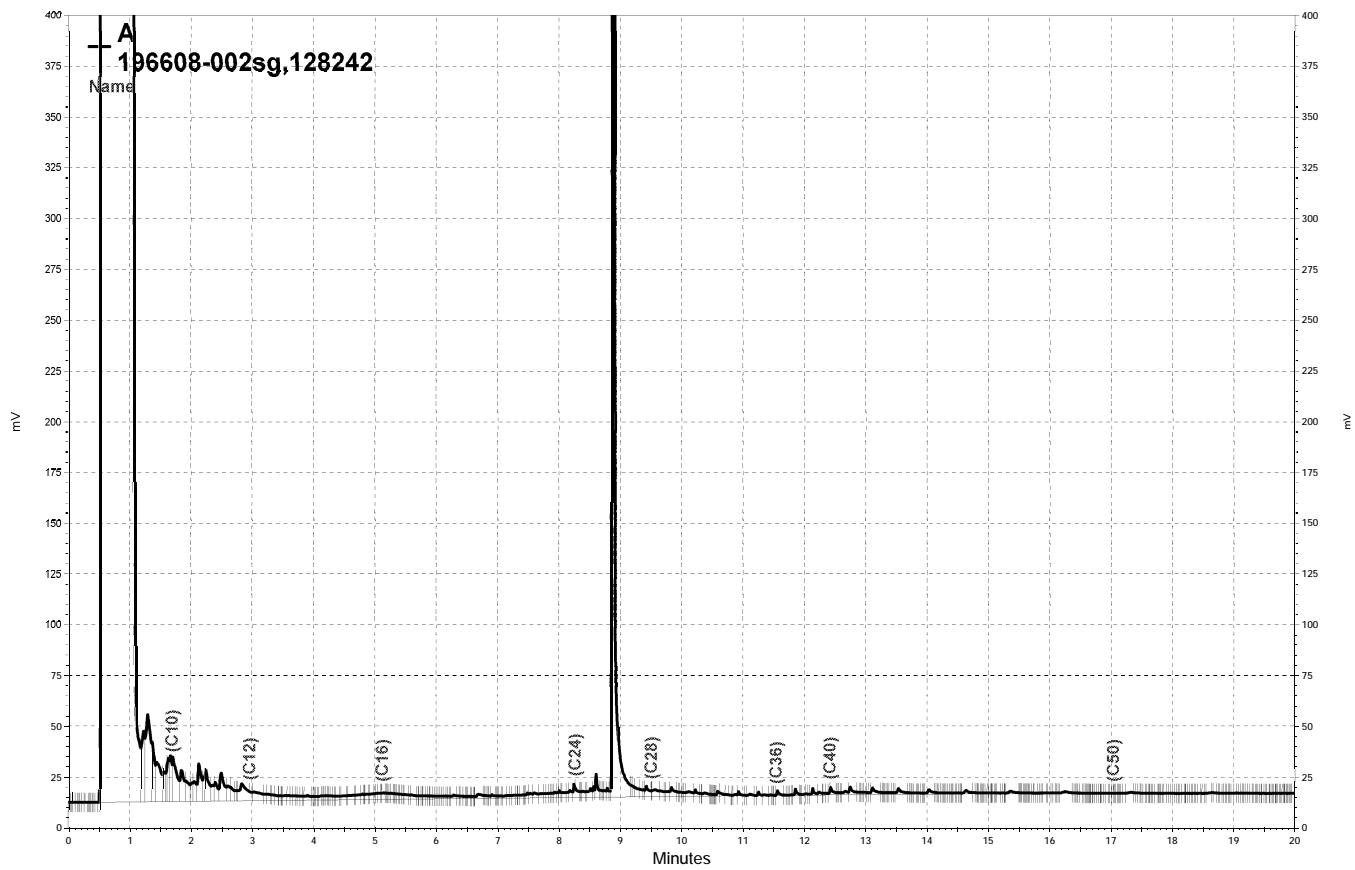
ND= Not Detected

RL= Reporting Limit

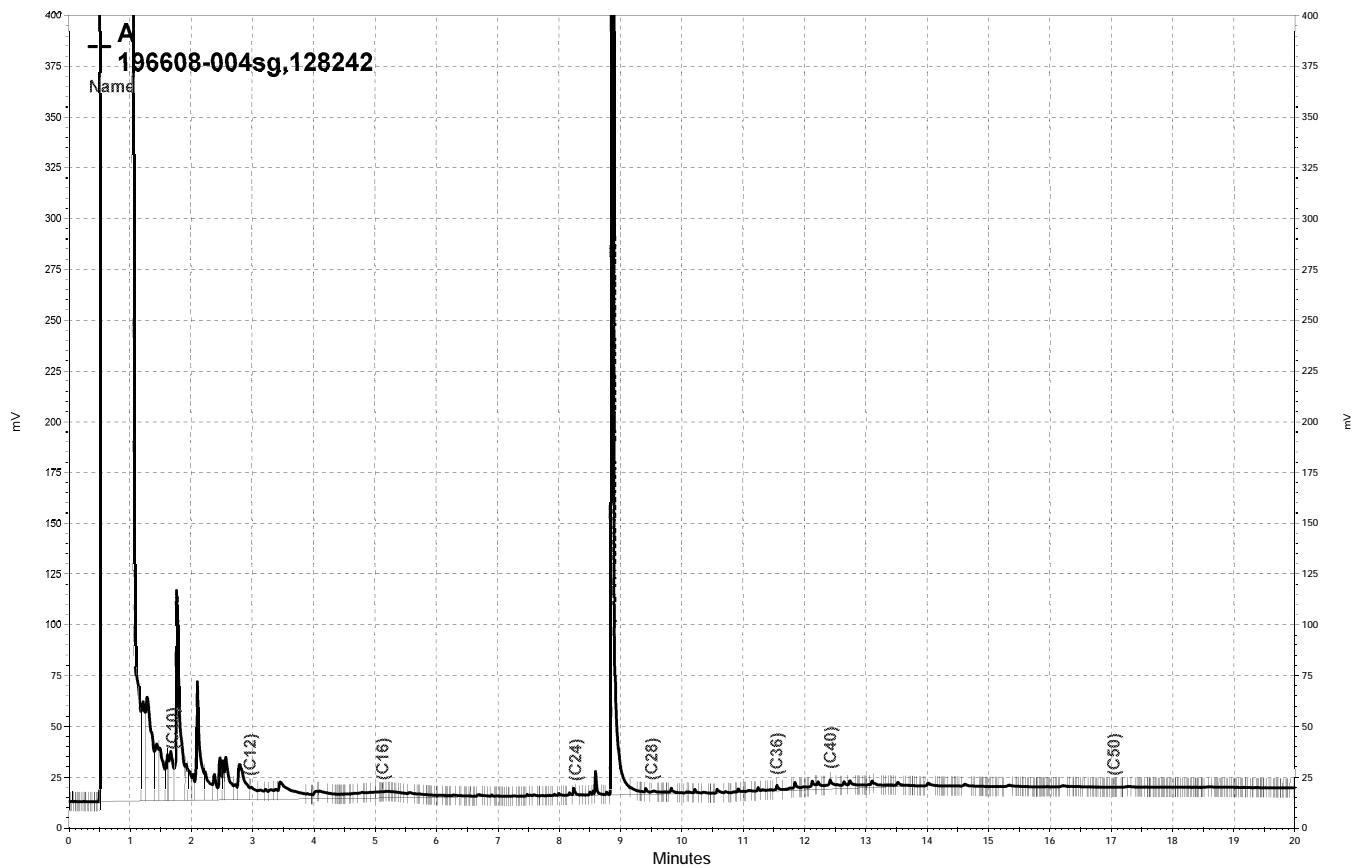
RPD= Relative Percent Difference



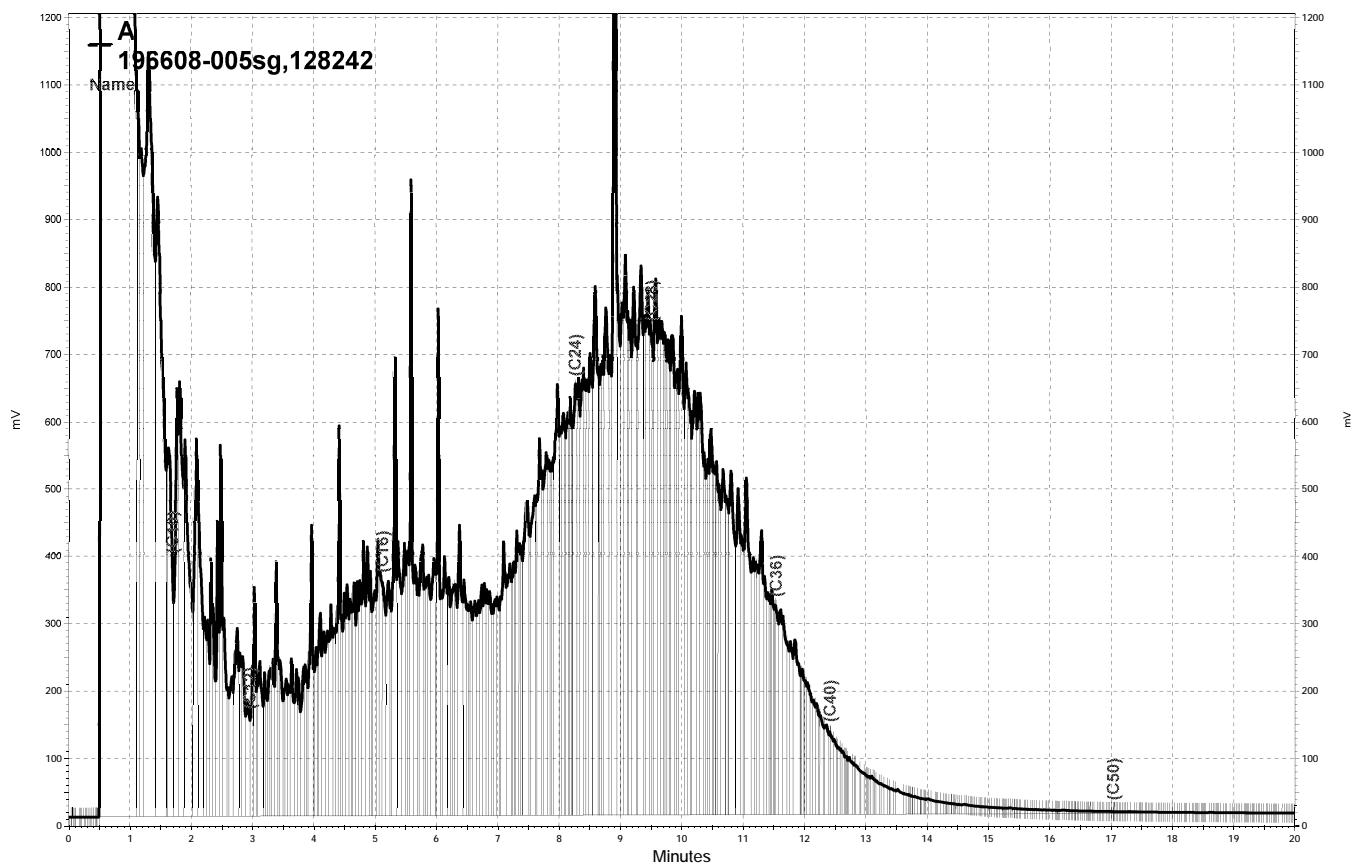
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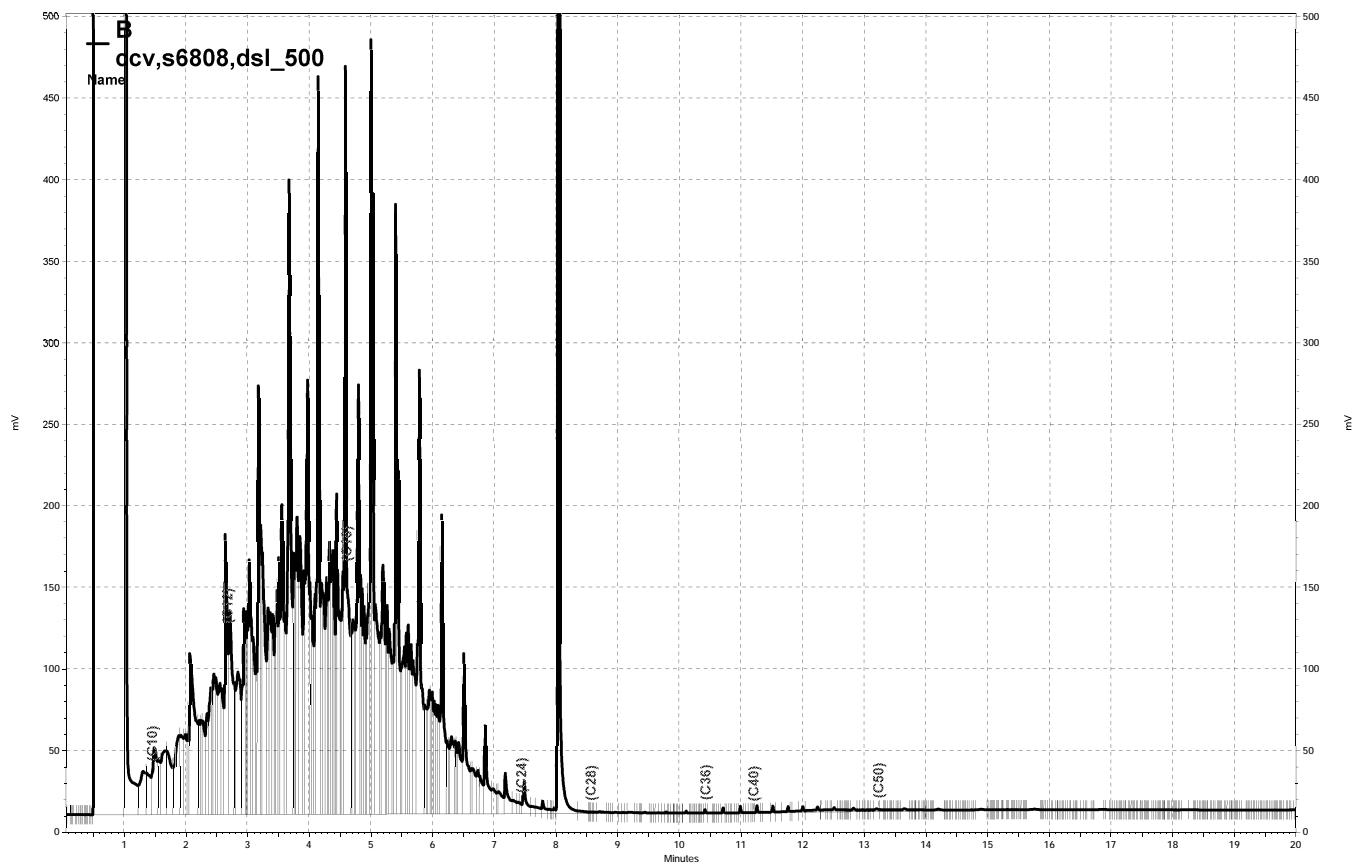


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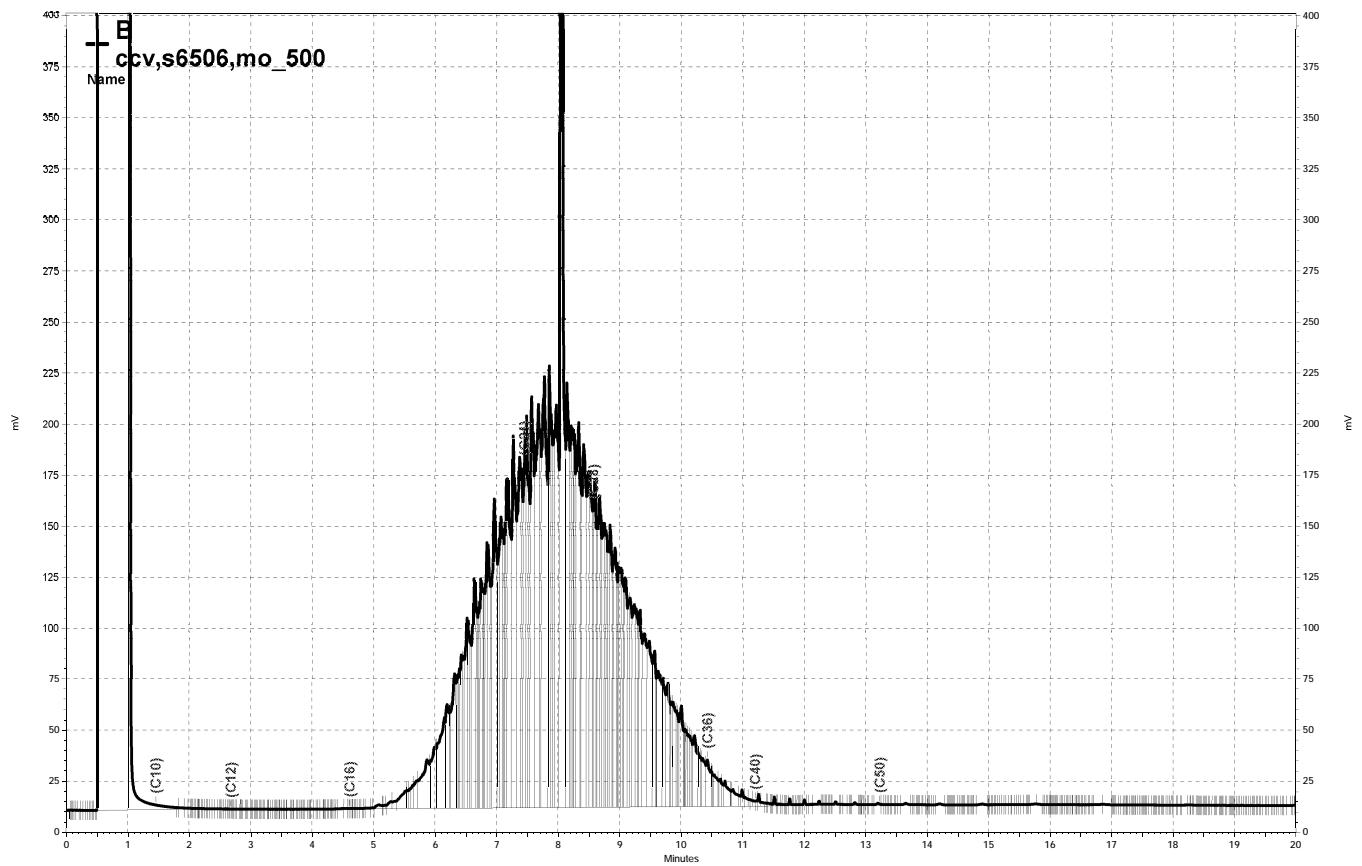


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**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-6	Batch#:	128192
Lab ID:	196608-001	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/09/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-123
1,2-Dichloroethane-d4	104	79-134
Toluene-d8	103	80-120
Bromofluorobenzene	98	80-122

ND= Not Detected

RL= Reporting Limit

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-1	Batch#:	128247
Lab ID:	196608-002	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-123
1,2-Dichloroethane-d4	106	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	97	80-122

ND= Not Detected

RL= Reporting Limit

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-2	Batch#:	128247
Lab ID:	196608-003	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-123
1,2-Dichloroethane-d4	104	79-134
Toluene-d8	104	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-3	Batch#:	128300
Lab ID:	196608-004	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/13/07
Diln Fac:	4.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	40
MTBE	ND	2.0
Isopropyl Ether (DIPE)	ND	2.0
Ethyl tert-Butyl Ether (ETBE)	ND	2.0
1,2-Dichloroethane	ND	2.0
Benzene	260	2.0
Methyl tert-Amyl Ether (TAME)	ND	2.0
Toluene	5.1	2.0
1,2-Dibromoethane	ND	2.0
Ethylbenzene	5.8	2.0
m,p-Xylenes	3.6	2.0
o-Xylene	ND	2.0

Surrogate	%REC	Limits
Dibromofluoromethane	123	80-123
1,2-Dichloroethane-d4	121	79-134
Toluene-d8	109	80-120
Bromofluorobenzene	101	80-122

ND= Not Detected

RL= Reporting Limit

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-4	Batch#:	128247
Lab ID:	196608-005	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	0.7	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	0.5	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-123
1,2-Dichloroethane-d4	114	79-134
Toluene-d8	105	80-120
Bromofluorobenzene	103	80-122

ND= Not Detected

RL= Reporting Limit

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Field ID:	MW-5	Batch#:	128247
Lab ID:	196608-006	Sampled:	08/08/07
Matrix:	Water	Received:	08/09/07
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	90	80-122

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	128192
Units:	ug/L	Analyzed:	08/09/07
Diln Fac:	1.000		

Type: BS Lab ID: QC400448

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	132.3	106	68-132
MTBE	25.00	21.39	86	71-120
Isopropyl Ether (DIPE)	25.00	19.14	77	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	19.55	78	75-124
1,2-Dichloroethane	25.00	25.30	101	79-121
Benzene	25.00	24.79	99	80-120
Methyl tert-Amyl Ether (TAME)	25.00	21.80	87	77-120
Toluene	25.00	26.59	106	80-120
1,2-Dibromoethane	25.00	26.89	108	80-120
Ethylbenzene	25.00	23.64	95	80-124
m,p-Xylenes	50.00	47.73	95	80-127
o-Xylene	25.00	23.81	95	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	106	80-120
Bromofluorobenzene	90	80-122

Type: BSD Lab ID: QC400449

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	113.4	91	68-132	15	20
MTBE	25.00	24.36	97	71-120	13	20
Isopropyl Ether (DIPE)	25.00	21.97	88	65-120	14	20
Ethyl tert-Butyl Ether (ETBE)	25.00	22.16	89	75-124	13	20
1,2-Dichloroethane	25.00	24.97	100	79-121	1	20
Benzene	25.00	24.67	99	80-120	1	20
Methyl tert-Amyl Ether (TAME)	25.00	22.59	90	77-120	4	20
Toluene	25.00	25.65	103	80-120	4	20
1,2-Dibromoethane	25.00	25.89	104	80-120	4	20
Ethylbenzene	25.00	23.33	93	80-124	1	20
m,p-Xylenes	50.00	46.80	94	80-127	2	20
o-Xylene	25.00	23.57	94	80-124	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	100	80-120
Bromofluorobenzene	90	80-122

RPD= Relative Percent Difference

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**Batch QC Report**
**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC400450	Batch#:	128192
Matrix:	Water	Analyzed:	08/09/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-123
1,2-Dichloroethane-d4	98	79-134
Toluene-d8	100	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected

RL= Reporting Limit

**Batch QC Report**
**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	128247
Units:	ug/L	Analyzed:	08/10/07
Diln Fac:	1.000		

Type: BS Lab ID: QC400645

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	116.8	93	68-132
MTBE	25.00	26.05	104	71-120
Isopropyl Ether (DIPE)	25.00	23.37	93	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	23.29	93	75-124
1,2-Dichloroethane	25.00	26.66	107	79-121
Benzene	25.00	24.72	99	80-120
Methyl tert-Amyl Ether (TAME)	25.00	23.81	95	77-120
Toluene	25.00	25.42	102	80-120
1,2-Dibromoethane	25.00	25.93	104	80-120
Ethylbenzene	25.00	24.60	98	80-124
m,p-Xylenes	50.00	48.88	98	80-127
o-Xylene	25.00	24.42	98	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-123
1,2-Dichloroethane-d4	103	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	91	80-122

Type: BSD Lab ID: QC400646

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	141.7	113	68-132	19	20
MTBE	25.00	27.29	109	71-120	5	20
Isopropyl Ether (DIPE)	25.00	23.44	94	65-120	0	20
Ethyl tert-Butyl Ether (ETBE)	25.00	24.29	97	75-124	4	20
1,2-Dichloroethane	25.00	26.66	107	79-121	0	20
Benzene	25.00	24.30	97	80-120	2	20
Methyl tert-Amyl Ether (TAME)	25.00	24.47	98	77-120	3	20
Toluene	25.00	25.34	101	80-120	0	20
1,2-Dibromoethane	25.00	26.21	105	80-120	1	20
Ethylbenzene	25.00	23.16	93	80-124	6	20
m,p-Xylenes	50.00	45.87	92	80-127	6	20
o-Xylene	25.00	23.26	93	80-124	5	20

Surrogate	%REC	Limits
Dibromofluoromethane	108	80-123
1,2-Dichloroethane-d4	103	79-134
Toluene-d8	103	80-120
Bromofluorobenzene	87	80-122

RPD= Relative Percent Difference

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**Batch QC Report**
**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC400647	Batch#:	128247
Matrix:	Water	Analyzed:	08/10/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-123
1,2-Dichloroethane-d4	101	79-134
Toluene-d8	105	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected

RL= Reporting Limit

## Batch QC Report

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	128300
Units:	ug/L	Analyzed:	08/13/07
Diln Fac:	1.000		

Type: BS Lab ID: QC400838

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	145.8	117	68-132
MTBE	25.00	28.26	113	71-120
Isopropyl Ether (DIPE)	25.00	25.90	104	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	24.95	100	75-124
1,2-Dichloroethane	25.00	26.06	104	79-121
Benzene	25.00	24.55	98	80-120
Methyl tert-Amyl Ether (TAME)	25.00	24.55	98	77-120
Toluene	25.00	25.54	102	80-120
1,2-Dibromoethane	25.00	26.15	105	80-120
Ethylbenzene	25.00	22.57	90	80-124
m,p-Xylenes	50.00	44.76	90	80-127
o-Xylene	25.00	22.84	91	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	113	80-123
1,2-Dichloroethane-d4	101	79-134
Toluene-d8	104	80-120
Bromofluorobenzene	92	80-122

Type: BSD Lab ID: QC400839

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	144.3	115	68-132	1	20
MTBE	25.00	28.27	113	71-120	0	20
Isopropyl Ether (DIPE)	25.00	26.18	105	65-120	1	20
Ethyl tert-Butyl Ether (ETBE)	25.00	25.52	102	75-124	2	20
1,2-Dichloroethane	25.00	26.21	105	79-121	1	20
Benzene	25.00	25.18	101	80-120	3	20
Methyl tert-Amyl Ether (TAME)	25.00	24.84	99	77-120	1	20
Toluene	25.00	25.45	102	80-120	0	20
1,2-Dibromoethane	25.00	26.05	104	80-120	0	20
Ethylbenzene	25.00	23.50	94	80-124	4	20
m,p-Xylenes	50.00	45.84	92	80-127	2	20
o-Xylene	25.00	23.39	94	80-124	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	111	80-123
1,2-Dichloroethane-d4	101	79-134
Toluene-d8	105	80-120
Bromofluorobenzene	95	80-122

RPD= Relative Percent Difference

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## Batch QC Report

**BTXE & Oxygenates**

Lab #:	196608	Location:	2250 Telegraph Av. Oakland
Client:	Fugro West Inc.	Prep:	EPA 5030B
Project#:	609.004	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC400840	Batch#:	128300
Matrix:	Water	Analyzed:	08/13/07
Units:	ug/L		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
1,2-Dichloroethane	ND	0.5
Benzene	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
Toluene	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethylbenzene	ND	0.5
m,p-Xylenes	ND	0.5
o-Xylene	ND	0.5

Surrogate	%REC	Limits
Dibromofluoromethane	114	80-123
1,2-Dichloroethane-d4	106	79-134
Toluene-d8	108	80-120
Bromofluorobenzene	99	80-122

ND= Not Detected

RL= Reporting Limit

