

7:53 am, Apr 06, 2007

Alameda County  
Environmental Health

March 23, 2007

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for  
Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC  
c/o Ms. Mary Schroeder, McMorgan & Company LLC  
One Bush Street, Suite 800  
San Francisco, California 94104

RE: First Quarter 2007 Groundwater Monitoring Report  
300 Hegenberger Road, Oakland, California  
*ACC Project No.6748-017-00*

Dear Ms. Schroeder:

Enclosed is the First Quarter Groundwater Monitoring Report describing the groundwater monitoring activities at 300 Hegenberger Road, Oakland, California. On your behalf, ACC will send an electronic copy of this Report to Mr. Barney Chan at Alameda County Environmental Health.

If you have any questions regarding the report, please contact me at (510) 638-8400, ext. 109.

Sincerely,

A handwritten signature in black ink, appearing to read "David DeMent".

David R. DeMent, PG, REA II  
Division Manager/Senior Geologist

/lmb:drd

Enclosures



**FIRST QUARTER 2007  
GROUNDWATER MONITORING REPORT**

**Subject Property  
300 Hegenberger Road  
Oakland, California**

*ACC Project Number 6748-017-00*

Prepared for:

The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for  
Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF, LLC  
c/o Ms. Mary Schroeder, McMorgan & Company LLC  
One Bush Street, Suite 800  
San Francisco, California 94104

March 23, 2007

Prepared By:

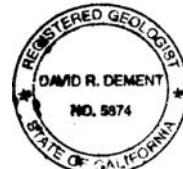
A handwritten signature of "Lorena Benitez" written over a horizontal line.

Lorena Benitez  
Staff Geologist

Reviewed By:

A handwritten signature of "David DeMent" written over a horizontal line.

David DeMent, PG, REA II  
Division Manager / Senior Geologist



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**FIRST QUARTER 2007**  
**GROUNDWATER MONITORING REPORT**

**300 Hegenberger Road**  
**Oakland, California**

## **1.0 INTRODUCTION**

This First Quarter 2007 Groundwater Monitoring Report was prepared by ACC Environmental Consultants, Inc., (ACC) at the request of McMorgan & Company LLC on behalf of The Bank of New York Trust Company, N.A. as Corporate Co-Trustee for Carpenters Pension Trust Fund for Northern California; Northern California Carpenters PTF. Work was performed at the subject property located at 300 Hegenberger Road, Oakland, California (Site). The project objectives were to: 1) measure the groundwater levels in each well and calculate the groundwater elevation, gradient, and flow direction; 2) obtain representative water samples from the seven existing groundwater monitoring wells and analyze the water samples for petroleum hydrocarbon constituents as gasoline and/or diesel; and 3) report the findings.

The general goal of this groundwater monitoring and sampling event was to determine current groundwater conditions, evaluate the changes in concentrations of constituents of concern, and obtain current groundwater quality data to further develop a Conceptual Site Model (CSM).

## **2.0 BACKGROUND**

The Site is located at 300 Hegenberger Road in the southeast corner of the intersection of Hegenberger Road and Hegenberger Loop. The rectangular lot is approximately 250 feet long by 200 feet wide and is approximately 9 feet above mean sea level.

The available data indicate that a series of subsurface investigations have been conducted at the Site since 1997. A site assessment in April 1997 indicated the presence of petroleum hydrocarbons in soils and groundwater beneath the Site but no reportable concentrations of methyl tertiary butyl ether (MTBE). A subsequent investigation conducted in July and October 1997 confirmed previous investigation findings and that no underground storage tanks (USTs) remained at the Site.

Tetra Tech EM Inc. (Tetra Tech) installed five 2-inch-diameter groundwater monitoring wells in November 1998. The five monitoring wells were screened from 5 to 20 feet below ground surface (bgs). Well MW-1 was subsequently destroyed in December 1999 and well MW-6 was installed in the estimated downgradient direction of the former waste oil tank. Well MW-6 was screened from 10 to 20 feet bgs. In December 2000, Tetra Tech installed offsite wells MW-7 and MW-8 estimated to be in the downgradient direction of the Site. Wells MW-7 and MW-8 were screened from 5 to 20 feet bgs. Groundwater monitoring was performed periodically from December 1998 to October 2001 in the existing wells.

Tetra Tech reported the findings of a Sensitive Receptor Survey in its March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*. According to the California Department of Water resources, 40 monitoring wells and two irrigation wells were located at 11 sites within the search distance. One irrigation well is reportedly located approximately 500 feet

cross gradient from the Site and a second irrigation well is located approximately 2,800 feet crossgradient of the Site.

## 2.1 Subsurface Conditions

Soil boring logs from wells MW-7 and MW-8, included in the March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*, indicate that clay and silty clay is present from the surface to the minimum depth of 11.5 feet bgs and sandy gravels and sands are present from approximately 12 to 15 feet bgs to 20.5 feet bgs, the total depth of the soil borings. Silty clays logged at 10 to 10.5 feet bgs are described as dry to moist, medium plasticity, and medium stiff. Sandy gravels logged from 15 to 16 feet bgs are described as saturated, coarse to fine grained sand, and fine to medium grained gravel.

The data summarized in the soil boring logs directly contradicts other conclusions presented in the March 8, 2001 *Fourth Quarter Groundwater Monitoring Report, December 2000*. In the *Subsurface Soil Conditions and Hydrology* section of the report, Tetra Tech states that “Groundwater is usually encountered within five feet bgs,” and in the *Preferential Pathways* section “the utility trenches may act as preferential pathways and could allow for movement of petroleum hydrocarbons to the north and west beyond the site.” Saturated permeable soils are not logged shallower than 12 feet bgs. Utility trenches in the vicinity of the Site likely exist no deeper than seven feet bgs, therefore, interception or preferential movement of groundwater along utility trenches is highly unlikely. Groundwater elevations are typically measured approximately 5 feet bgs in the monitoring wells due to semi-confined aquifer conditions.

## 3.0 GROUNDWATER MONITORING AND SAMPLING

ACC conducted groundwater monitoring on March 2, 2007. Work at the Site included measuring depth to water, subjectively evaluating groundwater in the wells, purging and sampling the wells, and submitting the samples to a state-certified laboratory for analysis.

### 3.1 Groundwater Monitoring

Before groundwater sampling, the depth to the surface of the water table was measured from the top of the polyvinyl chloride well casing using a Solinst water level meter. Well elevation data reported by Tetra Tech indicate the groundwater monitoring wells were resurveyed relative to mean sea level in December 2000. ACC measured depth to water using an electronic Solinst meter and the water level measurements were recorded to the nearest 0.01 foot. Information regarding well elevations and groundwater depths is summarized in Table 1.

**TABLE 1 - GROUNDWATER DEPTH INFORMATION**

Well No.	Date Sampled	Well Elevation <sup>(1)</sup> (above MSL)	Depth to Groundwater	Groundwater Elevation
MW-1	12/02/98	100.74	2.90	97.84
	03/08/99		3.43	97.31
	07/01/99		3.81	96.93
	08/18/99		3.62	97.12
	09/15/99		3.69	97.05
	12/27/99		3.81	96.93
	12/99		Well Destroyed	Well Destroyed
MW-2	12/02/98	102.44	4.61	97.83
	03/08/99		5.16	97.28
	07/01/99		5.91	96.53
	08/18/99		5.53	96.91
	09/15/99		5.55	96.89
	12/27/99		5.55	96.89
	03/24/00		5.44	97.00
	06/09/00		---	FP
	12/14/00		5.00	4.05
	05/07/01		5.69	3.36
	10/04/01		5.60	3.45
	02/09/05		5.00	4.05
	05/16/05		3.98	5.07
	11/16/05		5.23	3.82
	02/09/06		4.77	4.28
	05/19/06		5.51	3.54
	08/17/06		5.32	3.73
	11/16/06		4.77	4.28
	03/02/07		4.37	4.68
MW-3	12/02/98	102.00	4.24	97.76
	03/08/99		4.90	97.10
	07/01/99		5.35	96.65
	08/18/99		5.21	96.79
	09/15/99		5.26	96.74
	12/27/99		5.42	96.58
	03/24/00		5.81	96.19
	06/09/00		5.43	96.57
	12/14/00		4.85	3.75
	05/07/01		5.37	3.23
	10/04/01		5.27	3.33
	02/09/05		4.45	4.15
	05/16/05		3.81	4.79
	11/16/05		4.90	3.70
	02/09/06		4.41	4.19
	05/19/06		5.35	3.25
	08/17/06		4.10	4.50
	11/16/06		4.43	4.17
	03/02/07		4.69	3.91
MW-4	12/02/98	100.00	2.20	97.80
	03/08/99		2.80	97.20
	07/01/99		5.23	64.77
	08/18/99		5.00	95.00
	09/15/99		4.99	95.01

Well No.	Date Sampled	Well Elevation <sup>(1)</sup> (above MSL)	Depth to Groundwater	Groundwater Elevation
MW-4 cont	12/27/99	8.50 <sup>(2)</sup>	5.23	94.77
	03/24/00		5.39	94.61
	06/09/00		5.24	94.76
	12/14/00		4.60	3.90
	05/07/01		5.20	3.30
	10/04/01		5.08	3.42
	02/09/05		4.45	4.05
	05/16/05		3.98	4.52
	11/16/05		4.72	3.78
	02/09/06		4.24	4.26
	05/19/06		5.02	3.48
	08/17/06		5.76	2.74
	11/16/06		4.26	4.24
	03/02/07		4.29	4.21
MW-5	12/02/98	102.22	4.59	97.63
	03/08/99		5.20	97.02
	07/01/99		5.59	96.63
	08/18/99		5.37	96.85
	09/15/99		5.55	96.67
	12/27/99		5.48	96.74
	03/24/00		6.02	96.20
	06/09/00		5.59	96.63
	12/14/00		5.10	3.74
	05/07/01		5.52	3.32
	10/04/01		5.45	3.39
	02/09/05		4.90	3.94
	05/16/05		3.92	4.92
	11/16/05		5.10	3.74
	02/09/06		4.60	4.24
	05/19/06		4.35	4.49
MW-6	08/17/06	8.84 <sup>(2)</sup>	4.16	4.68
	11/16/06		4.61	4.23
	03/02/07		4.51	4.33
MW-7	03/24/00	102.58	5.49	97.09
	06/09/00		5.87	96.71
	12/14/00		5.13	4.06
	05/07/01		5.89	3.30
	10/04/01		5.71	3.48
	02/09/05		5.20	3.99
	05/16/05		3.98	5.21
	11/16/05		5.34	3.85
	02/09/06		4.92	4.27
	05/19/06		5.71	3.48
	08/17/06		5.41	3.78
	11/16/06		4.94	4.25
	03/02/07		5.02	4.17

Well No.	Date Sampled	Well Elevation <sup>(1)</sup> (above MSL)	Depth to Groundwater	Groundwater Elevation
	05/19/06		---	---
	08/17/06		4.61	3.49
	11/16/06		4.57	3.53
	03/02/07		5.02	3.08
MW-8	12/14/00	8.68 <sup>(2)</sup>	5.10	3.58
	05/07/01		5.74	2.94
	10/04/01		5.52	3.16
	02/09/05		4.80	3.88
	05/16/05		3.41	5.27
	11/16/05		5.28	3.40
	02/09/06		4.58	4.10
	05/19/06		---	---
	08/17/06		5.12	3.56
	11/16/06		3.98	4.70
	03/02/07		4.25	4.43

Notes: All measurements in feet

<sup>(1)</sup>Well elevation measured to top of casing

<sup>(2)</sup>Well elevation relative to established City of Oakland Benchmark (feet above sea level)

### 3.2 Groundwater Gradient

The calculated groundwater flow direction and gradient, as determined from monitoring well data obtained on March 2, 2007, is illustrated on Figure 3. The calculated groundwater gradient averaged 0.001 foot per foot to the east-northeast. Historical groundwater gradients and calculated flow directions are summarized in Table 2.

**TABLE 2 – GROUNDWATER GRADIENT AND FLOW DIRECTION**

Date Monitored	Gradient (foot/foot)	Direction
12/02/98	0.00091	West
03/08/99	0.00086	Southwest
07/01/99	0.0011	Southwest
08/18/99	0.0013	West
09/15/99	0.04089 <sup>(1)</sup> 0.00125 <sup>(5)</sup>	North <sup>(1)</sup> West
12/27/99	0.0010 <sup>(5)</sup> 0.0489 <sup>(1)</sup>	West <sup>(5)</sup> North <sup>(1)</sup>
03/29/00	0.0469 <sup>(1)</sup> 0.0131 <sup>(2)</sup>	Northwest West-Southwest
06/09/00	0.03 <sup>(3)</sup> 0.0011 <sup>(2)</sup>	North South-southwest
12/14/00	0.003 <sup>(1)</sup> 0.006 <sup>(4)</sup>	North North
05/07/01	0.0014 0.0025 <sup>(6)</sup>	Northwest Northwest
10/04/01	0.0013 0.001 <sup>(6)</sup>	Northwest Northwest
02/09/05	0.001	Southwest

Date Monitored	Gradient (foot/foot)	Direction
05/16/05	0.004	West-Northwest
11/16/05	0.002	Northwest
02/09/06	0.001	Northwest
05/19/06	0.003	Northwest
08/17/06	0.008 <sup>(7)</sup>	Northwest
11/16/06	0.004	Northwest
03/02/07	0.001	East-northeast

- Notes:
- (1) Flow component from MW-2 to MW-4
  - (2) Flow component from MW-6 to area of MW-5
  - (3) Flow component from MW-2, MW-3, and MW-4 and from MW-6 to MW-4
  - (4) Flow component from MW-7 to MW-8
  - (5) Flow component among wells MW-2, MW-3, and MW-5
  - (6) Flow component from MW-3 to MW-7
  - (7) Flow component among wells MW-3, MW-5, MW-7, and MW-8

### 3.3 Groundwater Sampling

Before groundwater sampling, each well was purged using a disposable polyethylene bailer. Groundwater samples were collected after four well casing volumes of water were measured for temperature and dissolved oxygen (DO), and removed. Following purging, each well was allowed to recharge before sampling. When recovery to 80 percent of the static water level was observed, a sample was collected for analysis. Groundwater conditions monitored during purging and sampling were recorded on monitoring well worksheets, included as Appendix 1.

Wells were sampled using disposable polyethylene bailers attached to a new rope for each well. From each monitoring well, approved, laboratory-supplied sample vials were filled to overflowing and sealed to eliminate trapped air in the vial. Once filled, sample vials were inverted and tapped to test for air bubbles. Sample containers were labeled with self adhesive, preprinted tags. The samples were stored in a pre-chilled, insulated container pending delivery to Curtis & Tompkins, a state-certified analytical laboratory, for analysis.

Water purged during the development and sampling of the monitoring wells was temporarily stored onsite in Department of Transportation approved 55-gallon drums pending laboratory analysis and proper disposal.

## 4.0 RESULTS OF GROUNDWATER SAMPLING

Groundwater samples collected from each well were submitted to Curtis & Tompkins following chain of custody protocol. All groundwater samples were analyzed for total petroleum hydrocarbons as diesel (TPHd) by EPA Method 3510/8015M, TPH as gasoline (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and MTBE by EPA Method 8260B. A copy of the chain of custody record and laboratory analytical reports is included as Appendix 2. A summary of the groundwater results obtained from each monitoring well is presented in Table 3.

**TABLE 3 - GROUNDWATER SAMPLE ANALYTICAL RESULTS**

Well No.	Date Sampled	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)
MW-1	12/02/98	<50	<50	---	<0.05	<0.05	<0.05	<0.05
	03/08/99	190	<50	---	<0.3	<0.3	<0.3	<0.3
	07/01/99	<50	<50	---	<0.5	<0.5	<0.5	<0.5
	08/18/99	<50	3,100	---	<0.5	9.6	12	12
	09/15/99	<50	<50	---	<0.5	<0.5	<0.5	<0.5
	12/27/99	---	---	---	---	---	---	--
	Destroyed	---	---	---	---	---	---	---
MW-2	12/02/98	99	<50	---	4.6	0.85	0.57	5
	03/08/99	210	180	---	200	0.74	1.3	2.3
	07/01/99	<50	1,100	---	190	13	33	36
	08/18/99	---	---	---	---	---	---	---
	09/15/99	100	990	---	330	9.7	11	19
	12/27/99	<50	1,000	---	260	7.2	1.3	10
	03/24/00	31,000	1,900	---	110	4.8	9.5	12
	06/09/00	---	---	---	---	---	---	---
	12/14/00	470	1,600	<2	450	18	61	26
	05/07/01	300	950	---	120	5.8	8.5	32
	10/04/01	170	370	---	55	2.8	17	4.2
	02/09/05	<50	160	<0.50	69	1.2	1.3	<1.0
	05/16/05	140	650	<0.50	96	4.7	15	7.5
	11/16/05	160 <sup>1</sup>	54 <sup>1</sup>	<0.50	19	<0.5	<0.5	<0.5
	02/09/06	230 <sup>1</sup>	250	<0.50	160	4.0	3.9	2.1
	05/19/06	210 <sup>1</sup>	<50	<0.50	7.8	<0.50	<0.50	<0.50
	08/17/06	460 <sup>1,2,3</sup>	500	<2.0	220	14	17	28.1
	11/16/06	370 <sup>1,3</sup>	190	19	20	1.1	0.58	0.72
	03/02/07	450 <sup>1,2</sup>	980	<8.3	1,400	19	35	14
MW-3	12/02/98	300	970	---	160	6.5	16	9
	03/08/99	1,400	2,600	---	1,800	30	67	26
	07/01/99	150	3,000	---	1	<0.5	32	36
	08/18/99	---	---	---	---	---	---	---
	09/15/99	110	1,100	---	350	8.3	5.4	10
	12/27/99	70	560	---	170	2.1	7.6	3.1
	03/24/00	1,000	8,400	---	4100	71	190	75
	06/09/00	320	2,700	---	1,100	17	18	<10
	12/14/00	<100	710	<0.5	140	2.2	3.3	1.2
	05/07/01	<400	1,500	---	270	7.9	11	5.6
	10/04/01	<50	140	---	45	<0.3	1.3	<0.6
	02/09/05	---	7,700	<5.0	670	16	83	36
	05/16/05	---	7,100	<5.0	1,200	20	110	49
	11/16/05	55 <sup>1</sup>	270 <sup>1</sup>	<0.5	30	0.61	<0.5	<0.5
	02/09/06	3,000 <sup>1</sup>	3,700	<0.50	720	12	50	29.9
MW-4	05/19/06	510 <sup>1</sup>	1,700	<2.0	300	4.2	17	11
	08/17/06	430 <sup>1,2,3</sup>	650	<0.50	78	1.2	1.2	1.4
	11/16/06	<50	170	2.7	12	<0.50	<0.50	<0.50
	03/02/07	1,800 <sup>1,2</sup>	4,800	<8.3	1,000	13	70	28

Well No.	Date Sampled	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)
MW-4 (cont'd)	08/18/99	---	---	---	---	---	---	---
	09/15/99	59	830	---	320	6.5	1.7	<2.0
	12/27/99	<50	55	---	5.8	<0.5	<0.5	<0.5
	03/24/00	77	430	---	240	3.3	0.98	1.5
	06/09/00	<50	220	---	91	0.93	<0.5	<0.5
	12/14/00	<50	96	<0.5	15	<0.5	<0.5	<0.5
	05/07/01	<100	380	---	130	2.5	1.7	2.5
	10/04/01	<50	76	---	21	<0.3	<0.3	<0.6
	02/09/05	---	2,000	<2.5	440	12	9.3	7.6
	05/16/05	---	2,400	<2.5	610	16	11	8.0
	11/16/05	520 <sup>1</sup>	490 <sup>1</sup>	<1.0	170	4.5	3.3	2.3
	02/09/06	2,000 <sup>1</sup>	1,500	<1.0	630	16	10	9.3
	05/19/06	<50	220	<0.71	120	2.4	<0.71	1.0
	08/17/06	1,500 <sup>1,2,3</sup>	1,300	<3.1	480	13	9.4	6.5
	11/16/06	430 <sup>1,2</sup>	6,100	<2.0	1,300	48	53	27
	03/02/07	1,400 <sup>1,2</sup>	5,900	<10	1,500	54	67	34
MW-5	12/02/98	620	<50	---	1.1	0.37	<0.3	2
	03/08/99	<50	58	---	23	0.31	<0.3	1.8
	07/01/99	64	1,900	---	160	10	13	22
	08/18/99	---	---	---	---	---	---	---
	09/15/99	<50	410	---	64	2.1	1.3	2.7
	12/27/99	<50	130	---	15	0.73	<0.5	<0.5
	03/24/00	460	2,500	---	560	57	18	87
	06/09/00	140	2,600	---	770	63	15	71
	12/14/00	<50	220	<0.5	17	0.63	1.7	1.1
	05/07/01	<200	3,200	---	450	44	54	66
	10/04/01	<50	<50	---	3.6	<0.3	<0.3	<0.6
	02/09/05	57	1,100	0.58	160	14	50	9.6
	05/16/05	340	4,700	<10	730	79	340	36
	11/16/05	<50	120 <sup>1</sup>	0.57	18	<0.5	<0.5	<0.5
	02/09/06	100 <sup>1</sup>	180	<0.50	33	2.2	2.1	1.8
	05/19/06	<50	1,400	<5.0	630	55	79	19.1
	08/17/06	270 <sup>1,2,3</sup>	280	0.52	41	1.9	5.3	0.79
	11/16/06	<50	76	<2.0	4.8	<0.50	<0.50	<0.50
	03/02/07	76 <sup>1,2</sup>	650	<1.0	140	12	46	7.5
MW-6	03/24/00	470	2,400	---	430	16	340	73
	06/09/00	<50	540	---	190	1.2	3.7	4.5
	12/14/00	<50	<50	<0.5	0.51	<0.5	<0.5	0.94
	05/07/01	<50	<50	---	4.4	<0.5	<0.5	<0.5
	10/04/01	<50	<50	---	<0.3	<0.3	<0.3	<0.6
	02/09/05	<50	<50	<0.50	0.94	<0.50	<0.50	<1.0
	05/16/05	<50	<50	<0.50	0.55	<0.50	<0.50	<1.0
	11/16/05	270	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	02/09/06	65 <sup>1</sup>	<50	<0.50	0.64	<0.50	<0.50	<0.50
	05/19/06	390 <sup>1</sup>	600	<1.3	180	15	35	20.4
	08/17/06	150 <sup>1</sup>	<50	<0.50	1.1	<0.50	<0.50	<0.50
	11/16/06	<50	<50	<2.0	<0.50	<0.50	<0.50	<0.50
	03/02/07	<50	<50	<0.50	1.0	<0.50	<0.50	0.55
MW-7	12/14/00	<50	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	05/07/01	<50	<50	---	<0.5	<0.5	<0.5	<0.5
	10/04/01	<50	<50	---	<0.3	<0.3	<0.3	<0.6

Well No.	Date Sampled	TPHd ( $\mu\text{g/L}$ )	TPHg ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethyl-benzene ( $\mu\text{g/L}$ )	Total Xylenes ( $\mu\text{g/L}$ )
MW-7 (cont'd)	02/09/05	---	<50	0.55	<0.50	<0.50	<0.50	<1.0
	05/16/05	---	<50	<0.50	<0.50	<0.50	<0.50	<1.0
	11/16/05	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	02/09/06	81 <sup>1</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	05/19/06	---	---	---	---	---	---	---
	08/17/06	110 <sup>1</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	11/16/06	<50	<50	<2.0	<0.50	<0.50	<0.50	<0.50
	03/02/07	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	Destroyed	---	---	---	---	---	---	---
MW-8	12/14/00	<50	<50	0.52	<0.5	<0.5	<0.5	<0.5
	05/07/01	<50	<50	---	<0.5	<0.5	<0.5	<0.5
	10/04/01	<50	<50	---	<0.3	<0.3	<0.3	<0.6
	02/09/05	---	<50	<0.50	<0.50	<0.50	<0.50	<1.0
	05/16/05	---	<50	<0.50	<0.50	<0.50	<0.50	<1.0
	11/16/05	<50	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	02/09/06	72 <sup>1</sup>	<50	<0.50	<0.50	<0.50	<0.50	<0.50
	05/19/06	---	---	---	---	---	---	---
	08/17/06	120 <sup>1</sup>	<50	<0.50	<0.50	<0.50	<0.50	0.51
	11/16/06	<83	<50	<2.0	<0.50	<0.50	<0.50	<0.50

Notes: ug/L = micrograms per liter (approximately equivalent to ppb)

--- = analysis not performed

Select data flags have been removed from the previously reported data table

<sup>1</sup> Chromatographic pattern does not resemble standard

<sup>2</sup> Lighter hydrocarbons contributed to the quantitation

<sup>3</sup> Heavier hydrocarbons contributed to the quantitation

## 5.0 DISCUSSION

During this sampling and monitoring event, the calculated groundwater flow direction and gradient was east-northeast at 0.001 foot per foot. These values are inconsistent with previously calculated flow directions and gradients and are inconsistent with surface topography. The change in groundwater flow direction from the previous sampling event is unknown but likely due to tidal influences in San Leandro Bay and/or mounding in some of the monitoring wells due to recent precipitation. Based on the “bulls eye” contour patterns around some of the wells, ACC believes that recent precipitation most likely accounted for the anomalous groundwater elevation contours.

Reported TPHd, TPHg, and BTEX concentrations increased in wells MW-2, MW-3, MW-4, and MW-5. Minor concentrations of benzene and total xylenes were reported in well MW-6 and all other constituents were below their respective laboratory reporting limits. Reported TPHg concentrations in monitoring wells MW-3 and MW-4 were 4,800  $\mu\text{g/L}$  and 5,900  $\mu\text{g/L}$ , respectively. TPHd, TPHg, BTEX, and MTBE were not detected above their respective laboratory reporting limits in well MW-7.

In comparison to the November 2006 sampling event, TPHd, TPHg, and BTEX concentrations generally increased in monitoring wells MW-2, MW-3, MW-4, and MW-5. Periodic groundwater monitoring results obtained since December 1998 have demonstrated that a residual source of petroleum hydrocarbon impact to groundwater appears to exist in soil in the vicinity of and/or

upgradient of perimeter monitoring wells MW-3 and MW-4. This residual soil impact to groundwater continues to fluctuate but is generally decreasing with time in most of the monitoring wells.

Sometime following the November 2006 sampling event, well MW-8 was destroyed by the property owner under permit from the Alameda County Public Works Agency (ACPWA). Monitoring well MW-8 was apparently installed without an access agreement and the ACPWA inadvertently approved well destruction.

## 6.0 CONCLUSIONS

Based on findings of this well monitoring and sampling event, and comparison to historical well monitoring and sampling data, ACC concludes the following:

- The calculated groundwater gradient and flow direction were not consistent with historical values or area topography and are considered anomalous during this sampling event;
- TPHd, TPHg, and BTEX concentrations continue to fluctuate and generally indicate a residual soil source of petroleum hydrocarbon impact to groundwater;
- TPHd, TPHg, BTEX, and MTBE were not reported in downgradient monitoring well MW-7;
- TPHd concentrations were not detected above their respective laboratory reporting limits in well MW-6; and
- Natural attenuation processes are preferentially degrading dissolved petroleum hydrocarbon concentrations in groundwater and no significant TPH concentrations are migrating off the property.

## 7.0 RECOMMENDATIONS

Based on our review of historical site investigation findings and the results of recently completed groundwater monitoring, ACC recommends the following:

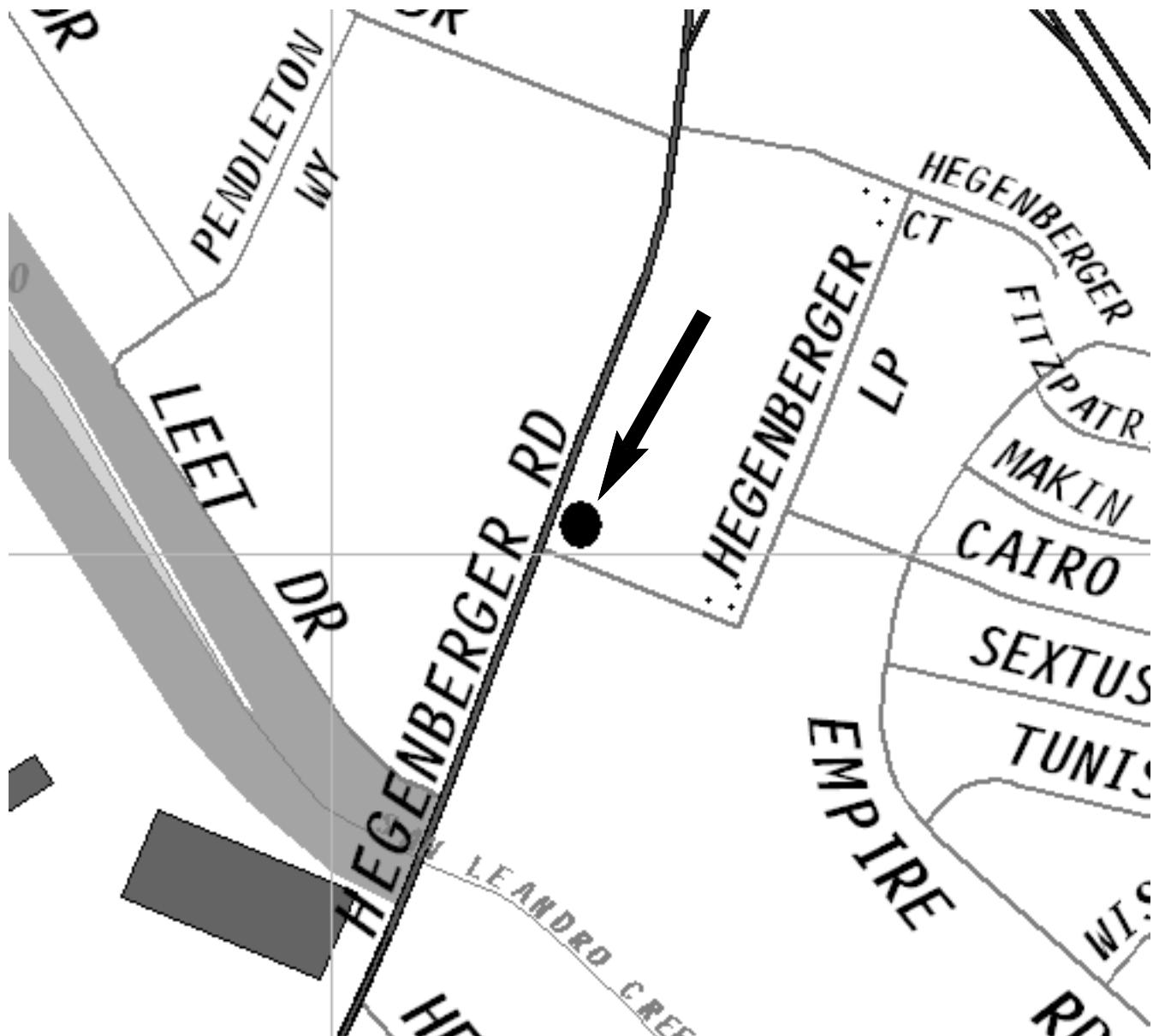
- Requesting temporarily ceasing groundwater monitoring and sampling pending review of ACC's *December 2006 Subsurface Investigation Report* and completion of any recommended remedial action;
- Prepare and submit a Remedial Action Plan (RAP) to implement active source removal as remedial soil excavation; and
- Request evaluating the Site for full regulatory closure as a "low risk fuel case" following successful completion of the recommended remedial action, revising the Site Conceptual Model (SCM) accordingly, and obtaining acceptable confirmation sidewall soil sample analytical results.

## **8.0 LIMITATIONS**

The service performed by ACC has been conducted in a manner consistent with the levels of care and skill ordinarily exercised by members of our profession currently practicing under similar conditions in the area. No other warranty, expressed or implied, is made.

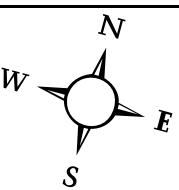
The conclusions presented in this report are professional opinions based on the indicated data described in this report and applicable regulations and guidelines currently in place. They are intended only for the purpose, site, and project indicated. Opinions and recommendations presented herein apply to site conditions existing at the time of our study.

ACC has included analytical results from a state-certified laboratory, which performs analyses according to procedures suggested by the U.S. Environmental Protection Agency and the State of California. ACC is not responsible for laboratory errors in procedure or result reporting.



Source: The Thomas Guide, Bay Area, 2004

Title: **Location Map**  
**444 Hegenberger Loop**  
**Oakland, California**

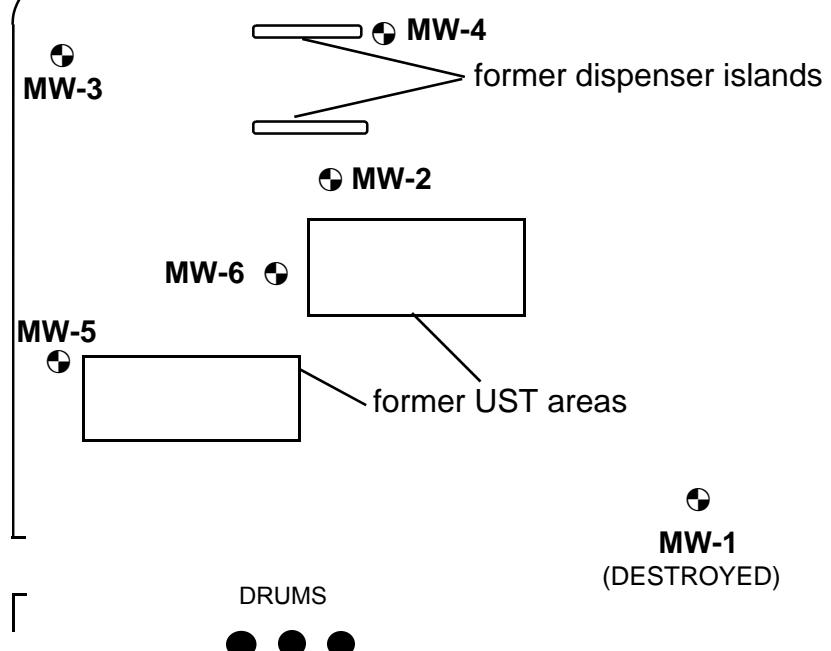
Figure Number: 1	Scale: None
Project Number: 6748-017.00	Drawn By: ANW
	Date: 06/18/05
7977 Capwell Drive, Suite 100 Oakland, California 94621 (510) 638-8400 Fax: (510) 638-8404	

MW-8

## HEGENBERGER ROAD

● MW-7

### HEGENBERGER LOOP



### Legend

● Groundwater Monitoring Well Location

Title: **Site Plan**  
**444 Hegenberger Loop**  
**Oakland, California**

Figure Number: 2

Scale: 1" = 60'

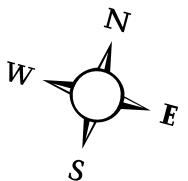
Project Number: 6748-017.00

Drawn By: ANW

Date: 8/18/05

**A·C·C**  
ENVIRONMENTAL  
CONSULTANTS

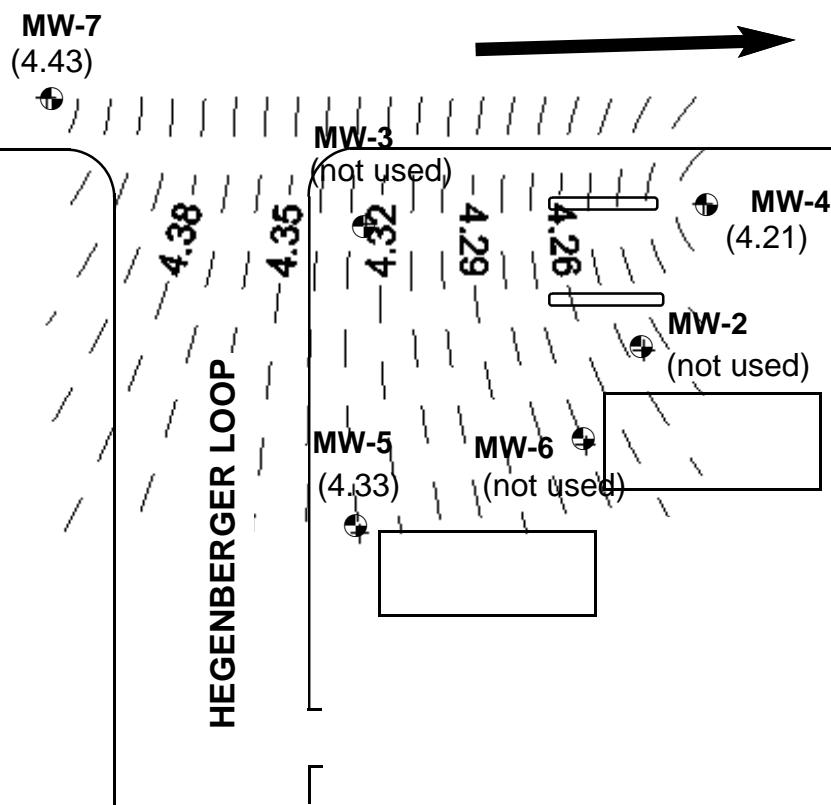
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Oakland, California 94621  
(510) 638-8400 Fax: (510) 638-8404



 MW-8  
(DESTROYED)

**Calculated Site Groundwater Flow Direction**  
Determined from measurements collected  
March 3, 2007

**HEGENBERGER ROAD**



**LEGEND**



Groundwater Monitoring Well Location



Groundwater Elevation Contour



Groundwater Flow Direction

Title: **Gradient Map**  
**300 Hegenberger Road**  
**Oakland, California**

Figure Number: 3

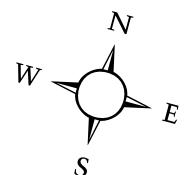
Scale: 1" = 60'

Project Number: 6748-017.00

Drawn By: LMB



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## ENVIRONMENTAL CONSULTANTS

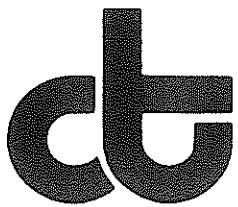
## **ACC MONITORING WELL WORKSHEET**

JOB NAME: <b>300 HEGENBERGER</b>		PURGE METHOD: <b>MANUAL BAIL</b>	
SITE ADDRESS: <b>300 HEGENBERGER</b>		SAMPLED BY: <b>AW</b>	
JOB #: <b>6748-017.00</b>		LABORATORY: <b>C&amp;T</b>	
DATE: <b>3/2/2007</b>		ANALYSIS: <b>TPHd, TPHg, BTEX, MTBE</b>	
<u>Onsite Drum Inventory:</u> SOIL: <b>EMPTY:</b> WATER:		MONITORING <input checked="" type="checkbox"/>	DEVELOPING <input type="checkbox"/>
		SAMPLING <input checked="" type="checkbox"/>	
<b>WELL:</b> <b>MW-2</b> DEPTH OF BORING: <b>19.35</b> DEPTH TO WATER: <b>4.37</b> WATER COLUMN: <b>14.98</b> WELL DIAMETER: <b>2"</b> WELL VOLUME: <b>2.3</b> <b>COMMENTS:</b>		<b>PURGE VOLUME</b> <b>PURGE WATER READING</b> <b>CROSS POLLUTION</b> (Gal) pH Temp.(C) Cond. Sal. Turb. D.O. 2.3 4.6 6.9 9.2      60.1      2.9 Amount _____ Type _____ <input type="checkbox"/> Other	
<b>WELL:</b> <b>MW-3</b> DEPTH OF BORING: <b>1632</b> DEPTH TO WATER: <b>4.69</b> WATER COLUMN: <b>11.73</b> WELL DIAMETER: <b>2"</b> WELL VOLUME: <b>2.3</b> <b>COMMENTS:</b>		(Gal) pH Temp.(C) Cond. Sal. Turb. D.O. 2.3 4.6 6.9 9.2      62.6      2.8 Amount _____ Type _____ <input type="checkbox"/> Other	
<b>WELL:</b> <b>MW-4</b> DEPTH OF BORING: <b>1932</b> DEPTH TO WATER: <b>14.29</b> WATER COLUMN: <b>15.03</b> WELL DIAMETER: <b>2"</b> WELL VOLUME: <b>2.3</b> <b>COMMENTS:</b>		(Gal) pH Temp.(C) Cond. Sal. Turb. D.O. 2.5 5.0 7.5 10.0      62.7      2.1 Amount _____ Type _____ <input type="checkbox"/> Other	

## ENVIRONMENTAL CONSULTANTS

## ACC MONITORING WELL WORKSHEET

JOB NAME:		PURGE METHOD: MANUAL BAIL									
SITE ADDRESS: 300 HEGENBERGER		SAMPLED BY: AW									
JOB #: 6748-017.00		LABORATORY: C&T									
DATE: 3/2/2007		ANALYSIS: TPHd, TPHg, BTEX, MTBE									
<u>Onsite Drum Inventory</u>		MONITORING <input checked="" type="checkbox"/> DEVELOPING <input type="checkbox"/>									
SOIL		SAMPLING <input checked="" type="checkbox"/>									
EMPTY: WATER:											
WELL:	MW-5	PURGE VOLUME						PURGE/WATER READINGS		OBSERVATIONS	
		(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.	<input type="checkbox"/> Froth	<input type="checkbox"/> Sheen	<input type="checkbox"/> Odor Type
DEPTH OF BORING:	19.52	2.5									
DEPTH TO WATER:	4.51	3.0									
WATER COLUMN:	15.01	7.5									
WELL DIAMETER:	2"	10.0	63.8								
WELL VOLUME:	2.5						2.5				
COMMENTS:								<input type="checkbox"/> Amount <input type="checkbox"/> Type			
								<input type="checkbox"/> Other			
WELL:	MW-6	PURGE VOLUME						PURGE/WATER READINGS		OBSERVATIONS	
		(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.	<input type="checkbox"/> Froth	<input type="checkbox"/> Sheen	<input type="checkbox"/> Odor Type
DEPTH OF BORING:	15.70	1.6									
DEPTH TO WATER:	5.02	3.2									
WATER COLUMN:	10.68	4.8									
WELL DIAMETER:	2"	6.4	62.3								
WELL VOLUME:	1.6						2.6				
COMMENTS:								<input type="checkbox"/> Amount <input type="checkbox"/> Type			
								<input type="checkbox"/> Other			
WELL:	MW-7	PURGE VOLUME						PURGE/WATER READINGS		OBSERVATIONS	
		(Gal)	pH	Temp.(C)	Cond.	Sal.	Turb.	D.O.	<input type="checkbox"/> Froth	<input type="checkbox"/> Sheen	<input type="checkbox"/> Odor Type
DEPTH OF BORING:	19.53	2.3									
DEPTH TO WATER:	4.25	4.6									
WATER COLUMN:	15.28	6.9									
WELL DIAMETER:	2"	9.2	60.2								
WELL VOLUME:	2.3						4.7				
COMMENTS:								<input type="checkbox"/> Amount <input type="checkbox"/> Type			
								<input type="checkbox"/> Other			



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

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

A N A L Y T I C A L R E P O R T

Prepared for:

ACC Environmental Consultants  
7977 Capwell Drive  
Suite 100  
Oakland, CA 94621

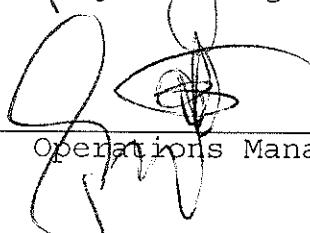
Date: 19-MAR-07  
Lab Job Number: 193151  
Project ID: 6748-017.00  
Location: 300 Hegenberger Road

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.

Reviewed by:

  
Project Manager

Reviewed by:

  
Operations Manager

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#### CASE NARRATIVE

Laboratory number: 193151  
Client: ACC Environmental Consultants  
Project: 6748-017.00  
Location: 300 Hegenberger Road  
Request Date: 03/05/07  
Samples Received: 03/05/07

This hardcopy data package contains sample and QC results for six water samples, requested for the above referenced project on 03/05/07. The samples were received cold and intact.

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 Extractable Hydrocarbons**

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 3520C
Project#:	6748-017.00	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/02/07
Units:	ug/L	Received:	03/05/07
Diln Fac:	1.000	Prepared:	03/07/07
Batch#:	122824		

Field ID: MW-7 Analyzed: 03/08/07  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 193151-001

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

Surrogate	%REC	Limits
Hexacosane	96	61-134

Field ID: MW-6 Analyzed: 03/08/07  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 193151-002

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

Surrogate	%REC	Limits
Hexacosane	86	61-134

Field ID: MW-2 Analyzed: 03/08/07  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 193151-003

Analyte	Result	RL
Diesel C10-C24	450 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	111	61-134

Field ID: MW-4 Analyzed: 03/08/07  
Type: SAMPLE Cleanup Method: EPA 3630C  
Lab ID: 193151-004

Analyte	Result	RL
Diesel C10-C24	1,400 L Y	50
Motor Oil C24-C36	ND	300

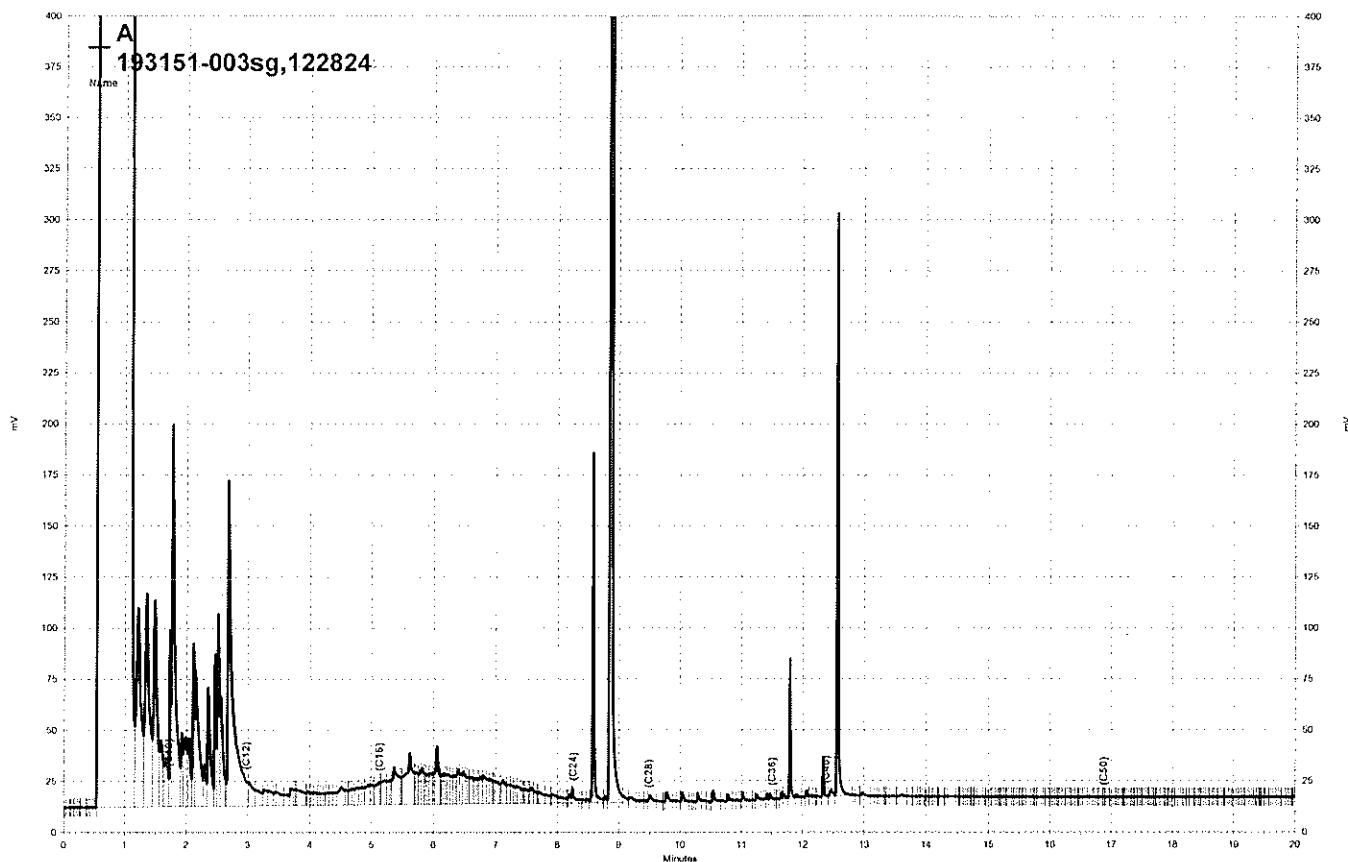
Surrogate	%REC	Limits
Hexacosane	85	61-134

L= Lighter hydrocarbons contributed to the quantitation

Y= Sample exhibits chromatographic pattern which does not resemble standard

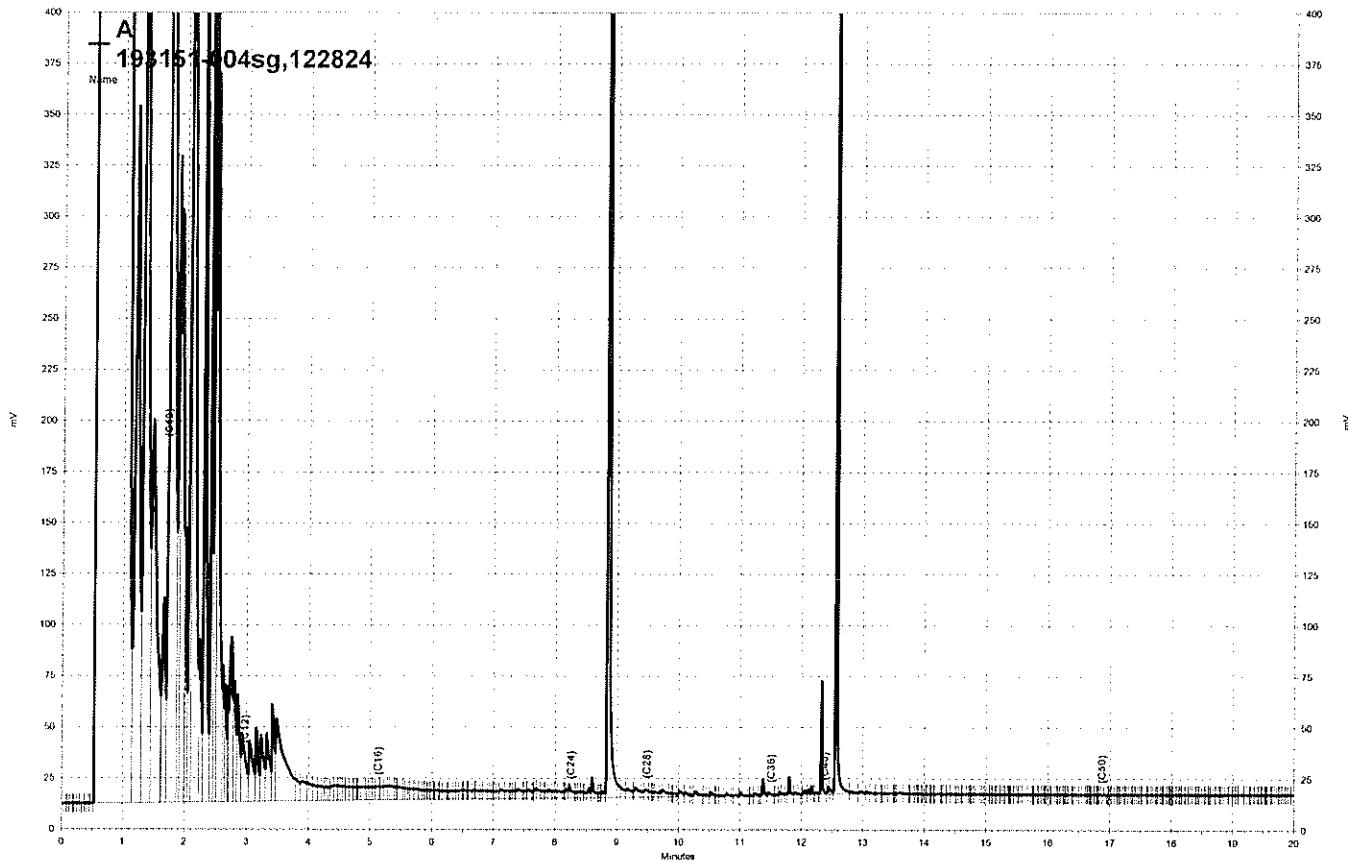
ND= Not Detected

RL= Reporting Limit



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MW-2



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MW-4

**Total Extractable Hydrocarbons**

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 3520C
Project#:	6748-017.00	Analysis:	EPA 8015B
Matrix:	Water	Sampled:	03/02/07
Units:	ug/L	Received:	03/05/07
Diln Fac:	1.000	Prepared:	03/07/07
Batch#:	122824		

Field ID: MW-3 Analyzed: 03/09/07  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 193151-005

Analyte	Result	RL
Diesel C10-C24	1,800 L Y	50
Motor Oil C24-C36	ND	300

Surrogate	%REC	Limits
Hexacosane	118	61-134

Field ID: MW-5 Analyzed: 03/09/07  
 Type: SAMPLE Cleanup Method: EPA 3630C  
 Lab ID: 193151-006

Analyte	Result	RL
Diesel C10-C24	76 L Y	50
Motor Oil C24-C36	ND	300

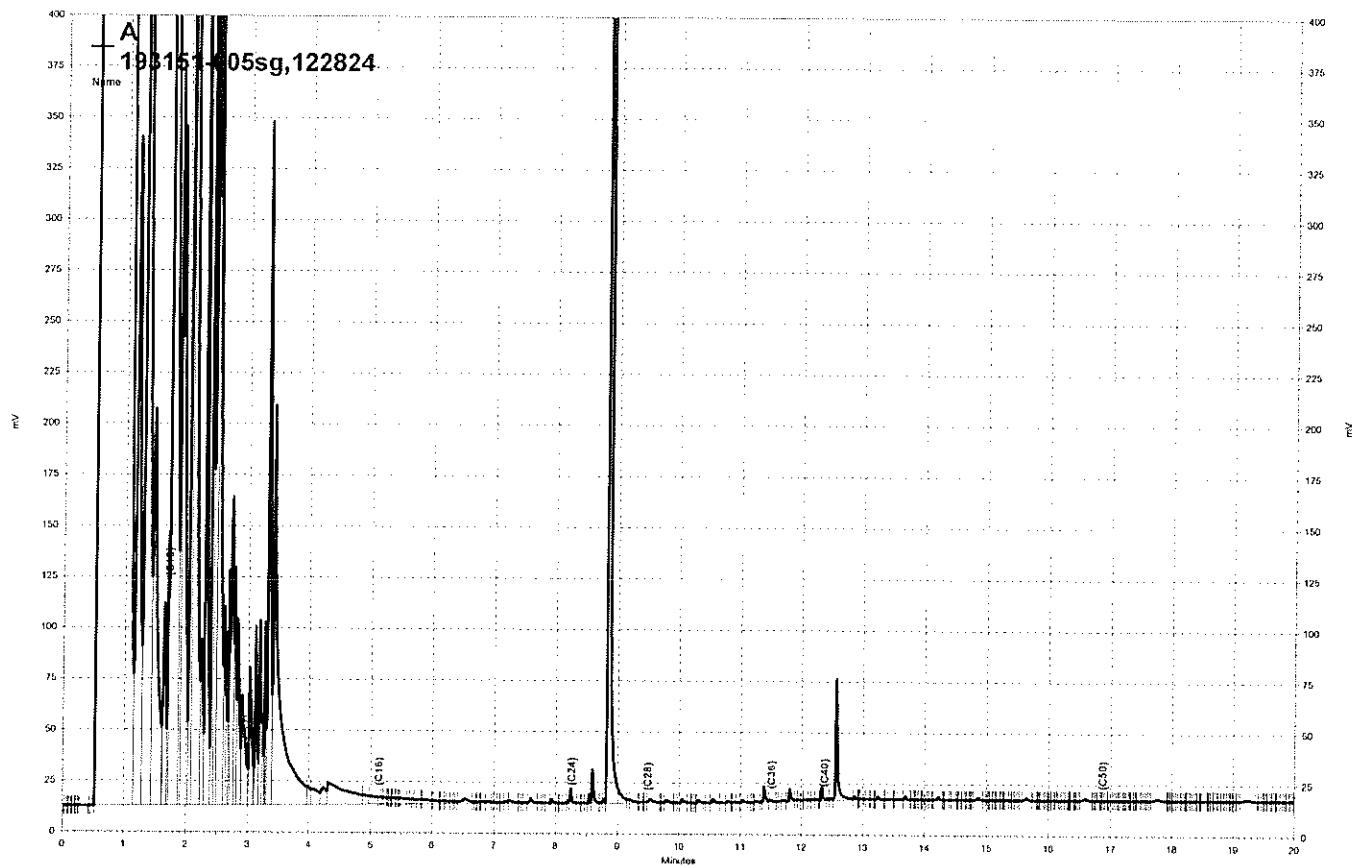
Surrogate	%REC	Limits
Hexacosane	92	61-134

Type: BLANK Analyzed: 03/08/07  
 Lab ID: QC378022 Cleanup Method: EPA 3630C

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

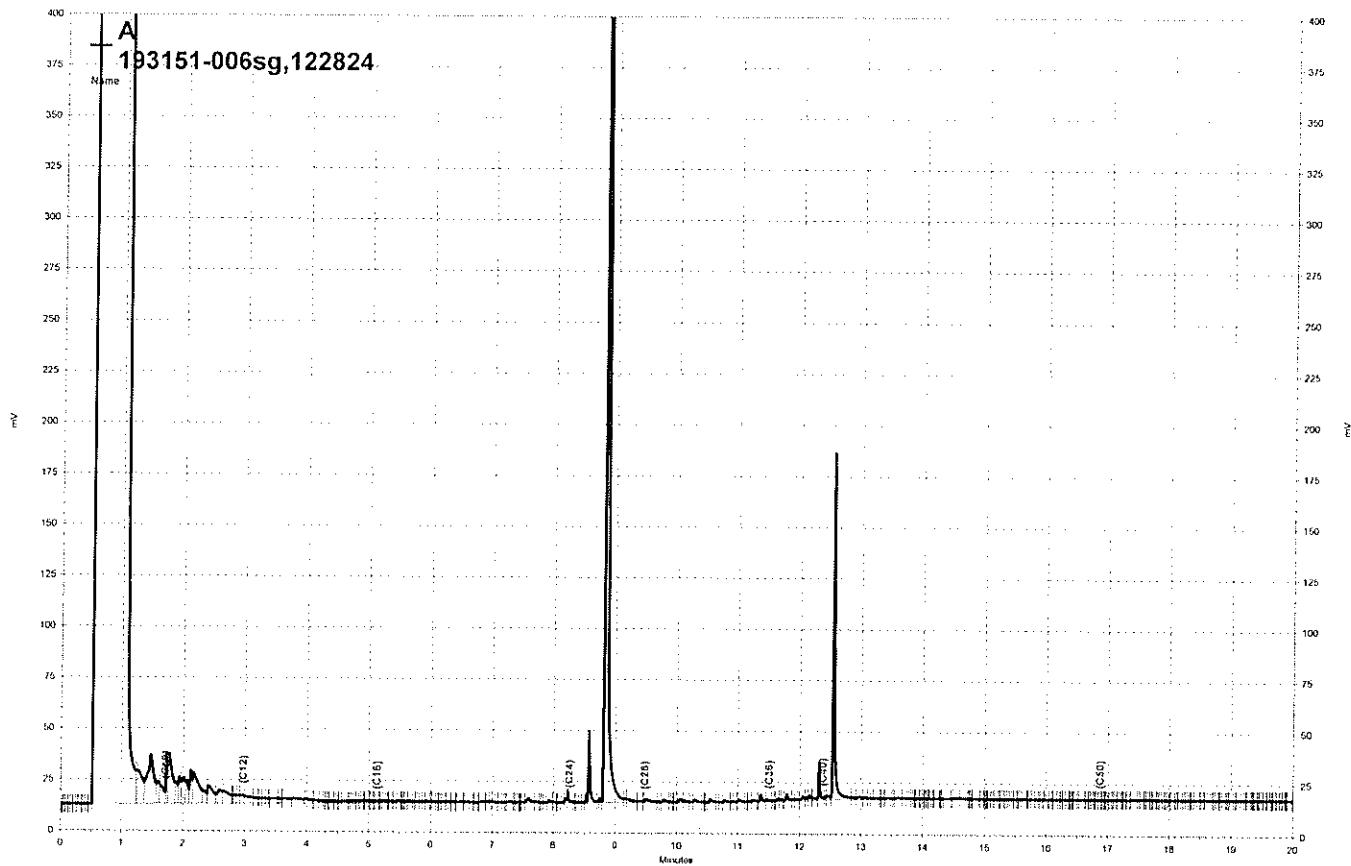
Surrogate	%REC	Limits
Hexacosane	90	61-134

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



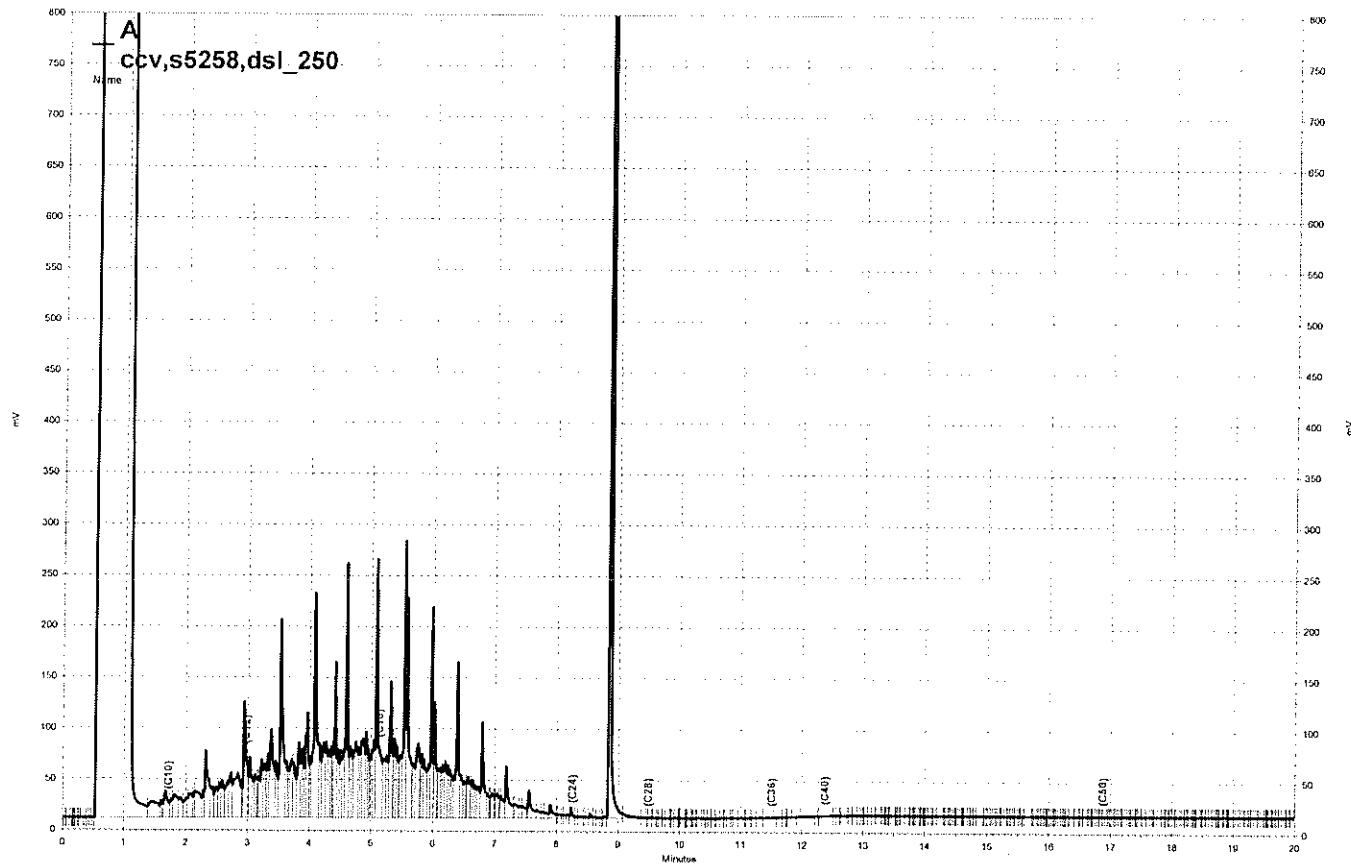
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MW-3



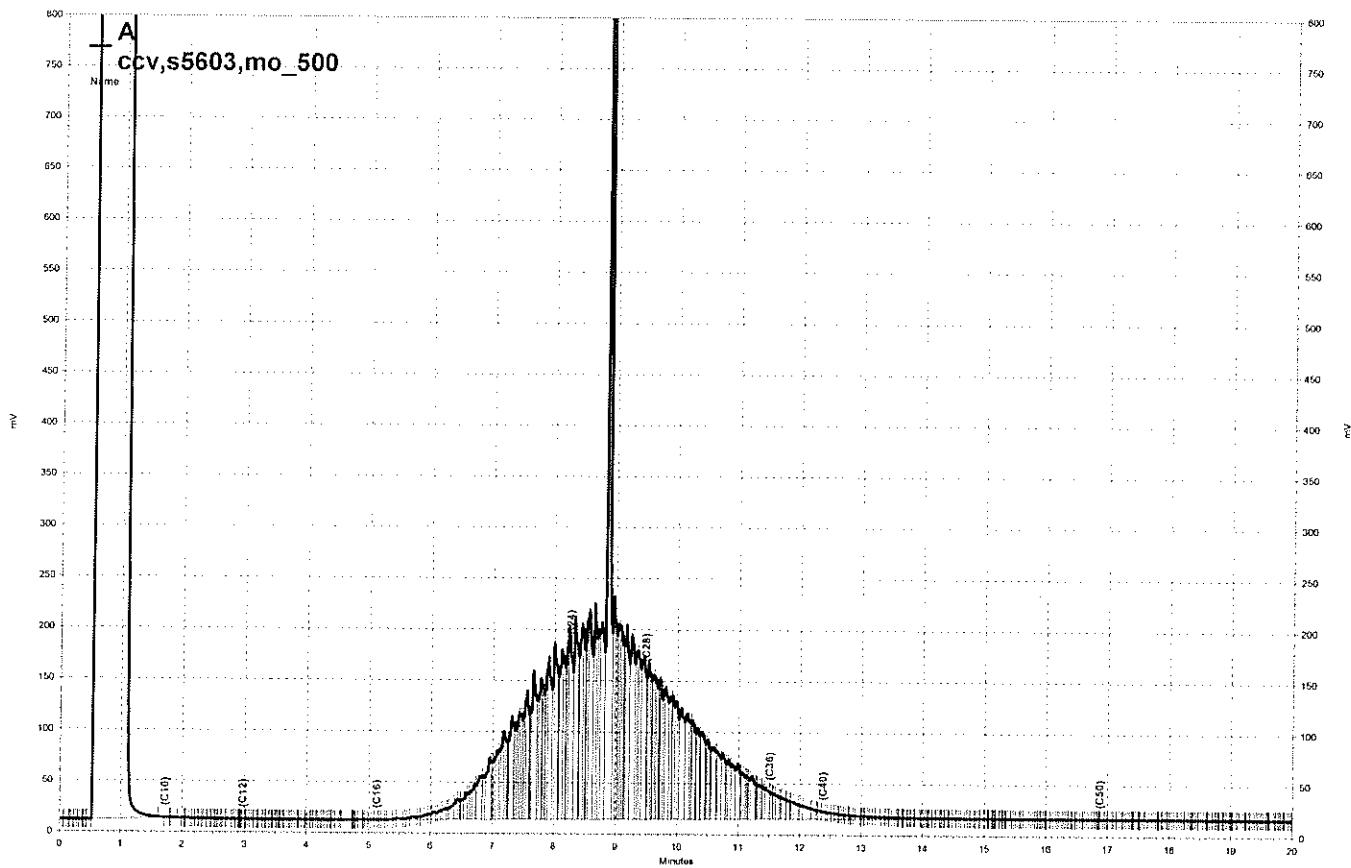
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MW-5



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Diesel



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MOTOR OIL



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## Batch QC Report

## Total Extractable Hydrocarbons

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 3520C
Project#:	6748-017.00	Analysis:	EPA 8015B
Matrix:	Water	Batch#:	122824
Units:	ug/L	Prepared:	03/07/07
Diln Fac:	1.000	Analyzed:	03/09/07

Type: BS Cleanup Method: EPA 3630C  
Lab ID: QC378023

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	2,500	2,107	84	58-130

Surrogate	%REC	Limits
Hexacosane	84	61-134

Type: BSD Cleanup Method: EPA 3630C  
Lab ID: QC378024

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	2,500	2,077	83	58-130	1	27

Surrogate	%REC	Limits
Hexacosane	80	61-134



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**Gasoline by GC/MS**

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	03/02/07
Units:	ug/L	Received:	03/05/07

Field ID: MW-7 Diln Fac: 1.000  
Type: SAMPLE Batch#: 122788  
Lab ID: 193151-001 Analyzed: 03/07/07

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-123
1,2-Dichloroethane-d4	96	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	96	80-122

Field ID: MW-6 Diln Fac: 1.000  
Type: SAMPLE Batch#: 122788  
Lab ID: 193151-002 Analyzed: 03/07/07

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	1.0	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	0.55	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-123
1,2-Dichloroethane-d4	96	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Gasoline by GC/MS**

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	03/02/07
Units:	ug/L	Received:	03/05/07

Field ID: MW-2 Diln Fac: 16.67  
Type: SAMPLE Batch#: 122841  
Lab ID: 193151-003 Analyzed: 03/08/07

Analyte	Result	RL
Gasoline C7-C12	980	830
MTBE	ND	8.3
Benzene	1,400	8.3
Toluene	19	8.3
Ethylbenzene	35	8.3
m,p-Xylenes	14	8.3
o-Xylene	ND	8.3

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-123
1,2-Dichloroethane-d4	98	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	94	80-122

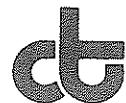
Field ID: MW-4 Diln Fac: 20.00  
Type: SAMPLE Batch#: 122900  
Lab ID: 193151-004 Analyzed: 03/09/07

Analyte	Result	RL
Gasoline C7-C12	5,900	1,000
MTBE	ND	10
Benzene	1,500	10
Toluene	54	10
Ethylbenzene	67	10
m,p-Xylenes	34	10
o-Xylene	ND	10

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-123
1,2-Dichloroethane-d4	99	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	95	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Gasoline by GC/MS**

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	03/02/07
Units:	ug/L	Received:	03/05/07

Field ID: MW-3 Diln Fac: 16.67  
Type: SAMPLE Batch#: 122788  
Lab ID: 193151-005 Analyzed: 03/07/07

Analyte	Result	RL
Gasoline C7-C12	4,800	830
MTBE	ND	8.3
Benzene	1,000	8.3
Toluene	13	8.3
Ethylbenzene	70	8.3
m,p-Xylenes	28	8.3
o-Xylene	ND	8.3

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-122

Field ID: MW-5 Diln Fac: 2.000  
Type: SAMPLE Batch#: 122788  
Lab ID: 193151-006 Analyzed: 03/07/07

Analyte	Result	RL
Gasoline C7-C12	650	100
MTBE	ND	1.0
Benzene	140	1.0
Toluene	12	1.0
Ethylbenzene	46	1.0
m,p-Xylenes	5.8	1.0
o-Xylene	1.7	1.0

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

**Gasoline by GC/MS**

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	03/02/07
Units:	ug/L	Received:	03/05/07

Type: BLANK Batch#: 122788  
Lab ID: QC377876 Analyzed: 03/07/07  
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-123
1,2-Dichloroethane-d4	96	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-122

Type: BLANK Batch#: 122841  
Lab ID: QC378079 Analyzed: 03/08/07  
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-123
1,2-Dichloroethane-d4	92	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected

RL= Reporting Limit

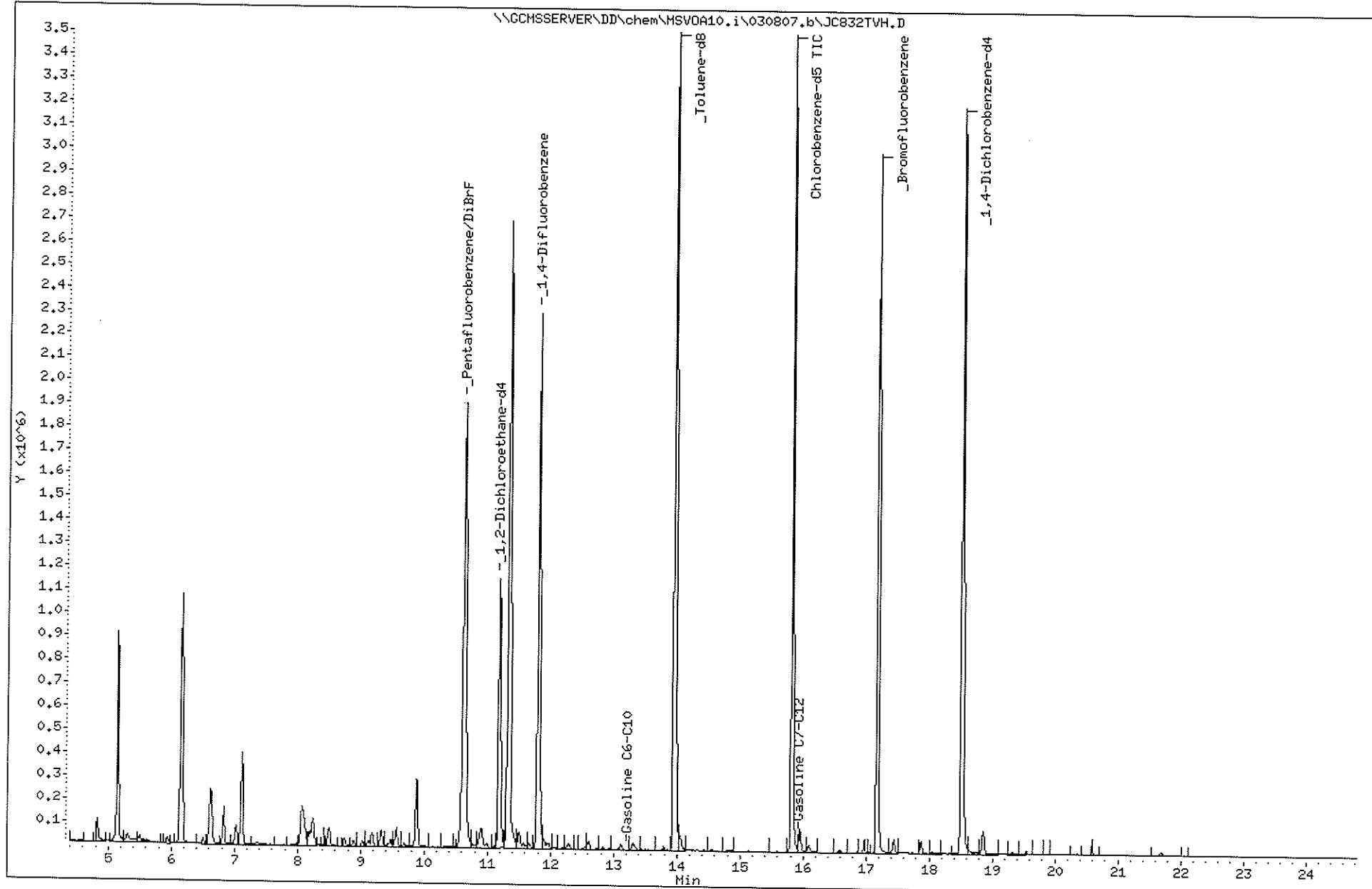
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Operator: VDA  
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Column phase:

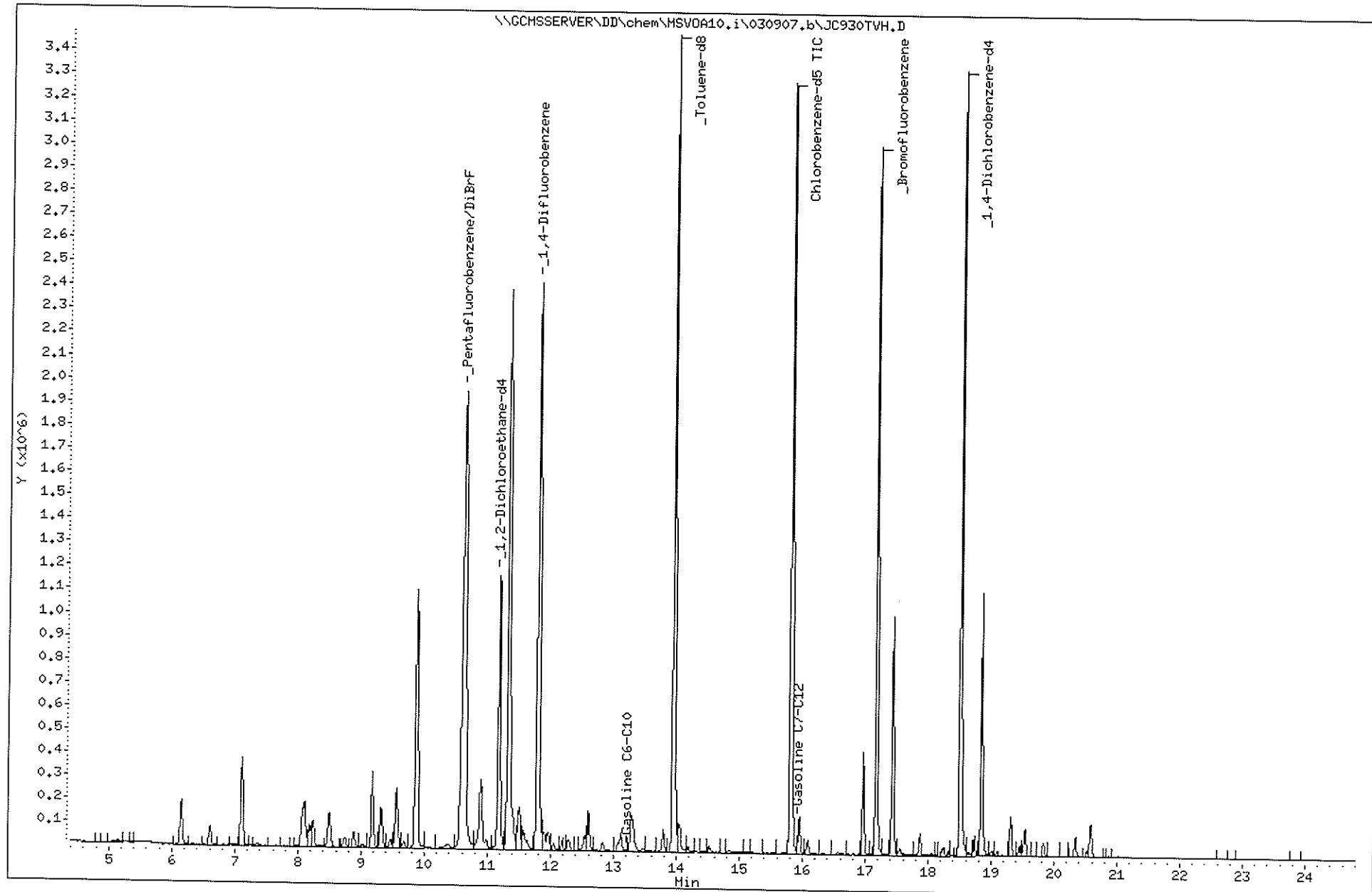


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Instrument: MSV0A10.i

Column phase:  
Operator: VOA  
Column diameter: 2.00



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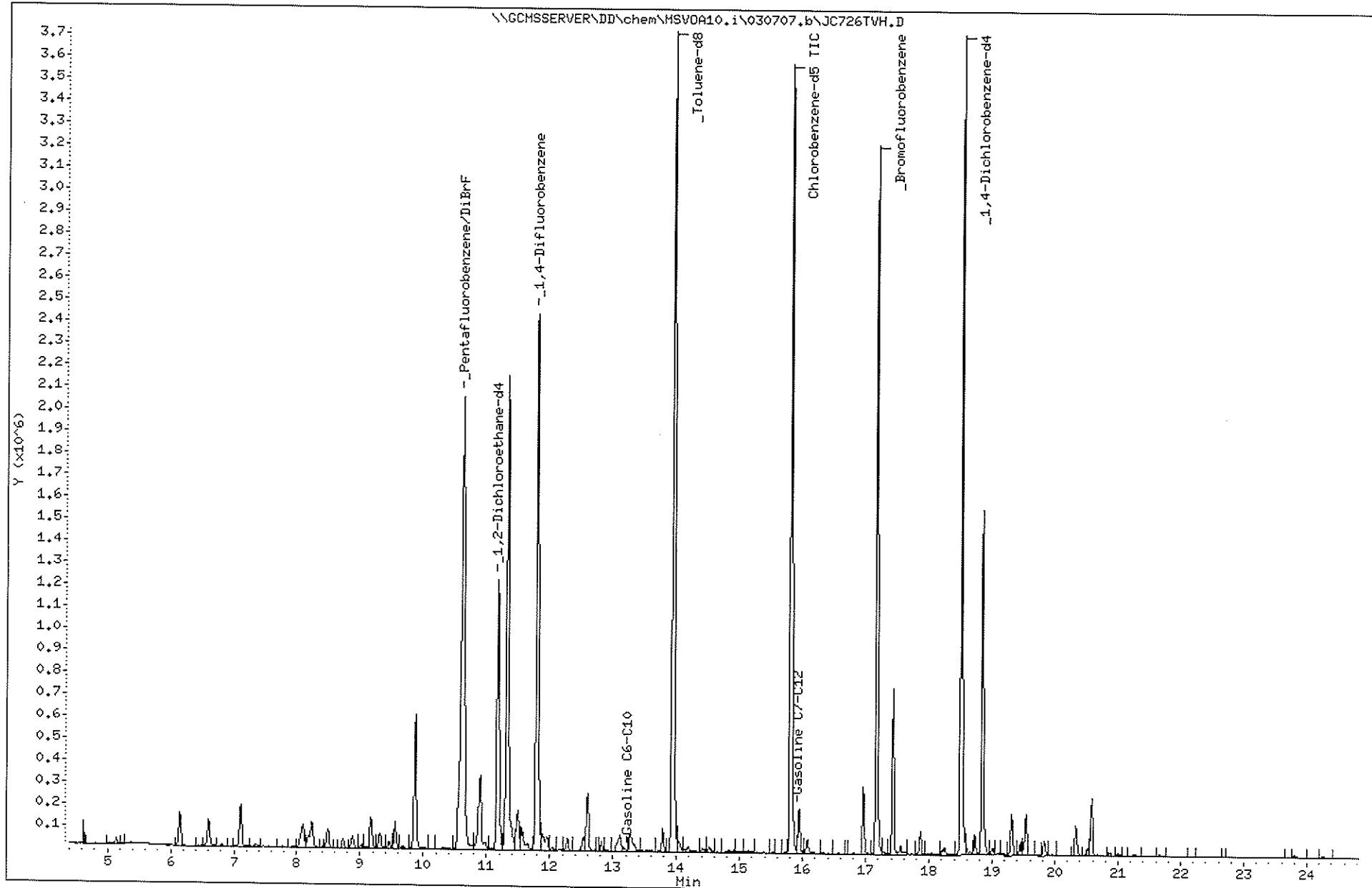
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Operator: VOA

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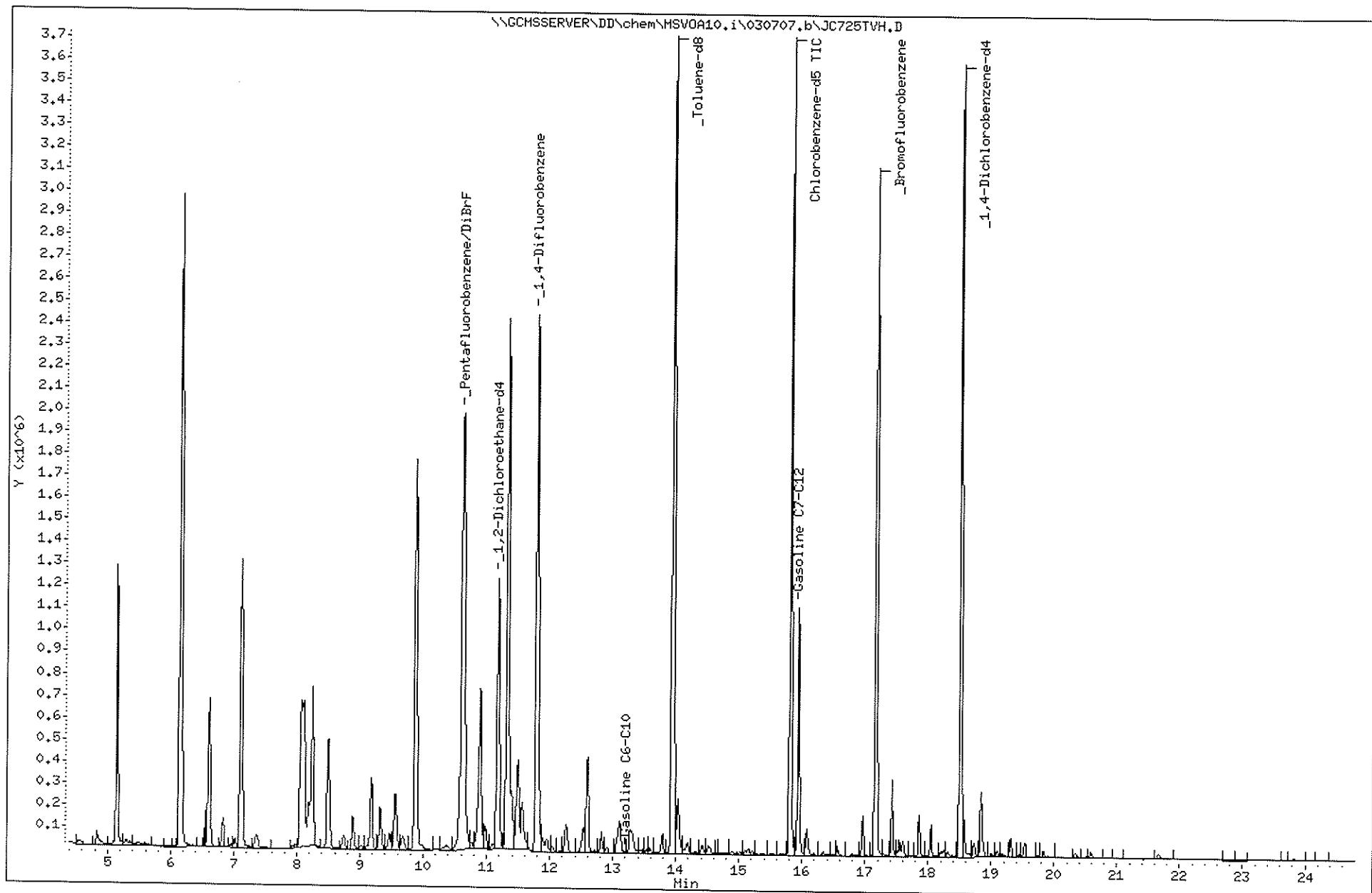


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Sample Info: S,193151-006

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Instrument: MSVOA10.i

Column phase:  
Operator: VOA  
Column diameter: 2.00



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Client ID:

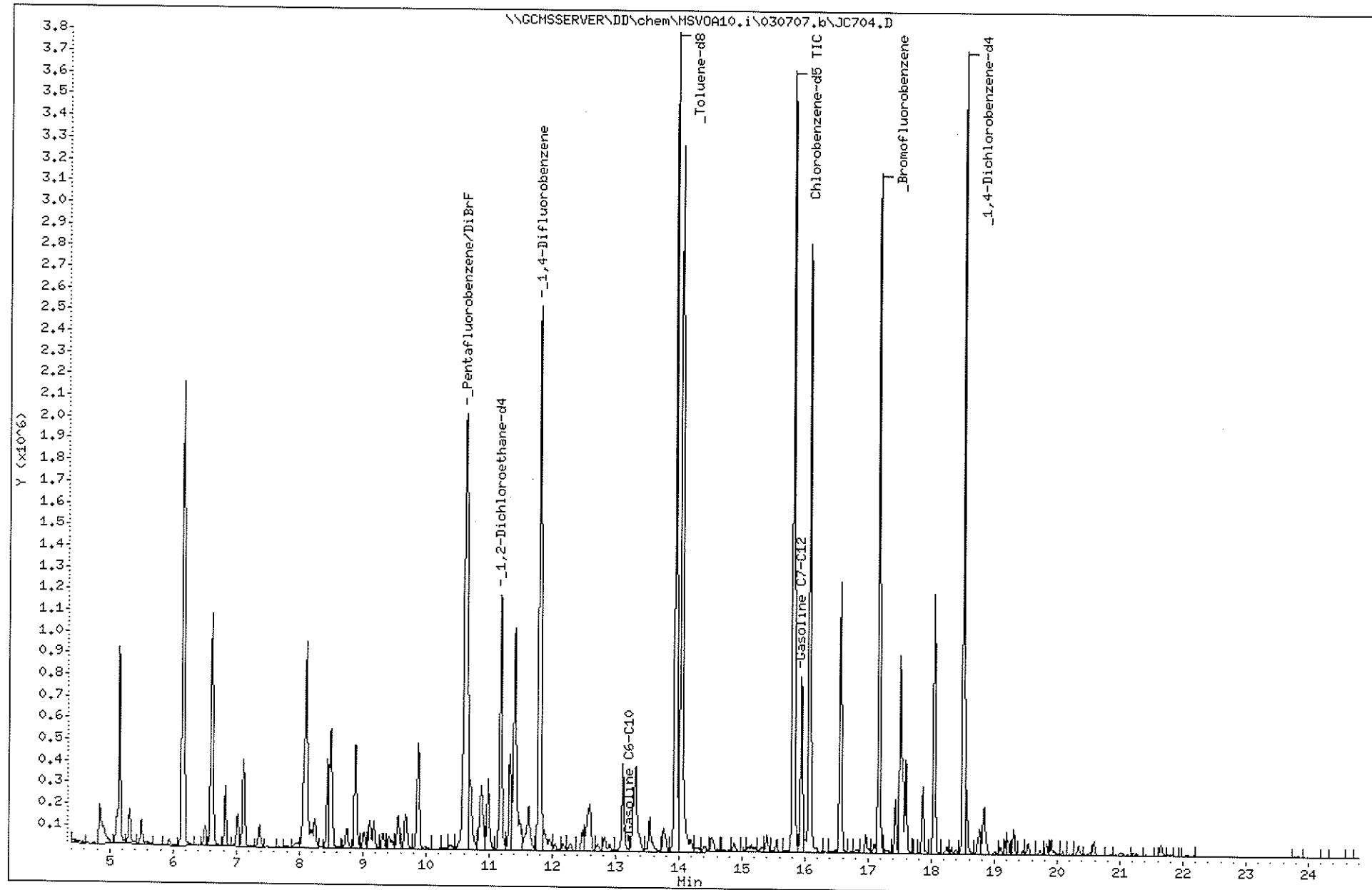
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Instrument: MSV0A10.i

Operator: VOA

Column diameter: 2.00

Column phase:





Curtis &amp; Tompkins, Ltd.

**Gasoline by GC/MS**

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	03/02/07
Units:	ug/L	Received:	03/05/07

Type: BLANK Batch#: 122900  
Lab ID: QC378326 Analyzed: 03/09/07  
Diln Fac: 1.000

Analyte	Result	RL
Gasoline C7-C12	ND	50
MTBE	ND	0.50
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-123
1,2-Dichloroethane-d4	93	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected

RL= Reporting Limit



Curtis &amp; Tompkins, Ltd.

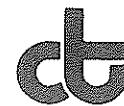
## Batch QC Report

## Gasoline by GC/MS

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC377877	Batch#:	122788
Matrix:	Water	Analyzed:	03/07/07
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	23.50	94	71-120
Benzene	25.00	25.77	103	80-120
Toluene	25.00	27.10	108	80-120
Ethylbenzene	25.00	25.59	102	80-124
m,p-Xylenes	50.00	52.44	105	80-127
o-Xylene	25.00	25.88	104	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-122



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Gasoline by GC/MS

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	122788
Units:	ug/L	Analyzed:	03/07/07
Diln Fac:	1.000		

Type: BS Lab ID: QC377878

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	937.2	94	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	92	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	90	80-122

Type: BSD Lab ID: QC377879

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	970.2	97	70-130	3 20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-123
1,2-Dichloroethane-d4	93	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-122

RPD= Relative Percent Difference

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## Batch QC Report

## Gasoline by GC/MS

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	122841
Units:	ug/L	Analyzed:	03/08/07
Diln Fac:	1.000		

Type: BS Lab ID: QC378080

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	26.02	104	71-120
Benzene	25.00	25.50	102	80-120
Toluene	25.00	26.46	106	80-120
Ethylbenzene	25.00	25.84	103	80-124
m,p-Xylenes	50.00	53.46	107	80-127
o-Xylene	25.00	26.48	106	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	92	80-122

Type: BSD Lab ID: QC378081

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	25.63	103	71-120	2	20
Benzene	25.00	25.62	102	80-120	0	20
Toluene	25.00	25.90	104	80-120	2	20
Ethylbenzene	25.00	25.60	102	80-124	1	20
m,p-Xylenes	50.00	52.66	105	80-127	2	20
o-Xylene	25.00	25.98	104	80-124	2	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	104	80-120
Bromofluorobenzene	91	80-122

RPD= Relative Percent Difference

## Batch QC Report

## Gasoline by GC/MS

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	122841
Units:	ug/L	Analyzed:	03/08/07
Diln Fac:	1.000		

Type: BS Lab ID: QC378082

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	917.3	92	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	91	80-122

Type: BSD Lab ID: QC378083

Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	919.9	92	70-130	0 20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	95	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	94	80-122



Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Gasoline by GC/MS

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	122900
Units:	ug/L	Analyzed:	03/09/07
Diln Fac:	1.000		

Type: BS Lab ID: QC378327

Analyte	Spiked	Result	%REC	Limits
MTBE	25.00	26.05	104	71-120
Benzene	25.00	25.83	103	80-120
Toluene	25.00	29.48	118	80-120
Ethylbenzene	25.00	25.75	103	80-124
m,p-Xylenes	50.00	54.83	110	80-127
o-Xylene	25.00	26.79	107	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-123
1,2-Dichloroethane-d4	93	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	93	80-122

Type: BSD Lab ID: QC378328

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	25.54	102	71-120	2	20
Benzene	25.00	25.90	104	80-120	0	20
Toluene	25.00	26.90	108	80-120	9	20
Ethylbenzene	25.00	25.68	103	80-124	0	20
m,p-Xylenes	50.00	53.35	107	80-127	3	20
o-Xylene	25.00	26.07	104	80-124	3	20

Surrogate	%REC	Limits
Dibromofluoromethane	97	80-123
1,2-Dichloroethane-d4	93	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	91	80-122

RPD= Relative Percent Difference

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Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Gasoline by GC/MS

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	122900
Units:	ug/L	Analyzed:	03/09/07
Diln Fac:	1.000		

Type: BS Lab ID: QC378329

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	984.6	98	70-130

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	99	80-120
Bromofluorobenzene	91	80-122

Type: BSD Lab ID: QC378330

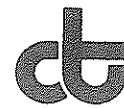
Analyte	Spiked	Result	%REC	Limits	RPD Lim
Gasoline C7-C12	1,000	963.2	96	70-130	2 20

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-123
1,2-Dichloroethane-d4	94	79-134
Toluene-d8	101	80-120
Bromofluorobenzene	92	80-122

RPD= Relative Percent Difference

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Curtis &amp; Tompkins, Ltd.

## Batch QC Report

## Gasoline by GC/MS

Lab #:	193151	Location:	300 Hegenberger Road
Client:	ACC Environmental Consultants	Prep:	EPA 5030B
Project#:	6748-017.00	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	122788
MSS Lab ID:	193066-001	Sampled:	03/01/07
Matrix:	Water	Received:	03/01/07
Units:	ug/L	Analyzed:	03/07/07
Diln Fac:	1.000		

Type: MS Lab ID: QC377880

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	0.1921	25.00	25.62	102	73-120
Benzene	<0.2500	25.00	26.62	106	80-123
Toluene	<0.1338	25.00	26.21	105	80-122
Ethylbenzene	<0.1383	25.00	26.77	107	80-126
m,p-Xylenes	<0.2963	50.00	54.70	109	80-125
o-Xylene	<0.1621	25.00	26.50	106	80-124

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-123
1,2-Dichloroethane-d4	93	79-134
Toluene-d8	102	80-120
Bromofluorobenzene	92	80-122

Type: MSD Lab ID: QC377881

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	25.00	24.79	98	73-120	3	20
Benzene	25.00	25.40	102	80-123	5	20
Toluene	25.00	25.62	102	80-122	2	20
Ethylbenzene	25.00	25.67	103	80-126	4	20
m,p-Xylenes	50.00	51.97	104	80-125	5	20
o-Xylene	25.00	26.56	106	80-124	0	20

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-123
1,2-Dichloroethane-d4	93	79-134
Toluene-d8	104	80-120
Bromofluorobenzene	94	80-122

RPD= Relative Percent Difference

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