BASELINE

ENVIRONMENTAL CONSULTING

TRANSMITTAL

TO: Ms. Ann E. Johnson
COBLENTZ, PATCH, DUFFEY et al.
222 Kearny Street, 7th Floor
S.F. CA 94108-4510

Date: 21 September 1999

Project No: 98381-00

SUBJECT: Third Quarterly Groundwater Monitoring Report, 6623 San Pablo Avenue, Oakland, CA

ENCLOSED:

No. of copies	Description:
1	Report

COMMENTS:

cc: Helen Loreto, McDonalds Corp (w/enclosure)
Larry Seto, Alameda Co. (w/enclosure)

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Yane Nordhav, Principal

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Emeryville Petaluma San Francisco

BASELINE

ENVIRONMENTAL CONSULTING

21 September 1999
98381

Ms. Ann E. Johnston
COBLENTZ, PATCH, DUFFEY & BASS, LLP
222 Kearny Street, 7th Floor
San Francisco, California 94108-4510

Subject: Third Quarterly Groundwater Monitoring Report, 6623 San Pablo Avenue, Oakland, California

Dear Ann:

This report documents quarterly groundwater sampling activities conducted by BASELINE in August 1999 at 6623 San Pablo Avenue in Oakland (Figure 1). The first groundwater sampling event occurred on 8 February 1999 and the second event on 21 May 1999. As required by the Alameda County Environmental Health Services, in a letter dated 23 April 1999, all samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline, TPH as diesel, methyl tert butyl ether (MTBE), and benzene, toluene, ethylbenzene, xylenes (BTEX).

FIELD ACTIVITIES

On 11 August 1999, groundwater samples were collected from the five monitoring wells on-site (Figure 2). The potential presence of free product was checked and water levels measured in the wells using a dual-interface probe prior to sampling activities. Water levels were measured and recorded to the nearest one-hundredth of a foot. **No free product was measured in any of the wells.**

The probe was decontaminated between wells by washing with a trisodium phosphate (TSP) solution and rinsing with deionized water. Groundwater was then slowly purged from each well using a peristaltic pump and clean disposable polyethylene tubing until each well was pumped dry or the temperature, pH, and electrical conductivity (EC) of the groundwater appeared to have stabilized.

Due to slow groundwater recovery, the purging of the wells was completed on 9 August 1999 in all but one well, and the samples collected on 11 August 1999. Monitoring well MW-2A was purged and a sample was collected from the well on 11 August 1999. The purged groundwater and decontamination rinsate were stored on-site in sealed and labeled 55-gallon drums.

A peristaltic pump and clean polyethylene tubing was used to collect groundwater samples from each well. The portion of the samples to be analyzed for TPH as diesel analysis was decanted

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directly from the tubing into one-liter amber glass sample bottles. The portion of the sample to be analyzed for TPH as gasoline, BTEX, and MTBE analyses were collected into VOA bottles directly from the tubing. The sample bottles were labeled, placed in a cooled container, and submitted under chain-of-custody procedures to Curtis and Tompkins, Ltd., of Berkeley, California, a California-certified laboratory for analysis. The groundwater samples were submitted for TPH as diesel (EPA Method 8015M), TPH as gasoline (EPA Method 8015M), and BTEX and MTBE analyses (EPA Method 8021B). The groundwater sampling forms, which document the sampling activities, are included in Attachment A.

ANALYTICAL RESULTS

The analytical results for groundwater samples collected at the site are summarized in Table 1. The laboratory report for the August 1999 groundwater samples is included in Attachment B.

Each of the three wells screened in the uppermost water-bearing zone (MW-1A, MW-2A, and MW-3A) was found to contain elevated levels of petroleum hydrocarbons (up to 0.80 mg/L diesel, 68 mg/L gasoline, 7.4 mg/L benzene, 6.8 mg/L toluene, 2.9 mg/L ethylbenzene, 11.6 mg/L xylenes, and 40 mg/L MTBE).

The two wells screened in the lower water-bearing zone (MW-1B and MW-3B) did not contain any of the analyzed compounds above laboratory reporting limits.

GROUNDWATER FLOW DIRECTION

Groundwater elevation data are summarized in Table 2. The groundwater data collected on 11 August 1999 from wells MW-1A, MW-2A, and MW-3A were used to calculate the groundwater flow direction and gradient magnitude using a three-point method. The calculated groundwater flow direction was S23°E with a gradient magnitude of 0.0038.

CONCLUSIONS AND RECOMMENDATIONS

- Chemical quality of the uppermost water-bearing zone, characterized by samples collected from MW-1A, MW-2A, and MW-3A, has been impacted by a gasoline release. Based on August 1999 analytical data for samples collected from MW-1B and MW-3B, no impact appears to have occurred within the lower water-bearing zone.

- The shallow groundwater flow direction was S23°E with a gradient magnitude of 0.0038, as calculated from the three shallow wells.

- Purge and decontamination water generated during field activities should be disposed of in accordance with applicable local, state, and federal requirements.

- The fourth quarterly groundwater sampling event should be scheduled for November 1999. Upon completion of one year of quarterly monitoring, the data should be evaluated to determine whether additional investigation and/or remediation would be appropriate, or whether the site should be considered for case closure.

If you have any questions or comments, please do not hesitate to contact us.

Sincerely,

Bruce Abelli-Amen
Project Manager

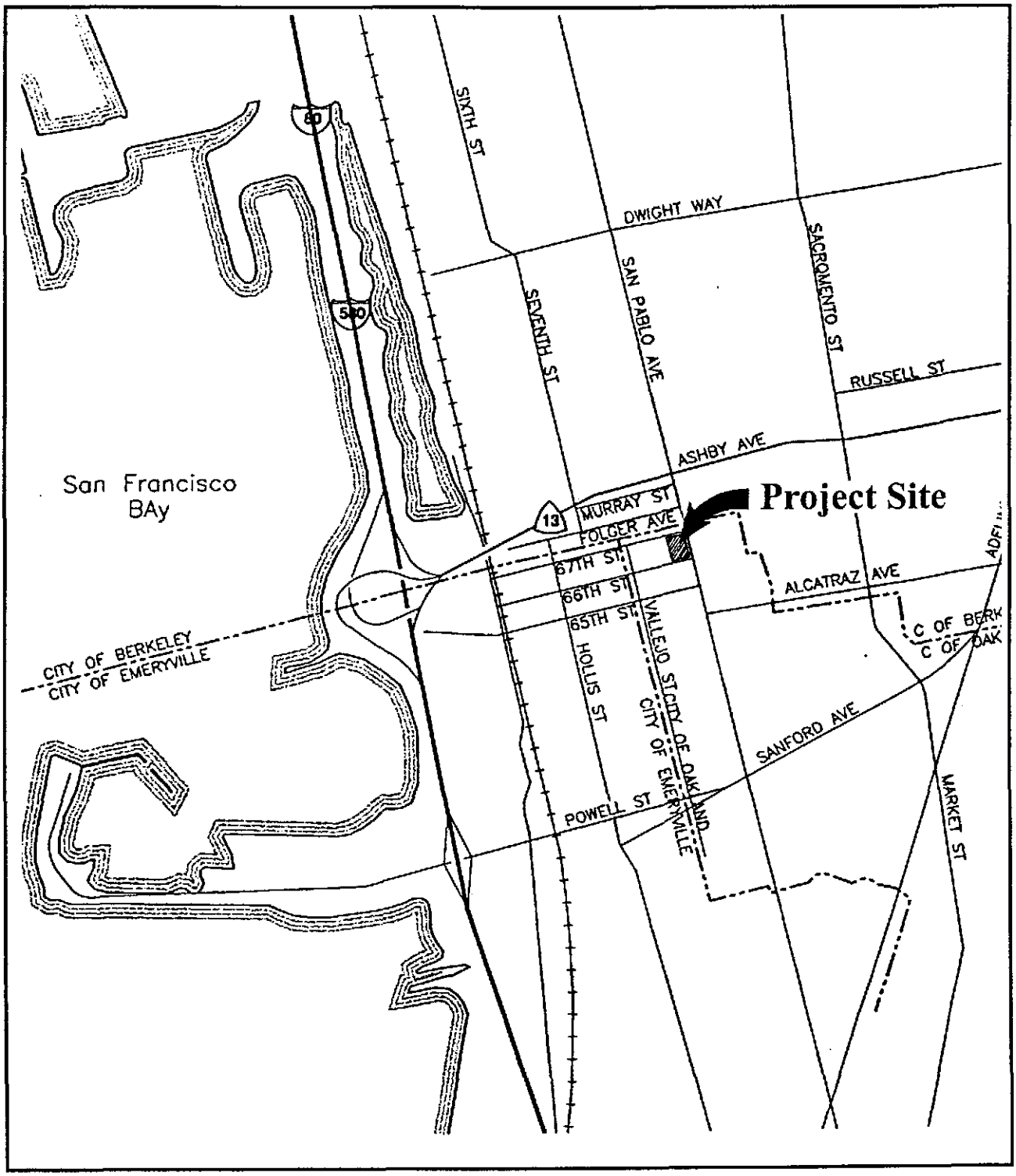
Yane Nordhav
Reg. Geologist #4009
Principal

BAA:YN:km
Enclosure

cc: Helen Loreto, McDonalds Corporation
Larry Seto, Alameda County Environmental Health Services

REGIONAL LOCATION

Figure 1



6623 San Pablo Avenue
Oakland, California

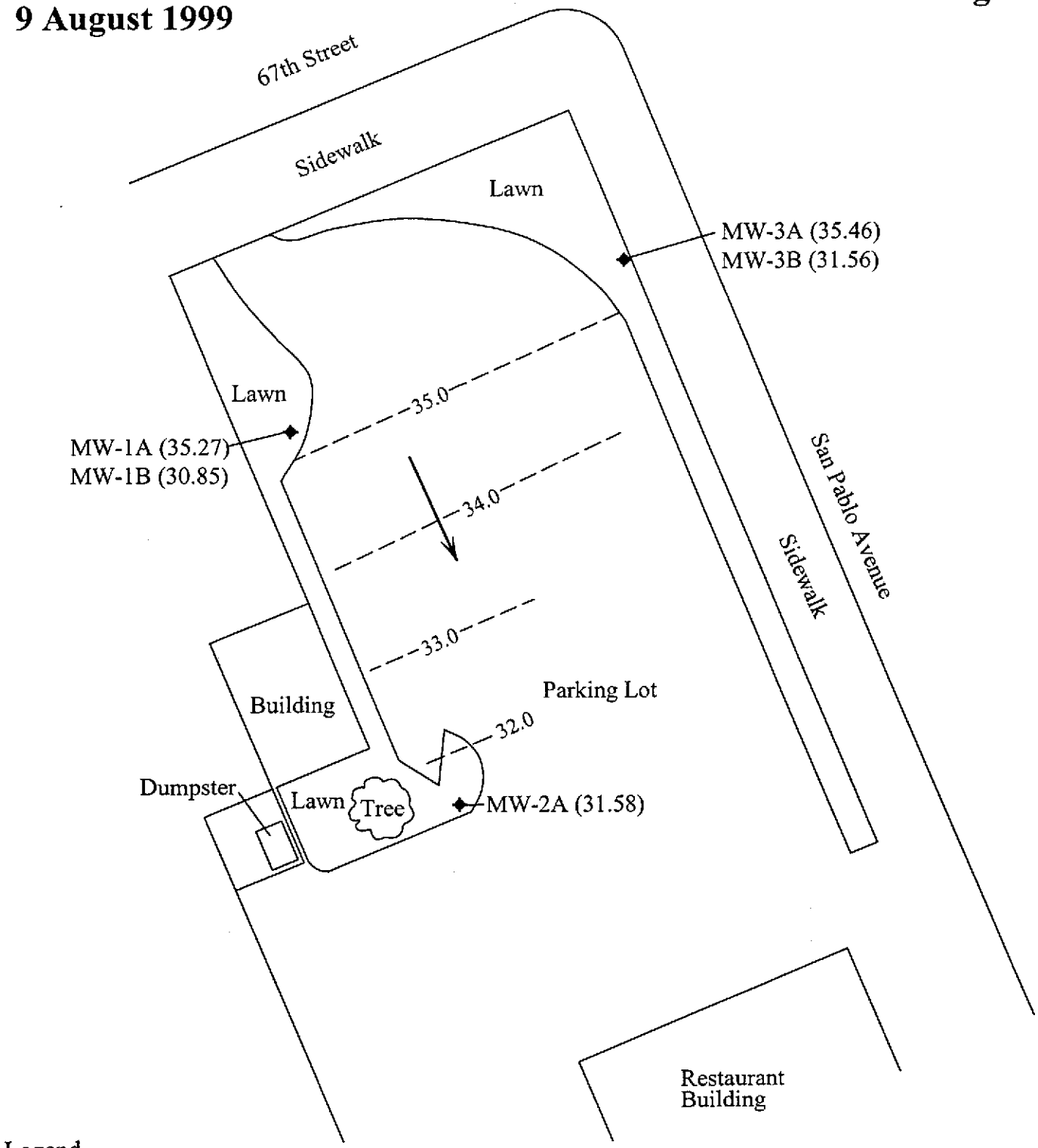
0 2000 Feet

BASELINE

98381RL 6/24/98

GROUNDWATER CONTOUR MAP
9 August 1999

Figure 2



Legend

→ Groundwater Flow Direction, August 1999

--33-- Groundwater Elevation Contour (contour interval = 1.0 feet)

MW-2A ✦ Monitoring Well Location (Groundwater Elevation from 8-9-99 in feet above City of Oakland datum shown in parentheses)

6623 San Pablo Avenue
Oakland, California

0 30 Feet

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D:\Graphics\98381\GWC9August.vcd 8/23/99

TABLE 1

SUMMARY OF ANALYTICAL RESULTS, GROUNDWATER

6623 San Pablo Avenue, Oakland

(mg/L)

Sample ID	Date	Diesel[1]	Gasoline[1]	Total Lead[2]	Benzene[3]	Toluene[3]	Ethylbenzene[3]	Xylenes[3]	MTBE[3]
Grab Groundwater Samples from Borings:									
KB-8	2/5/97	**0.86**	**0.12**	<0.003	**0.0013**	<0.0005	**0.0021**	**0.001**	--
KB-9	2/5/97	<0.05	**0.47**	<0.003	**0.0048**	<0.0005	**0.011**	**0.0183**	--
KB-10	2/5/97	**3.1**	**0.45**	<0.003	**0.03**	**0.0036**	**0.013**	**0.071**	--
KB-11	2/5/97	**0.97**	**0.82**	<0.003	**0.1**	**0.0022**	**0.028**	**0.129**	--
KB-12	2/5/97	**0.20**	**0.096**	<0.003	**0.02**	<0.0005	**0.005**	**0.0122**	--
Groundwater Samples From Monitoring Wells									
MW-1A	2/8/99[4]	--	--	--	--	--	--	--	--
	5/21/99	**0.56**[7]	**19**	--	**6.7**	**0.12**	**1.2**	**3.28**	**38**
	8/11/99	**0.63**[7]	**14**	--	**3.9**	<0.1	**0.68**	**1.65**	**40**
MW-1B	2/8/99	<0.049	**0.059**	--	**0.0013**	<0.0005	**0.0055**	**0.14**	**0.033**
	5/21/99	<0.05	<0.05	--	**0.00066**	<0.0005	<0.0005	<0.0005	0.0041
	8/11/99	<0.05	<0.05	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002
MW-2A	2/8/99	**0.53**[6]	**3.6**	--	**0.87**	**0.079**	**0.14**	**0.58**	**5.1**
	5/21/99	**0.064**[7]	**0.91**	--	**0.62**	**0.018**	**0.038**	**0.078**	**4.0**
	8/11/99	**0.130**[7]	**1.4**	--	**0.96**	**0.032**	**0.065**	**0.093**	**4.0**
MW-3A	2/8/99	**0.21**[6]	**24**	--	**2.1**	**3.4**	**1.5**	**6.1**	<0.05
	5/21/99	**0.23**[7]	**17**	--	**3.5**	**3.1**	**0.85**	**3.6**	**0.077**
	8/11/99	**0.80**[7]	**68**	--	**7.4**	**6.8**	**2.9**	**11.6**	<0.2
MW-3B	2/8/99	<0.047	**0.08**	--	**0.0015**	**0.0048**	**0.0025**	**0.0061**	**0.00455**
	5/21/99	<0.05	<0.05	--	<0.0005	<0.0005	<0.0005	0.00057	<0.002
	8/11/99	<0.05	<0.05	--	<0.0005	<0.0005	<0.0005	<0.0005	<0.002

Notes: <x.x = Compound not detected above laboratory reporting limit (e.g., <0.05 indicates that the constituent was not present in the sample above 0.05 mg/L)
x.x = Compound detected at indicated concentration.
-- = Not analyzed.
Groundwater sampling locations are shown on Figure 2.
Laboratory reports for May 1999 sampling event are included in Appendix B.

1 Analyzed using EPA Method 8015M.

2 Analyzed using EPA Method 6010A.

3 Analyzed using EPA Method 8020 or 8021B.

4 *Insufficient* groundwater in well to allow sample collection.

5 Presence of the compound confirmed by second column, however, the confirmation concentration differed from the reported result by more than a factor of two.

6 The chromatograms for these samples suggest that the concentrations quantified as diesel may be in the gasoline range of hydrocarbons; the laboratory also indicates that the samples exhibit lighter than diesel patterns.

7 Sample exhibits a fuel pattern which does not resemble standard; lighter hydrocarbons were exhibited than the indicated standard.

TABLE 2

GROUNDWATER ELEVATIONS AND GRADIENT MAGNITUDES

6623 San Pablo Avenue, Oakland

	MW-1A[1]			MW-1B[2]			MW-2A[3]			MW-3A[4]			MW-3B[5]			Gradient[8]
Date	Time	Depth to Groundwater[6]	Groundwater Elevation[7]	Time	Depth to Groundwater[6]	Groundwater Elevation[7]	Time	Depth to Groundwater[6]	Groundwater Elevation[7]	Time	Depth to Groundwater[6]	Groundwater Elevation[7]	Time	Depth to Groundwater[6]	Groundwater Elevation[7]	ft/ft
1/15/99	12:44	Dry	--	12:44	21.60	18.35	12:52	7.15	31.77	12:50	7.0	32.76	12:50	22.50	17.29	--
1/19/99	8:11	Dry	--	8:11	9.10	30.85	8:17	7.32	31.60	8:13	7.27	32.49	8:14	8.77	31.02	--
1/19/99	16:58	Dry	--	16:55	26.81	13.14	17:82	7.05	31.87	17:08	7.79	31.97	17:11	26.71	13.08	--
1/20/99	8:46	Dry	--	8:43	16.76	23.19	8:50	6.94	31.98	8:55	7.18	32.58	8:58	15.40	24.39	--
1/20/99	17:48	Dry	--	17:44	13.48	26.47	17:51	6.89	32.03	17:56	7.04	32.72	17:58	12.50	27.29	--
2/8/99	7:45	Dry	--	7:42	10.74	29.21	7:50	6.80	32.12	6:48	5.45	34.31	6:45	6.82	32.97	--
2/12/99	6:54	9.10	30.86	--	--	--	6:58	6.90	32.02	7:04	5.94	33.82	--	--	--	--
5/18/99	12:05	8.42	31.54	12:24	9.09	30.86	12:25	7.77	31.15	12:02	6.78	32.98	12:03	8.65	31.14	S52°W@0.02
8/9/99	11:09	4.69	35.27	11:10	9.10	30.85	11:18	7.34	31.58	11:14	4.30	35.46	11:13	8.23	31.56	S23°E@0.0038

Notes: Monitoring well locations are shown on Figure 2.
-- = Not collected / Not determined.
Water level measurements were collected after removal of one well volume on 19 January 1999.
The water level data collected on 20 January and 8 and 12 February 1999 indicate that the water levels had not stabilized in either the shallow or deeper wells on the site.

[1] Top of well casing elevation = 39.96 feet above City of Oakland datum.
[2] Top of well casing elevation = 39.95 feet above City of Oakland datum.
[3] Top of well casing elevation = 38.92 feet above City of Oakland datum.
[4] Top of well casing elevation = 39.76 feet above City of Oakland datum.
[5] Top of well casing elevation = 39.79 feet above City of Oakland datum.
[6] Depths are in feet below top of casing.
[7] Elevations are in feet above City of Oakland datum.
[8] Gradient direction and magnitude based on MW-1A, MW-2A, MW-3A

ATTACHMENT A

GROUNDWATER SAMPLING FORMS

GROUNDWATER SAMPLING

Project no.:	98381	Well no.: MW-1A	Date: 08/09/1999
Project name:	McDonald's	Depth of well from TOC (feet):	9.95
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4
	Oakland	Screened interval from TOC (feet):	5-10
Recorded by:	WKS	TOC elevation (feet):	39.96
Weather:	Overcast	Water level from TOC (feet):	4.69 Time: 11:09 (8-9-99)
Precip in past		Product level from TOC (feet):	None Time: 11:09 (8-9-99)
5 days (inch):	Trace*	Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(9.95 ft) - (4.69 ft)] × (0.03 ft)² × 3.14 × 7.48 =

Well depth Water level Well radius

0.10 gallons in one well volume
0.30 gallons in 3 well volumes
0.73 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	11:15	22.0	7.00/10.01	1,000	0.0/10.0
After Purging:	12:58	23.5	7.02/9.95	989	0.0/10.5

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
12:11	21.3	8.00	781	0.13	15
12:18	21.4	7.55	850	0.26	5.62
12:23	21.4	7.47	900	0.40	3.83
12:27	21.3	7.50	900	0.50	4.43
12:31		Well pumped dry		0.73	

Water level after purging prior to sampling (feet):	8.00		Time: 11:10 (8-11-99)
Turbidity of sample (NTU):	5.20		Time: 11:25 (8-11-99)
Duplicate/blank number:	--		Time: --
Purge method:	Peristaltic pump and disposable polyethylene tubing		
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None requried
Sample containers:	1-liter amber glass, 3-40ml VOA's		
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum

* Newly planted lawn, watering heavily.

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GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-1B	Date:	08/09/1999
Project name:	McDonald's	Depth of well from TOC (feet):	30.32		
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4		
	Oakland	Screened interval from TOC (feet):	25-30		
Recorded by:	WKS	TOC elevation (feet):	39.95		
Weather:	Overcast	Water level from TOC (feet):	9.10	Time:	11:10 (8-9-99)
Precip in past		Product level from TOC (feet):	None	Time:	11:10 (8-9-99)
5 days (inch):	Trace*	Water level measurement:	Dual interface probe		

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(30.32 ft) - (9.10 ft)] × (0.03 ft)² × 3.14 × 7.48 =

Well depth Water level Well radius

0.4 gallons in one well volume

1.2 gallons in 3 well volumes

1.2 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	11:15	20.4	7.00/10.01	1,000	0.0/10.0
After Purging:	12:58	23.5	7.02/9.95	989	0.0/10.5

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
12:36	20.8	7.00	925	0.13	12.7
12:40	20.4	7.04	906	0.8	10.11
12:43	20.9	7.07	915	0.9	8.79
12:47	21.0	6.96	950	1.0	42.3
12:51	21.4	6.90	1,000	1.2	5.21
12:52		Well pumped dry		1.2	

Water level after purging prior to sampling (feet):	11.70		Time:	11:10 (8-11-99)
Turbidity of sample (NTU):	6.29		Time:	11:40 (8-11-99)
Duplicate/blank number:	--		Time:	--
Purge method:	Peristaltic pump and disposable polyethylene tubing			
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:		None required
Sample containers:	1 liter amber glass, 3-40ml VOAs			
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:		Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:		On-Site Drum

* Newly planted lawn, watering heavily.

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GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-2A	Date:	08/11/1999
Project name:	McDonald's	Depth of well from TOC (feet):	14.72		
Location:	6623 San Pablo Ave.	Well diameter (inch):	1 inch		
	Oakland	Screened interval from TOC (feet):	10-15		
Recorded by:	WKS	TOC elevation (feet):	38.92		
Weather:	Overcast	Water level from TOC (feet):	7.34	Time:	11:18 (8-9-99)
Precip in past		Product level from TOC (feet):	None	Time:	11:18 (8-9-99)
5 days (inch):	Trace*	Water level measurement:	Dual interface probe		

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(14.72 ft) - (7.34 ft)] × (0.042 ft)² × 3.14 × 7.48 =
Well depth Water level Well radius

0.3 gallons in one well volume
0.9 gallons in 3 well volumes
1.75 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00 /10.01	1,000	0.0-10.00
Before Purging:	12:40	21.9	7.00 /10.01	1,000	0.0-10.00
After Purging:	13:50	21.8	7.21/10.15	1,001	0.0-10.14

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
12:57	20.8	6.45	1,232	0.5	37.5
13:01	20.8	6.50	1,270	0.75	10.47
13:05	20.4	6.52	1,276	1.5	3.44
13:09	20.2	6.51	1,288	1.75	2.02

Water level after purging prior to sampling (feet):	7.42	Time:	13:40 (8-11-99)
Turbidity of sample (NTU):	2.32	Time:	13:45 (8-11-99)
Duplicate/blank number:	--	Time:	--
Purge method:	Peristaltic pump and disposable polyethylene tubing		
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None required
Sample containers:	1 liter amber glass, 3-40ml VOAs		
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum

* Newly planted lawn, watering heavily.

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GROUNDWATER SAMPLING

Project no.:	98381	Well no.: MW-3A	Date: 08/09/1999
Project name:	McDonald's	Depth of well from TOC (feet):	10.02
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4
	Oakland	Screened interval from TOC (feet):	7-10.02
Recorded by:	WKS	TOC elevation (feet):	39.76
Weather:	Overcast	Water level from TOC (feet):	4.30 Time: 11:14 (8-9-99)
Precip in past 5 days (inch):	Trace*	Product level from TOC (feet):	None Time: 11:14 (8-9-99)
		Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(10.02 ft) - (4.30 ft)] × (0.03 ft)² × 3.14 × 7.48 =
Well depth Water level Well radius

0.12 gallons in one well volume
0.36 gallons in 3 well volumes
0.13 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	11:15	22.0	7.00/10.01	1,000	0.0/10.0
After Purging:	12:58	23.5	7.02/9.95	989	0.0/10.5

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
11:30	25.0	11.13	890	0.13	181
11:31		Well pumped dry			

Water level after purging prior to sampling (feet): 5.40 Time: 11:06 (8-11-99)
Turbidity of sample (NTU): 123 Time: 12:00 (8-11-99)
Duplicate/blank number: -- Time: --
Purge method: Peristaltic pump and disposable polyethylene tubing
Sampling equipment: Peristaltic pump and disposable polyethylene tubing VOC attachment: None required
Sample containers: 1 liter amber glass, 3-40ml VOAs
Sample analyses: TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE Laboratory: Curtis & Tompkins
Decontamination method: TSP and water, DI water rinse Rinsate disposal: On-Site Drum

* Newly planted lawn, watering heavily.

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GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-3B	Date:	08/09/1999
Project name:	McDonald's	Depth of well from TOC (feet):	31.31		
Location:	6623 San Pablo Ave.	Well diameter (inch):	3/4		
	Oakland	Screened interval from TOC (feet):	26.3-31.3		
Recorded by:	WKS	TOC elevation (feet):	39.79		
Weather:	Overcast	Water level from TOC (feet):	8.23	Time:	11:13 (8-9-99)
Precip in past		Product level from TOC (feet):	None	Time:	11:13 (8-9-99)
5 days (inch):	Trace*	Water level measurement:	Dual interface probe		

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(31.31 ft) - (8.23 ft)] × (0.03 ft)² × 3.14 × 7.48 =
Well depth Water level Well radius

0.48 gallons in one well volume
1.45 gallons in 3 well volumes
0.26 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)	Turbidity (NTU)
Calibration Standard:	--	--	7.00/10.01	1,000	0.0/10.0
Before Purging:	11:15	22.0	7.00/10.01	1,000	0.0/10.0
After Purging:	12:58	23.5	7.02/9.95	989	0.0/10.5

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Turbidity (NTU)
11:39	19.7	7.08	880	0.13	4.75
11:46	20.1	6.85	948	0.20	8.45
11:48		Well pumped dry		0.26	

Water level after purging prior to sampling (feet):	12.20	Time:	11:03 (8-11-99)
Turbidity of sample (NTU):	3.63	Time:	12:15 (8-11-99)
Duplicate/blank number:	--	Time:	--
Purge method:	Peristaltic pump and disposable polyethylene tubing		
Sampling equipment:	Peristaltic pump and disposable polyethylene tubing	VOC attachment:	None required
Sample containers:	1 liter amber glass, 3-40ml VOAs		
Sample analyses:	TEH diesel w/silica gel clean up, TPHg, BTEX, MTBE	Laboratory:	Curtis & Tompkins
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	On-Site Drum

* Newly planted lawn, watering heavily.

BASELINE • 5900 Hollis Street, Suite D • Emeryville, CA 94608 • (510) 420-8686 • Fax (510) 420-1707

ATTACHMENT B

LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Quality Control Checklist
for Review of Laboratory Report

Job No.: 98381 Site: Mc Donalds, 6623 San Pablo

Laboratory: Curtis + Tompkins Laboratory Report No: 140884

Report Date: 23 August 1999 BASELINE Review By: WES

	Yes	No	NA
GENERAL QUESTIONS (Describe "no" responses below in "comments" section)			
1. Are the units in the laboratory report appropriate and consistent throughout the report? (e.g., mg/L for liquids, µg/kg vs. mg/kg)	✓		
2. Are the detection limits appropriate based on the intended use of the data? (e.g., detection limits below applicable MCLs for water quality issues?)	✓*		
3a. Are detection limits appropriate based on the analysis performed? (i.e., not elevated due to dilution effects)	✓*		
3b. If no, is an explanation provided? (*If no, call the lab for an explanation*).			✓
4a. Were the samples analyzed within the appropriate holding time? (generally 2 weeks for volatiles, and up to 6 months for metals)	✓		
4b. If no, was it flagged in the report?			✓
5. Was the lab report signed and dated as being reviewed by the laboratory director, QA manager, or other appropriate personnel?	✓		
6. Are the results consistent with previous analytical results from the site? *(Contact the lab if results do not appear to be consistent with previous results and request review/reanalysis of data, as appropriate.)*	✓		
7a. Do the chromatograms confirm quantitative laboratory results? (petroleum hydrocarbons)	✓		
7b. Do the chromatograms confirm laboratory notes, if present? (e.g., sample exhibits lighter hydrocarbon than standard).	✓		
QA/QC QUESTIONS			
Field/Laboratory Quality Control			
8. Are field blanks reported as "ND"? (groundwater samples) *A field blank is a sample of DI water which is prepared in the field using the same collection and handling procedures as the other samples collected, and used to demonstrate that the sampling procedure has not contaminated the sample.*			✓
9. Are trip blanks reported as "ND"? (groundwater samples/volatiles analyses) *A trip blank is a sample of contaminant-free matrix placed in an appropriate container by the laboratory and transported with field samples collected. Provides information regarding positive interferences introduced during sample transport, storage, preservation, and analysis. The sample is NOT opened in the field.*			✓
10. Are duplicate samples results consistent with the original sample? (groundwater samples) *Field duplicates consist of two independent samples collected at the same sampling location during a single sampling event. Used to evaluate precision of analytical data and sampling technique. (Differences between the duplicate and sample results may also be attributed to environmental variability.)*			✓

	Yes	No	NA
Batch Quality Control *(Samples are batched together by matrix [soil or water] and analyses requested. A batch generally contains 20 or fewer samples of the same matrix type, and is prepared using the same reagents, standards, procedures, and time frame. QC samples are run with each batch to assess performance of the entire measurement process.*			
11a. Are all sample QA/QC limits within laboratory control limits?	✓		
11b. If exceedances of lab QC goals were identified, were they flagged in the report?			✓
11c. If exceedances of lab QC goals were identified, were any corrective actions made by the laboratory? (*Call lab to verify*)			✓
12. Are method blanks for the analytical method(s) below laboratory reporting limits? *A method blank is run for each analytical batch. Used to assess laboratory contamination and prevent false positive results. Method blanks should be "ND." However, common laboratory contaminants include acetone, methylene chloride, diethylhexyl phthalate, and di-n-octyl phthalate.*	✓		
13. Are laboratory control samples (LCS) and LCS duplicate (LCSD) within laboratory limits? Limits should be provided on the report. *LCS is a reagent blank spiked with a representative selection of target analyte(s) and prepared in same manner as samples analyzed. The LCS should be spiked with the same analytes at the same concentrations as the matrix spike (below). The LCS is free of interferences from the sample matrix and demonstrates the ability of the laboratory instruments to recover the target analytes, especially if the MS/MSD fails QC goals. Accuracy (recovery information) is generally reported as % spike recovery; precision (reproducibility of results) between LCS and LCSD is generally reported as relative percent difference (RPD). LCS/LCSD can be run in addition to, or in lieu of, matrix QC data (if insufficient sample material is available).*	✓		
14. Are the Matrix QC data (e.g., MS/MSD) within laboratory limits? Limits should be provided on laboratory report. *The lab selects a sample and analyses a spike and spike duplicate of that sample. Alternatively, the lab can analyze a duplicate, and spike of a sample, if the sample is expected to contain target analytes. Matrix QC data is used to obtain precision and accuracy information; this information is reported in the same manner as LCS/LCSD.*	✓		
Sample Quality Control			
15. Are the surrogate spikes reported within the laboratory's acceptable recovery limits? *A surrogate is a non-target analyte, which is similar in chemical structure as the analyte(s) being analyzed for. The surrogate is not commonly found in environmental samples. A known concentration of the surrogate is spiked into the sample or QA "sample" prior to extraction or sample preparation. Results are usually reported as % recovery of the spike. Used to evaluate the lab's accuracy of individual samples for volatiles including EPA Methods 8240, 8260, 8270, 8220, 8080, 8010, and 8015M. Failure to meet lab's acceptance limits results in rebatching and reanalysis of the sample. Repeated failure indicates that the sample result may be biased or is not amenable to analysis by the method used.*	✓		

Comments: * Some elevated due to presence of compounds at high concentrations.

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

ANALYTICAL REPORT

Prepared for:

Baseline Environmental
5900 Hollis Street
Suite D
Emeryville, CA 94608

Date: 23-AUG-99
Lab Job Number: 140894
Project ID: 98381
Location: McDonalds,6623 San Pablo

Reviewed by: Anna Lagunillo

Reviewed by: _____

BASELINE
5900 Hollis Street, Suite D
Emeryville, CA 94608
(510) 420-8686

CHAIN OF CUSTODY RECORD

140894

Turn-around Time: 5-Day
Lab: Curtis & Tompkins
BASELINE Contact Person: Bill Scott

Project No.	Project Name and Location
98381	McDonalds Corp. 6623 San Pablo Ave Oak

Samplers: (Signature) William K Scott

Sample ID No. Station	Date	Time	Media	Depth	No. of Containers	TPH d w/silica gel cleanup (8015)	TPH g (8015)	MTBE + BTEX (8020)	Remarks/ Composite	Detection Limits
MW-1A	8-11-99	11:25	water		3-VOA's 1-liter *	X	X	X		
MW-1B	8-11-99	11:40			3 VOAs 1-Liter	X	X	X		
MW-2A	8-11-99	13:45			3 VOAs 1-liter	X	X	X		
MW-3A	8-11-99	12:00			3 VOAs 1-liter *	X	X	X		
MW-3B	8-11-99	12:15	↓		3-VOAs 1 liter	X	X	X		

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Conditions of Samples Upon Arrival at Laboratory:
William K Scott	8-11-99 / 14:00			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks: * Partial liter
Relinquished by: (Signature)	Date / Time	Received by: (Signature) Anna Payumo	Date / Time 8/11/99 1400	

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140894-001	MW-1A	49900	08/11/99	08/13/99	08/13/99	
140894-002	MW-1B	49874	08/11/99	08/12/99	08/12/99	
140894-003	MW-2A	49874	08/11/99	08/12/99	08/12/99	
140894-004	MW-3A	49900	08/11/99	08/13/99	08/13/99	

Matrix: Water

Analyte Diln Fac:	Units	140894-001 5	140894-002 1	140894-003 1	140894-004 20
Gasoline C7-C12	ug/L	14000	<50	1400	68000
Surrogate					
Trifluorotoluene	%REC	103	99	105	98
Bromofluorobenzene	%REC	107	106	107	106

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140894-005	MW-3B	49900	08/11/99	08/13/99	08/13/99	

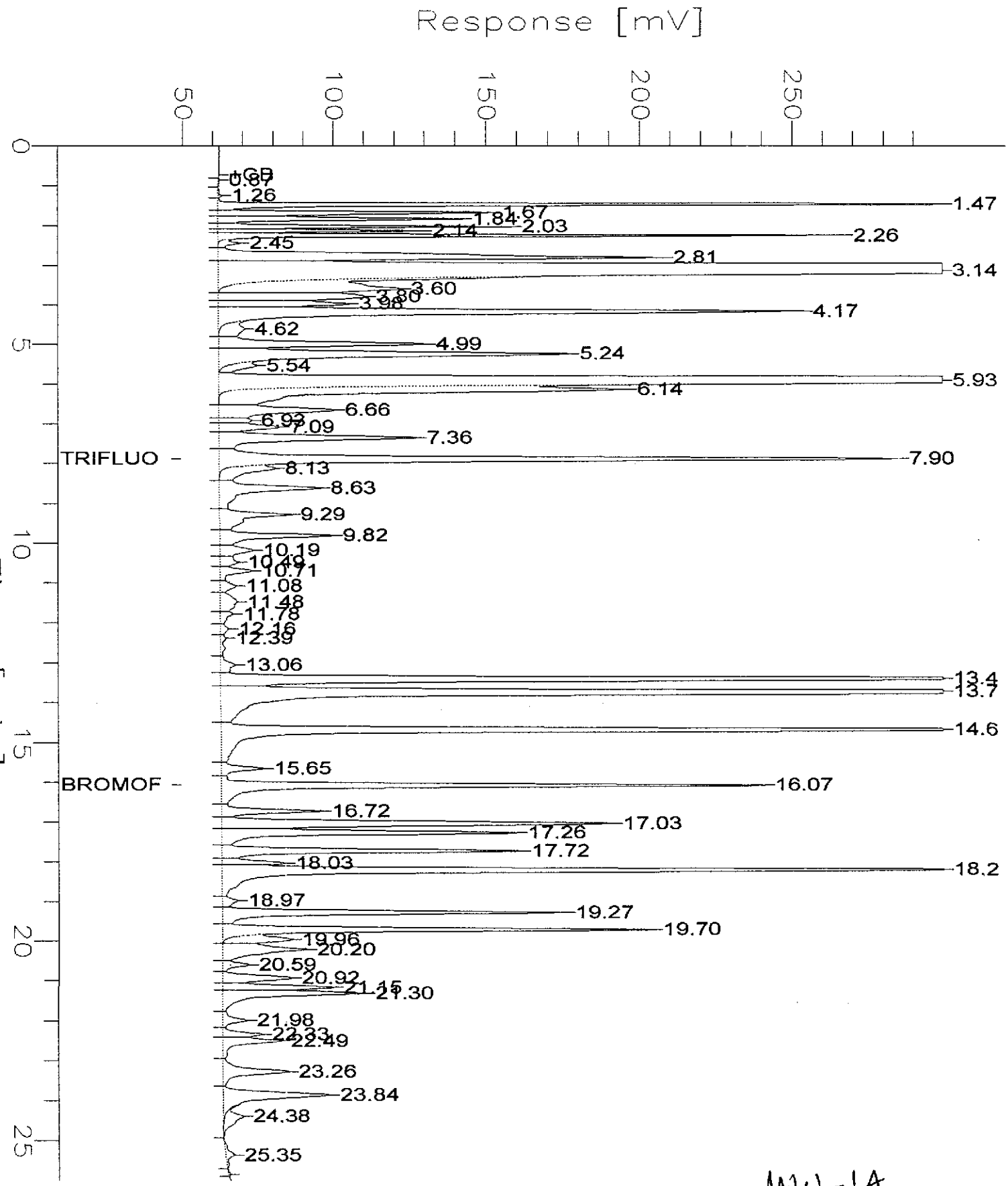
Matrix: Water

Analyte	Units	140894-005
Diln Fac:		1
Gasoline C7-C12	ug/L	<50
Surrogate		
Trifluorotoluene	%REC	100
Bromofluorobenzene	%REC	105

GC04 TVH 'J' Data File Rtx1FID

Sample Name : 140894-001,49900
FileName : G:\GC04\DATA\225J009.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 49 mV

Sample #: Page 1 of 1
Date : 8/13/99 05:10 PM
Time of Injection: 8/13/99 04:44 PM
Low Point : 49.26 mV High Point : 299.26 mV
Plot Scale: 250.0 mV

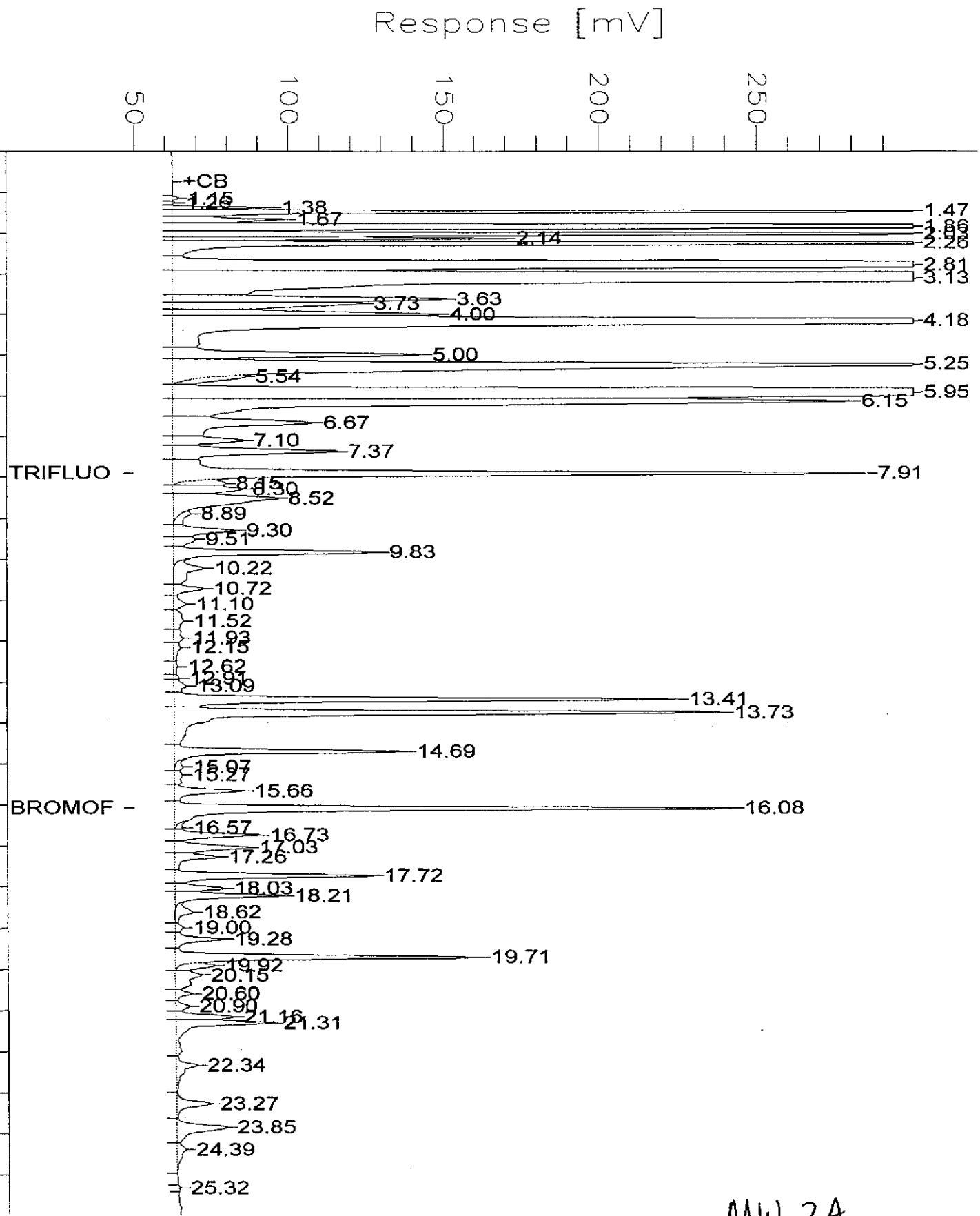


MW-1A

GC04 TVH 'J' Data File Rtx1FID

Sample Name : 140894-003,49874
FileName : G:\GC04\DATA\224J021.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 50 mV

Sample #: Page 1 of 1
Date : 8/12/99 10:50 PM
Time of Injection: 8/12/99 10:24 PM
Low Point : 49.67 mV High Point : 299.67 mV
Plot Scale: 250.0 mV

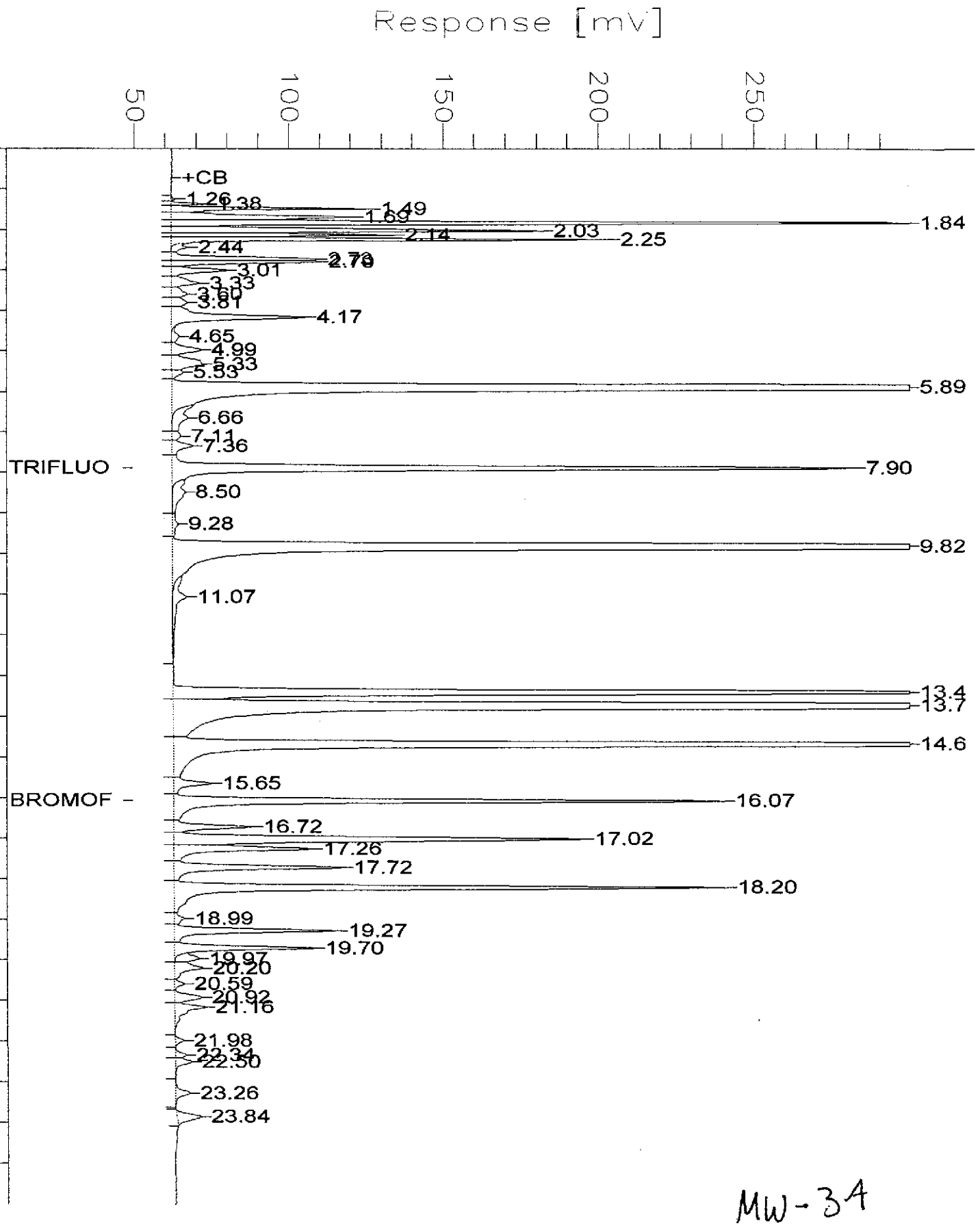


MW-2A

GC04 TVH 'J' Data File Rtx1FID

Sample Name : 140894-004,49900
FileName : G:\GC04\DATA\225J010.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 49 mV

Sample #: Page 1 of 1
Date : 8/13/99 05:45 PM
Time of Injection: 8/13/99 05:19 PM
Low Point : 49.36 mV High Point : 299.36 mV
Plot Scale: 250.0 mV

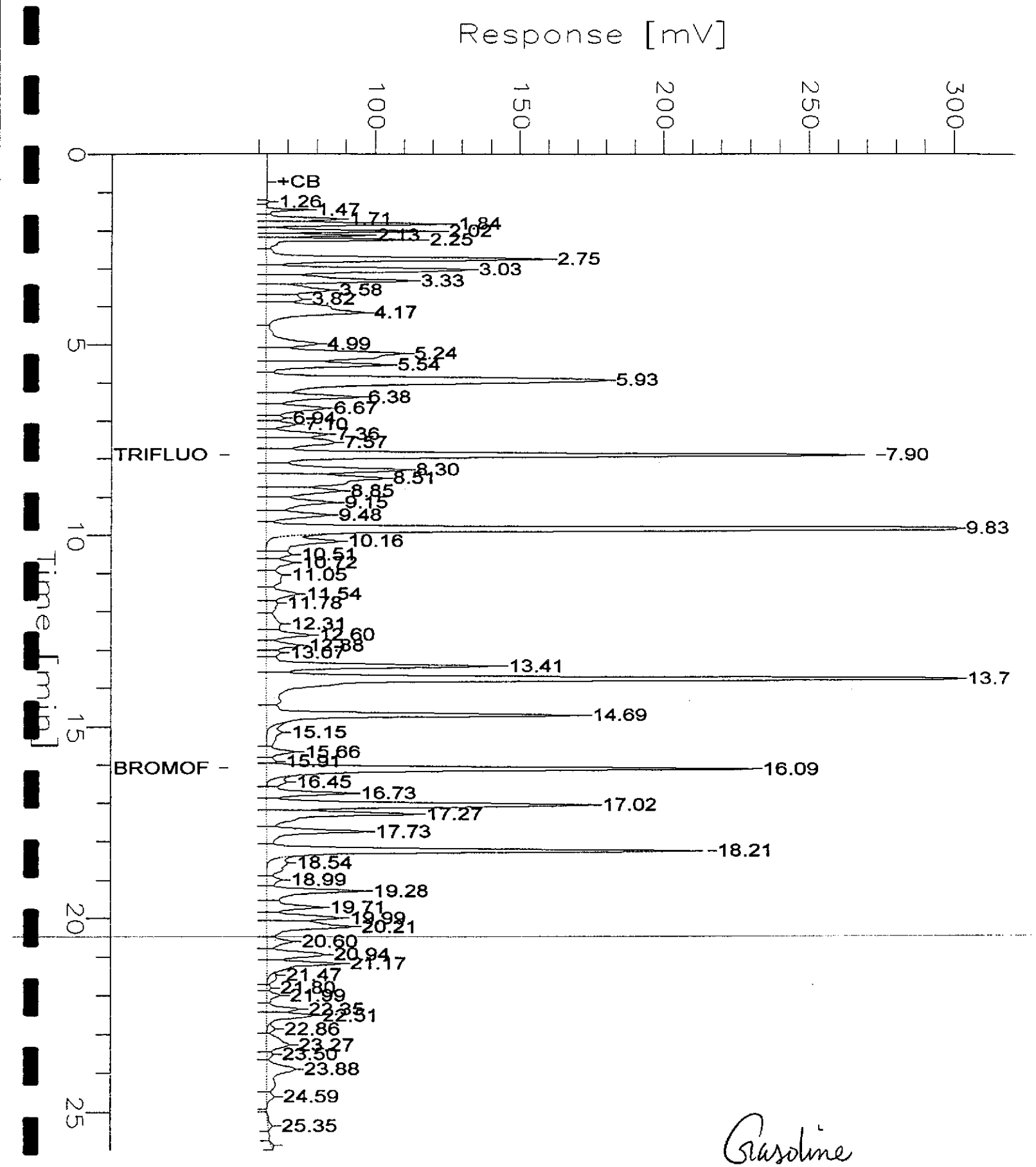


MW-34

GC04 TVH 'J' Data File Rtx1FID

Sample Name : CCV/LCS,QC04788,99WS7780,49874
FileName : G:\GC04\DATA\224J001.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: -1.0 Plot Offset: 50 mV

Sample #: GAS Page 1 of 1
Date : 8/12/99 10:56 AM
Time of Injection: 8/12/99 10:30 AM
Low Point : 50.13 mV High Point : 300.13 mV
Plot Scale: 250.0 mV



Gasoline

BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140894-001	MW-1A	50044	08/11/99	08/20/99	08/20/99	
140894-002	MW-1B	49874	08/11/99	08/12/99	08/12/99	
140894-003	MW-2A	49900	08/11/99	08/13/99	08/13/99	
140894-004	MW-3A	50044	08/11/99	08/20/99	08/20/99	

Matrix: Water

Analyte	Units	140894-001	140894-002	140894-003	140894-004
Diln Fac:		200	1	5	100
MTBE	ug/L	40000	<2	4000	<200
Benzene	ug/L	3900	<0.5	960	7400
Toluene	ug/L	<100	<0.5	32	6800
Ethylbenzene	ug/L	680	<0.5	65	2900
m,p-Xylenes	ug/L	1100	<0.5	66	8200
o-Xylene	ug/L	550	<0.5	27	3400
Surrogate					
Trifluorotoluene	%REC	93	109	122	93
Bromofluorobenzene	%REC	96	109	110	98

BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140894-005	MW-3B	49900	08/11/99	08/13/99	08/13/99	

Matrix: Water

Analyte	Units	140894-005
Diln Fac:		1
MTBE	ug/L	<2
Benzene	ug/L	<0.5
Toluene	ug/L	<0.5
Ethylbenzene	ug/L	<0.5
m,p-Xylenes	ug/L	<0.5
o-Xylene	ug/L	<0.5
Surrogate		
Trifluorotoluene	%REC	108
Bromofluorobenzene	%REC	104

Lab #: 140894 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	08/12/99
Batch#:	49874	Analysis Date:	08/12/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC04790

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	94	53-150
Bromofluorobenzene	117	53-149

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Baseline Environmental	Analysis Method:	EPA 8021B
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	08/12/99
Batch#:	49874	Analysis Date:	08/12/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC04790

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	101	51-143
Bromofluorobenzene	100	37-146

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	08/13/99
Batch#:	49900	Analysis Date:	08/13/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC04877

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	94	53-150
Bromofluorobenzene	100	53-149

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Baseline Environmental	Analysis Method:	EPA 8021B
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	08/13/99
Batch#:	49900	Analysis Date:	08/13/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC04877

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	100	51-143
Bromofluorobenzene	102	37-146

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Baseline Environmental	Analysis Method:	EPA 8021B
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

METHOD BLANK

Matrix:	Water	Prep Date:	08/19/99
Batch#:	50044	Analysis Date:	08/19/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC05429

Analyte	Result
MTBE	<2.0
Benzene	<0.5
Toluene	<0.5
Ethylbenzene	<0.5
m,p-Xylenes	<0.5
o-Xylene	<0.5

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	82	51-143
Bromofluorobenzene	86	37-146

Lab #: 140894 BATCH QC REPORT Curtis & Tompkins, Ltd. Page 1 of 1

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 49874
Units: ug/L
Diln Fac: 1

Prep Date: 08/12/99
Analysis Date: 08/12/99

LCS Lab ID: QC04788

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2072	2000	104	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	94	53-150
Bromofluorobenzene	104	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140894 BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 49874
Units: ug/L
Diln Fac: 1

Prep Date: 08/12/99
Analysis Date: 08/12/99

LCS Lab ID: QC04789

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	16.92	20	85	66-126
Benzene	19.12	20	96	65-111
Toluene	19.23	20	96	76-117
Ethylbenzene	18.73	20	94	71-121
m,p-Xylenes	37.57	40	94	80-123
o-Xylene	19.31	20	97	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	109	51-143
Bromofluorobenzene	103	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 140894 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	08/13/99
Batch#:	49900	Analysis Date:	08/13/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC04876

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2159	2000	108	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	99	53-150
Bromofluorobenzene	113	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 49900
Units: ug/L
Diln Fac: 1

Prep Date: 08/13/99
Analysis Date: 08/13/99

LCS Lab ID: QC04876

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	2159	2000	108	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	99	53-150
Bromofluorobenzene	113	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 1 outside limits

Lab #: 140894 BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 50044
Units: ug/L
Diln Fac: 1

Prep Date: 08/19/99
Analysis Date: 08/19/99

LCS Lab ID: QC05430

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	18.47	20	92	66-126
Benzene	16.86	20	84	65-111
Toluene	16.31	20	82	76-117
Ethylbenzene	17.01	20	85	71-121
m,p-Xylenes	34.82	40	87	80-123
o-Xylene	17.58	20	88	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	86	51-143
Bromofluorobenzene	91	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Baseline Environmental	Analysis Method:	EPA 8021B
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

LABORATORY CONTROL SAMPLE

Matrix:	Water	Prep Date:	08/19/99
Batch#:	50044	Analysis Date:	08/19/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC05430

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	18.47	20	92	66-126
Benzene	16.86	20	84	65-111
Toluene	16.31	20	82	76-117
Ethylbenzene	17.01	20	85	71-121
m,p-Xylenes	34.82	40	87	80-123
o-Xylene	17.58	20	88	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	86	51-143
Bromofluorobenzene	91	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
Spike Recovery: 0 out of 6 outside limits

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8021B
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: MW-3BA
Lab ID: 140894-005
Matrix: Water
Batch#: 49874
Units: ug/L
Diln Fac: 1

Sample Date: 08/11/99
Received Date: 08/11/99
Prep Date: 08/12/99
Analysis Date: 08/12/99

MS Lab ID: QC04791

Analyte	Spike Added	Sample	MS	%Rec #	Limits
MTBE	20	<2	19.11	96	49-136
Benzene	20	<0.5	17.47	87	55-122
Toluene	20	<0.5	18.36	92	63-139
Ethylbenzene	20	<0.5	19.08	95	61-137
m,p-Xylenes	40	<0.5	38.05	93	57-148
o-Xylene	20	<0.5	19.96	100	70-141

Surrogate	%Rec	Limits
Trifluorotoluene	100	51-143
Bromofluorobenzene	109	37-146

MSD Lab ID: QC04792

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
MTBE	20	18.74	94	49-136	2	11
Benzene	20	18.27	91	55-122	4	10
Toluene	20	18.22	91	63-139	1	10
Ethylbenzene	20	18.85	94	61-137	1	10
m,p-Xylenes	40	36.98	91	57-148	3	10
o-Xylene	20	19.54	98	70-141	2	10

Surrogate	%Rec	Limits
Trifluorotoluene	102	51-143
Bromofluorobenzene	109	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

Lab #: 140894 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: ZZZZZZ
Lab ID: 140887-001
Matrix: Water
Batch#: 49900
Units: ug/L
Diln Fac: 1

Sample Date: 08/07/99
Received Date: 08/11/99
Prep Date: 08/13/99
Analysis Date: 08/13/99

MS Lab ID: QC04880

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	885.6	2845	98	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	103	53-150
Bromofluorobenzene	116	53-149

MSD Lab ID: QC04881

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	2670	89	69-131	6	13

Surrogate	%Rec	Limits
Trifluorotoluene	100	53-150
Bromofluorobenzene	116	53-149

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

BTXE

Client:	Baseline Environmental	Analysis Method:	EPA 8021B
Project#:	98381	Prep Method:	EPA 5030
Location:	McDonalds,6623 San Pablo		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	08/13/99
Lab ID:	140959-001	Received Date:	08/13/99
Matrix:	Water	Prep Date:	08/20/99
Batch#:	50044	Analysis Date:	08/20/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC05431

Analyte	Spike Added	Sample	MS	%Rec #	Limits
MTBE	20	<2	25.48	127	49-136
Benzene	20	<0.5	17.56	88	55-122
Toluene	20	<0.5	17.01	85	63-139
Ethylbenzene	20	<0.5	18.22	91	61-137
m,p-Xylenes	40	0.52	36.21	89	57-148
o-Xylene	20	<0.5	18.71	94	70-141

Surrogate	%Rec	Limits
Trifluorotoluene	92	51-143
Bromofluorobenzene	99	37-146

MSD Lab ID: QC05432

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
MTBE	20	25.94	130	49-136	2	11
Benzene	20	17.65	88	55-122	1	10
Toluene	20	17.13	86	63-139	1	10
Ethylbenzene	20	18.45	92	61-137	1	10
m,p-Xylenes	40	36.52	90	57-148	1	10
o-Xylene	20	18.94	95	70-141	1	10

Surrogate	%Rec	Limits
Trifluorotoluene	91	51-143
Bromofluorobenzene	97	37-146

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 6 outside limits
Spike Recovery: 0 out of 12 outside limits

TEH-Tot Ext Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140894-001	MW-1A	49895	08/11/99	08/12/99	08/15/99	
140894-002	MW-1B	49895	08/11/99	08/12/99	08/15/99	
140894-003	MW-2A	49895	08/11/99	08/12/99	08/16/99	
140894-004	MW-3A	49895	08/11/99	08/12/99	08/16/99	

Matrix: Water

Analyte	Units	140894-001	140894-002	140894-003	140894-004
Diln Fac:		1	1	1	1
Diesel C10-C24	ug/L	630 YL	<50	130 YL	800 YL
Surrogate					
Hexacosane	%REC	63	63	77	78

Y: Sample exhibits fuel pattern which does not resemble standard
L: Lighter hydrocarbons than indicated standard

TEH-Tot Ext Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 3520

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
140894-005	MW-3B	49895	08/11/99	08/12/99	08/15/99	

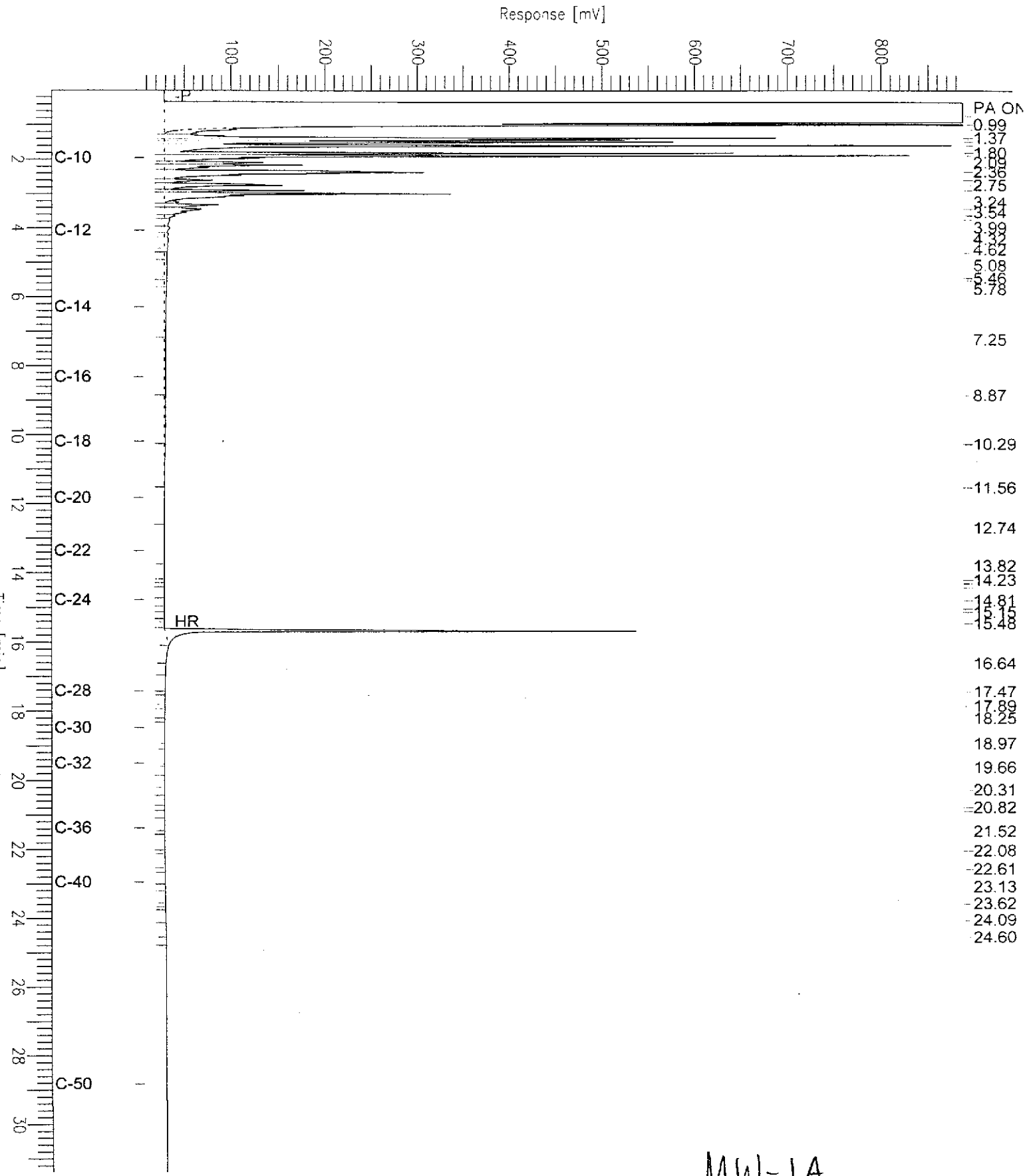
Matrix: Water

Analyte	Units	140894-005
Diln Fac:		1
Diesel C10-C24	ug/L	<50
Surrogate		
Hexacosane	%REC	63

Chromatogram

Sample Name : 140894-001sg,49895
FileName : G:\GC13\CHB\225B036.RAW
Method : BTEH201.MTH
Start Time : 0.01 min End Time : 31.37 min
Scale Factor: 0.0 Plot Offset: 7 mV

Sample #: 49895 Page 1 of 1
Date : 8/16/99 01:05 PM
Time of Injection: 8/15/99 01:17 PM
Low Point : 7.23 mV High Point : 887.03 mV
Plot Scale: 879.8 mV

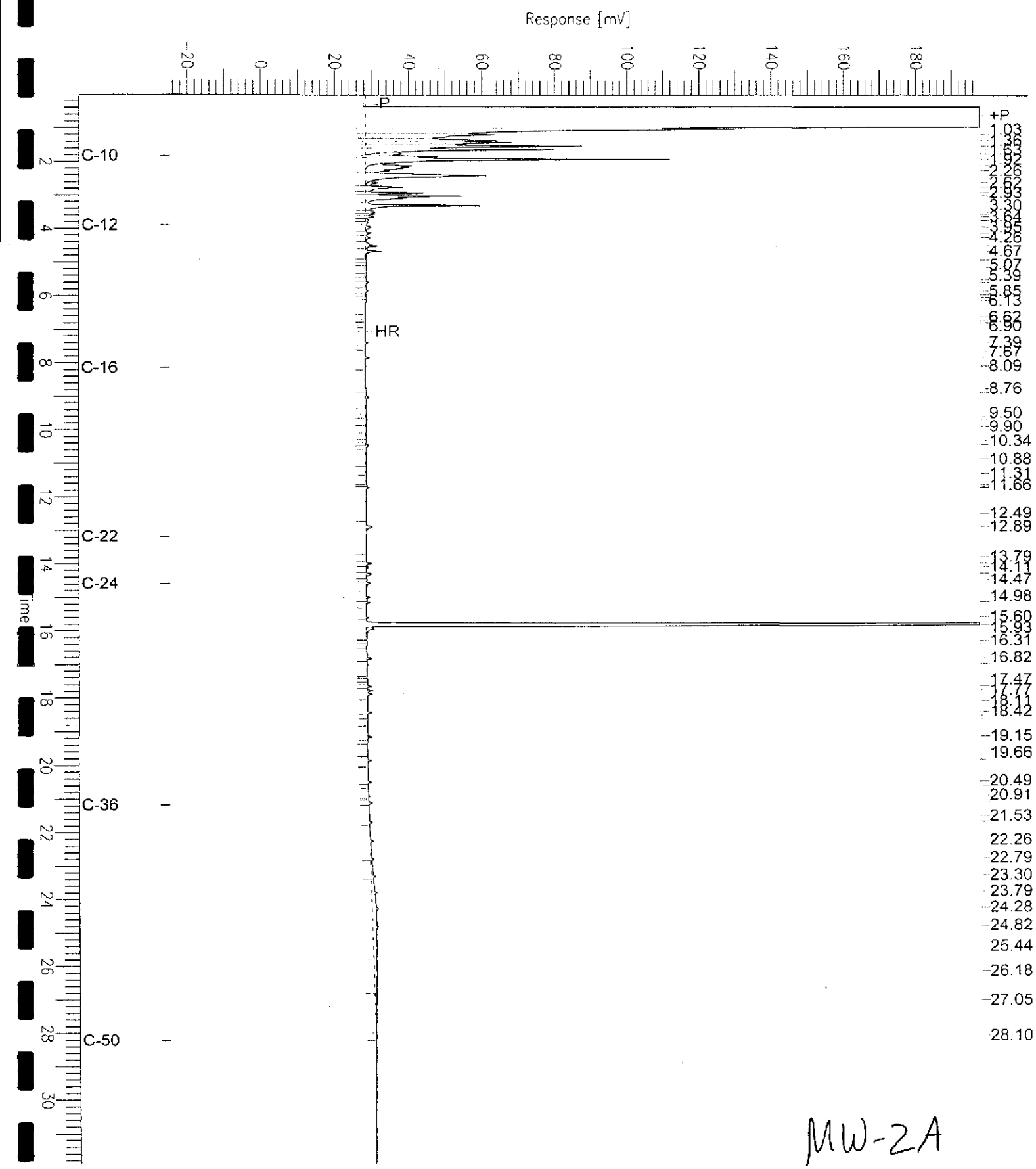


MW-1A

Chromatogram

Sample Name : 140894-003sg,49895
leName : G:\GC11\CHA\228A011.RAW
thod : ATEH223.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -25 mV

Sample #: 49895 Page 1 of 1
Date : 8/17/99 08:19 AM
Time of Injection: 8/16/99 09:10 PM
Low Point : -24.73 mV High Point : 197.95 mV
Plot Scale: 222.7 mV

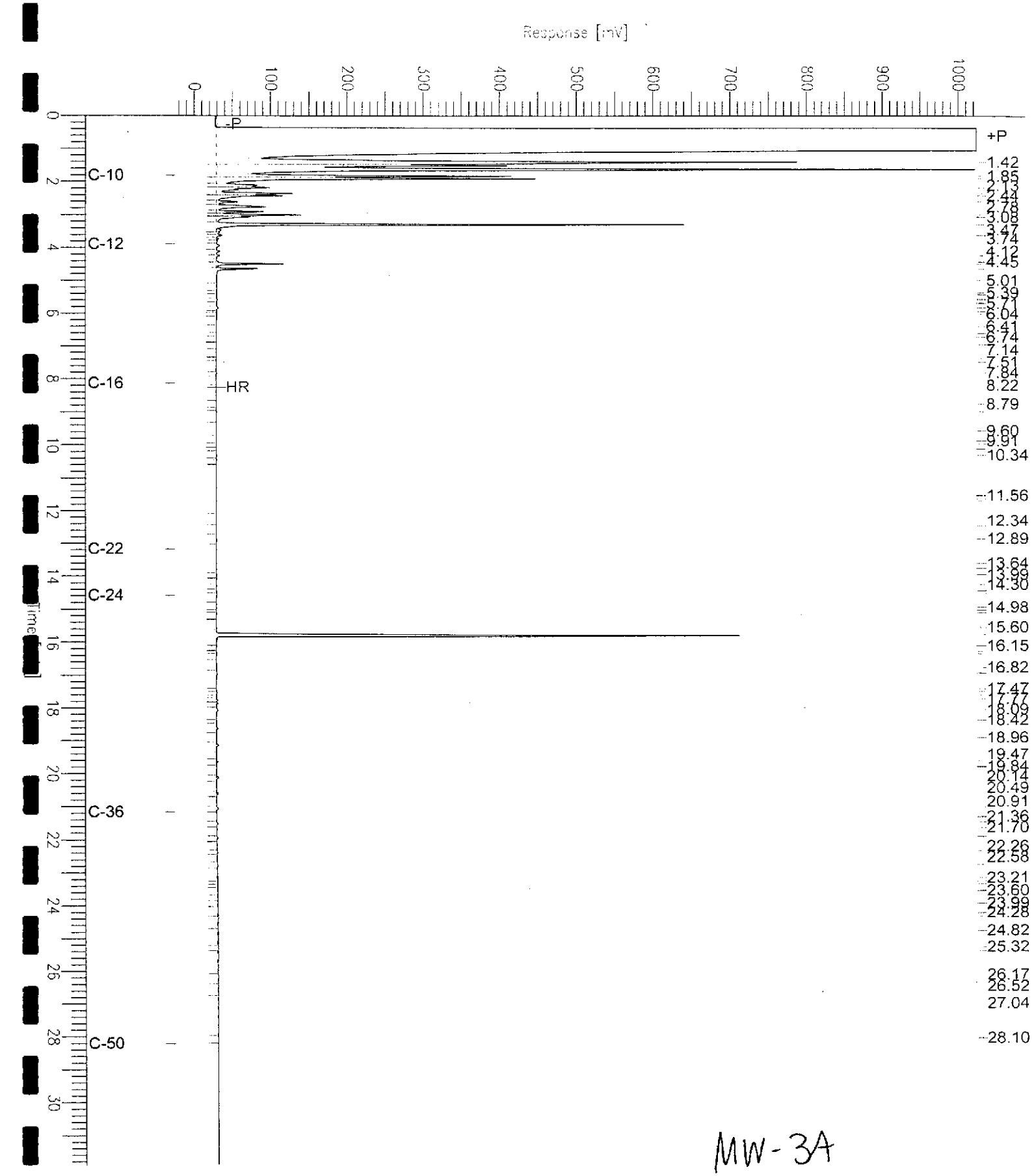


MW-2A

Chromatogram

Sample Name : 140894-004sg,49895
leName : G:\GC11\CHA\228A012.RAW
thod : ATEH223.MTH
tart Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -25 mV

Sample #: 49895 Page 1 of 1
Date : 8/17/99 08:20 AM
Time of Injection: 8/16/99 09:50 PM
Low Point : -24.54 mV High Point : 1024.00 mV
Plot Scale: 1048.5 mV

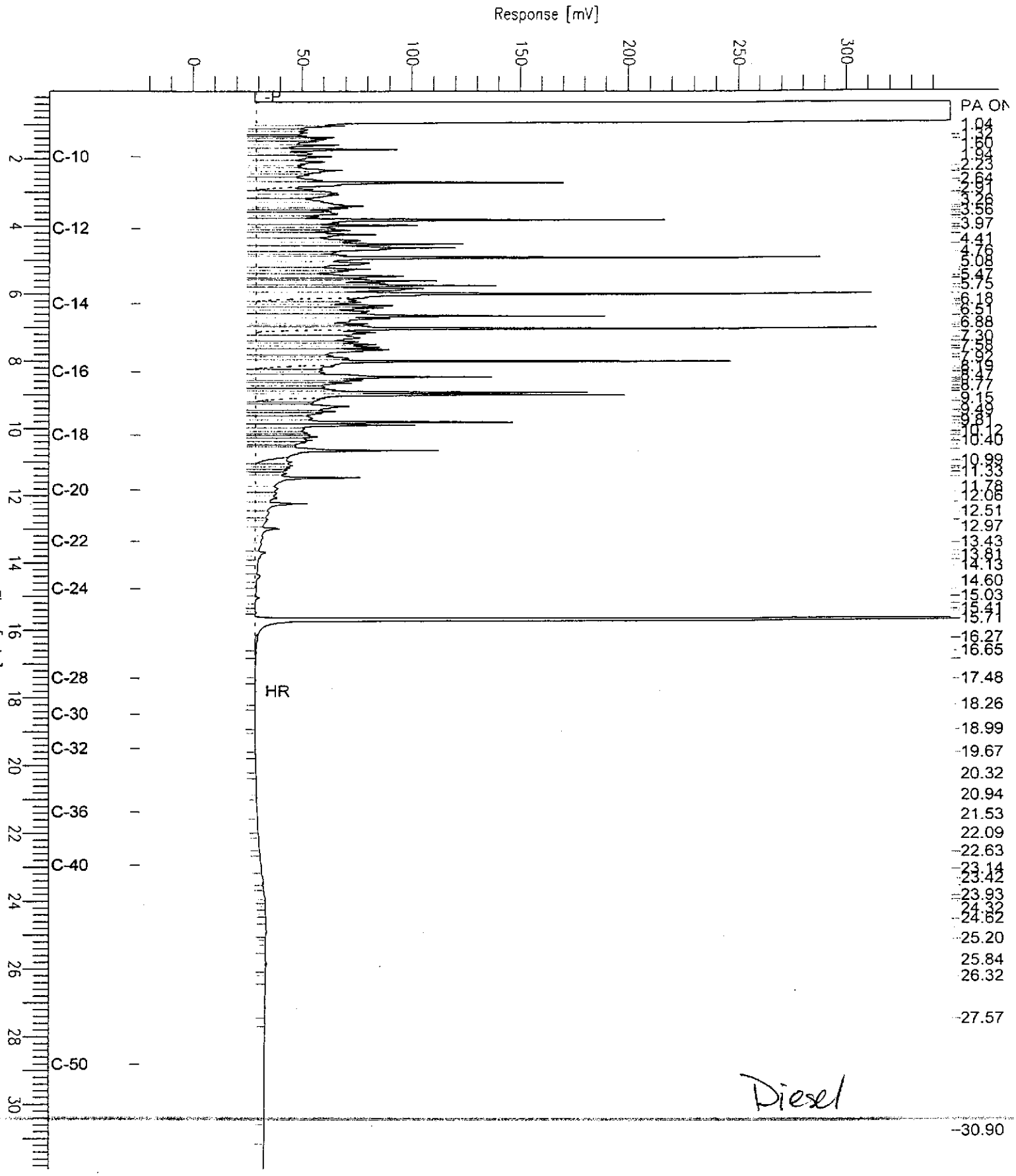


MW-3A

Chromatogram

Sample Name : ccv,99ws7881,ds1
FileName : G:\GC13\CHB\225B002.RAW
Method : BTEH201.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -24 mV

Sample #: 500mg/l Page 1 of 1
Date : 8/13/99 04:48 PM
Time of Injection: 8/13/99 03:23 PM
Low Point : -24.17 mV High Point : 348.07 mV
Plot Scale: 372.2 mV



Lab #: 140894

BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client: Baseline Environmental
Project#: 98381
Location: McDonalds,6623 San Pablo

Analysis Method: EPA 8015M
Prep Method: EPA 3520

METHOD BLANK

Matrix: Water
Batch#: 49895
Units: ug/L
Diln Fac: 1

Prep Date: 08/12/99
Analysis Date: 08/14/99

MB Lab ID: QC04862

Analyte	Result	
Diesel C10-C24	<50	
Surrogate	**%Rec**	**Recovery Limits**
Hexacosane	64	58-128

Lab #: 140894 BATCH QC REPORT

Curtis & Tompkins, Ltd.

TEH-Tot Ext Hydrocarbons

Client:	Baseline Environmental	Analysis Method:	EPA 8015M
Project#:	98381	Prep Method:	EPA 3520
Location:	McDonalds,6623 San Pablo		

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix:	Water	Prep Date:	08/12/99
Batch#:	49895	Analysis Date:	08/15/99
Units:	ug/L		
Diln Fac:	1		

BS Lab ID: QC04863

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C10-C24	2475	1797	73		50-114

Surrogate	%Rec	Limits
Hexacosane	69	58-128

BSD Lab ID: QC04864

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Diesel C10-C24	2475	1959	79		50-114	9		25

Surrogate	%Rec	Limits
Hexacosane	76	58-128

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits
RPD: 0 out of 1 outside limits
Spike Recovery: 0 out of 2 outside limits

BASELINE
5900 Hollis Street, Suite D
Emeryville, CA 94608
(510) 420-8686

CHAIN OF CUSTODY RECORD

140894

Turn-around Time: 5-Day
Lab: Curtis & Tompkins
BASELINE Contact Person: Bill Scott

Project No.	Project Name and Location
98381	McDonalds Corp. 6623 San Pablo Ave Oak

Samplers: (Signature) William K Scott

Sample ID No. Station	Date	Time	Media	Depth	No. of Containers	Analysis: TPH d w/silica gel cleanup (8015)	Analysis: TPH g (8015)	Analysis: MTBE + BTEX (8020)	Remarks/ Composite	Detection Limits
MW-1A	8-11-99	11:25	Water		3-VOA's 1-liter *	X	X	X		
MW-1B	8-11-99	11:40	↓		3 VOAs 1-liter	X	X	X		
MW-2A	8-11-99	13:45			3 VOAs 1-liter	X	X	X		
MW-3A	8-11-99	12:00			3 VOAs 1-liter *	X	X	X		
MW-3B	8-11-99	12:15	↓		3-VOAs 1-liter	X	X	X		

1 2 3 4 5

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Conditions of Samples Upon Arrival at Laboratory:
William K Scott	8-11-99 / 14:00			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks: * Partial liter
Relinquished by: (Signature)	Date / Time	Received by: (Signature) Anna Payanal	Date / Time 8/11/99 1400	