BASELINE

ENVIRONMENTAL CONSULTING

21 June 1999
98381

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

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

Dear Ann:

This report documents quarterly groundwater sampling activities conducted by BASELINE in May 1999 at 6623 San Pablo Avenue in Oakland (Figure 1). The first groundwater sampling event occurred on 8 February 1999. During the February monitoring event, groundwater samples were collected from each of the monitoring wells (except MW-1A, a shallow well, which did not contain an adequate volume of water to allow for sample collection). During the May 1999 sampling event, samples were obtained from all on-site monitoring wells. 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 21 May 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. **These field measurements (temperature, pH, and EC) were not measured for MW-3A, due to the presence of a white precipitate in the groundwater; the precipitate did not abate and the well was pumped dry. The source or composition of this white material is not known.**

Water levels were allowed to recover to at least 85 percent of the original groundwater level prior to sample collection. Due to slow groundwater recovery, the purging of the wells was completed on 18 May 1999 in all but one well, and the samples collected on 21 May 1999. Monitoring well

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MW-2A was purged and a sample was collected from the well on 21 May 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 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 May 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 0.56 mg/L diesel, 19 mg/L gasoline, 6.7 mg/L benzene, 3.1 mg/L toluene, 1.2 mg/L ethylbenzene, 3.6 mg/L exylenes, and 38 mg/L MTBE).

The two wells screened in the lower water-bearing zone (MW-1B and MW-3B) did not contain gasoline or diesel. Low levels of benzene (0.00066 mg/L) and MTBE were identified in MW-1B and low levels of xylenes (0.00057 mg/L) identified in MW-3B.

Groundwater Flow Direction

Groundwater elevation data are summarized in Table 2. The groundwater data collected on 18 May 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 S52W with a gradient magnitude of 0.02.

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 analytical data for samples collected from MW-1B and MW-3B, little or no impact appears to have occurred within the lower water-bearing zone.

- Diesel and gasoline were identified in groundwater samples collected from all three shallow wells (MW-1A, MW-2A, and MW-3A) at concentrations up to 0.56 and 19 mg/L respectively. However, the chromatograms for the diesel samples indicate that the relatively low concentrations of compounds in the diesel range are not actually diesel, and are more likely associated with gasoline. Samples collected from the deeper wells (MW-1B and MW-3B) did not contain gasoline or diesel above laboratory reporting limits.

- BTEX and MTBE were reported above laboratory reporting limits in groundwater samples collected from the shallow MW-1A, MW-2A, and MW-3A at concentrations up to 6.7 mg/L for benzene, 3.1 mg/L for toluene, 1.2 mg/L for ethylbenzene, 3.6 mg/L for xylenes, and 38 mg/L for MTBE. Groundwater samples collected from the lower water-bearing zone did not contain BTEX or MTBE above laboratory reporting limits (with the exception of the samples collected from MW-1B which contained benzene and MTBE and xylenes in MW-3B just above laboratory reporting limits).

- With the exception of sample MW-3A, the detectable analytical results for TPH as diesel, TPH as gasoline, BTEX, and MTBE, were lower than those collected during the previous monitoring event in January 1999. [1]

- The shallow groundwater flow direction was S52W with a gradient magnitude of 0.02, 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 third quarterly groundwater sampling event should be scheduled for August or September 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.

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[1] Previous data were not available for comparison with analytical results from this monitoring event for monitoring well MW-1A, since insufficient groundwater was available in the well to allow for sample collection in January 1999.

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

Sincerely,

Julie Pettijohn, MPH, REA
Environmental Health Scientist
Env. Assessor #7049

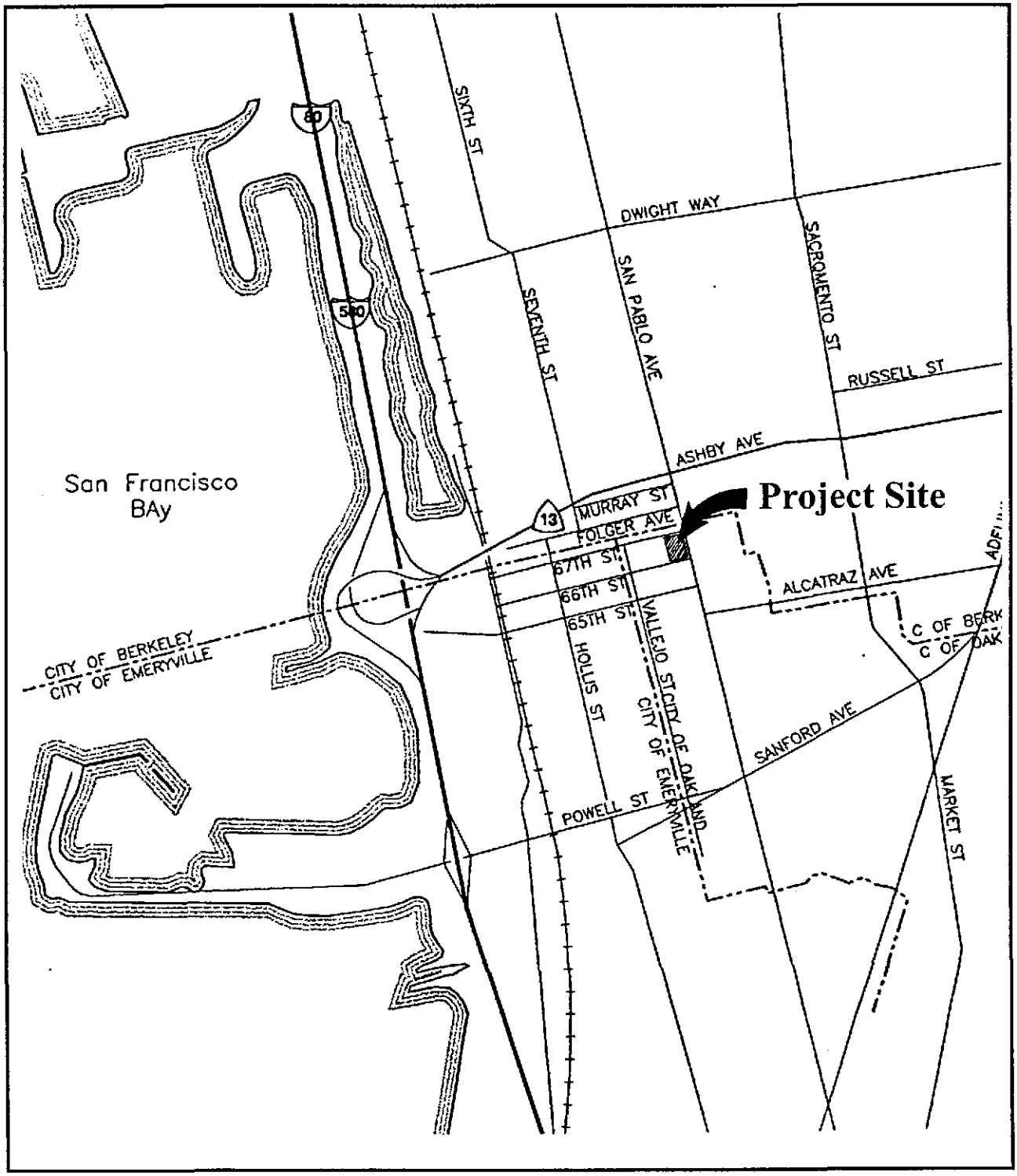
Bruce Abelli-Amen
Project Manager
Cert. Hydrogeologist #96

JP: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

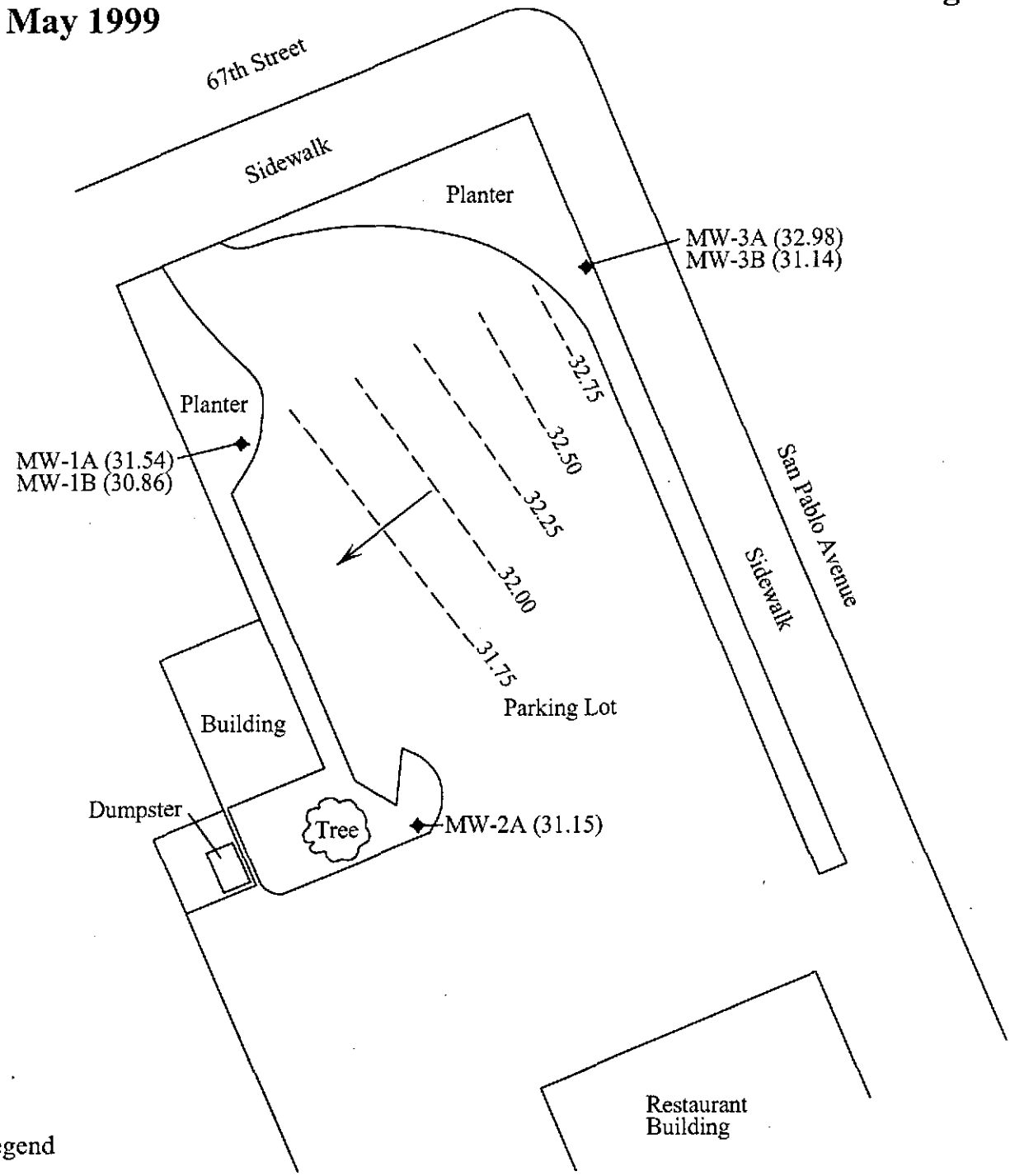
0 2000 Feet

BASELINE

98381RL 6/24/98

GROUNDWATER CONTOUR MAP
18 May 1999

Figure 2



Legend

⟶	Groundwater Flow Direction, May 1999
- - - - -	Groundwater Elevation Contour (contour interval = 0.25 feet)
MW-2A ✦	Monitoring Well Location (BASELINE)
	Groundwater Contour
31.54	Groundwater Elvation from 5/18/99 in feet above City of Oakland datum

6623 San Pablo Avenue
Oakland, California

0 30 Feet

BASELINE

D:\Graphics\98381\Groundwater Contour Map1.vcd 6/9/99

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]	Ethyl-benzene[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
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
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
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
MW-3B	2/8/99	<0.047	0.08	--	0.0015	0.0048	0.0025	0.0061	0.0045[5]
	5/21/99	<0.05	<0.05	--	<0.0005	<0.0005	<0.0005	0.00057	<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 the 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 higher 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

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: 5/21/99
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:	Sunny, warm	Water level from TOC (feet):	8.42 Time: 12:05 (5-18-99)
Precip in past		Product level from TOC (feet):	None Time: 12:05 (5-18-99)
5 days (inch):	0	Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(9.95 ft) - (8.42 ft)] × (0.03 ft)² × 3.14 × 7.48 =

Well depth Water level Well radius

0.03 gallons in one well volume
0.09 gallons in 3 well volumes
0.15 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)
Calibration Standard:	--	--	7.00*	1,000
Before Purging:	11:52	20.4	7.01*	1,000
After Purging:	13:20	21.1	6.89*	1,000

* One calibration standard used.

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance
13:18	19.5	6.98	800	0.066	Clear
13:20	18.7	6.89	800	0.13	Clear
13:20	Collected two VOA's			0.15	Clear
13:21	Well ran dry				

Water level after purging prior to sampling (feet):	8.59		Time: 10:53 (5-21-99)
Appearance of sample:	Clear		Time: 11:00 (5-21-99)
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, 2-40ml 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

GRNDWATR.XLS (3/13/96)

GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-1B	Date:	5/21/99
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:	Sunny	Water level from TOC (feet):	9.09	Time:	12:24 (5-18-99)
Precip in past		Product level from TOC (feet):	None	Time:	12:24 (5-18-99)
5 days (inch):	0	Water level measurement:	Dual interface probe		

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(30.32 ft) - (9.09 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)
Calibration Standard:	--	--	7.00*	1,000
Before Purging:	11:52	20.4	7.01*	1,000
After Purging:	13:20	21.1	6.89*	1,000

*One calibration standard used.

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance
12:53	20.4	6.88	1,200	0.2	Clear
12:57	19.9	6.89	1,000	0.6	Clear
12:59	18.9	6.88	1,100	1.2	Clear
13:01		Well pumped dry			

Water level after purging prior to sampling (feet):	9.80			Time:	11:02 (5-21-99)
Appearance of sample:	Clear			Time:	11:15 (5-21-99)
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		

GRNDWATR.XLS (3/13/96)

GROUNDWATER SAMPLING

Project no.:	98381	Well no.: MW-2A	Date: 5/21/99
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:	Sunny, warm	Water level from TOC (feet):	7.77 Time: 12:25 (5-18-99)
Precip in past		Product level from TOC (feet):	None Time: 12:25 (5-18-99)
5 days (inch):	0	Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(14.72 ft) - (7.77 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
1.5 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)
Calibration Standard:	--	--	7.00 /10.01	1,000
Before Purging:	8:19	18.4	7.00 /10.01	1,000
After Purging:	10:38	18.6	7.03 /9.96	1,000

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance
10:23	18.4	6.66	1,200	0.1	Clear, petroleum odor
10:33	18.9	6.63	1,200	1.0	Clear, petroleum odor
10:37	18.7	6.67	1,200	1.5	Clear, petroleum odor

Water level after purging prior to sampling (feet):	7.78		Time: 10:40 (5-21-99)
Appearance of sample:	Clear		Time: 10:40 (5-21-99)
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

GRNDWATR.XLS (3/13/96)

GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-3A Date: 5/21/99
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:	Sunny, warm	Water level from TOC (feet):	6.78 Time: 12:02 (5-18-99)
Precip in past		Product level from TOC (feet):	None Time: 12:02 (5-18-99)
5 days (inch):	0	Water level measurement:	Dual interface probe

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(10.02 ft) - (6.78 ft)] × (0.03 ft)² × 3.14 × 7.48 =
Well depth Water level Well radius

0.06 gallons in one well volume
0.19 gallons in 3 well volumes
0.26 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)
Calibration Standard:	--	--	7.00*	1,000
Before Purging:	11:52	20.4	7.01*	1,000
After Purging:	13:20	21.1	6.89*	1,000

* One calibration standard used.

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance

No field measurements collected due to presence of abundant white precipitate in purge water, this condition did not clear up before well was pumped dry at the removal of 0.26 gallons.

Water level after purging prior to sampling (feet):	6.82		Time: 7:55 (5-21-99)
Appearance of sample:	Clear - Very Slightly Turbid		Time: 8:00 (5-21-99)
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

GRNDWATR.XLS (3/13/96)

GROUNDWATER SAMPLING

Project no.:	98381	Well no.:	MW-3B	Date:	5/21/99
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:	Sunny, warm	Water level from TOC (feet):	8.65	Time:	12:03 (5-18-99)
Precip in past		Product level from TOC (feet):	None	Time:	12:03 (5-18-99)
5 days (inch):	0	Water level measurement:	Dual interface probe		

VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

[(31.31 ft) - (8.65 ft)] × (0.03 ft)² × 3.14 × 7.48 =
Well depth Water level Well radius

0.45 gallons in one well volume
1.35 gallons in 3 well volumes
1.1 total gallons removed

CALIBRATION:

	Time	Temp (° C)	pH	EC (µmho/cm)
Calibration Standard:	--	--	7.00*	1,000
Before Purging:	11:52	20.4	7.01*	1,000
After Purging:	13:20	21.1	6.89*	1,000

*One calibration standard used.

FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance
12:12	19.9	6.91	1,100	0.1	Clear
12:16	19.6	6.90	1,050	0.15	Clear
12:22	18.8	6.90	1,050	0.25	Clear
12:26	18.6	6.90	1,000	0.3	Clear
		Increased pump rate			
12:31	18.7	6.90	1,000	0.75	Clear
12:33	18.7	6.90	1,000	1.1	Clear
12:36		Well ran dry			

Water level after purging prior to sampling (feet):	9.63			Time:	11:28 (5-21-99)
Appearance of sample:	Clear			Time:	11:40 (5-21-99)
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		

GRNDWATR.XLS (3/13/96)

ATTACHMENT B

LABORATORY REPORT AND CHAIN-OF-CUSTODY FORM

Quality Control Checklist
for Review of Laboratory Report

Job No.: 98381 **Site:** 6623 San Pablo Avenue

Laboratory: Curtis and Tompkins **Laboratory Report No:** 139541

Report Date: 6/19/99 **BASELINE Review By:** JP

	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.)*			✓

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: 08-JUN-99
Lab Job Number: 139541
Project ID: 98381
Location: McDonalds,6623 San Pablo

Reviewed by:

Reviewed by:

Curtis & Tompkins, Ltd.

Laboratory Number: **139541**
Client: **Baseline**
Project#: **98-381**
Location: **McDonalds, 6623 San Pablo**

Receipt Date: **5/21/99**

CASE NARRATIVE

This hardcopy data package contains sample and QC results for five water samples that were received on May 21, 1999. All samples were received cold and intact.

TVH/BTXE: No analytical problems were encountered.

Total Extractable Hydrocarbons: All extracts were treated with silica gel prior to analysis. No analytical problems were encountered.

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
139541-001	MW-1A	48245	05/21/99	05/26/99	05/26/99	
139541-002	MW-1B	48220	05/21/99	05/24/99	05/24/99	
139541-003	MW-2A	48220	05/21/99	05/24/99	05/24/99	
139541-004	MW-3A	48245	05/21/99	05/26/99	05/26/99	

Matrix: Water

Analyte Diln Fac:	Units	139541-001 40	139541-002 1	139541-003 1	139541-004 25
Gasoline C7-C12	ug/L	19000	<50	910	17000
Surrogate					
Trifluorotoluene	%REC	90	104	113	83
Bromofluorobenzene	%REC	90	100	130	85

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

CHAIN OF CUSTODY RECORD

13954

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

Project No.	Project Name and Location
98381	McDonald's, 6623 San Pablo Ave

Samplers: (Signature) William K Scott

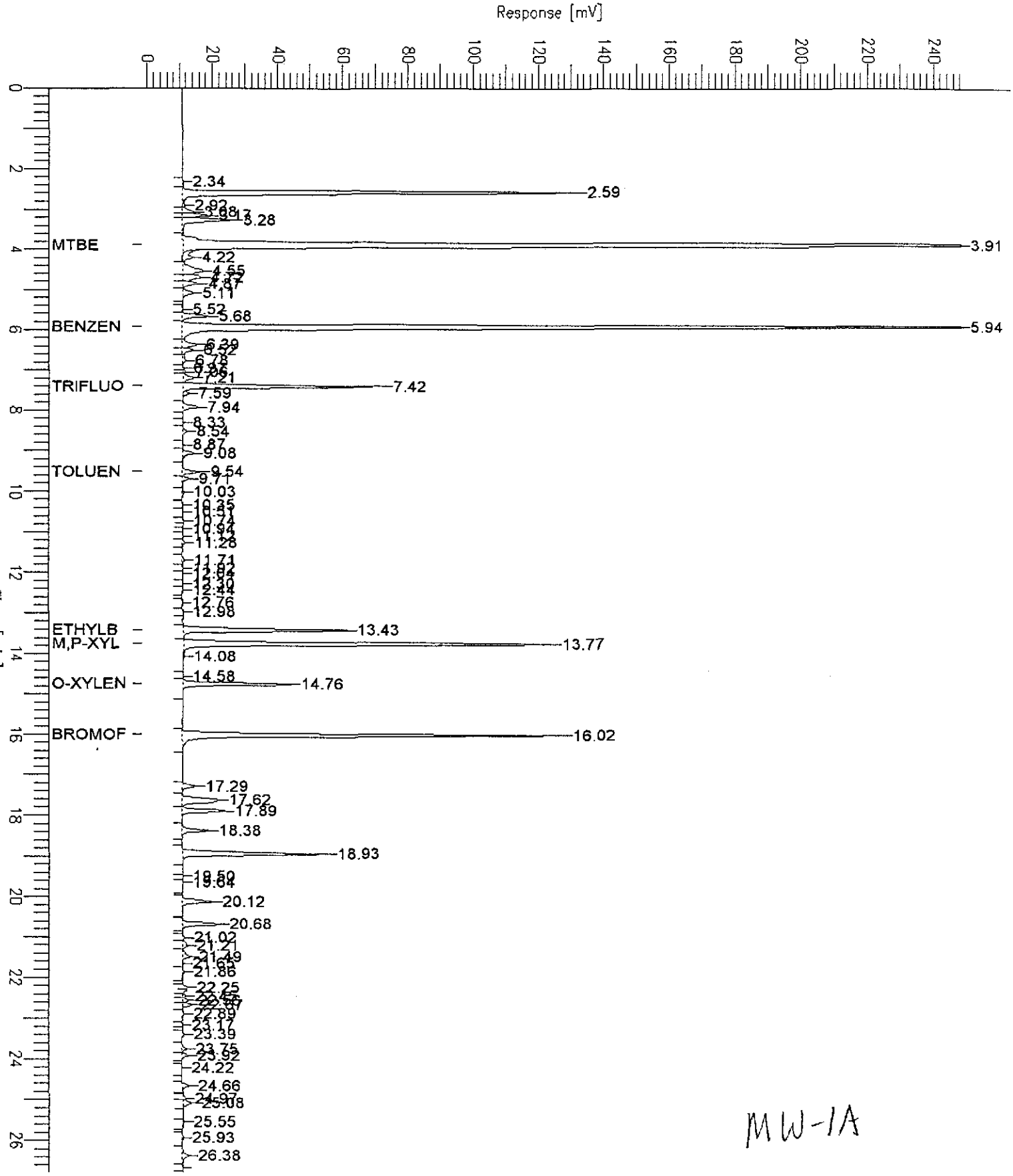
Sample ID No. Station	Date	Time	Media	Depth	No. of Containers	Analysis: with silica gel cleanup TEH as diesel	(TPH with BTX&E) MTBE	Oil & Grease	Motor Oil	PNAs	Title 22 Metals	Total Lead						Remarks/ Composite	Detection Limits
MW-1A	5-21-99	11:00	water		2-VOAs 1-Liter *													x450mg	
MW-1B	↓	11:15			2-VOAs 1-Liter														
MW-2A		10:40			2-VOAs 1-Liter														
MW-3A		8:00			2-VOAs 1-Liter *													x200mg	
MW-3B		11:40			2-VOAs 1-Liter														

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Conditions of Samples Upon Arrival at Laboratory:
William K Scott	5-21-99/13:20	[signature]	5/21/99 1330	
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks: * partly full 1 liter amber glass
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	

GC19 _TVHBTXE 'Y' BTXE QUANT.

Sample Name : 139541-001,48245
FileName : G:\GC19\DATA\145Y032.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: -2 mV

Sample #: Page 1 of 1
Date : 5/26/99 09:23 AM
Time of Injection: 5/26/99 08:55 AM
Low Point : -1.64 mV High Point : 248.36 mV
Plot Scale: 250.0 mV

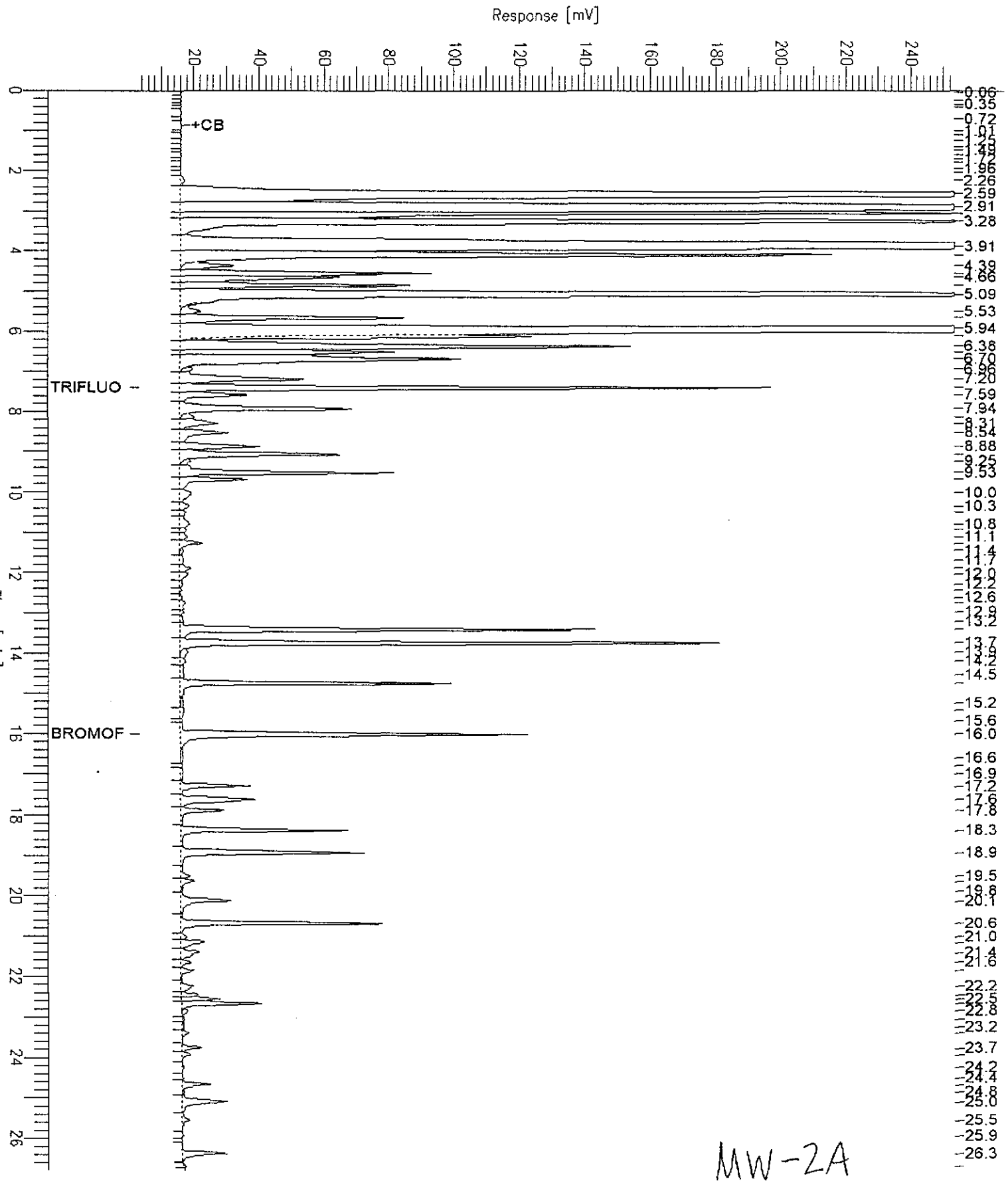


MW-1A

GC19 TVH 'X' Data File (FID)

Sample Name : 139541-003,48220
FileName : G:\GC19\DATA\144X011.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 3 mV

Sample #: Page 1 of 1
Date : 5/24/99 07:12 PM
Time of Injection: 5/24/99 06:44 PM
Low Point : 3.27 mV High Point : 253.27 mV
Plot Scale: 250.0 mV

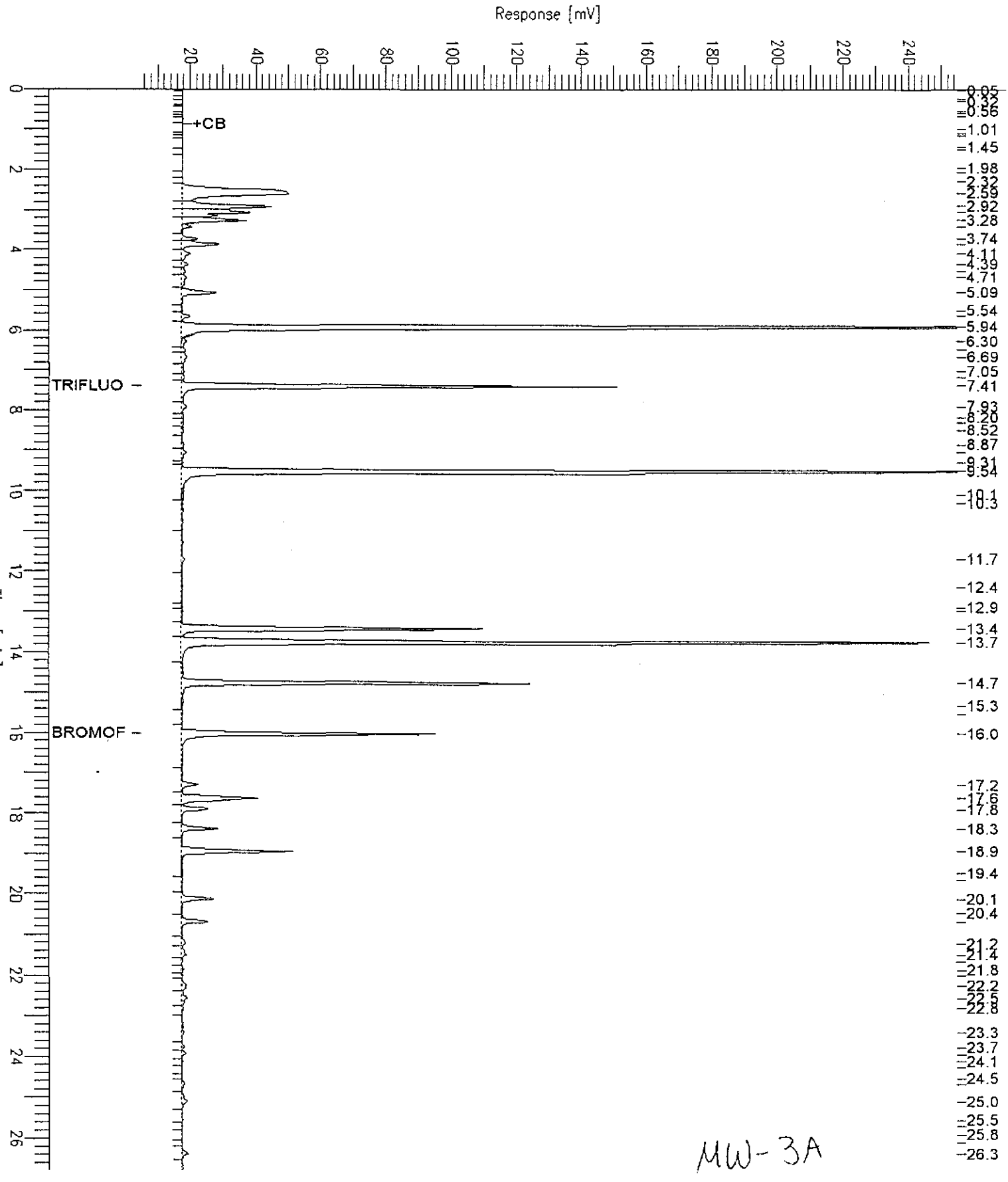


MW-2A

GC19 TVH 'X' Data File (FID)

Sample Name : 139541-004,48245
FileName : G:\GC19\DATA\145X031.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 5 mV

Sample #: Page 1 of 1
Date : 5/26/99 08:43 AM
Time of Injection: 5/26/99 08:16 AM
Low Point : 4.90 mV High Point : 254.90 mV
Plot Scale: 250.0 mV

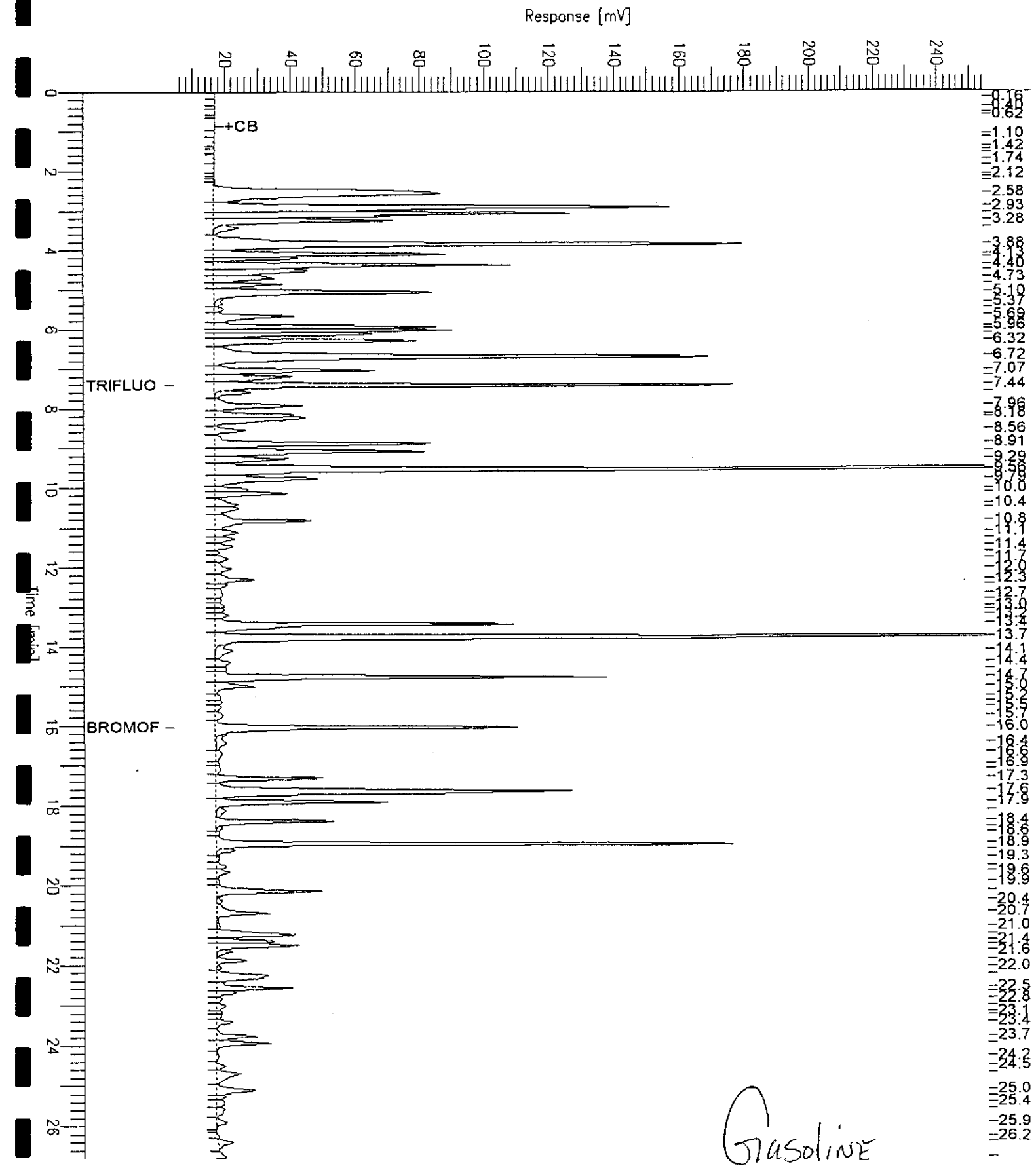


MW-3A

GC19 TVH 'X' Data File (FID)

Sample Name : CCV/LCS,QC98211,99WS7547,48220
FileName : G:\GC19\DATA\144X002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor: -1.0 Plot Offset: 4 mV

Sample #: GAS
Date : 5/24/99 02:54 PM
Time of Injection: 5/24/99 11:04 AM
Low Point : 4.20 mV High Point : 254.20 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
139541-001	MW-1A	48245	05/21/99	05/26/99	05/26/99	
139541-002	MW-1B	48220	05/21/99	05/24/99	05/24/99	
139541-003	MW-2A	48245	05/21/99	05/26/99	05/26/99	
139541-004	MW-3A	48245	05/21/99	05/26/99	05/26/99	

Matrix: Water

Analyte Diln Fac:	Units	139541-001 40	139541-002 1	139541-003 5	139541-004 25
MTBE	ug/L	38000	4.1	4000	77
Benzene	ug/L	6700	0.66	620	3500
Toluene	ug/L	120	<0.5	18	3100
Ethylbenzene	ug/L	1200	<0.5	38	850
m,p-Xylenes	ug/L	2400	<0.5	52	2500
o-Xylene	ug/L	880	<0.5	26	1100
Surrogate					
Trifluorotoluene	%REC	106	123	87	95
Bromofluorobenzene	%REC	106	122	90	99

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
139541-005	MW-3B	48220	05/21/99	05/24/99	05/24/99	

Matrix: Water

Analyte	Units	139541-005
Diln Fac:		1
Gasoline C7-C12	ug/L	<50
Surrogate		
Trifluorotoluene	%REC	105
Bromofluorobenzene	%REC	103

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
139541-005	MW-3B	48220	05/21/99	05/24/99	05/24/99	

Matrix: Water

Analyte	Units	139541-005
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	0.57
o-Xylene	ug/L	<0.5
Surrogate		
Trifluorotoluene	%REC	124
Bromofluorobenzene	%REC	125

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:	05/25/99
Batch#:	48245	Analysis Date:	05/25/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC98319

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	98	53-150
Bromofluorobenzene	93	53-149

Lab #: 139541

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:	05/25/99
Batch#:	48245	Analysis Date:	05/25/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC98319

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	116	51-143
Bromofluorobenzene	114	37-146

BTXE

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

Analysis Method: EPA 8021B
Prep Method: EPA 5030

BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water
Batch#: 48245
Units: ug/L
Diln Fac: 1

Prep Date: 05/26/99
Analysis Date: 05/26/99

BS Lab ID: QC98320

Analyte	Spike Added	BS	%Rec #	Limits
MTBE	20	18.2	91	66-126
Benzene	20	17.94	90	65-111
Toluene	20	18.59	93	76-117
Ethylbenzene	20	18.32	92	71-121
m,p-Xylenes	40	37.98	95	80-123
o-Xylene	20	18.4	92	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	95	51-143
Bromofluorobenzene	93	37-146

BSD Lab ID: QC98321

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
MTBE	20	18.66	93	66-126	2	12
Benzene	20	18.06	90	65-111	1	10
Toluene	20	18.55	93	76-117	0	10
Ethylbenzene	20	18.4	92	71-121	0	11
m,p-Xylenes	40	38.27	96	80-123	1	10
o-Xylene	20	18.49	92	75-127	0	11

Surrogate	%Rec	Limits
Trifluorotoluene	92	51-143
Bromofluorobenzene	92	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 #: 139541

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:	05/25/99
Batch#:	48245	Analysis Date:	05/25/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC98318

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1742	2000	87	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	104	53-150
Bromofluorobenzene	108	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

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WELL COMPLETION REPORT
(WELL LOGS)

REMOVED

Lab #: 139541

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		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	05/22/99
Lab ID:	139559-001	Received Date:	05/24/99
Matrix:	Water	Prep Date:	05/25/99
Batch#:	48245	Analysis Date:	05/25/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC98322

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	2048	3729	84	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	81	53-150
Bromofluorobenzene	126	53-149

MSD Lab ID: QC98323

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	3729	84	69-131	0	13

Surrogate	%Rec	Limits
Trifluorotoluene	109	53-150
Bromofluorobenzene	146	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 #: 139541

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:	05/24/99
Batch#:	48220	Analysis Date:	05/24/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC98213

Analyte	Result
Gasoline C7-C12	<50

Surrogate	%Rec	Recovery Limits
Trifluorotoluene	93	53-150
Bromofluorobenzene	89	53-149

Lab #: 139541

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:	05/24/99
Batch#:	48220	Analysis Date:	05/24/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC98213

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	107	51-143
Bromofluorobenzene	107	37-146

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:	05/24/99
Batch#:	48220	Analysis Date:	05/24/99
Units:	ug/L		
Diln Fac:	1		

LCS Lab ID: QC98211

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline C7-C12	1764	2000	88	77-117

Surrogate	%Rec	Limits
Trifluorotoluene	102	53-150
Bromofluorobenzene	108	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 #: 139541

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#: 48220
Units: ug/L
Diln Fac: 1

Prep Date: 05/24/99
Analysis Date: 05/24/99

LCS Lab ID: QC98212

Analyte	Result	Spike Added	%Rec #	Limits
MTBE	18.43	20	92	66-126
Benzene	17.74	20	89	65-111
Toluene	18.34	20	92	76-117
Ethylbenzene	18.14	20	91	71-121
m,p-Xylenes	38.12	40	95	80-123
o-Xylene	18.38	20	92	75-127

Surrogate	%Rec	Limits
Trifluorotoluene	111	51-143
Bromofluorobenzene	112	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 #: 139541

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		

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID:	ZZZZZZ	Sample Date:	05/12/99
Lab ID:	139421-001	Received Date:	05/13/99
Matrix:	Water	Prep Date:	05/24/99
Batch#:	48220	Analysis Date:	05/24/99
Units:	ug/L		
Diln Fac:	1		

MS Lab ID: QC98214

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline C7-C12	2000	<50	1915	96	69-131

Surrogate	%Rec	Limits
Trifluorotoluene	115	53-150
Bromofluorobenzene	122	53-149

MSD Lab ID: QC98215

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline C7-C12	2000	1936	97	69-131	1	13

Surrogate	%Rec	Limits
Trifluorotoluene	112	53-150
Bromofluorobenzene	120	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

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
139541-001	MW-1A	48217	05/21/99	05/23/99	05/26/99	
139541-002	MW-1B	48217	05/21/99	05/23/99	05/26/99	
139541-003	MW-2A	48217	05/21/99	05/23/99	05/26/99	
139541-004	MW-3A	48217	05/21/99	05/23/99	05/26/99	

Matrix: Water

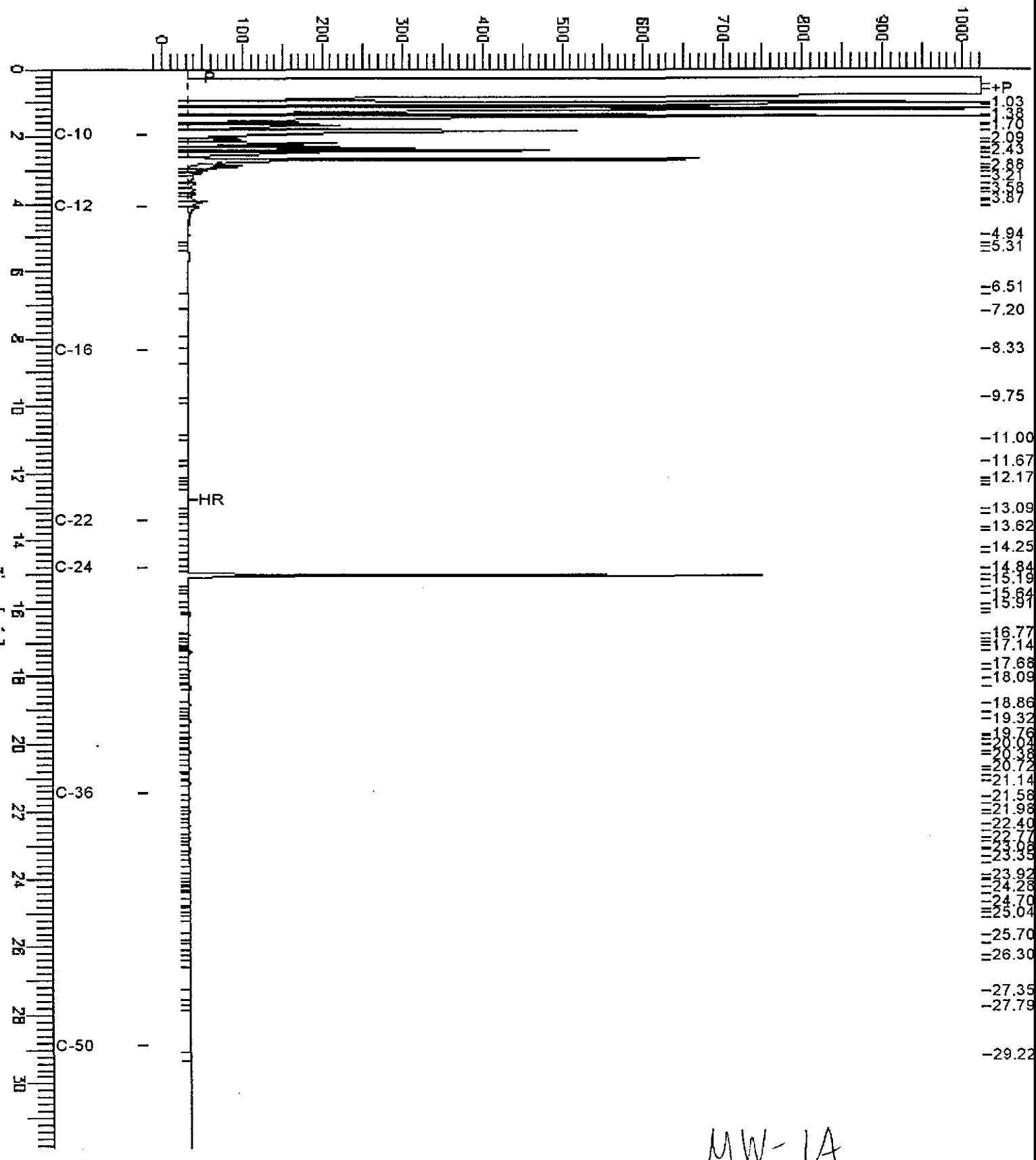
Analyte	Units	139541-001	139541-002	139541-003	139541-004
Diln Fac:		1	1	1	1
Diesel C10-C24	ug/L	560 YL	<50	64 YL	230 YL
Surrogate					
Hexacosane	%REC	83	82	88	115

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

Chromatogram

Sample Name : 139541-001sg,48217
FileName : G:\GC11\CHA\151A051.RAW
Method : ATEH055.MTH
Start Time : 0.00 min End Time : 31.90 min
Scale Factor: 0.0 Plot Offset: -20 mV

Sample #: 48217 Page 1 of 1
Date : 5/26/99 08:12 AM
Time of Injection: 5/26/99 04:05 AM
Low Point : -19.94 mV High Point : 1024.00 mV
Plot Scale: 1043.9 mV

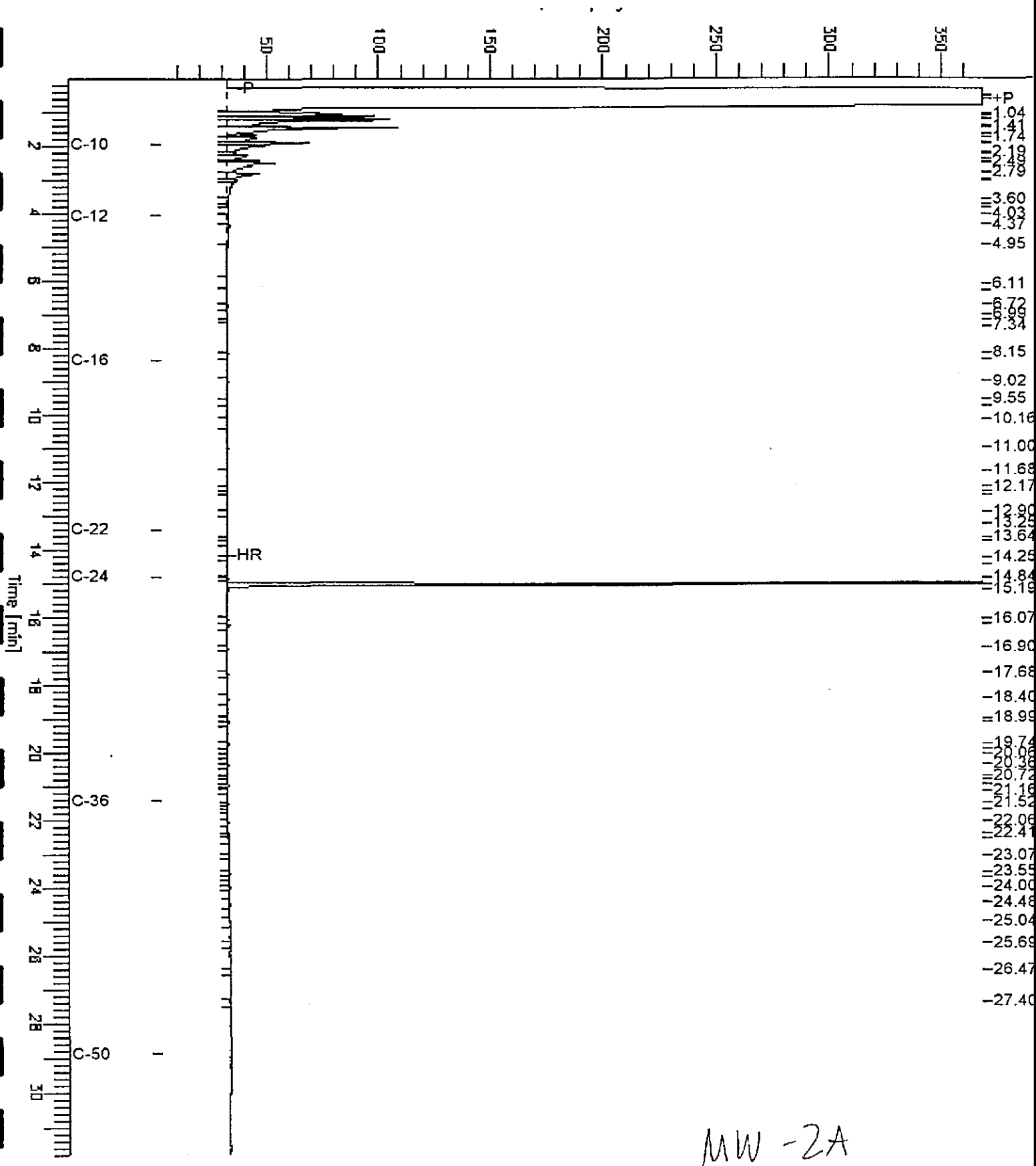


MW-1A

Chromatogram

Sample Name : 139541-003sg,48217
FileName : G:\GC11\CHA\151A053.RAW
Method : ATEH055.MTH
Start Time : 0.01 min End Time : 31.83 min
Scale Factor: 0.0 Plot Offset: 3 mV

Sample #: 48217 Page 1 of 1
Date : 5/26/99 08:18 AM
Time of Injection: 5/26/99 05:26 AM
Low Point : 2.61 mV High Point : 368.65 mV
Plot Scale: 366.0 mV

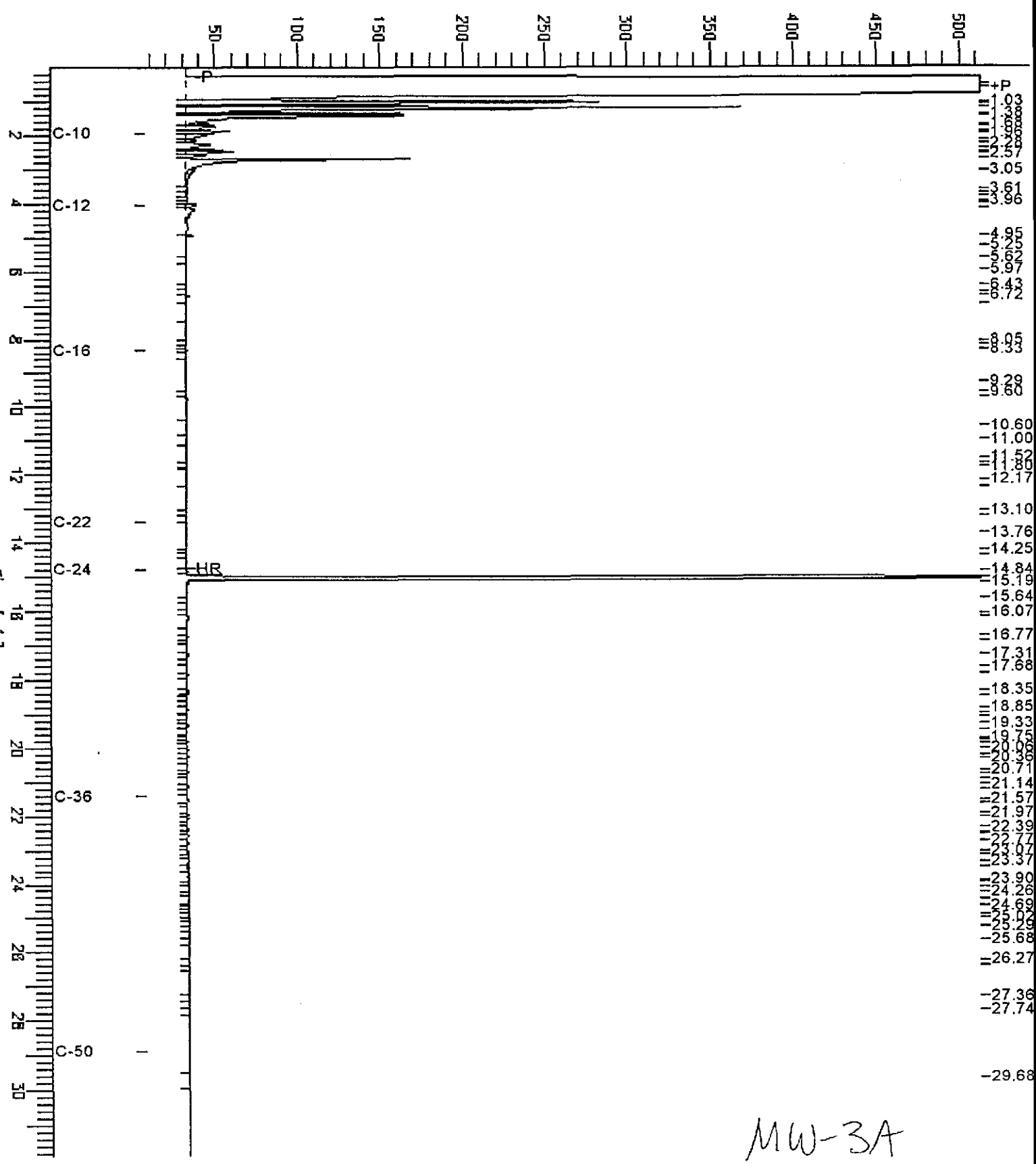


MW-2A

Chromatogram

Sample Name : 139541-004sg,48217
FileName : G:\GC11\CHA\151A054.RAW
Method : ATEH055.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: 7 mV

Sample #: 48217 Page 1 of 1
Date : 5/26/99 08:20 AM
Time of Injection: 5/26/99 06:06 AM
Low Point : 7.09 mV High Point : 513.34 mV
Plot Scale: 506.3 mV

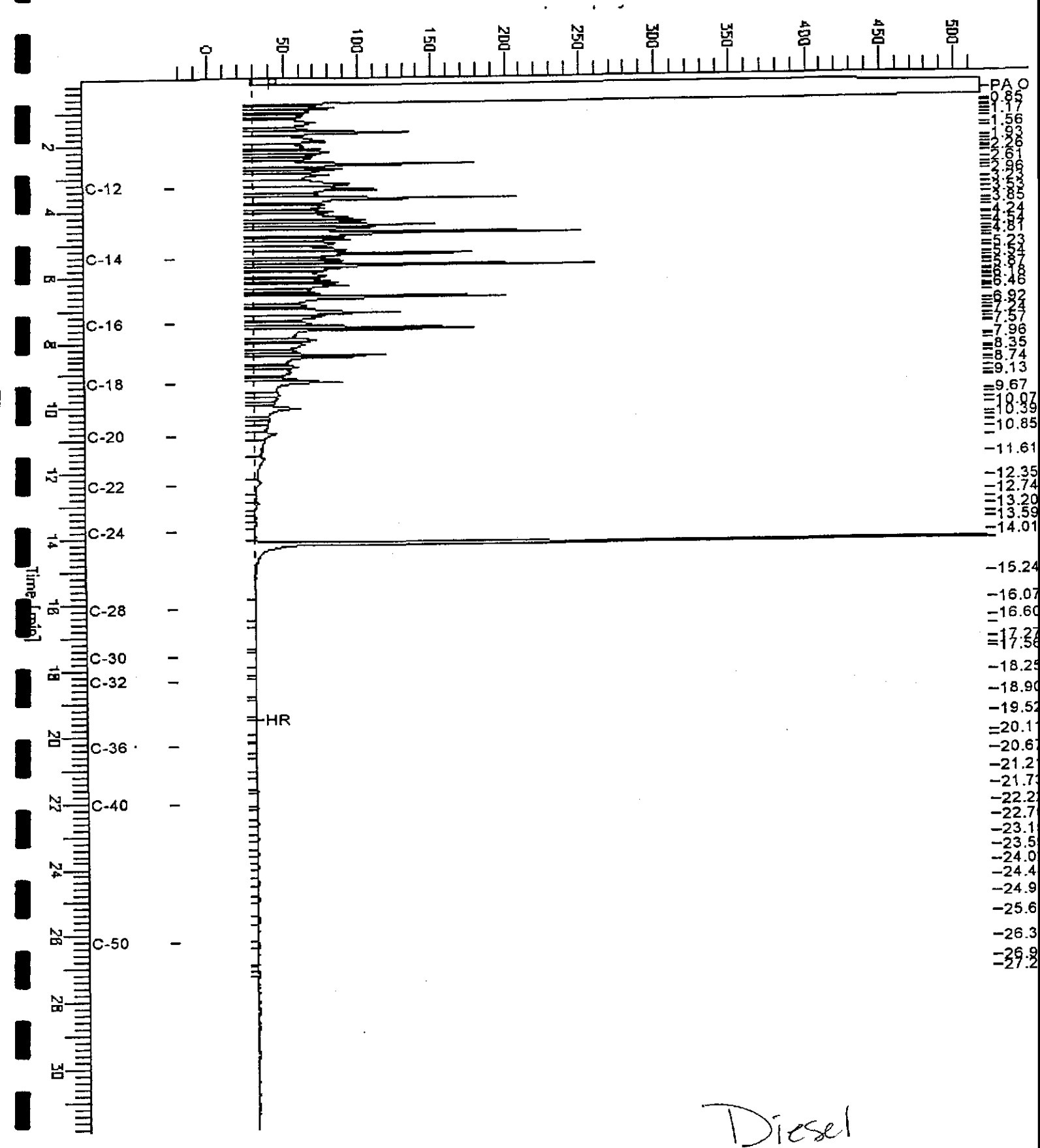


MW-3A

Chromatogram

mple Name : ccv,99ws7470,dsl
leName : G:\GC13\CHB\141B002.RAW
ethod : BTEH125X.MTH
Start Time : 0.01 min End Time : 31.91 min
Scale Factor: 0.0 Plot Offset: -23 mV

Sample #: 500mg/l
Date : 5/22/99 12:47 PM
Time of Injection: 5/21/99 08:34 PM
Low Point : -23.19 mV High Point : 518.20 mV
Plot Scale: 541.4 mV



Diesel

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
139541-005	MW-3B	48217	05/21/99	05/23/99	05/26/99	

Matrix: Water

Analyte	Units	139541-005
Diln Fac:		1
Diesel C10-C24	ug/L	<50
Surrogate		
Hexacosane	%REC	81

TEH-Tot Ext Hydrocarbons

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

METHOD BLANK

Matrix:	Water	Prep Date:	05/23/99
Batch#:	48217	Analysis Date:	05/27/99
Units:	ug/L		
Diln Fac:	1		

MB Lab ID: QC98203

Analyte	Result
Diesel C10-C24	<50

Surrogate	%Rec	Recovery Limits
Hexacosane	108	58-128

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:	05/23/99
Batch#:	48217	Analysis Date:	05/26/99
Units:	ug/L		
Diln Fac:	1		

BS Lab ID: QC98204

Analyte	Spike Added	BS	%Rec	#	Limits
Diesel C10-C24	2475	1872	76		50-114

Surrogate	%Rec	Limits
Hexacosane	93	58-128

BSD Lab ID: QC98205

Analyte	Spike Added	BSD	%Rec	#	Limits	RPD	#	Limit
Diesel C10-C24	2475	1977	80		50-114	5		25

Surrogate	%Rec	Limits
Hexacosane	99	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