

COPY

# BASELINE

## ENVIRONMENTAL CONSULTING

18 December 1995  
S9105-A0

Mr. Francis Collins  
Banta Collins  
6000 Hollis Street  
Emeryville, CA 94608

**Subject: Groundwater Monitoring Report, 6050 Hollis Street, Emeryville, California –  
December 1995**

Dear Mr. Collins:

In accordance with the agreement with Alameda County (summarized in a letter from BASELINE to Ms. Susan Hugo of Alameda County Health Care Services Agency, dated 28 February 1995) we are conducting one year of quarterly monitoring at the subject site. This report constitutes the fourth of four quarterly monitoring reports.

### **Groundwater Sampling**

Groundwater samples were collected from wells MW-H1, MW-H2, and MW-H3 on 5 December 1995 by BASELINE staff (Figure 1). The water levels were measured in each well using a dual interface probe prior to purging; the potential presence of floating product was also checked; no floating product was identified in any of the wells. The probe was decontaminated between wells by washing with deionized water. A minimum of three well volumes were slowly removed from each well. Monitoring well MW-H2 was purged using a double diaphragm pump and new disposable tubing; new disposable PVC bailers were used to purge monitoring wells MW-H1 and MW-H3. The wells were purged until the temperature, pH, and electrical conductivity of the groundwater had stabilized. Water levels were allowed to recharge prior to sample collection. The purged water and decontamination water were placed into a 55-gallon sealed and labeled drum on-site for temporary storage. Groundwater sampling forms are included as Attachment A.

New disposable PVC bailers were used to collect groundwater samples from the monitoring wells. The portions of the samples that were to be analyzed for TPH as gasoline and BTEX were decanted into VOA vials from the bottom of the bailers using volatile organic compound (VOC) attachments to minimize turbulence and volatilization. The filled vials were checked to ensure that bubbles were not trapped in the bottles. The portion of the sample that was to be analyzed for TPH as diesel and kerosene was decanted directly into amber glass from the

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bottom of the bailer without the use of the VOC attachment. The sample bottles were labeled, placed in a cooler with blue ice, and transported for analysis to Curtis & Tompkins, a California-certified laboratory.

## **Findings**

The samples collected from wells MW-H2 and MW-H3 had a clear appearance; rootlets were observed in the sample collected from MW-H2. The sample collected from MW-H1 was clear to very slightly turbid. Groundwater levels in monitoring wells MW-H1 and MW-H2 had increased compared to groundwater levels measured in August 1995 and the level had declined for MW-H3 (Table 1). The groundwater flow direction on 5 December 1995 was determined to be in the N31W direction at a gradient of 0.022 foot/foot. Groundwater flow directions and magnitudes during previous and current sampling events are summarized in Table 2.

TPH as gasoline was identified in the samples collected from monitoring well MW-H1 and MW-H3. The laboratory stated that the chromatogram did not match the gasoline standard for MW-H1; the chromatogram exhibited unknown peak or peaks for MW-H3. TPH as diesel and TPH as kerosene were identified in the sample collected from MW-H1; chromatograms for this sample also did not match their respective standards; the hydrocarbon pattern for diesel was reported to be lighter than the laboratory standard. BTEX were not identified above the reporting limit in any of the samples. A summary of analytical results from previous and current sampling events is summarized in Table 3, and the laboratory results are included in Attachment A.

## **Recommendation for Case Closure**

This sampling event marks the fourth quarterly sampling event. In accordance with the agreement with the Alameda County, the Site would be evaluated for further action following the completion of the quarterly groundwater monitoring.

Low levels of petroleum hydrocarbons were historically reported in groundwater samples collected from monitoring wells MW-H1 through MW-H3 at the Site. The concentration of petroleum hydrocarbons (as gasoline, diesel, and kerosene) in groundwater samples collected from the three wells has remained relatively steady or has decreased during the quarterly monitoring events conducted in 1995. In addition, BTEX concentrations have decreased in MW-H1 during the course of the quarterly groundwater monitoring; for the past two sampling events, no BTEX have been identified in MW-H1. BTEX were not reported in MW-H2 or MW-H3 during the quarterly monitoring conducted in 1995. These results indicate that natural degradation is likely occurring at the Site. These results suggest that the groundwater underlying the Site would not be anticipated to cause a significant human health risk to Site users or the environment.

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We therefore recommend that this report be submitted to the Alameda County Health Care Agency for consideration of the Site for case closure.

Should you have any questions or need additional information, please do not hesitate to contact us at your convenience.

Sincerely,



Yvonne Nordhav  
Principal  
Reg. Geologist No. 4009

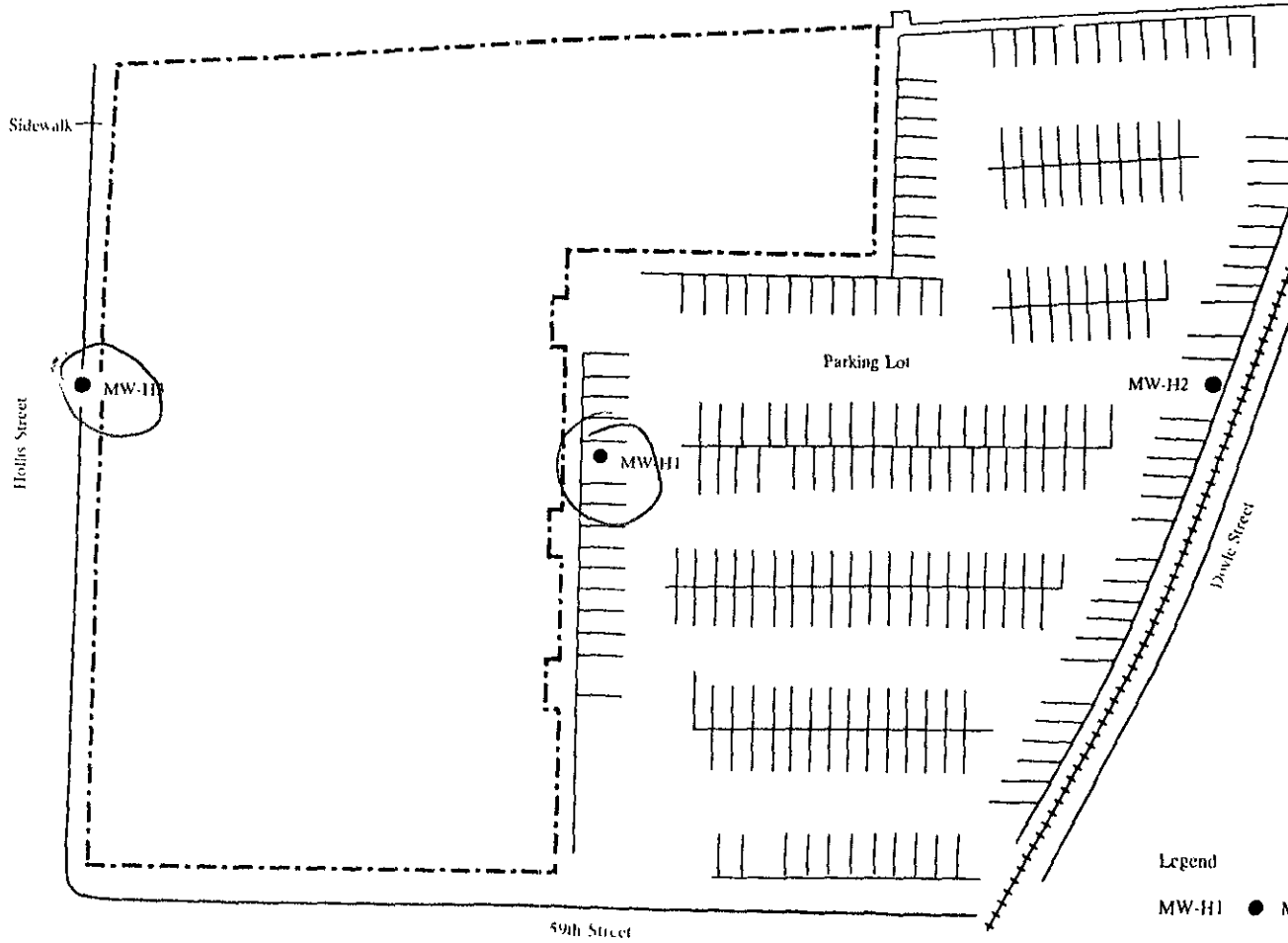


Julie Pettijohn  
Staff Scientist

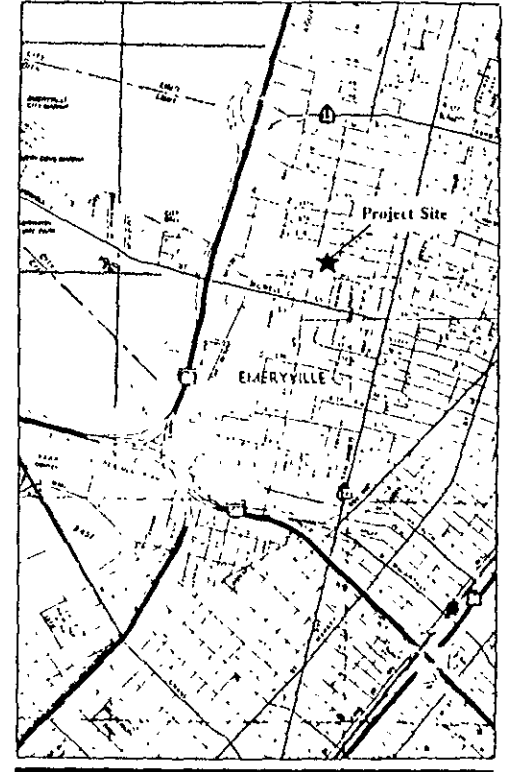
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Attachments

**SITE PLAN**  
6050 Hollis Street  
Emeryville, California

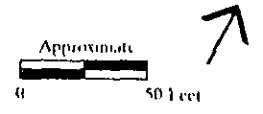
**Figure 1**



**Regional Location**



- Legend
- MW-H1 ● Monitoring Well
  - +++++ Railroad Track



**BASELINE**

TABLE 1  
**GROUNDWATER LEVEL MEASUREMENTS**  
 6050 Hollis Street, Emeryville

Well	Date	Depth to Water from TOC (feet)	Elevation of TOC (feet msl)	Groundwater Elevation (feet msl)
MW-H1	02/08/89	4.85	18.90	14.05
	05/01/89	5.10		13.80
	09/13/89	5.80		13.10
	12/04/89	5.34		13.56
	03/26/90	6.42		12.48
	07/24/90	5.93		12.97
	11/16/90	5.80		13.10
	03/15/91	4.30		14.60
	09/11/91	5.71		13.19
	09/24/91	5.80		13.10
	05/24/94	3.98		14.92
	03/08/95	3.71		15.19
	05/24/95	3.98		14.92
	08/30/95	5.11		13.79
	12/05/95	4.91		13.99
MW-H2	09/11/91	6.84	21.48	14.64
	09/24/91	6.86		14.62
	05/24/94	6.30		15.18
	03/08/95	5.45		16.03
	05/24/95	6.30		15.18
	08/30/95	6.57		14.91
	12/05/95	6.20		15.28
MW-H3	09/11/91	4.84	16.95	12.11
	09/24/91	4.81		12.14
	05/24/94	3.88		13.07
	03/08/95	3.69		13.26
	05/24/95	3.88		13.07
	08/30/95	4.76		12.19
	12/05/95	5.20		11.75

Notes: msl = mean sea level.  
 Well locations are shown in Figure 1.

TABLE 2  
**GROUNDWATER FLOW DIRECTION AND  
 MAGNITUDE**  
 6050 Hollis Street, Emeryville

Date	Groundwater Flow Direction	Magnitude (feet/feet)
9/11/91	S30W	0.0068
9/24/91	S13W	0.0099
5/24/94	N20W	0.037
3/08/95	N22W	0.002
5/24/95	N25W	0.039
8/30/95	N34W	0.013
12/05/95	N31W	0.022

Note: Groundwater flow direction and magnitude were determined graphically by three-point method using wells MW-H1, MW-H2, and MW-H3.

TABLE 3  
SUMMARY OF ANALYTICAL RESULTS, GROUNDWATER  
6050 Hollis Street, Emeryville  
(mg/L)

Well	Date	TPH as Gasoline <sup>1</sup>	TPH as Diesel <sup>2</sup>	TPH as Kerosene <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Xylenes <sup>3</sup>
MW-H1	02/10/89	<0.05	<0.5	<0.5	<0.001	<0.001	<0.001	<0.001
	05/01/89	<0.05	<0.5	<0.5	<0.001	<0.001	<0.001	<0.001
	09/13/89	<b>1.3</b>	<0.5	<0.5	<b>0.061</b>	<0.0005	<b>0.005</b>	<b>0.002</b>
	12/04/89	<b>0.41/0.37</b>	<0.5/<0.5	<0.5/<0.5	<b>0.0072/0.011</b>	<b>0.0032/0.0024</b>	<b>0.0028/0.0014</b>	<b>0.0032/0.0013</b>
	03/26/90	<b>0.7</b>	<0.5	<0.5	<b>0.093</b>	<b>0.001</b>	<b>0.0017</b>	<0.001
	06/14/90 <sup>4</sup>	<b>0.34<sup>4</sup></b>	<b>0.082<sup>4</sup></b>	<0.05 <sup>4</sup>	<b>0.016<sup>4</sup></b>	<0.001 <sup>4</sup>	<0.001 <sup>4</sup>	<0.001 <sup>4</sup>
	07/24/90	<b>0.14</b>	<0.5	<0.5	<b>0.006</b>	<0.0005	<0.0005	<b>0.0009</b>
	11/16/90	<b>1.1</b>	<b>0.55</b>	<0.05	<b>0.016</b>	<b>0.0009</b>	<b>0.0018</b>	<b>0.0015</b>
	03/15/91	<b>0.98/1.0</b>	<0.05/<0.05	<0.05/<0.05	<b>0.02/0.017</b>	<b>0.0006/&lt;0.0005</b>	<b>0.0022/0.0019</b>	<b>0.0025/0.0022</b>
	09/11/91	<b>1.0</b>	<b>0.39</b>	<0.05	<b>0.015</b>	<b>0.0056</b>	<b>0.0027</b>	<b>0.0029</b>
	05/24/94	<b>3.4</b>	<b>0.28</b>	-- <sup>6</sup>	<b>0.021</b>	<0.0005	<b>0.010</b>	<b>0.0067</b>
	03/08/95	<b>3.8</b>	<b>0.34<sup>5</sup></b>	-- <sup>6</sup>	<b>0.0087</b>	<0.0005	<b>0.013</b>	<b>0.006</b>
	05/24/95	<b>3.4</b>	<b>0.28</b>	-- <sup>6</sup>	<b>0.021</b>	<0.0005	<b>0.010</b>	<b>0.0067</b>
	08/30/95	<b>1.2<sup>5</sup></b>	<b>0.33<sup>5</sup></b>	<b>0.32<sup>5,7</sup></b>	<0.0005	<0.0005	<0.0005	<0.0005
	12/05/95	<b>1.2<sup>9</sup></b>	<b>0.23<sup>7,9</sup></b>	<b>0.19<sup>9</sup></b>	<0.0005	<0.0005	<0.0005	<0.0005
	MW-H2	09/11/91	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005
05/24/94		<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
03/08/95		<0.05	<b>0.08<sup>5</sup></b>	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
05/24/95		<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
08/30/95		<0.05	<b>0.062<sup>5</sup></b>	<b>0.072<sup>5</sup></b>	<0.0005	<0.0005	<0.0005	<0.0005
12/05/95		<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005

**Table 3: Summary of Analytical Results, Groundwater (Continued)**

Well	Date	TPH as Gasoline <sup>1</sup>	TPH as Diesel <sup>2</sup>	TPH as Kerosene <sup>2</sup>	Benzene <sup>3</sup>	Toluene <sup>3</sup>	Ethylbenzene <sup>3</sup>	Xylenes <sup>3</sup>
MW-H3	09/11/91	<0.05/<0.05	<b>0.12/0.22</b>	<0.05/<0.05	<0.0005/<0.0005	<0.0005/<0.0005	<0.0005/<0.0005	<0.0005/<0.0005
	05/24/94	<b>0.110</b> <sup>5</sup>	<b>0.110</b>	-- <sup>6</sup>	<0.0005	<0.0005	<0.0005	<0.0005
	03/08/95	<b>0.085</b>	<b>0.110</b> <sup>5</sup>	-- <sup>6</sup>	<0.0005	<0.0005	<0.0005	<0.0005
	05/24/95	<b>0.110</b> <sup>5</sup>	<b>0.110</b>	-- <sup>6</sup>	<0.0005	<0.0005	<0.0005	<0.0005
	08/30/95	<0.05	<b>0.057</b> <sup>5</sup>	<b>0.057</b> <sup>5</sup>	<0.0005	<0.0005	<0.0005	<0.0005
	12/05/95	<b>0.08</b> <sup>8</sup>	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.0005
	Field	06/14/90 <sup>4</sup>	<0.05	<b>0.062</b> <sup>4</sup>	<0.05	<0.001	<0.001	<0.001
Blanks	07/24/90	<0.05	<0.5	<0.5	<0.0005	<0.0005	<0.0005	<0.005
	11/16/90	<0.05	<0.05	<0.05	<0.0005	<0.0005	<0.0005	<0.005

**Notes:** Number(s) shown in bold are concentrations identified above detection limit(s).  
 Well locations are shown in Figure 1.  
 Groundwater sampling forms and analytical results for the most recent sampling are in Attachment A.  
 xx/xx indicates duplicate samples.

- <sup>1</sup> Analyzed by EPA Methods 5030/8015 Modified (some of the laboratory reports cite the California DHS Luft Manual).
- <sup>2</sup> Analyzed by EPA Methods 3510 or 3550/8015 Modified (some of the laboratory reports cite the California DHS Luft Manual).
- <sup>3</sup> Analyzed by EPA Methods 5030/8020.
- <sup>4</sup> The field blank for 6/14/90 sampling contained diesel at 0.062 mg/L, therefore all analytical results for MW-H1 for that date may be erroneous.
- <sup>5</sup> Laboratory report indicates that the chromatogram does not resemble fuel standard.
- <sup>6</sup> Quantitated as diesel due to overlap of hydrocarbon ranges.
- <sup>7</sup> Hydrocarbon reported is lighter than standard.
- <sup>8</sup> Sample exhibits unknown peak or peaks.
- <sup>9</sup> Sample exhibits fuel pattern which does not resemble standard.

**ATTACHMENT A**  
**GROUNDWATER SAMPLING FORMS**  
**AND LABORATORY REPORT**



# GROUNDWATER SAMPLING

Project no.:	S9105-A0	Well no.:	MW-H1	Date:	12/5/95
Project name:	Banta Collins	Depth of well from TOC (feet):	20		
Location:	6050 Hollis Street	Well diameter (inch):	2		
	Emeryville, CA	Screened interval from TOC (feet):	6-20		
Recorded by:	JP/TT	TOC elevation (feet):	18.90		
Weather:	Overcast	Water level from TOC (feet):	4.91	Time:	10:06
Precip in past		Product level from TOC (feet):	None	Time:	10:06
5 days (inch):	~0.1	Water level (feet msl):	13.99		
		Water level measurement device:	Dual interface probe		

## VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

$$[(20 \text{ ft}) - (4.91 \text{ ft})] \times (0.083 \text{ ft})^2 \times 3.14 \times 7.48 = \underline{2.4 \text{ gallons in one well volume}}$$

Well depth    Water level    Well radius

12.2 gallons in 5 well volumes

8.0 total gallons removed

## CALIBRATION:

	Time	Temp (° C)	pH	EC (µmhos/cm)
Calibration Standard:			7.00-10.01	1,000
Before Purging:	9:43	19.1	7.00-10.01	1,000
After Purging:	13:55	20.4	6.99-9.72	950

## FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance
11:28	18.8	7.43	1,000	0.5	Clear
11:32	18.7	7.46	1,000	1.5	Clear
11:37	18.8	7.43	1,000	2.5	Clear
11:56	19.3	7.29	1,000	4.0	Clear
12:00	Ran out of compressed air for pump; began hand bailing.				
12:10	19.4	6.71	1,000	5.0	Clear
12:15	19.6	6.68	1,000	6.0	Clear to very slightly turbid; petroleum odor
12:23	19.6	6.69	990	7.25	Clear to very slightly turbid; petroleum odor

Water level after purging prior to sampling (feet):	5.20	Time:	14:52
Appearance of sample:	Clear to very slightly turbid	Time:	14:58
Duplicate/blank number:	N.A.	Time:	--
Purge method:	Double diaphragm pump; disposable PVC bailer		
Sampling equipment:	Disposable PVC bailer	VOC attachment:	Used for VOAs
Sample containers:	40-ml VOAs and 0.5-liter amber glass		
Sample analyses:	TEH-d, TEH-k, TVH-g, BTEX	Laboratory:	Curtis & Tompkins, Ltd.
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	Drum MW-HW5

S9105D95.XLS (12/6/95)

# GROUNDWATER SAMPLING

Project no.:	S9105-A0	Well no.:	MW-H2	Date:	12/5/95
Project name:	Banta Collins	Depth of well from TOC (feet):	20		
Location:	6050 Hollis Street	Well diameter (inch):	2		
	Emeryville, CA	Screened interval from TOC (feet):	4.5-20		
Recorded by:	JP/TT	TOC elevation (feet):	21.48		
Weather:	Overcast	Water level from TOC (feet):	6.20	Time:	10:02
Precip in past		Product level from TOC (feet):	None	Time:	10:02
5 days (inch):	~0.1	Water level (feet msl):	15.28		
		Water level measurement device:	Dual interface probe		

## VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

$$[(20 \text{ ft}) - (6.20 \text{ ft})] \times (0.083 \text{ ft})^2 \times 3.14 \times 7.48 = \underline{2.2} \text{ gallons in one well volume}$$

Well depth    Water level    Well radius

11.1 gallons in 5 well volumes

8.0 total gallons removed

## CALIBRATION:

	Time	Temp (°C)	pH	EC (µmhos/cm)
Calibration Standard:			7.00-10.01	1,000
Before Purging:	9:43	19.1	7.00-10.01	1,000
After Purging:	13:55	20.4	6.99-9.72	950

## FIELD MEASUREMENTS:

Time	Temp (°C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance
10:39	19.4	6.79	350	1.0	Clear, sulfur smell
10:44	19.2	6.79	225	2.5	Clear
10:50	17.9	6.77	220	4.0	Clear
10:59	19.3	6.84	210	5.0	Clear
11:11	19.0	6.75	220	6.5	Clear
11:14	19.2	6.83	205	8.0	Clear

Water level after purging prior to sampling (feet):	6.30	Time:	14:20
Appearance of sample:	Clear, with rootlets	Time:	14:31
Duplicate/blank number:	N.A.	Time:	--
Purge method:	Double diaphragm pump		
Sampling equipment:	Disposable PVC bailer	VOC attachment:	Used for VOAs
Sample containers:	40-ml VOAs and 0.5-liter amber glass		
Sample analyses:	TEH-d, TEH-k, TVH-g, BTEX	Laboratory:	Curtis & Tompkins, Ltd.
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	Drum MW-HW5

S9105D95.XLS (12/6/95)

# GROUNDWATER SAMPLING

Project no.:	S9105-A0	Well no.:	MW-H3	Date:	12/5/95
Project name:	Banta Collins	Depth of well from TOC (feet):	15		
Location:	6050 Hollis Street	Well diameter (inch):	2		
	Emeryville, CA	Screened interval from TOC (feet):	3-15		
Recorded by:	JP/TT	TOC elevation (feet):	16.95		
Weather:	Overcast	Water level from TOC (feet):	5.20	Time:	10:11
Precip in past		Product level from TOC (feet):	None	Time:	10:11
5 days (inch):	~0.1	Water level (feet msl):	11.75		
		Water level measurement device:	Dual interface probe		

## VOLUME OF WATER TO BE REMOVED BEFORE SAMPLING:

$$[(15 \text{ ft}) - (5.20 \text{ ft})] \times (0.083 \text{ ft})^2 \times 3.14 \times 7.48 =$$

Well depth	Water level	Well radius		1.6 gallons in one well volume
				7.9 gallons in 5 well volumes
				7.5 total gallons removed

## CALIBRATION:

	Time	Temp (° C)	pH	EC (µmhos/cm)
Calibration Standard:			7.00-10.01	1,000
Before Purging:	9:43	19.1	7.00-10.01	1,000
After Purging:	13:55	20.4	6.99-9.72	950

## FIELD MEASUREMENTS:

Time	Temp (° C)	pH	EC (µmho/cm)	Cumulative Gallons Removed	Appearance
13:18	20.7	7.56	750	1.0	Clear
13:22	19.8	7.47	800	2.0	Clear to very slightly turbid
13:25	20.1	7.58	890	3.0	Clear to very slightly turbid
13:29	19.8	7.49	925	4.0	Clear to very slightly turbid
13:34	19.8	7.50	920	5.0	Clear
13:44	19.6	6.94	1,000	6.0	Clear
13:51	19.7	6.89	1,000	7.0	Clear

Water level after purging prior to sampling (feet):	5.59	Time:	15:14
Appearance of sample:	Clear	Time:	15:20
Duplicate/blank number:	N.A.	Time:	--
Purge method:	Disposable PVC bailer		
Sampling equipment:	Disposable PVC bailer	VOC attachment:	Used for VOAs
Sample containers:	40-ml VOAs and 0.5-liter amber glass		
Sample analyses:	TEH-d, TEH-k, TVH-g, BTEX	Laboratory:	Curtis & Tompkins, Ltd.
Decontamination method:	TSP and water, DI water rinse	Rinsate disposal:	Drum MW-HW5

S9105D95.XLS (12/6/95)



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

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

ANALYTICAL REPORT

Prepared for:

Baseline Environmental  
5900 Hollis Street  
Suite D  
Emeryville, CA 94608

Date: 13-DEC-95  
Lab Job Number: 123604  
Project ID: S9105-AO  
Location: B.Collins 6050 Hollis St.

Reviewed by: *Susan Morris*

Reviewed by: *[Signature]*

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## TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental  
 Project#: S9105-AO  
 Location: B. Collins 6050 Hollis St.

Analysis Method: CA LUFT (EPA 8015M)  
 Prep Method: EPA 5030

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123604-001	MW-H1	24669	12/05/95	12/05/95	12/05/95	
123604-002	MW-H2	24669	12/05/95	12/05/95	12/05/95	
123604-003	MW-H3	24669	12/05/95	12/05/95	12/05/95	

Analyte	Units	123604-001	123604-002	123604-003
Diln Fac:		1	1	1
Gasoline	ug/L	1200 Y	<50	80 Z
Surrogate				
Trifluorotoluene	%REC	112	106	107
Bromobenzene	%REC	93	90	92

Y: Sample exhibits fuel pattern which does not resemble standard  
 Z: Sample exhibits unknown single peak or peaks

TVH2 - GC-04 RTX-1

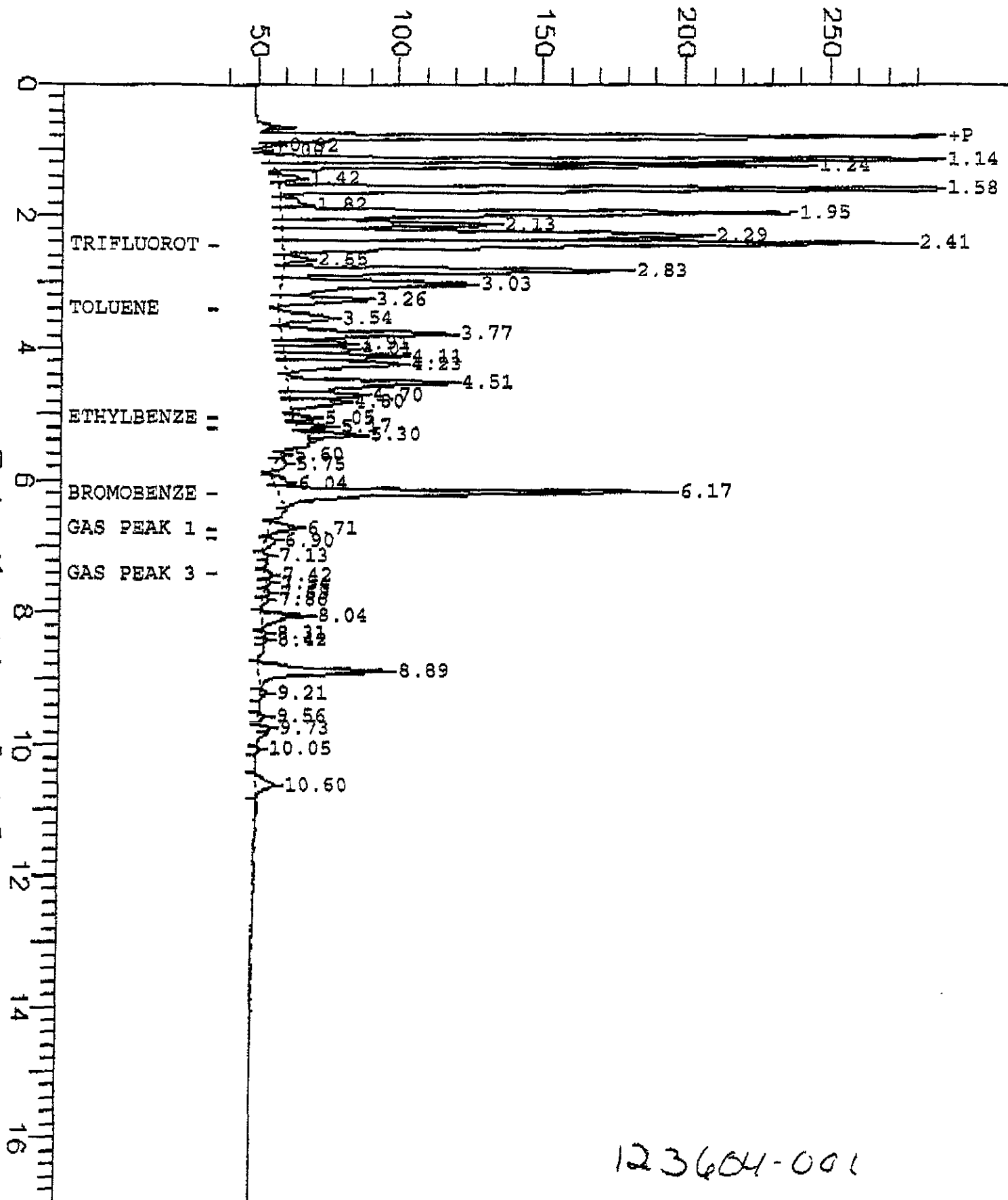
FileName : G:\GC04\339J015.raw  
Start Time : 0.00 min  
Scale Factor: -1

End Time : 17.00 min  
Plot Offset: 37 mV

Date : 12/5/95 7:55 PM  
Low Point : 36.58 mV  
Plot Scale: 250 mV

Page 1 of 1  
High Point : 286.58 mV

Response [mV]



123604-001

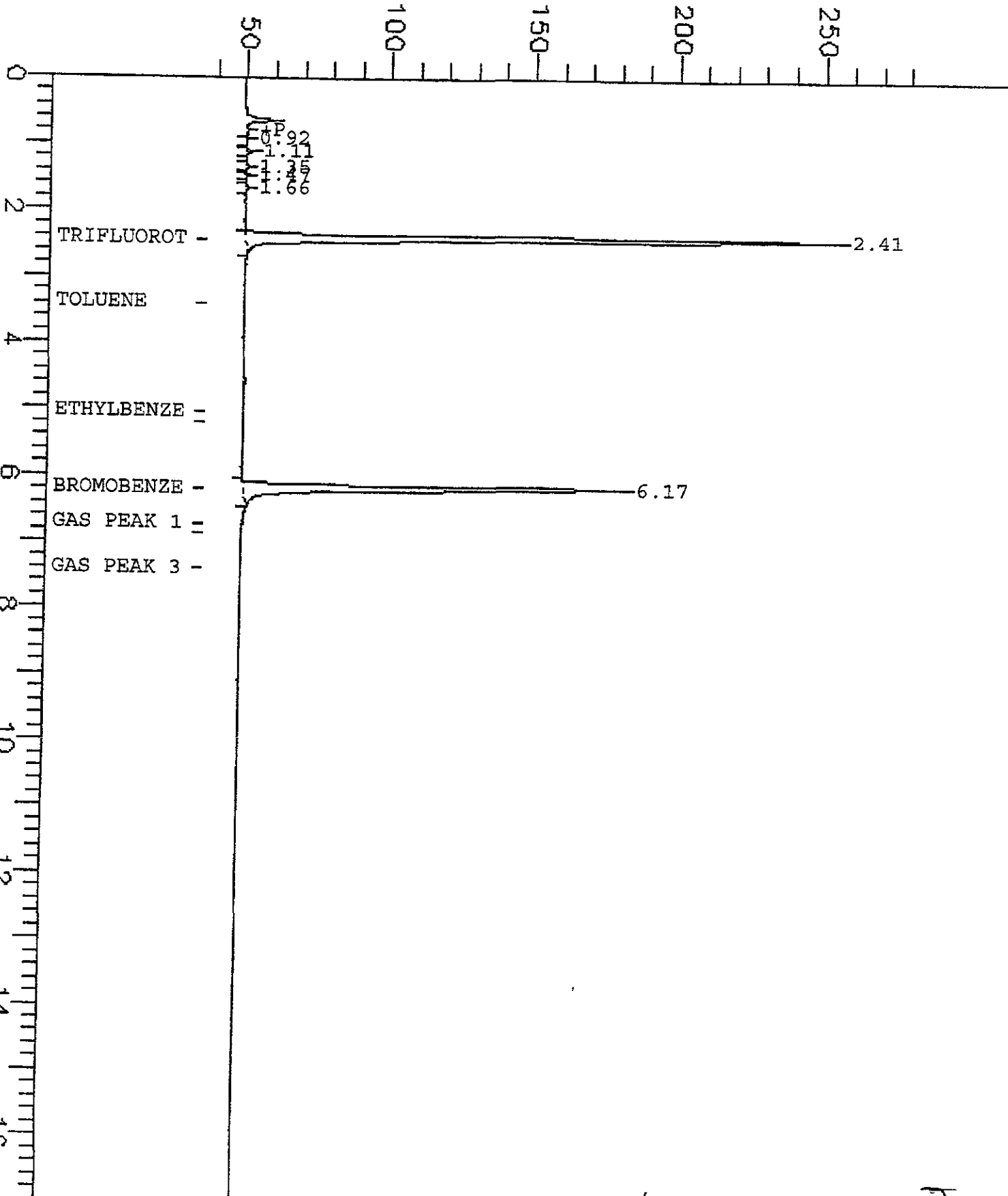
FileName : G:\GC04\339J016.raw  
Start Time : 0.00 min  
Scale Factor: -1

End Time : 17.00 min  
Plot Offset: 37 mV

Date : 12/5/95 8:23 PM  
Low Point : 36.70 mV  
Plot Scale: 250 mV

Page 1 of 1  
High Point : 286.70 mV

### Response [mV]



1236A4-002

TVH2 - GC-04 RTX-1

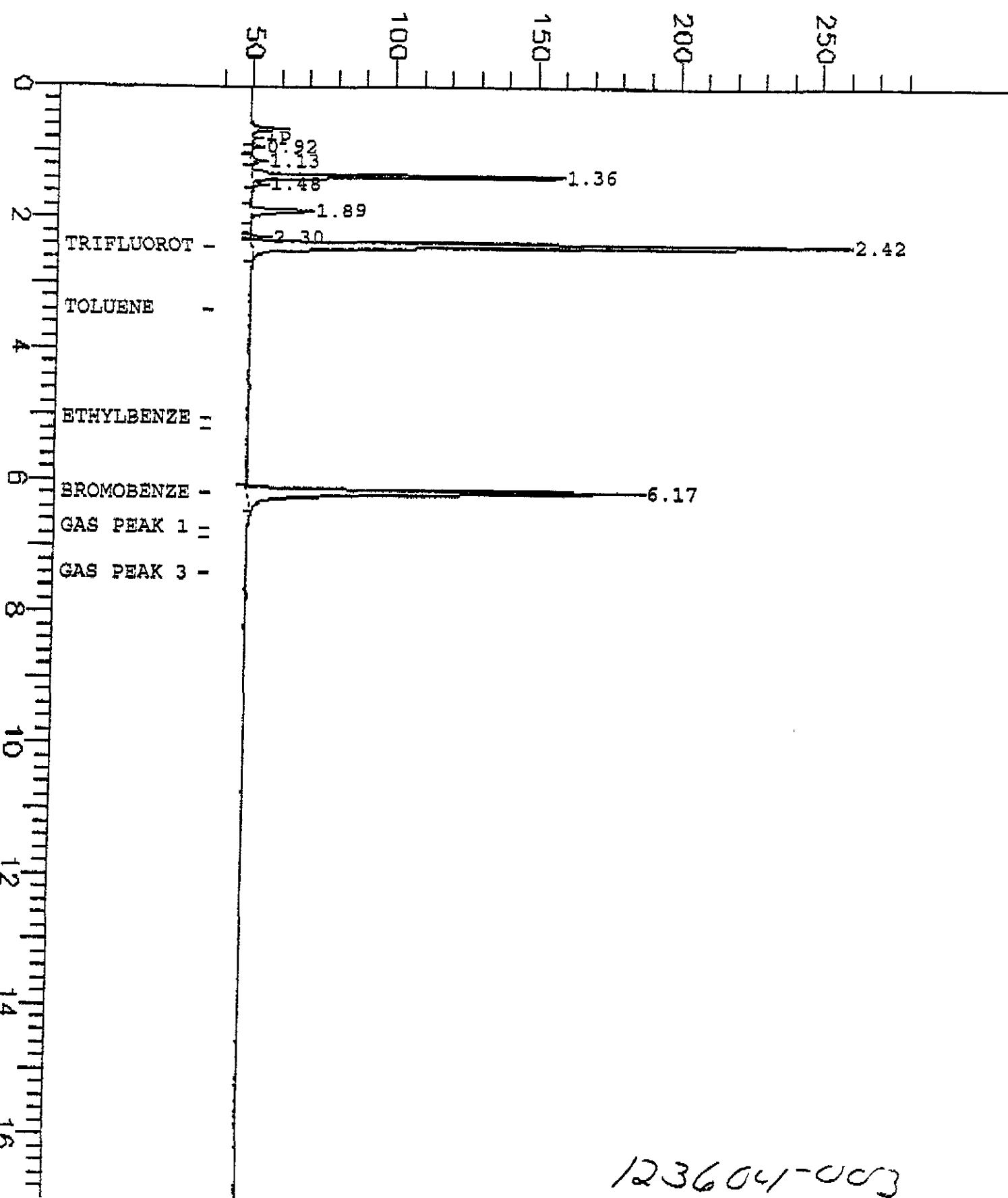
FileName : G:\GC04\339J017.raw  
Start Time : 0.00 min  
Scale Factor: -1

End Time : 17.00 min  
Plot Offset: 37 mV

Date : 12/5/95 8:51 PM  
Low Point : 36.83 mV  
Plot Scale: 250 mV

Page 1 of 1  
High Point : 286.83 mV

Response [mV]



Retention Time [min]

123604-003





**BTXE**

Client: Baseline Environmental Project#: S9105-AO Location: B.Collins 6050 Hollis St.	Analysis Method: BTXE Prep Method: EPA 5030
---	--

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123604-001	MW-H1	24669	12/05/95	12/05/95	12/05/95	
123604-002	MW-H2	24669	12/05/95	12/05/95	12/05/95	
123604-003	MW-H3	24669	12/05/95	12/05/95	12/05/95	

Analyte	Units	123604-001	123604-002	123604-003
Diln Fac:		1	1	1
Benzene	ug/L	<0.5	<0.5	<0.5
Toluene	ug/L	<0.5	<0.5	<0.5
Ethylbenzene	ug/L	<0.5	<0.5	<0.5
m,p-Xylenes	ug/L	<0.5	<0.5	<0.5
o-Xylene	ug/L	<0.5	<0.5	<0.5
<b>Surrogate</b>				
Trifluorotoluene	%REC	151 *	113	113
Bromobenzene	%REC	107	97	98

\* Values outside of QC limits



Curtis & Tompkins, Ltd.

Page 1 of 1

Lab #: 123604

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental  
 Project#: S9105-AO  
 Location: B.Collins 6050 Hollis St.

Analysis Method: CA LUFT (EPA 8015M)  
 Prep Method: EPA 5030

METHOD BLANK

Matrix: Water  
 Batch#: 24669  
 Units: ug/L  
 Diln Fac: 1

Prep Date: 12/05/95  
 Analysis Date: 12/05/95

MB Lab ID: QC10111

Analyte	Result		
Gasoline	<50		
Surrogate	%Rec		Recovery Limits
Trifluorotoluene	97		69-120
Bromobenzene	86		70-122



Lab #: 123604

BATCH QC REPORT

BTXE

Client: Baseline Environmental  
 Project#: S9105-AO  
 Location: B. Collins 6050 Hollis St.

Analysis Method: BTXE  
 Prep Method: EPA 5030

METHOD BLANK

Matrix: Water  
 Batch#: 24669  
 Units: ug/L  
 Diln Fac: 1

Prep Date: 12/05/95  
 Analysis Date: 12/05/95

MB Lab ID: QC10111

Analyte	Result	
Benzene	<0.5	
Toluene	<0.5	
Ethylbenzene	<0.5	
m,p-Xylenes	<0.5	
o-Xylene	<0.5	
Surrogate	%Rec	Recovery Limits
Trifluorotoluene	101	58-130
Bromobenzene	89	62-131



Curtis & Tompkins, Ltd.

Page 1 of 1

Lab #: 123604

BATCH QC REPORT

TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental      Analysis Method: CA LUFT (EPA 8015M)  
 Project#: S9105-AO      Prep Method: EPA 5030  
 Location: B.Collins 6050 Hollis St.

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: 222222      Sample Date: 12/01/95  
 Lab ID: 123563-003      Received Date: 12/01/95  
 Matrix: Water      Prep Date: 12/05/95  
 Batch#: 24669      Analysis Date: 12/05/95  
 Units: ug/L  
 Diln Fac: 1

MS Lab ID: QC10112

Analyte	Spike Added	Sample	MS	%Rec #	Limits
Gasoline	2006	489.2	2261	88	75-125
Surrogate	%Rec	Limits			
Trifluorotoluene	107	69-120			
Bromobenzene	102	70-122			

MSD Lab ID: QC10113

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
Gasoline	2006	2408	96	75-125	6	<20
Surrogate	%Rec	Limits				
Trifluorotoluene	109	69-120				
Bromobenzene	98	70-122				

# 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

Curtis & Tompkins, Ltd.  
Page 1 of 1

Lab #: 123604

## BATCH QC REPORT

## TVH-Total Volatile Hydrocarbons

Client: Baseline Environmental  
 Project#: S9105-AO  
 Location: E.Collins 6050 Hollis St.

Analysis Method: CA LUFT (EPA 8015M)  
 Prep Method: EPA 5030

## LABORATORY CONTROL SAMPLE

Matrix: Water  
 Batch#: 24669  
 Units: ug/L  
 Diln Fac: 1

Prep Date: 12/05/95  
 Analysis Date: 12/05/95

LCS Lab ID: QC10109

Analyte	Result	Spike Added	%Rec #	Limits
Gasoline	1862	2006	93	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	103	69-120		
Bromobenzene	88	70-122		

# 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



Curtis & Tompkins, Ltd.

Page 1 of 1

Lab #: 123604

BATCH QC REPORT

BTXE			
Client: Baseline Environmental	Analysis Method: BTXE		
Project#: S9105-AO	Prep Method: EPA 5030		
Location: B. Collins 6050 Hollis St.			
LABORATORY CONTROL SAMPLE			
Matrix: Water	Prep Date:	12/05/95	
Batch#: 24669	Analysis Date:	12/05/95	
Units: ug/L			
Diln Fac: 1			

LCS Lab ID: QC10110

Analyte	Result	spike Added	%Rec #	Limits
Benzene	19.3	20	97	80-120
Toluene	19.4	20	97	80-120
Ethylbenzene	19.2	20	96	80-120
m,p-Xylenes	38.5	40	96	80-120
o-Xylene	20.3	20	102	80-120
Surrogate	%Rec	Limits		
Trifluorotoluene	97	58-130		
Bromobenzene	77	62-131		

# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



TEH-Tot Ext Hydrocarbons

Client: Baseline Environmental	Analysis Method: CA LUFT (EPA 8015M)
Project#: S9105-AO	Prep Method: LUFT
Location: B.Collins 6050 Hollis St.	

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123604-001	MW-H1	24741	12/05/95	12/08/95	12/10/95	
123604-002	MW-H2	24741	12/05/95	12/08/95	12/10/95	
123604-003	MW-H3	24741	12/05/95	12/08/95	12/10/95	

Analyte	Units	123604-001	123604-002	123604-003
Diln Fac:		1	1	1
Diesel Range	ug/L	230 YL	<50	<50
Kerosene Range	ug/L	190 Y	<50	<50
Surrogate				
Hexacosane	%REC	116	117	127

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



Curtis & Tompkins, Ltd.

Lab #: 123604

BATCH QC REPORT

Page 1 of 1

**TSH-Tot Ext Hydrocarbons**

Client: Baseline Environmental	Analysis Method: CA LUFT (EPA 8015M)
Project#: S9105-AO	Prep Method: 3510
Location: B.Collins 6050 Hollis St.	

**METHOD BLANK**

Matrix: Water	Prep Date: 12/08/95
Batch#: 24741	Analysis Date: 12/09/95
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC10416

Analyte	Result	
Diesel Range	<50	
Kerosene Range	<50	
Surrogate	%Rec	Recovery Limits
Hexacosane	126	60-140





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Lab #: 123604

## BATCH QC REPORT

## TEH-Tot. Ext. Hydrocarbons

Client: Baseline Environmental  
 Project#: S9105-AO  
 Location: B. Collins 6050 Hollis St.

Analysis Method: CA LUFT (EPA 8015M)  
 Prep Method: 3510

## BLANK SPIKE/BLANK SPIKE DUPLICATE

Matrix: Water  
 Batch#: 24741  
 Units: ug/L  
 Diln Fac: 1

Prep Date: 12/08/95  
 Analysis Date: 12/09/95

BS Lab ID: QC10417

Analyte	Spike Added	BS	%Rec #	Limits
Diesel Range	2565	2406	94	60-140
Surrogate	%Rec	Limits		
Hexacosane	119	60-140		

BSD Lab ID: QC10418

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel Range	2565	2729	106	60-140	13	<35
Surrogate	%Rec	Limits				
Hexacosane	120	60-140				

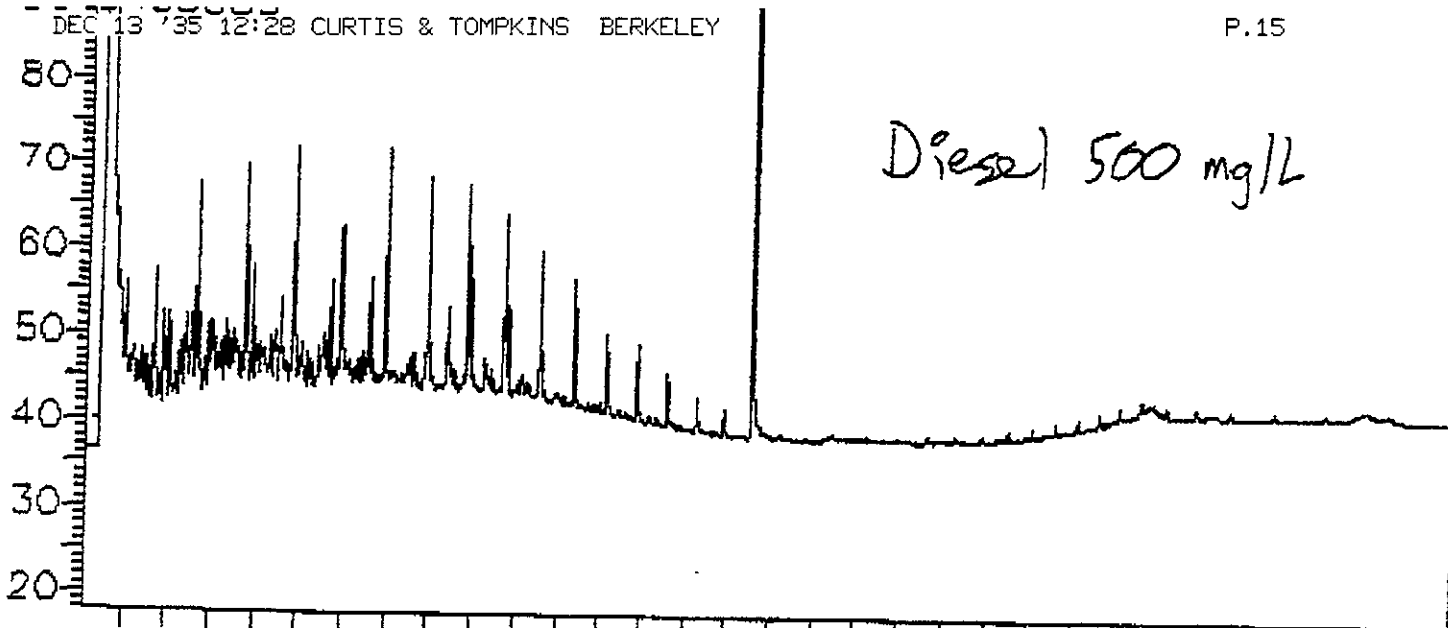
# Column to be used to flag recovery and RPD values with an asterisk

\* Values outside of QC limits

RPD: 0 out of 1 outside limits

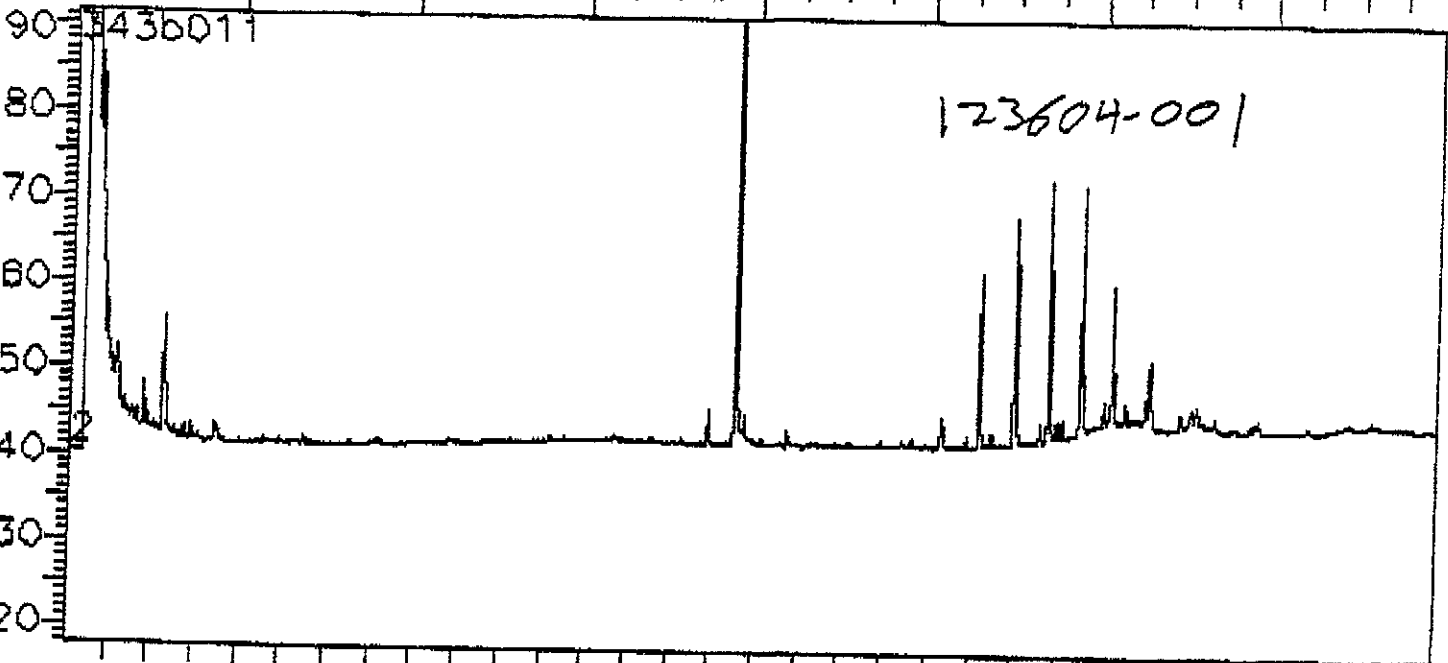
Spike Recovery: 0 out of 2 outside limits

Diesel 500 mg/L



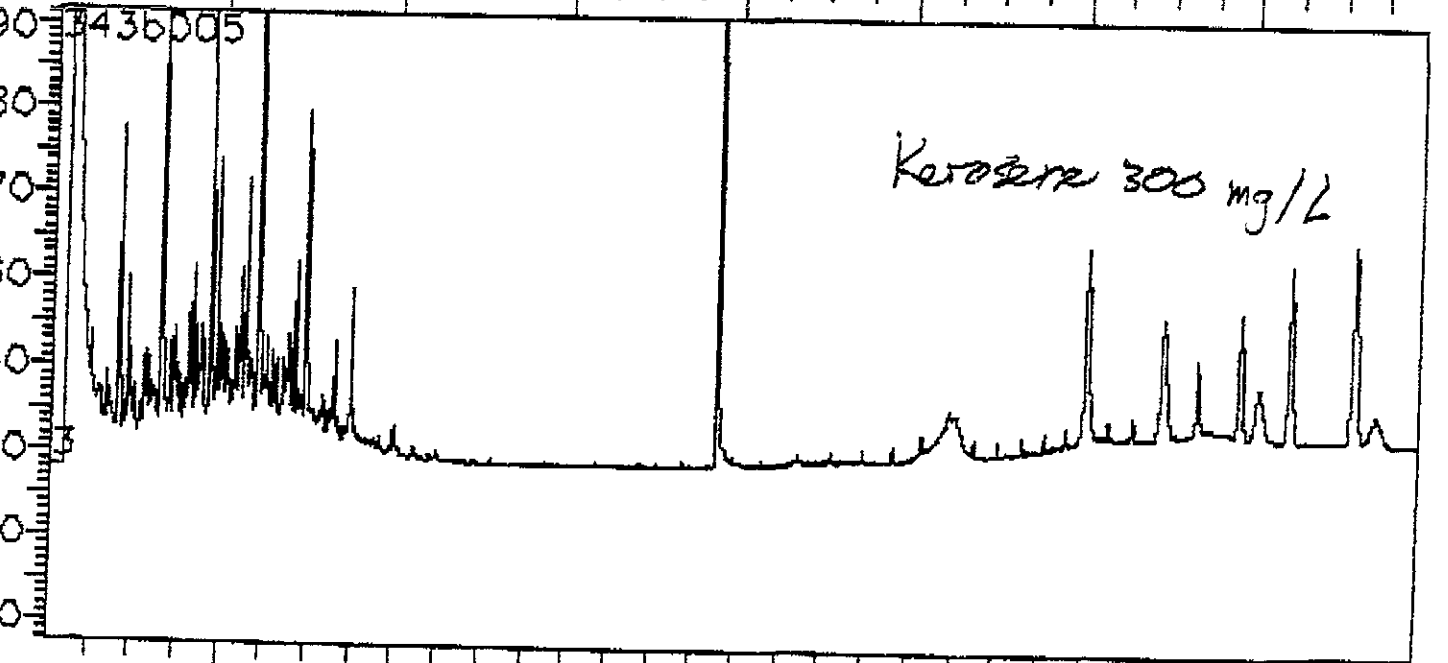
435011

123604-001



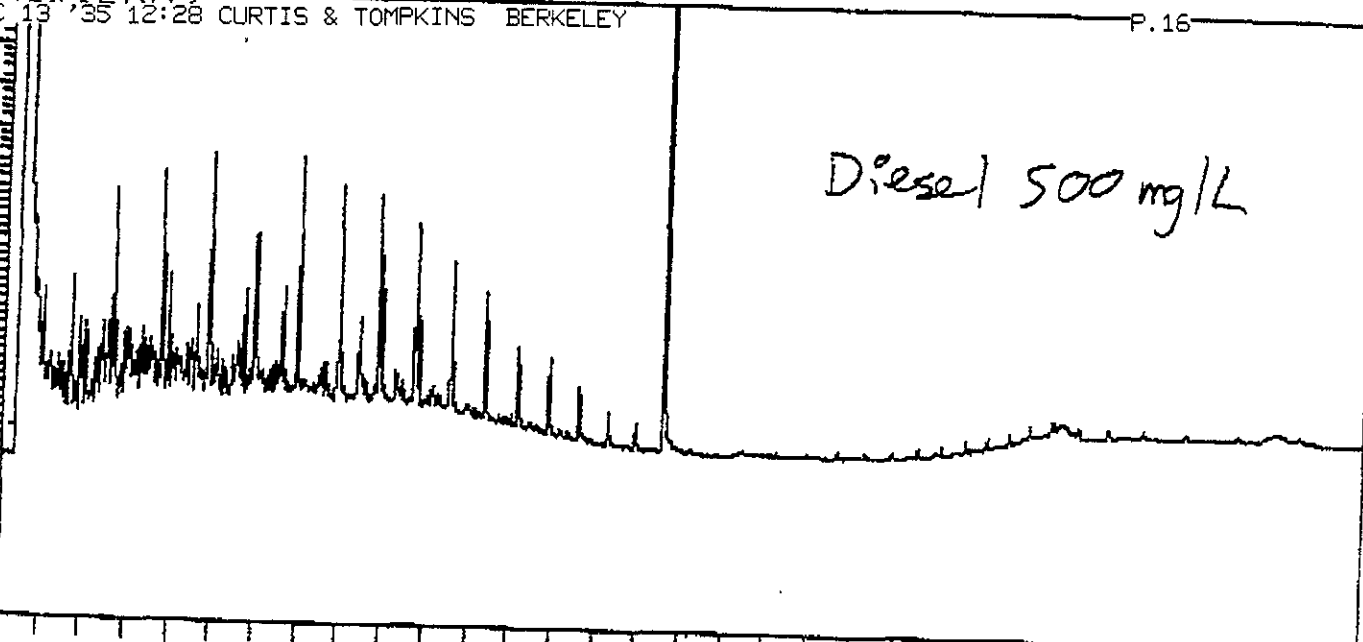
435005

Kerosene 300 mg/L



80  
70  
60  
50  
40  
30  
20

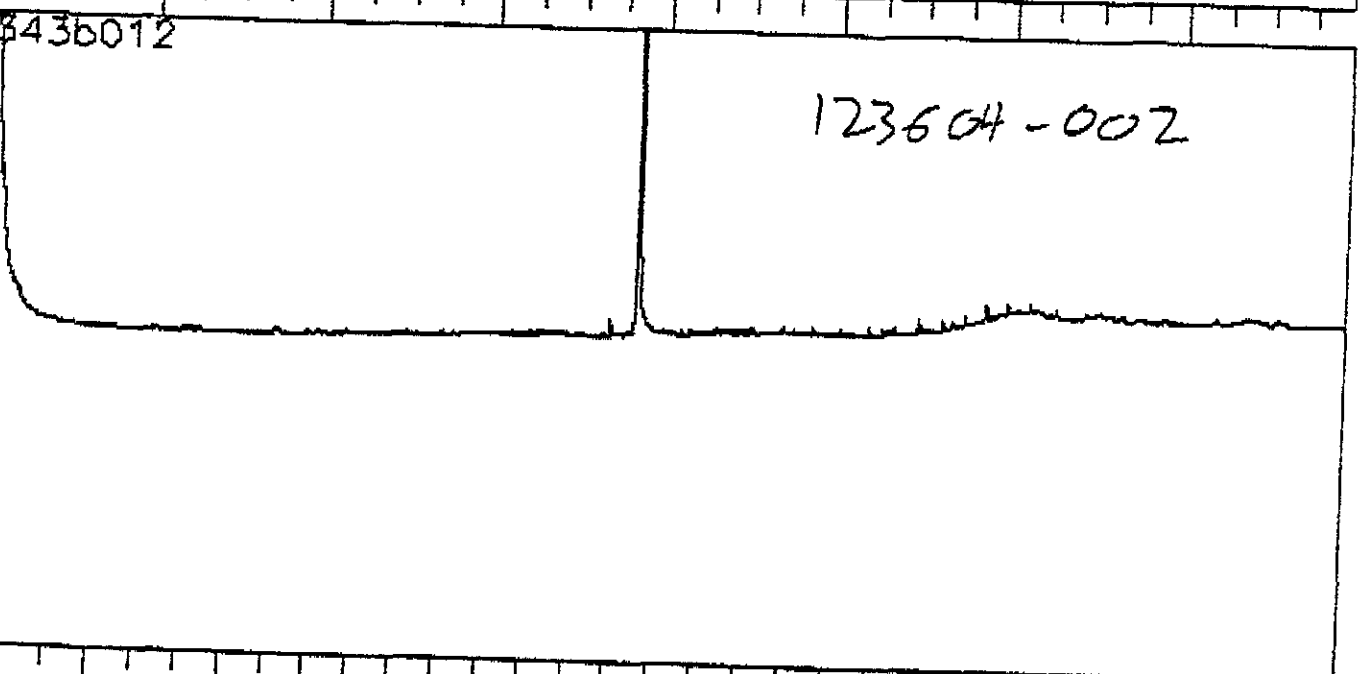
Diesel 500 mg/L



70  
60  
50  
40  
30  
20  
10

8436012

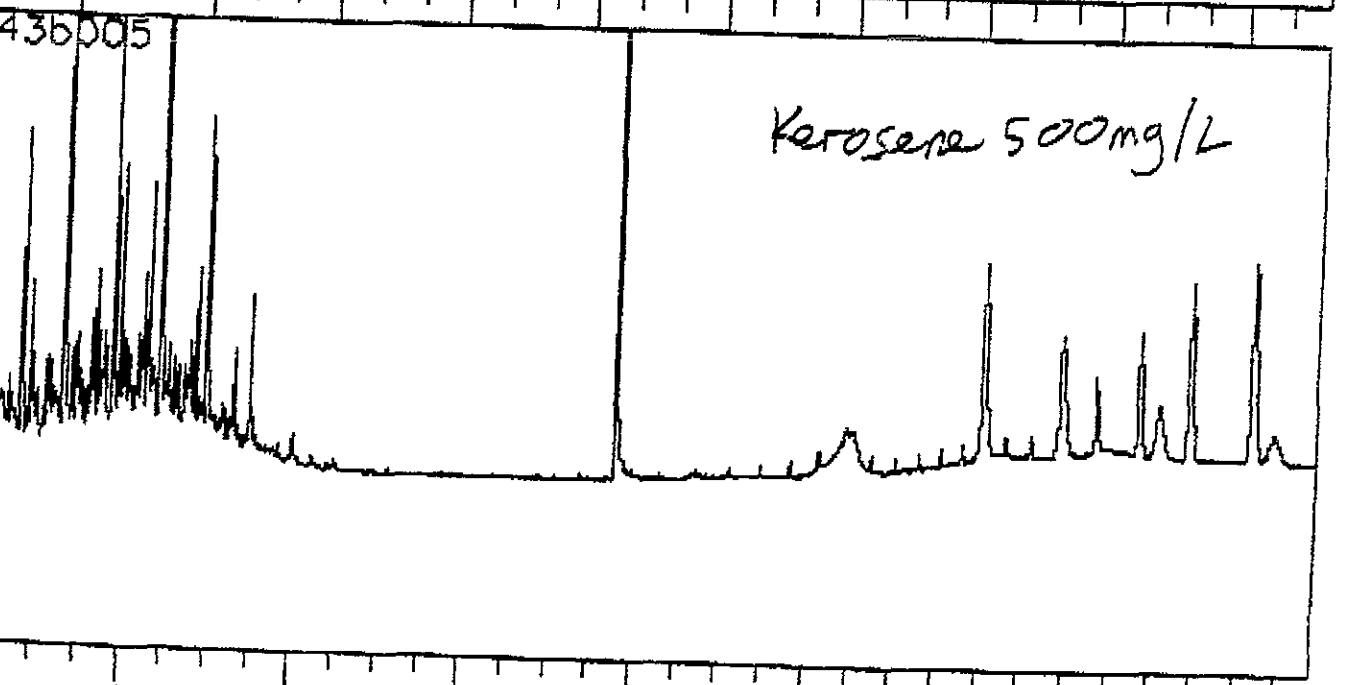
123604-002



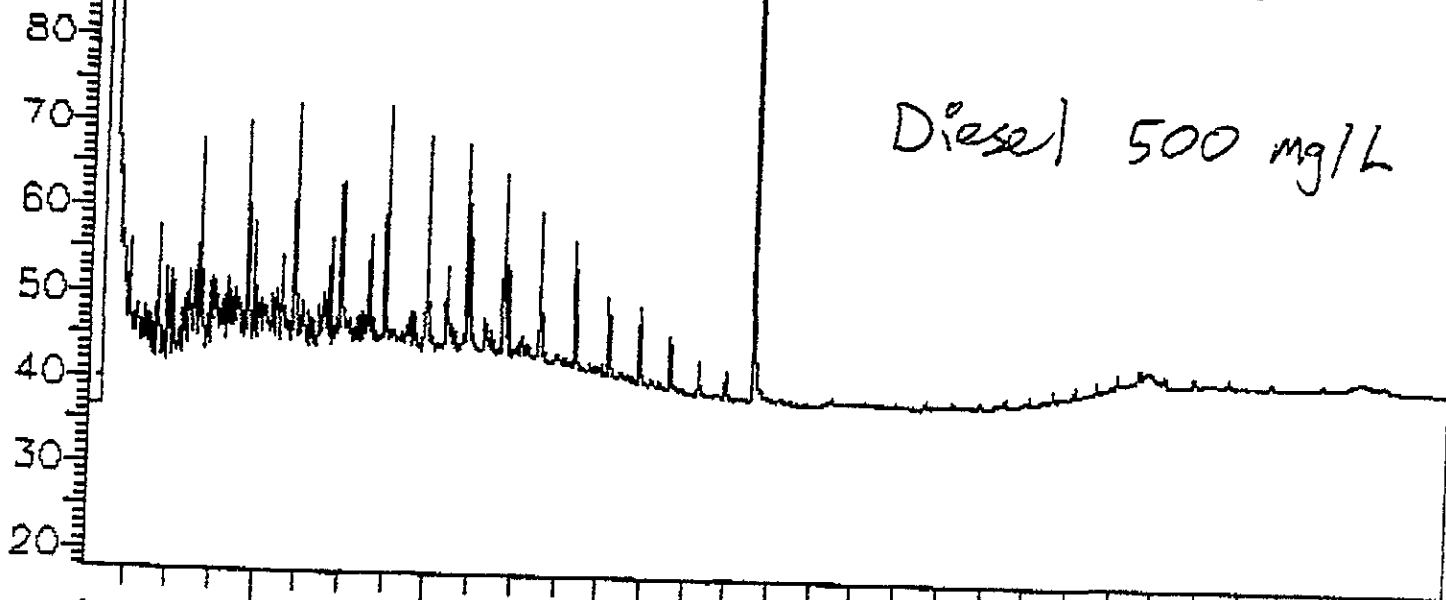
90  
80  
70  
60  
50  
40  
30  
20

8436005

Kerosene 500 mg/L

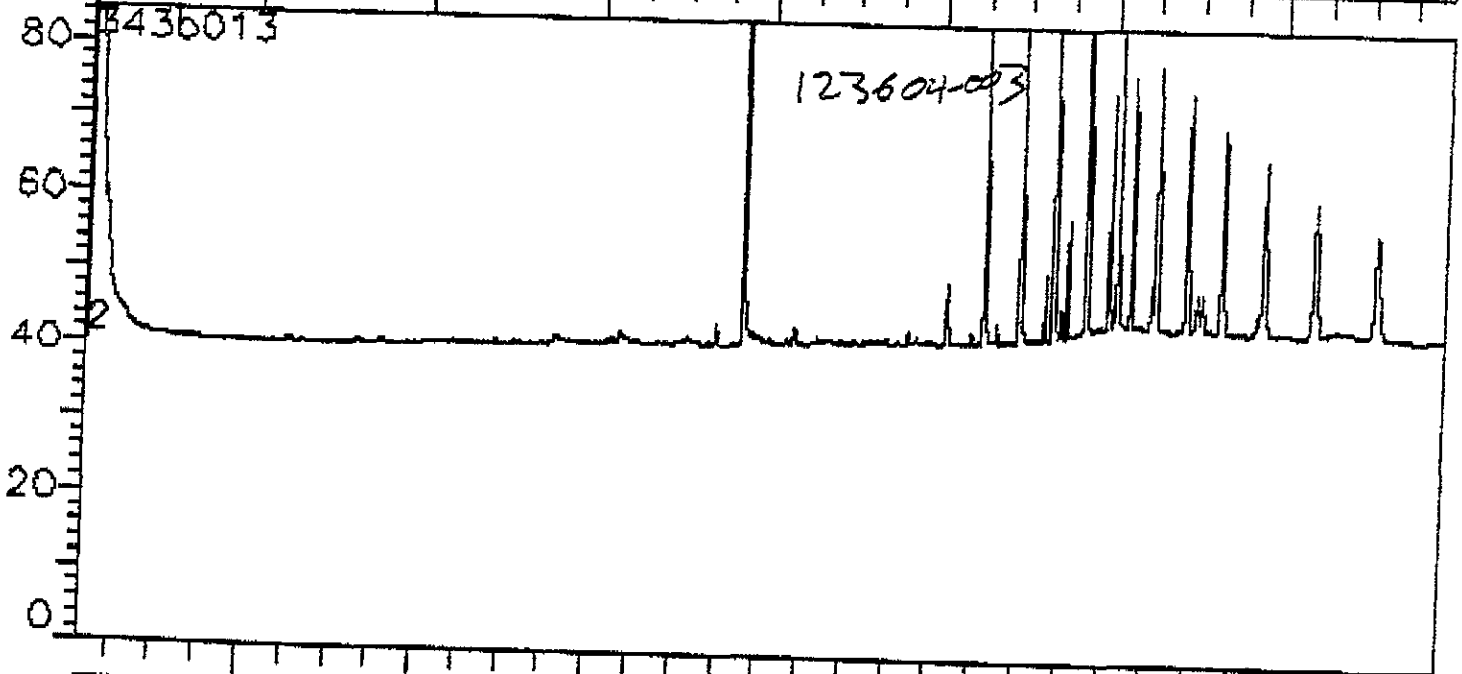


Diesel 500 mg/L



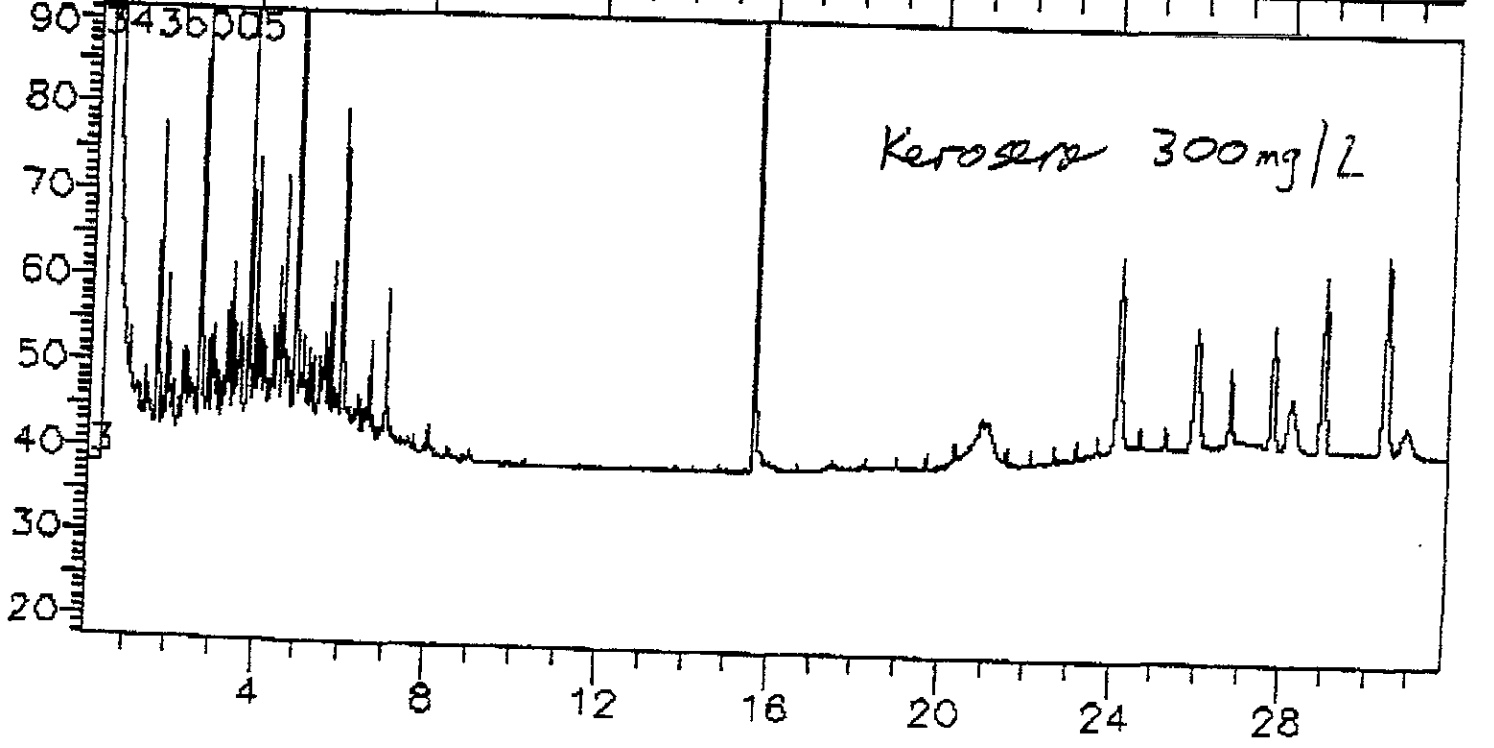
1236013

123604-03



1236005

Kerosene 300 mg/L



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

123604 CHAIN OF CUSTODY RECORD

Turn-around Time  
Lab  
BASELINE Contact Person

5 Day TMT  
Curtis + Tompkins  
Julie Pettijohn

Project No.		Project Name and Location					Analysis										Remarks/ Composite	Dete- ction Limits							
S9105-AD		5900 Hollis St 6050 Hollis Way Emeryville, CA gr 12/120					TEH	dis	15	12	15	12	15	12	15	12			15	12	15	12	15	12	15
Sample ID No. Station	Date	Time	Media	Depth	No. of Contain- ers	TPH with BTX&E	Oil & Grease	Motor Oil	PVAs	Title 22 Metals	Total Lead														
MW-H1	12/5/95	14:58	water	-	5	X	X																		
MW-H2	12/5/95	14:31	water	-	5	X	X																		
MW-H3	12/5/95	15:20	water	-	5	X	X																		

Relinquished by: (Signature) <i>Julie C. Pettijohn</i>	Date / Time 12-5-95 17:10	Received by: (Signature) <i>D. Moore</i>	Date / Time 12-5-95 5:10 pm	Conditions of Samples Upon Arrival at Laboratory:
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	Remarks:
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Date / Time	