



ENVIRONMENTAL ENGINEERING, INC
2680 Bishop Drive • Suite 203 • San Ramon, CA 94583
TEL (925) 244-6600 • FAX (925) 244-6601

RD 265

December 5, 2003

Alameda County
DEC 09 2003
Environmental Health

Ms. Trish Maguire
East Bay Municipal Utility District
EDMUD - Mail Slot #702
P. O. Box 24055
Oakland, CA 94623-1055

Re: 3609 International Boulevard, Oakland, California 94601
Wastewater Discharge Permit No. 504-27421

Dear Ms. Maguire:

As you requested, enclosed is SOMA's "Semi-Annual Technical Report: Treatment System Discharge to EBMUD Sewer from May 2003 to November 2003" for the subject site.

Thank you for your time in reviewing our report. If you have any questions or comments, please call me at (925) 244-6600.

Sincerely,

Mansour Sepehr, Ph.D., PE
Principal Hydrogeologist

Enclosure

cc: Mr. Abolghassem Razi w/enclosure
Mr. Amir Gholami w/enclosure ✓
Alameda County Dept. of Env. Health

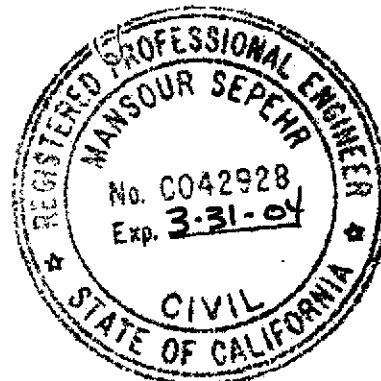


TABLE OF CONTENTS

TABLE OF CONTENTS..... I

CERTIFICATION.....II

LIST OF FIGURES.....III

LIST OF APPENDICESIII

1.0 INTRODUCTION..... 1

1.1 Background..... 1

1.2 Site Conditions 3

2.0 TREATMENT SYSTEM OPERATION 4


3.0 CONCLUSIONS AND RECOMMENDATIONS..... 6

4.0 REPORT LIMITATIONS 8

5.0 REFERENCES..... 9

CERTIFICATION

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Abolghassem Razi, the property owner of 3609 International Boulevard, Oakland, California to comply with the East Bay Municipal Utility District's requirements for the discharge of extracted and treated groundwater resulting from the cleanup of groundwater polluted by fuel leaks and other related wastes.



Mansour Sepehr, Ph.D., P.E.

Principal Hydrogeologist



Certification Statement

Chief Executive Officer

Abolghassem Razi
Name

Owner
Title

3609 International Boulevard
Street Address

Oakland
City

94601
Zip

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that the qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Signature

12/2/03
Date

List of Tables

Table 1: Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results

List of Figures

Figure 1: Site vicinity map.

Figure 2: Site map showing location of groundwater monitoring wells and french drain.

Figure 3: Schematic of the Groundwater Remediation System.

Figure 4: Cumulative mass of TPH-g and MtBE removed from groundwater since installation of the treatment system.

List of Appendices

Appendix A: EBMUD Discharge Permit

Appendix B: Laboratory Results and Chain of Custody Forms for the treatment system

1.0 INTRODUCTION

The purpose of this report is to present a record of the wastewater discharged from the remediation system, operated by SOMA Environmental Engineering, Inc. (SOMA), into the East Bay Municipal Utility District's (EBMUD's) sewer system from May 2003 to November 2003. This report is being submitted on behalf of Mr. Abolghassem Razi, the property owner. The project site is Tony's Express Auto Service, which is located at 3609 International Boulevard, Oakland, California (the "Site", see Figure 1).

The Site is located at the intersection of 36th Avenue and International Boulevard (formerly known as East 14th Street) in Oakland, California (see Figure 1). It is currently used as a gasoline service station and mechanic shop. The Site is relatively flat, and the surrounding properties are primarily commercial businesses and residential housing.

Figure 2 illustrates the location of the service station, dispenser islands, underground storage tanks (USTs), groundwater remediation system, on and off-site groundwater monitoring wells, and surrounding areas. Currently, the groundwater monitoring wells are being monitored on a quarterly basis.

1.1 Background

Currently, the Site is used as a gasoline service station. The environmental investigation at the subject property began in 1992 when Mr. Razi retained Soil Tech Engineering, Inc. (STE), of San Jose, to conduct a limited subsurface investigation. The purpose of STE's investigation was to determine whether or not the soil near the product lines and USTs had been impacted with petroleum hydrocarbons.

In July 1993, STE removed one single-walled 10,000-gallon gasoline tank and one single-walled 6,000-gallon gasoline tank along with a 550-gallon waste oil tank from the Site. Three double-walled USTs replaced these tanks. As stated earlier, currently, there is one 10,000 gallon double-walled gasoline tank and two 6,000-gallon double-walled gasoline tanks beneath the Site (Figure 2).

In December 1997, Mr. Razi retained Western Geo-Engineers (WEGE) to conduct an additional investigation and perform groundwater monitoring on a quarterly basis. The results of WEGE's groundwater monitoring events indicated that there were elevated levels of petroleum hydrocarbons and Methyl tertiary Butyl Ether (MtBE) in the groundwater.

In April 1999, Mr. Razi retained SOMA to conduct groundwater monitoring, risk based corrective action (RBCA), a corrective action plan (CAP) and soil and groundwater remediation at the Site. The results of the RBCA study indicated that the Site is a high-risk area, therefore, the soil and groundwater in the on-and off-site areas needs to be remediated. The results of the CAP study indicated that the installation of a French drain coupled with the vapor extraction technique was the most cost effective alternative for the Site's remediation.

In late August 1999, SOMA installed a French drain and initiated a groundwater treatment system to prevent the chemically impacted groundwater from migrating further. This treatment system has been in operation since early December 1999.

On July 25, 2003, an additional on-site extraction pump was installed by SOMA, in the western French drain riser. The extraction pump was installed to create a better capture zone in the region around the USTs and to prevent the off-site migration of contaminants.

On October 22, 2003, SOMA met with EBMUD representative, Timothy Quane, to determine the efficiency of the remediation system and to collect groundwater samples from the system. Based on the analytical results from the groundwater samples, EBMUD determined the system was in compliance with the discharge permit requirements.

1.2 Site Conditions

The source of the petroleum hydrocarbons in the groundwater is believed to have originated from the former single-walled USTs, which were used to store gasoline at the Site. The former single-walled USTs were replaced with a 10,000-gallon double-walled UST and two 6,000-gallon double-walled USTs.

Monitoring wells MW-1 and MW-3 are located in the vicinity of the USTs. The results of the recent (Fourth Quarter 2003) groundwater monitoring event, conducted on October 22, 2003 are as follows:

- The highest total petroleum hydrocarbons as gasoline (TPH-g) concentration in the groundwater was detected in the vicinity of monitoring well MW-1 at 630,000 $\mu\text{g/L}$. However, the sample collected from this well may have been misrepresentative due to heavier hydrocarbons contributing to this quantification. The previous TPH-g concentration in well MW-1 was 36,000 $\mu\text{g/L}$.
- The highest benzene concentration was detected in MW-3 at 4,400 $\mu\text{g/L}$. The next highest benzene concentration was detected in well MW-1 at 3,300 $\mu\text{g/L}$.
- The highest MtBE concentration, when using EPA Method 8260B, was detected in MW-1 at 15,000 $\mu\text{g/L}$. The next highest MtBE concentration was detected in well MW-3 at 7,400 $\mu\text{g/L}$.

Based on the results from the previous monitoring event (Third Quarter 2003) the following concentration trends were observed.

- In well MW-1, TPH-g has shown a decreasing trend since the First Quarter 2003, with the exception of the Fourth Quarter 2003 monitoring event. Benzene and MtBE decreased since the Second Quarter 2003.
- In well MW-3, TPH-g, benzene, and MtBE have all decreased since the Second Quarter 2003.

Further detailed information on the groundwater concentrations encountered throughout the Site is presented in SOMA's "Fourth Quarter 2003 Groundwater Monitoring and Remediation System Operation Report", dated November 11, 2003.

2.0 TREATMENT SYSTEM OPERATION

The operation of the treatment system began on December 6, 1999. Since then, (recording date is November 3, 2003), approximately 2,079,460 gallons of groundwater has been treated and discharged into EBMUD's sewer system, under the wastewater discharge permit.

Appendix A includes the EBMUD Wastewater Discharge Permit; permit number 50427421.

As required by the discharge permit and the Alameda County Environmental Health Services (ACEHS), inspection and sampling of the treatment system has been performed on a routine basis since the system's initial start-up. The samples have been collected from the 550 gallon holding tank (influent), the effluent from the 2,000 pound Granular Activated Carbon (GAC-1) Unit, and the

treatment system effluent (PSP#1). The sample locations can be seen in the schematic diagram of the treatment system, which is shown in Figure 3.

SOMA modified the treatment system during the Fourth Quarter 2002 to prevent PVC piping connection leaks. Scale deposits had built up inside the PVC piping during the operation of the treatment system. The entire effluent line from GAC-1 to the effluent sample port was removed and a new line was installed. A 1-inch ball valve was installed up-gradient of the 55-gallon GAC vessel. This valve was installed to shut-off flow to the 55-gallon carbon vessel during carbon change-outs.

Table 1 shows the total volume of effluent discharged into EBMUD's sewer system. Also included in Table 1 are the laboratory analytical results of the treatment system samples collected from the effluent and the 2,000-pound GAC-1 unit, as well as, pertinent historical maintenance data.

As shown in Table 1, all treatment system effluent samples have maintained in compliance with the discharge permit requirements. In October 2002, during the laboratory testing, 2-Butanone was detected at a high concentration of 200,000 $\mu\text{g/L}$ in only the effluent sample. The influent sample concentration for 2-Butanone was only 20 $\mu\text{g/L}$. This caused a high dilution factor to be used to compensate for the variation in 2-Butanone. Since December 1999, 2-Butanone has not been detected in any of the effluent samples. In the October 2002 sampling event the influent concentration was very low. Therefore, the sample results shown for October 2002 are erroneous and are shown only to depict that sampling was conducted. Also, based on the laboratory data the sample analysis for TPH-g did not resemble a standard fuel pattern. However, the system was turned off upon detection of the TPH-g concentration and a carbon change-out was performed. During this carbon change-out both the carbon in the 2,000-

pound carbon vessel and the carbon in the 55-gallon vessel (GAC-2) were removed and replaced.

Appendix B includes the laboratory reports for the treatment system from May 2003 to November 2003.

The treatment system has removed approximately 137 pounds of hydrocarbons and 76 pounds of MtBE, since the initial start-up in December 1999. Since the previous semi-annual report, approximately 161,190 gallons of chemically impacted groundwater have been treated by the groundwater remediation system (from May 2003 to November 2003).

Figure 4 displays the cumulative mass of both TPH-g and MtBE extracted from the groundwater at the Site since December 1999.

3.0 CONCLUSIONS AND RECOMMENDATIONS

Based on historical treatment system analytical data and the number of carbon change-out cycles since the initial start-up in December 1999, SOMA recommends that the 55-gallon carbon vessel be replaced every 18 weeks at a minimum. SOMA further recommends that the treatment system monitoring be performed at a minimum of every 3-4 weeks and that the maintenance continues on a weekly basis.

- As of November 3, 2003, approximately 2,079,460 gallons of chemically impacted groundwater has been treated since the treatment system's initial start-up in December 1999.

- The treatment system has removed approximately 137 pounds of hydrocarbons and 76 pounds of MtBE from the Site since the initial start-up in December 1999.
- SOMA has installed an additional on-site extraction pump. The pump was installed in the western French drain riser. The installation of this pump has created a better capture zone in the vicinity of the USTs.
- Monitoring wells MW-1 and MW-3, are in the vicinity of the UST cavity. The following concentration trends were observed, based on the analytical results from the previous monitoring event (Third Quarter 2003):
 1. TPH-g in well MW-1 has shown a decreasing trend since the First Quarter 2003 with the exception of the Fourth Quarter 2003 monitoring event. However, the presence of heavier hydrocarbons may have impacted the final analytical result.
 2. Benzene and MtBE decreased in well MW-1.
 3. TPH-g, benzene, and MtBE have all decreased in well MW-3.
- Future remediation system modifications will include replacing the present pneumatic system with an electric system. This will include removing the air compressor from the present system and installing electric downhole pumps in the French drain. The change to the electrical driven system should reduce the noise level of the treatment system.

4.0 REPORT LIMITATIONS

This report is the summary of work done by SOMA including observations and descriptions of the Site's conditions. It includes the analytical results produced by Curtis & Tompkins, Ltd., as well as the data summaries produced by the previous environmental consultants. The number and location of the wells were selected to provide the required information, but may not be completely representative of the entire Site's conditions. All conclusions and recommendations are based on the results of laboratory analysis. Conclusions beyond those specifically stated in this document should not be inferred from this report.

SOMA warrants that the services provided were done in accordance with the generally accepted practices in the environmental engineering and consulting field at the time of this sampling.

5.0 REFERENCES

Soil Tech Engineering, Quarterly Groundwater Monitoring Reports, from 1995 to July 1997.

Western Geo-Engineers, Quarterly Groundwater Monitoring and Sampling Reports from Fourth Quarter 1997 to First Quarter of 1999.

SOMA Environmental Engineering, Inc., June 30, 1999. "Second Quarter 1999 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., September 14, 1999. "Third Quarter 1999 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., November 30, 1999. "Fourth Quarter 1999 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., March 10, 2000. "First Quarter 2000 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., July 26, 2000. "Second Quarter 2000 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., August 24, 2000. "Installation of Soil Vapor Extraction and Air Sparging System and Initial Results Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., August 29, 2000. "Third Quarter 2000 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., December 4, 2000. "Fourth Quarter 2000 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., April 23, 2001. "First Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., July 17, 2001. "Second Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., September 20, 2001. "Third Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., January 8, 2002. "Fourth Quarter 2001 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., April 8, 2002. "First Quarter 2002 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., June 18, 2002. "Second Quarter 2002 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., September 11, 2002. "Third Quarter 2002 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., December 16, 2002. "Fourth Quarter 2002 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., February 12, 2003. "First Quarter 2003 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., May 20, 2003. "Second Quarter 2003 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., August 5, 2003. "Third Quarter 2003 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

SOMA Environmental Engineering, Inc., November 11, 2003. "Fourth Quarter 2003 Groundwater Monitoring Report Tony's Express Auto Service Oakland, California".

TABLE

Table 1
Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results
3609 International Boulevard, Oakland, California

Month	Date	Meter	Lab Results For Effluent ¹ and GAC-1					Total Xylenes
		Reading (gallons)	(concentrations in ug/L)					
			MtBE ²	TPH-g	Benzene	Toluene	Ethylbenzene	
2003								
November	11/3/2003	2,079,460	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
October	10/13/2003	2,073,060	5.3	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	10/1/2003	2,072,610	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					
September	9/15/2003	2,056,910	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			6	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	9/2/2003	2,040,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
August	8/19/2003	2,021,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
July	7/21/2003	1,995,240	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			40	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	7/9/2003	1,990,260	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			36	< 50	< 5.0	< 5.0	< 5.0	< 5.0
June	6/18/2003	1,978,560	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					
	6/10/2003	1,972,780	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
May	5/21/2003	1,951,830	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	5/1/2003	1,918,270	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
April	4/11/2003	1,882,440	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0

Table 1

Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results
3609 International Boulevard, Oakland, California

Month	Date	Meter	Lab Results For Effluent ¹ and GAC-1					Total Xylenes
		Reading (gallons)	(concentrations in ug/L)					
			MtBE ²	TPH-g	Benzene	Toluene	Ethylbenzene	
March	3/19/2003	1,846,490	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
February	2/25/2003	1,804,960	replaced 55-gallon polishing vessel with new 55 gallon carbon drum					
	2/19/2003	1,791,720	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
January	1/27/2003	1,733,500	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	1/2/2003	1,675,600	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
2002								
December	12/10/2002	1,672,870	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
November	11/22/2002	1,668,650	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	11/13/2002	1,664,780	replaced gasket on top of 2000 lb GAC vessel, slight leak was detected					
	11/7/2002	1,663,880	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel					
October	10/16/02 ³	1,661,590	< 310	2,000 Y Z	< 310	< 310	< 310	< 310
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
September	9/19/2002	1,653,600	< 5	< 50	< 5	< 5	< 5	< 5
			< 5	< 50	< 5	< 5	< 5	< 5
August	8/23/2002	1,641,650	1	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
July	7/23/2002	1,632,834	<5.0	< 50	<5.0	<5.0	<5.0	<5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0

Table 1

Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results
3609 International Boulevard, Oakland, California

Month	Date	Meter	Lab Results For Effluent ¹ and GAC-1					
		Reading (gallons)	(concentrations in ug/L)					
			MtBE ²	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
June	6/24/2002	1,610,050	1.7	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
May	5/30/2002	1,571,630	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
	5/20/2002	1,548,000	removed newly installed compressor, installed another compressor					
	5/8/2002	1,538,850	installed new compressor					
	5/1/2002	1,529,650	installed new 55 gallon GAC Vessel					
April	4/24/2002	1,528,740	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
	4/1/2002	1,478,500	repaired valve plate assembly on compressor					
March	3/25/2002	1,478,420	performed carbon change-out on treatment system					
	3/18/2002	NR	replaced piston on compressor					
	3/14/2002	1,478,330	compressor not building up pressure					
February	2/27/2002	1,449,830	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			1.1	< 50	< 0.5	< 0.5	< 0.5	< 0.5
January	1/22/2002	1,381,370	< 2.0	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			< 2.0	< 50	< 0.5	< 0.5	< 0.5	< 0.5
December	12/12/2001	1,311,340	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
November	11/2/2001	1,272,660	ND	ND	ND	ND	ND	ND
			0.6	ND	ND	ND	ND	ND
September	9/28/2001	NA	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
August	8/22/2001	1,243,100	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
July	7/26/2001	1,227,270	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	7/11/2001	1,226,730	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	

Table 1

Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results
3609 International Boulevard, Oakland, California

Month	Date	Meter	Lab Results For Effluent ¹ and GAC-1					Total Xylenes
		Reading (gallons)	(concentrations in ug/L)					
			MtBE ²	TPH-g	Benzene	Toluene	Ethylbenzene	
June	6/29/2001	1,224,600	NA	NA	NA	NA	NA	NA
			ND	ND	ND	ND	ND	ND
	6/26/2001	NR	installed new compressor					
	6/16/2001	1,216,580	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
			compressor not working, repaired compressor					
	6/7/2001	1,216,580	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
May	5/30/2001	1,205,198	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	5/23/2001	1,194,390	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	5/17/2001	1,182,360	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	5/10/2001	1,166,850	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	5/5/2001	1,151,600	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
April	4/28/2001	1,135,690	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	4/21/2001	1,113,570	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	4/11/2001	1,082,700	NA	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	4/6/2001	1,065,540	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
March	3/29/2001	1,036,330	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
			system was re-started					
	3/21/2001	1,036,070	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
			belt replaced on compressor					
	3/17/2001	1,035,100	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	3/13/2001	1,032,500	ND	ND	ND	ND	ND	ND
			NA	NA	NA	NA	NA	NA
	3/2/2001	996,520	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	3/1/2002	NR	system re-started after carbon change-out					
February	2/28/2002	NR	Carbon Change-out was performed on GAC-1, washed algae from holding tank, cleaned 2000 lb GAC, re-started system					
	2/10/2001	975,490	System shut down for maintenance and cleaning.					
January	1/29/2001	957,880	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND

Table 1

Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results
3609 International Boulevard, Oakland, California

Month	Date	Meter	Lab Results For Effluent ¹ and GAC-1					Total Xylenes
		Reading (gallons)	(concentrations in ug/L)					
			MtBE ²	TPH-g	Benzene	Toluene	Ethylbenzene	
2000								
December	12/5/2000	883,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
November	11/24/2000	NR	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	11/1/2000	842,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
October	10/1/2000	809,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
August	8/27/2000	781,000	ND	ND	ND	ND	ND	ND
	8/24/2000	778,000	Totalizer meter replaced at 775,000 gallons					
July	7/26/2000	726,000	ND	ND	ND	ND	ND	ND
	7/19/2000	718,000	ND	ND	ND	ND	ND	ND
	7/13/2000	712,000	ND	ND	ND	ND	ND	ND
	7/7/2000	706,000	ND	ND	ND	ND	ND	ND
June	6/29/2000	700,000	ND	ND	ND	ND	ND	ND
	6/21/2000	682,220	ND	ND	ND	ND	ND	ND
	6/16/2000	669,720	ND	ND	ND	ND	ND	ND
	6/10/2000	651,200	ND	ND	ND	ND	ND	ND
May	5/31/2000	629,000	ND	ND	ND	ND	ND	ND
	5/23/2000	603,700	ND	ND	ND	ND	ND	ND
	5/18/2000	570,000	ND	ND	ND	ND	ND	ND
	5/10/2000	530,400	ND	ND	ND	ND	ND	ND
April	4/30/2000	488,300	ND	ND	ND	ND	ND	ND
	4/18/2000	485,300	ND	ND	ND	ND	ND	0.51
			compressor stopped, system shut down until April 29, 2000					
	4/10/2000	440,200	ND	ND	ND	ND	ND	ND
	4/4/2000	390,100	ND	ND	ND	ND	ND	ND
	4/2/2000	NR	performed a carbon change-out on GAC-1					

Table 1

Total Volume of Water Treated, Historical Operational Data, and Effluent and GAC-1 Analytical Results
3609 International Boulevard, Oakland, California

Month	Date	Meter	Lab Results For Effluent ¹ and GAC-1					
		Reading (gallons)	(concentrations in ug/L)					
			MtBE ²	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
March	3/31/2000	NR	replaced GAC-2 with a special GAC designed for removal of MtBE					
	3/24/2000	388,000	ND	ND	ND	ND	ND	ND
	3/17/2000	357,100	ND	ND	ND	ND	ND	ND
	3/10/2000	329,000	ND	ND	ND	ND	ND	ND
	3/3/2000	300,000	transfer overheated, repaired pump, restarted system 3/6/00					
February	2/25/2000	274,000	ND	ND	ND	ND	ND	ND
	2/18/2000	233,000	ND	ND	ND	ND	ND	ND
	2/11/2000	190,000	ND	ND	ND	ND	ND	ND
	2/4/2000	160,800	ND	ND	ND	ND	ND	ND
January	1/28/2000	130,600	ND	ND	ND	ND	ND	ND
	1/21/2000	103,435	ND	ND	ND	ND	ND	ND
	1/17/2000	NR	GAC-1 was replaced with 2,000 lb GAC unit					
			second polishing GAC was replaced with 55 gallon GAC unit					
	1/14/2000	83,500	185	ND	ND	ND	ND	ND
1999								
December	12/23/1999	51,680	1486	NA	ND	ND	ND	ND
			ND	NA	ND	ND	ND	ND
	12/16/1999	30,450	963	NA	ND	ND	ND	ND
			ND	NA	ND	ND	ND	ND
	12/9/1999	9,000	230	ND	ND	ND	ND	ND
Pumping began on December 6, 1999								

Notes:

- 1 Effluent is equivalent to PSP#1
 - 2 MTBE was analyzed using EPA Method 8260B, prior to the September 2003. After September 2003, MtBE was only analyzed by EPA Method 8021B.
 - 3 Lab data as shown for Oct. 2002 is erroneous data. During lab analysis a high detection of 2-Butanone was detected in only the effluent sample. The influent sample for 2-Butanone was at only 20 ppb. This caused a high dilution factor causing a high non-detectable value. The high TPH-g value was misrepresentative due to the Y and Z flags.
- ND, < : Not Detected above laboratory reporting limits
 NA: Not Analyzed
 NR: Not recorded. Totalizer reading not recorded.
 Y: Sample exhibits fuel pattern which does not resemble standard
 Z: Sample exhibits unknown single peak or peaks

FIGURES



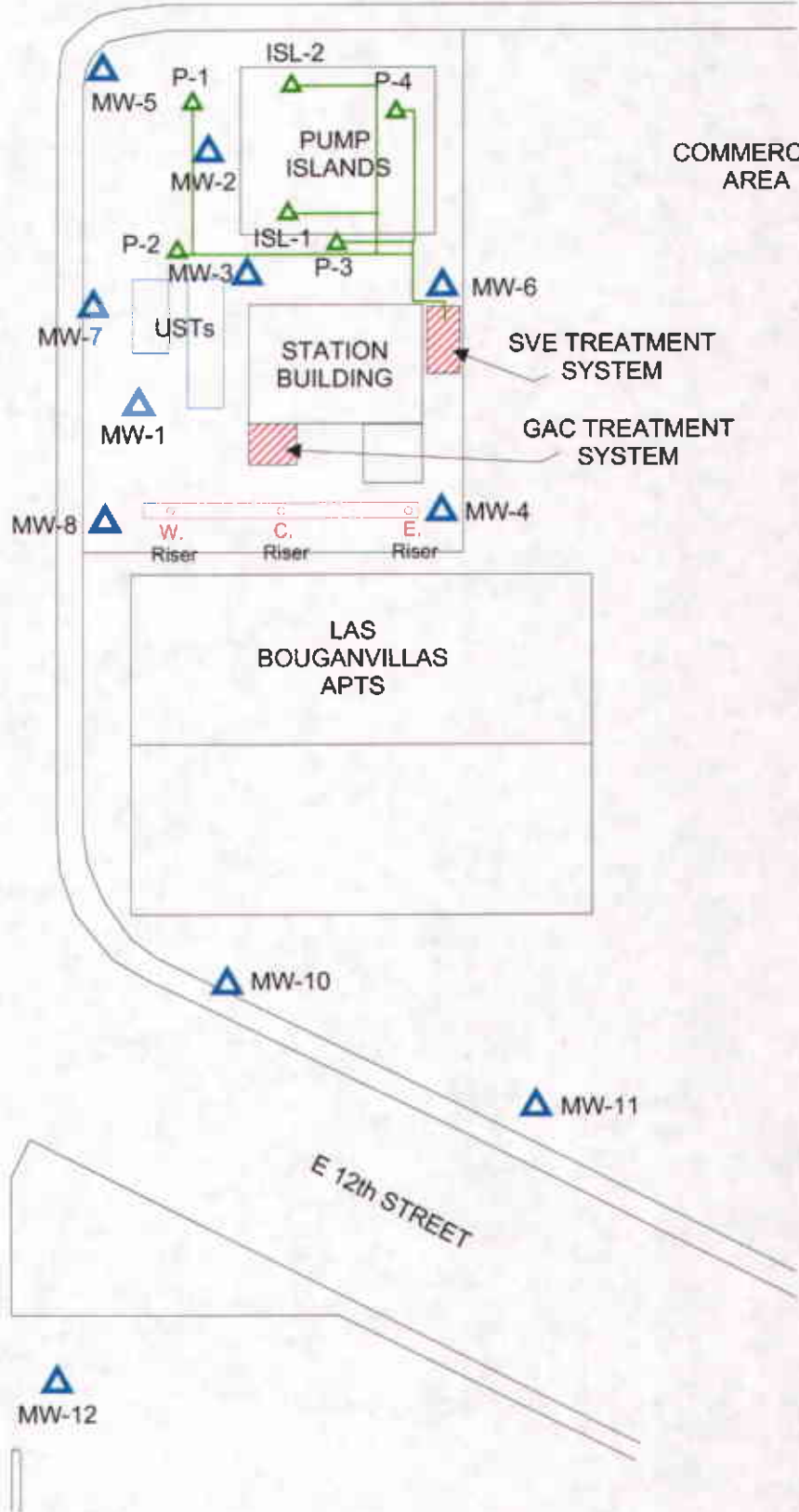
Figure 1: Site vicinity map.

COMMERCIAL AREA

INTERNATIONAL BLVD

COMMERCIAL AREA

36th AVENUE



- ▲ MONITORING WELL
- ▲ EXTRACTION WELL
- EXTRACTION MANIFOLD PIPING

approximate scale in feet

0 25 50

Figure 2: Site map showing location of groundwater monitoring wells and french drain.

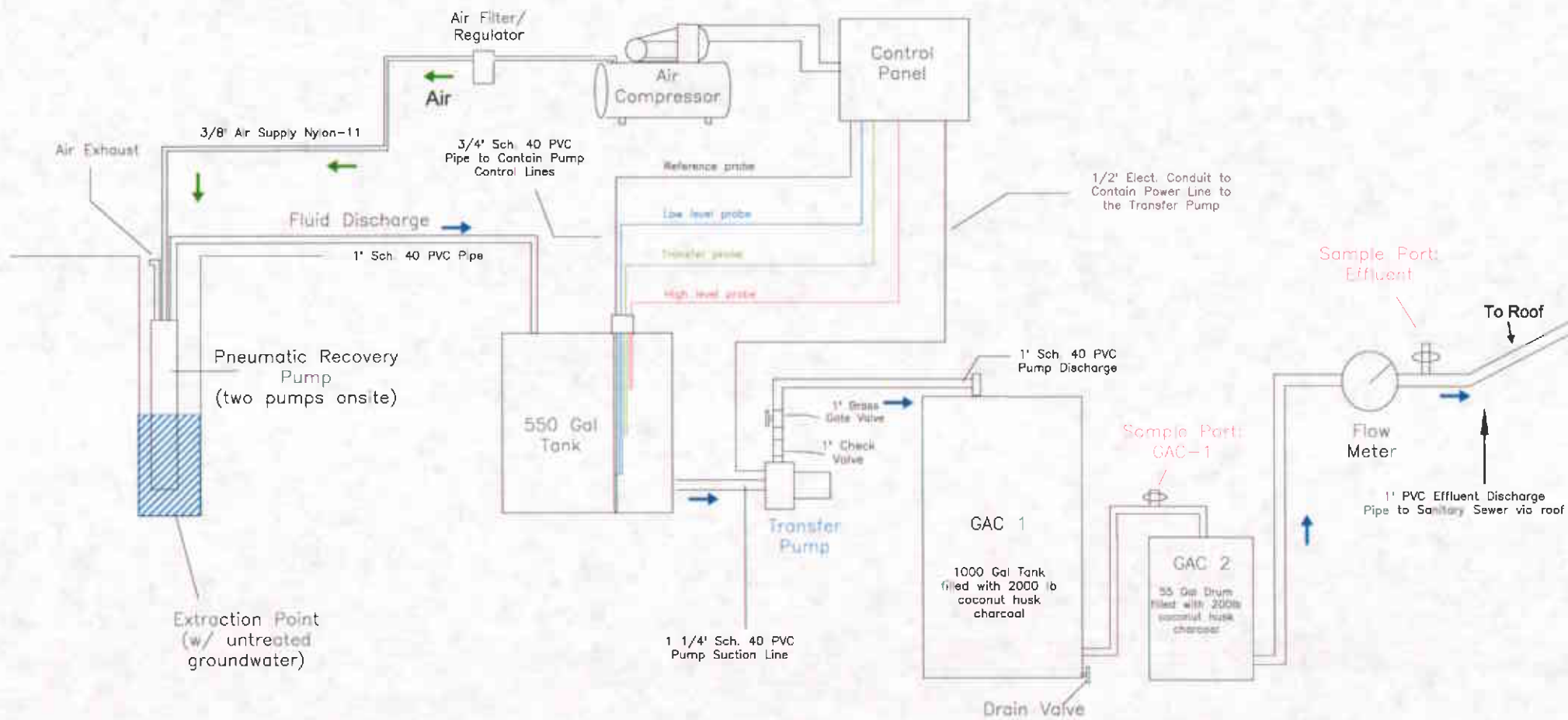


Figure 3: Schematic of the Groundwater Remediation System.

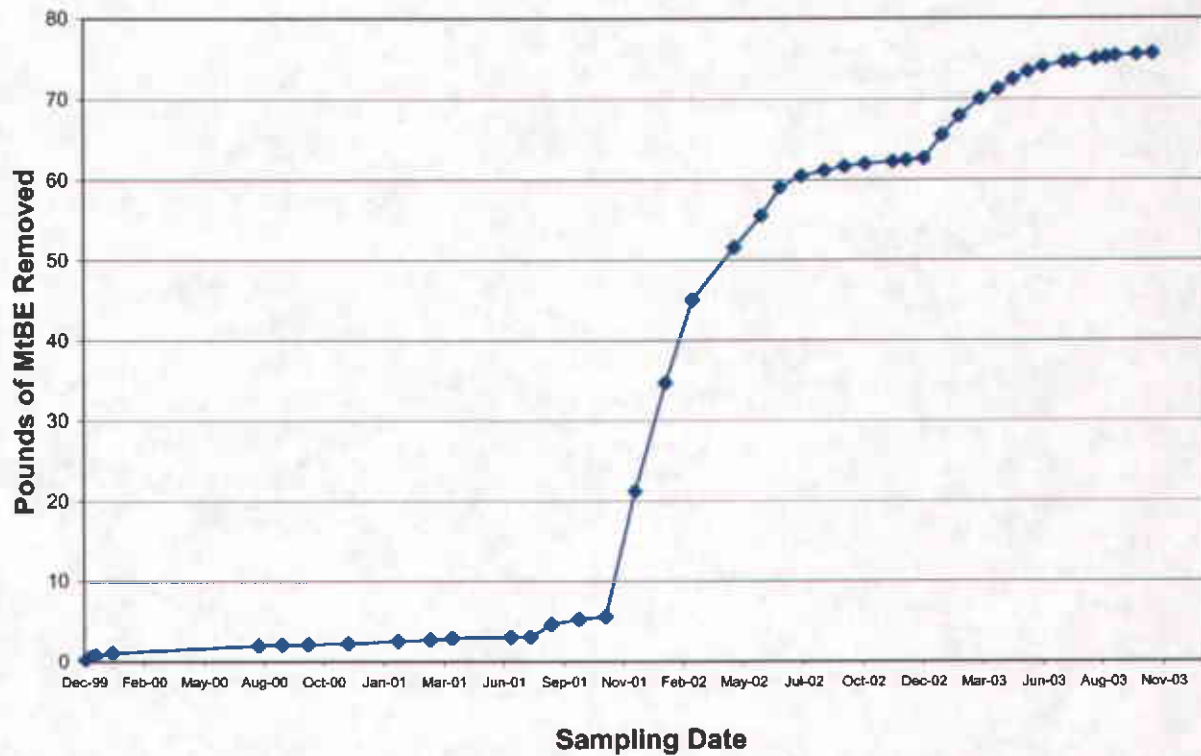
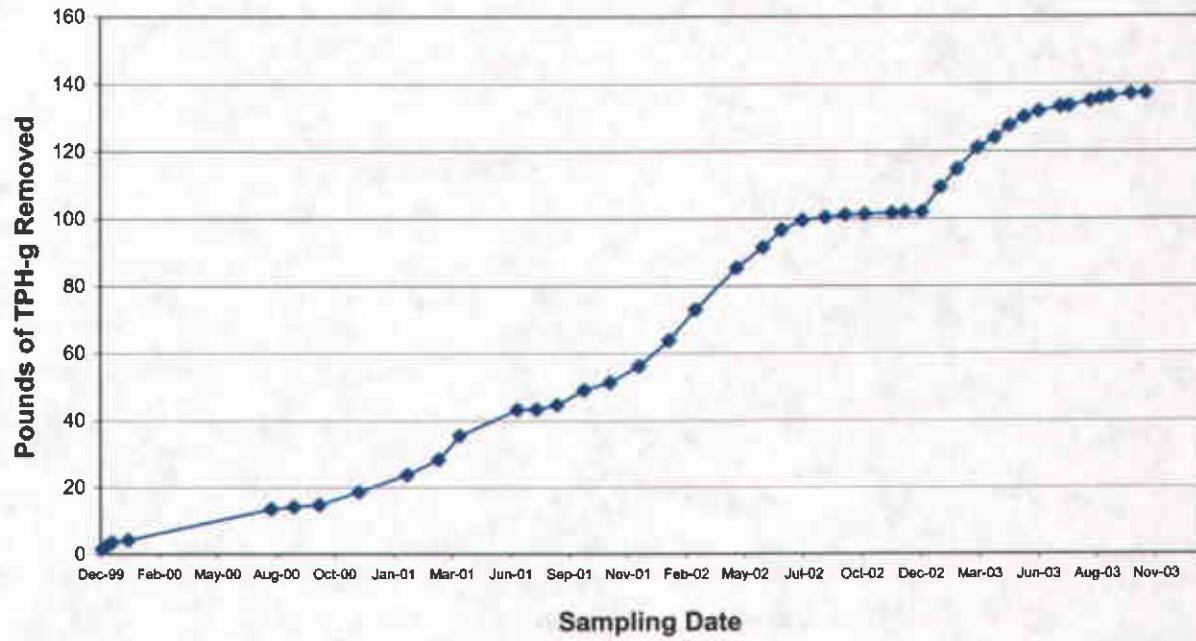


Figure 4. Cumulative mass of TPH-g and MtBE removed from groundwater since the installation of the treatment system.

APPENDIX A
EBMUD DISCHARGE PERMIT



WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000 Terms and Conditions

Tony's Express Auto Service
Permit No. 504-27421
Page No. 1

GENERAL CONDITIONS

- I. Title I, Section 5 of EBMUD Ordinance No. 311 prohibits the discharge of groundwater to the community sewer. This Permit to discharge treated groundwater is considered a waiver of the prohibition and is issued based on Tony's Express Auto Service's application that discharge of pollutants to the community sewer will be minimized and methods to reclaim the groundwater, to the extent technically and economically feasible, have been made.
- II. This Permit is granted to Tony's Express Auto Service to discharge treated groundwater from 3609 International Boulevard in Oakland.
- III. Tony's Express Auto Service shall cease discharge of groundwater immediately if not in compliance with any of the Terms and Conditions of this Permit.
- IV. Tony's Express Auto Service shall comply with all items of the attached STANDARD TERMS AND CONDITIONS, July 2000 Edition.

COMPLIANCE REQUIREMENTS

- I. Tony's Express Auto Service shall not discharge any treated wastewater that is known to be, or suspected of, violating wastewater discharge limitations.
- II. Tony's Express Auto Service shall pretreat all groundwater before discharging to the sanitary sewer at 3609 International Boulevard in Oakland. Pretreatment shall consist of a minimum of processes displayed in the *Tony's Express Auto Service System Flow Diagram (Figure 3)*.
- III. Tony's Express Auto Service shall maintain the pretreatment system in proper operating condition.
- IV. Tony's Express Auto Service shall maintain records of operation and maintenance activities on the pretreatment systems. The records shall include, but are not be limited to, meter readings from the flow totalizer at a maximum of monthly intervals; maintenance activities performed; description of operational changes; description of visual observations of the unit for leaks or fouling; and off - haul of hazardous wastes. The records shall be available to the District staff upon request.



WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000 Terms and Conditions

Tony's Express Auto Service
Permit No. 504-27421
Page No. 2

REPORTING REQUIREMENTS

- I. Violations shall be reported in accordance with Section B, Paragraph II of STANDARD TERMS AND CONDITIONS, July 2000 Edition.
- II. Tony's Express Auto Service shall submit technical reports due on the following dates:

<u>Date Due</u>	<u>Reporting Period</u>
June 14, 2000	November 15, 1999, through May 14, 2000
December 14, 2000	May 15, 2000 through November 14, 2000

The technical reports shall contain the following information, at a minimum:

- 1. Self-monitoring reports prepared in accordance with the "Self-Monitoring Reporting Requirements" of this Permit.
- 2. Monthly readings from the flow totalizer measuring volume of the pretreatment system effluent.
- 3. Volume of groundwater pumped and treated during the reporting period, and a total to date.
- 4. Description of any operational changes occurred during the reporting period.
- 5. Certification and signature prepared in accordance with Section B Part V of STANDARD TERMS AND CONDITIONS, July 2000 Edition, "Signature Requirements".

WASTEWATER DISCHARGE LIMITATIONS

Tony's Express Auto Service shall not discharge wastewater from a side sewer into the community sewer if the strength of the wastewater exceeds the following local limits:

<u>REGULATED PARAMETER</u>	<u>DAILY MAXIMUM</u>
Benzene	0.005 mg/L
Toluene	0.005 mg/L
Ethylbenzene	0.005 mg/L
Xylenes, total	0.005 mg/L



WASTEWATER DISCHARGE PERMIT

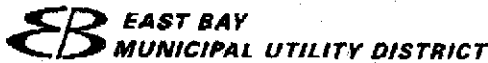
REVISION EFFECTIVE JULY 1, 2000 Terms and Conditions

Tony's Express Auto Service
Permit No. 504-27421
Page No. 3

SELF-MONITORING REPORTING REQUIREMENTS

- I. Tony's Express Auto Service shall monitor and sample the wastewater discharge into the community sewer in accordance with Section C of STANDARD TERMS AND CONDITIONS, July 2000 Edition. The sampling shall be performed at the locations and frequency for the parameters specified below.
- II. Self-monitoring reports shall contain all laboratory results and the corresponding chain of custody documentation, and signatory requirements.
- III. The Sample location shall be the sample tap located on the effluent side of the second (final) Liquid Phase GAC. This sample location shall be referred to as Process Sample Point #1 (PSP #1) in all reports. PSP #1 is shown in Tony's Express Auto Service System Flow Diagram (Figure 3) and Schematic Flow (Figure 4).
- IV. Tony's Express Auto Service shall sample wastewater from PSP #1, at a minimum, quarterly for the following parameters:

Parameter	Sample Type	EPA Method
Benzene	grab	8020 or 624
Toluene	grab	8020 or 624
Ethylbenzene	grab	8020 or 624
Xylenes	grab	8020 or 624



DAVID R. WILLIAMS
DIRECTOR OF WASTEWATER

CERTIFIED MAIL
(Return Receipt Requested)

Certified Mail No. 7000 1670 0005 9621 445

July 30, 2002

Abolghassem Razi
TONY'S EXPRESS AUTO SERVICE
3609 International Blvd.
Oakland, CA 94601

Dear Abolghassem Razi:

Re: Wastewater Discharge Permit Revisions - Permit No. 50427421

On June 12, 2001, the EBMUD Board of Directors approved changes in wastewater system rates and charges for two years. New rates and charges for fiscal year 2003 (FY03) are effective July 1, 2002. Wastewater system and testing fees are unchanged. The table below compares the unit rates effective July 1, 2001 (FY02) with the new unit rates effective July 1, 2002 (FY03).

	Rates Effective		% Change
	FY02	FY03	
Flow (\$/Ccf)	0.408	0.426	+ 4.4%
CODF (\$/lb)	0.144	0.148	+ 2.8%
TSS (\$/lb)	0.243	0.250	+ 2.9%

The billing conditions for your wastewater discharge permit have been revised to reflect the revised rates and charges. New permit pages incorporating the above revisions are enclosed. Please replace the relevant pages in your Permit with the enclosed pages.

As a Permit holder, you are legally responsible for complying with all Permit conditions and requirements.

If you have any questions regarding the Permit revisions, please contact your Wastewater Control Representative, Trish Maguire at (510) 287-1727.

Sincerely,

BENNETT K. HORENSTEIN
Manager of Source Control Division

BKH:PEM:mew

Enclosure

P.O. BOX 24055, OAKLAND, CA 94623-1055 - (510) 287-1405

W:\VDS\Administration\Budget\FY2(K)\revision transmittal letter.doc



WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2002 Terms and Conditions

Tony's Express Auto Service
Permit No. 504-27421
Page No. 4

MONITORING and TESTING CHARGES

EBMUD Inspections Per Year: 2 @ \$540.00 each = \$1,080.00 / year

Analyses Per Year:

Parameter	Tests per year	Charge per test	Total Charge per year
EPA 624	2	\$146.00	\$292.00
Total Monitoring and Testing Charge =			\$1,372.00 / year \$114.33 / month

WASTEWATER DISPOSAL SERVICE CHARGE

All wastewater discharged will be charged for treatment and disposal service at the Business Classification Code (BCC) unit rate for 4950, Sanitary Collection and Disposal, or 'All other BCC's'. Wastewater charges are determined by multiplying the metered consumption by the percent discharged, adding any fixed volume, and multiplied by the treatment charge.

Unit Rate =	\$0.44 /Ccf	
Discharge Volume =	61 Ccf/mo.	(based on 1,500 gpd average)
Wastewater Disposal Charge =	\$27.02 /mo.	



WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2002 Terms and Conditions

Tony's Express Auto Service
Permit No. 504-27421
Page No. 5

FEES AND WASTEWATER CHARGES

The following fees and charges are due when billed by the District:

Permit Fee:	\$2,490.00 (PAID)
Monthly Monitoring Charge:	\$114.33
Monthly Wastewater Disposal Charge:	\$27.02

Total Monthly Charges =	\$141.36
-------------------------	----------

The District may change the terms and conditions of a Wastewater Discharge Permit, including changing the average limits on the elements of wastewater strength and rates and charges, from time to time as circumstances may require. The District shall allow a discharger reasonable time to comply with any District required changes in the permit except that a change in average limits of wastewater strength shall immediately affect calculation of the wastewater disposal charge.

Charges listed in this Permit will be assessed on EBMUD bills in accordance with the EBMUD Meter Reading Schedule.

Authorization

Permit Holder shall report to EBMUD, Wastewater Department any changes, permanent or temporary, to the premises or operations that significantly change the quality or volume of the wastewater discharge or deviation from the terms and conditions under which this permit is granted.

Permit Holder is hereby authorized to discharge wastewater to the community sewer, subject to said Applicant's compliance with EBMUD Wastewater Control Ordinance No. 311 and permit compliance conditions, reporting requirements and billing conditions:

Effective: 11/15/01

Expiration: 11/14/02

David R Williams

Director, Wastewater Department

7/22/2002

Date

Revised 7/16/02



WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

TABLE OF CONTENTS

SECTION A. GENERAL PROVISIONS

Duty to Comply.....	1
Discharge Location and Process	1
Permit Renewal	1
Disposal of Hazardous Waste	1
Dilution Prohibition	1
Bypass of Treatment Facilities.....	1
Closure Plan	2
Calibration and Maintenance of Equipment	2
Availability of Permit	2
Payment of Permit Fees and Charges	2
Continuation of Expired Permits	2
Permit Termination	2
Transfer of Permit Prohibition.....	2
Severability	3
Property Rights	3

SECTION B. REPORTING REQUIREMENTS and RECORD KEEPING

Spill or Slug Discharge Notification.....	3
Twenty-Four Hour Violation Reporting	3
Changes in Quantity and Quality of Wastewater.....	4
Hazardous Waste Notification	4
Signatory Requirements.....	4
Retention of Records.....	5
Additional Monitoring	5
Falsifying Information	5

SECTION C. MONITORING and SAMPLING

Representative Sampling.....	5
Chain of Custody.....	6
Sample Preservation and Analytical Methods	6
Laboratory Reports	6
Flow Measurements	7
Tampering with Equipment	7
Access to Facilities.....	7

SECTION D. ENFORCEMENT and PENALTIES

Annual Publication.....	7
Violations of Permit Terms and Conditions	7
Payment of Fines and Violation Fees	7

SECTION E. DEFINITIONS

Definitions.....	8
------------------	---

APPENDIX

EBMUD Table of Approved Test Methods.....	i - ii
---	--------



SECTION A. GENERAL PROVISIONS

I. Duty to Comply

The Permit Holder shall comply with all specific and standard terms and conditions of the Wastewater Discharge Permit (Permit).

II. Discharge Location and Process

The Permit Holder shall discharge wastewater only from the location(s) and process(es) described in the Permit.

III. Permit Renewal

The Permit Holder shall submit an application for Permit renewal at least 60 days prior to expiration of the existing Permit.

IV. Disposal of Hazardous Waste

The Permit Holder shall handle and dispose of hazardous waste in accordance with all local, state, and federal laws and regulations.

V. Dilution Prohibition

The Permit Holder shall not in any way dilute the wastewater discharge as a substitute for treatment to achieve compliance with the Permit Terms and Conditions.

VI. Bypass of Treatment Facilities

The Permit Holder shall not bypass treatment facilities unless:

- a) The bypass was unavoidable to prevent loss of life, personal injury, or severe property damage. (Severe property damage means substantial physical damage to property, damage to the treatment facilities that causes them to become inoperable, or substantial and permanent loss of natural resources that can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production).
- b) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgement to prevent a bypass which occurred during normal periods of equipment downtime or preventative maintenance.
- c) The Permit Holder submitted advance notice of the need for a bypass to the District. If the Permit Holder knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.

The Permit Holder shall submit notice of an unanticipated bypass as required in Section B, Paragraph II. Twenty-four Hour Violation Reporting.



VII. Closure Plan

The District may require a facility that intends to close or cease a regulated process to provide a written Closure Plan.

The plan shall include the following four items:

- a) date of proposed work or production stoppage
- b) date of proposed final closure (after cleaning and demobilizing activities are complete)
- c) description of cleaning activities, and
- d) description of disposal of inventoried process material and waste

VIII. Calibration and Maintenance of Equipment

The Permit Holder shall calibrate, inspect, and maintain all flow measuring, discharge sampling, monitoring, and pretreatment equipment to ensure the equipment accuracy and reliability.

IX. Availability of Permit

The Permit Holder shall maintain a copy of the current Permit at the permitted site and make the Permit available to both facility and District staff at all times.

X. Payment of Permit Fees and Charges

The Permit Holder shall pay all Permit fees, monitoring and testing charges, and wastewater treatment charges.

XI. Continuation of Expired Permits

An expired Permit will continue to be effective and enforceable until the Permit is reissued if:

- a) The Permit Holder has submitted a complete permit application at least 60 days prior to the expiration date of the Permit Holder's existing Permit.
- b) The delay in reissuing the expired Permit is not due to any act or failure to act on the part of the Permit Holder.

XII. Permit Termination

The District may terminate the Permit for violation of the terms and conditions of the Permit or for violation of the provisions of EBMUD Ordinance No. 311, unless waived by the Permit.

XIII. Transfer of Permit Prohibition

The Permit Holder shall not assign or transfer the Permit.



XIV. Severability

If any provision of the Permit, EBMUD Ordinance No. 311, or the application thereof to any person or circumstance, is held invalid, the remainder of the Permit or EBMUD Ordinance No. 311, or the application of such provision to other persons or circumstances, shall not be affected thereby.

XV. Property Rights

The issuance of the Permit does not convey to the Permit Holder any property rights of any sort or any exclusive privileges. Nor does such issuance authorize any injury to private property, any invasion of property rights, or any violation of federal, state or local laws.

SECTION B. REPORTING AND RECORD KEEPING

I. Spill or Slug Discharge Notification

Immediately upon discovering any spill or slug discharge to the sanitary sewer, the Permit Holder shall notify EBMUD Source Control Division at (510) 287-1651 during business hours or (510) 287-1458 during non-business hours.

The Permit Holder shall submit to the District within five days of the occurrence a formal written notification describing:

- a) the circumstances of discharge
- b) what was discharged
- c) volume of discharge
- d) duration of discharge including beginning and end times and dates
- e) corrective actions to prevent recurrence
- f) whether discharge violates the terms and conditions of the Permit

II. Twenty-Four Hour Violation Reporting

- a) The Permit Holder shall notify the District within 24 hours of becoming aware of any of the following violations:
 1. discharges prohibited by EBMUD Ordinance No. 311, Title II, except where authorized by the Permit
 2. exceedence of Categorical Pretreatment Standards
 3. exceedence of wastewater discharge limits as established in the Permit
 4. bypass of any part of a required pretreatment system
- b) The Permit Holder shall submit a written report to the District within five days of becoming aware of a violation. The report shall include the following information:
 1. the date and time of the violation



WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

2. the cause of the violation
 3. a description of the violation, including what was discharged
 4. the volume of the discharge
 5. the duration of the discharge violation including start and end times and dates
 6. analytical results, if available, with chain of custody and other pertinent documentation
 7. measures taken to correct the violation
 8. measures taken to prevent recurrence
- c) If analytical results of a sample collected by the Permit Holder indicate a violation, the Permit Holder shall repeat the sampling and analysis, and submit the results to the District within 30 days of becoming aware of the violation, unless:
1. the District collects samples of the permitted discharge at a frequency of at least once per month, or
 2. the District collects samples for the same parameter between the time the Permit Holder performs its initial sampling and the time when the Permit Holder receives the results of the sampling

III. Changes in Quantity and Quality of Wastewater

The Permit Holder shall immediately report to the District any significant change to the quality or volume of the wastewater discharge or any deviation from the terms and conditions of the Permit.

IV. Hazardous Waste Notification

The Permit Holder shall submit to the District a written notification in accordance with 40 CFR 403.12(p) of any discharge, which, if otherwise disposed of, would be a hazardous waste under 40 CFR 261. Pollutants reported as part of the Self-Monitoring Reporting Requirements are not subject to this notification requirement.

V. Signatory Requirements

The Permit Holder shall submit in accordance with the signatory requirements of 40 CFR 403.12 (l) all applications, self-monitoring reports, violation response reports, compliance reports, and other reports or documents required by the District. The submittal shall include the following certification statement and shall be signed by the duly authorized representative:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant



penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

VI. Retention of Records

- a) The Permit Holder shall retain all of the following documents:
1. all records used to complete the Permit Application
 2. copies of reports required by the Permit
 3. all records of monitoring information, including calibration and maintenance records, and original strip chart recordings of continuous monitoring instrumentation
- b) The Permit Holder shall retain all documents for a period of at least three years from the date of the application, report, or monitoring event. The District may extend the document retention period. The Permit Holder shall make all retained records and documents available in a timely manner for inspection.
- c) The Permit Holder shall retain and preserve all records pertaining to special orders or any other enforcement or litigation activities brought by the District until all enforcement activities have concluded and all periods of limitation with respect to any appeals have expired.

VII. Additional Monitoring

If the Permit Holder monitors any pollutant at the compliance point more frequently than required by this Permit, using test methods specified in the Permit, the results of such monitoring shall be reported on a monthly basis to the District.

VIII. Falsifying Information

Knowingly making any false statement on any report or other document required by the Permit or knowingly rendering any monitoring device or method inaccurate, is a crime, and may result in administrative, civil and criminal enforcement action.

SECTION C. MONITORING AND SAMPLING

I. Representative Sampling

Samples and measurements taken, as required in the Permit or those submitted with the application, shall be representative of the volume and nature of the monitored discharge. The Permit may require that a sample be representative of certain, specific, discharge periods.

Detection limits shall be sufficient to determine compliance with the Permit terms and conditions.



II. Chain of Custody

- a) The Permit Holder shall submit a Chain of Custody record for each sample that documents the following:
 1. the location, the type of sample(s) (grab or composite), the date(s) and time, or span of time the sample was taken
 2. the number of containers, and type (glass, plastic, vial, etc.)
 3. preservation techniques (ice, refrigeration at 4°C, chemicals added, etc.)
 4. sample collector's name, legibly written
 5. sample ID number (to cross-reference with the sample ID number on the Laboratory results)
 6. all persons handling the sample and the individual receiving the sample at the laboratory, including their signature, printed name, company, date and time the sample was relinquished and accepted
- b) The Permit Holder shall ensure that samples transported or handled by a courier, delivery service (public or private) or shipper, shall include the company or individual's name, and the method of packaging the samples, on the Chain of Custody record.
- c) The Permit Holder shall show all sample analyses performed in the field on the Chain of Custody record (e.g. pH - field test).
- d) The District may require resampling of the wastewater for an incomplete or incorrect Chain of Custody record.

III. Sample Preservation and Analytical Methods

Unless the Permit requires otherwise, the Permit Holder shall use sampling methods, sample preservation, and analytical methods for each parameter in accordance with applicable sections of:

- a) *EBMUD Table of Approved Test Methods*
- b) *Standard Methods of Water and Wastewater Analysis*, Edition used in the EBMUD Table of Approved Test Methods
- c) EPA 40 CFR Part 136, *Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act*, latest edition

IV. Laboratory Reports

The Permit Holder shall use a laboratory certified by the California Department of Health Services for each sample analysis required by the Permit. The laboratory report for each sample shall include:

- a) the name and address of the laboratory performing the analyses
- b) sample ID number (to cross reference with the sample ID number on the Chain of Custody)
- c) the analytical result(s)



WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

- d) the date of sampling, the date the sample(s) was received at the laboratory, and the date of analysis
- e) the Standard Method or EPA Method used for analyses
- f) the detection limit
- g) the signature and title of an authorized representative of the Laboratory, who reviewed the laboratory results

V. Flow Measurements

The Permit Holder shall use appropriate flow measurement devices and methods when required by the District. Flow measurement devices and methods are subject to approval by the District.

VI. Tampering with Equipment

The Permit Holder shall not tamper with monitoring equipment or treatment units.

VII. Access to Facilities

The Permit Holder shall provide access to facilities by District staff in order to ascertain compliance with the Ordinance and Permit.

SECTION D. ENFORCEMENT AND PENALTIES

I. Annual Publication

The Permit Holder shall be subject to annual publication in the largest daily newspaper published within the SD-1 service area if at any time during the previous 12 months, the Permit Holder was in Significant Noncompliance with the terms and conditions of the Permit.

II. Violations of Permit Terms and Conditions

The Permit Holder shall be subject to District actions for failure to comply with the terms and conditions of the Permit. The actions may include violation follow-up inspections and fees, issuance of Cease and Desist Orders, Administrative Civil Liability penalties, and other actions as authorized by Ordinance No. 311, Title VI.

III. Payment of Fines and Violation Fees

The Permit Holder shall pay the District any fines and violation fees that are assessed.



SECTION E. DEFINITIONS

BMPs - Best Management Practices (also known as Pollution Prevention Practices) are guidelines and procedures that include maintenance procedures, management practices and prohibition of practices that focus on the reduction or elimination of pollutants or wastes at the source.

Bypass - The diversion of wastestreams from any portion of a treatment facility.

Chain of Custody - A Chain-of-Custody is a legal record of each person who had possession of a sample. It is included with an analytical report.

Combined Wastestream Formula - Formula defined in 40 CFR 403.6(e)

Director - Refers to the term "Manager", as defined in EBMUD Ordinance No. 311, the Director of the District's Wastewater Department, or his/her designated representative.

Discharge Minimization Permit - Permits issued for the purpose of regulating the discharge of wastewater to the sanitary sewer. Discharge Minimization Permits generally include monitoring and reporting requirements and District inspections.

District - Refers to East Bay Municipal Utility District (EBMUD). EBMUD is a publicly owned water district formed in 1923 under the Municipal Utility District Act of 1921.

Hazardous Waste - Listed and characterized wastes under the Section 3001 of the Resource Conservation and Recovery Act, as described in the Code of Federal Regulations (40 CFR Part 261) or as defined in California Health and Safety Code Section 25117. VII.

Permit Holder - Any individual, partnership, firm, association, corporation, or public agency issued a Wastewater Discharge Permit.

Pollution Prevention Permits - Permits issued to businesses in specific commercial categories. Pollution Prevention Permits are based on pollution prevention or waste minimization at sources, and the implementation of specific BMPs.

POTW - Publicly Owned Treatment Works, e.g., EBMUD SD-1.

Prohibition - Prohibited discharges of wastewater as defined in EPA 40 CFR Part 403.5 or EBMUD Ordinance No. 311, Title I, Section 5, and Title II, Section 2.

Pretreatment Program - A program administered by a POTW that meets the criteria established in EPA 40 CFR Part 403.8, 403.9 and 403.11.

Regional Water Quality Control Board - The California Regional Water Quality Control Board, San Francisco Bay Region, is the approval authority for the District's Pretreatment Program.

Sample - A portion of wastewater that is representative of a larger volume of wastewater being discharged. The two types of samples are:

- a) **Grab** - an individual sample collected in a short period of time not exceeding fifteen minutes.



- b) Composite – a sample consisting of a number of discrete aliquots combined into a single sample, representative of a period of time.

SD-1 - EBMUD Special District No. 1, a district established to provide treatment of wastewater from the following East Bay Communities: Alameda, Albany, Berkeley, Emeryville, Oakland, Piedmont, and the Stege Sanitary District that includes the City of El Cerrito, the Richmond Annex, and the Kensington area. [Ref. MUD Act, Division 6, Chapter 8, Section 13451].

Significant Noncompliance – The status of a Permit Holder when one or more of the following conditions exist:

- a) Chronic violations of wastewater discharge limits, defined as those in which sixty-six percent or more of all of the measurements taken during a six-month period exceed (by any magnitude) the daily maximum limit or the average limit for the same pollutant parameter.
- b) Technical Review Criteria (TRC) violations, defined as those in which thirty-three percent or more of all of the measurements for each pollutant parameter taken during a six-month period equal or exceed the product of the daily maximum limit or the average limit multiplied by the applicable TRC.
TRC = 1.4 for Oil and Grease.
TRC = 1.2 for all other pollutants (except pH).
- c) Any violation of a discharge limit, maximum or average, that the District determines has caused, alone or in combination with other discharges, interference or pass through (including endangering the health of District personnel or the general public).
- d) Any discharge of a pollutant that has caused imminent endangerment to human health, welfare or to the environment or has resulted in the exercise of emergency authority.
- e) Failure to meet, within 90 days after the schedule date, a compliance schedule milestone contained in this Permit or Manager's order for starting construction, completing construction, or attaining final compliance.
- f) Failure to provide, within 30 days after the due date, required reports such as baseline monitoring reports, 90-day compliance reports, self-monitoring reports, and reports on compliance with compliance schedules.
- g) Failure to accurately report noncompliance.
- h) Any other violation or group of violations, which the District determines, will adversely affect the operation or implementation of the local pretreatment program.

Slug Discharge - Any non-routine batch discharge that may cause problems to the POTW including interference [40 CFR 403.3(i)] or pass-through [40 CFR 403.3(n)], or that may result in the Permit Holder being in violation of the General Prohibitions or Specific Prohibitions contained in 40 CFR 403.5.

Spill - An accidental discharge of a substance that may pose an environmental, public health, or wastewater quality concern.

Total Metals - The sum of the concentrations of copper, chromium, nickel, and zinc (40 CFR 413.02,e)



WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

Total Toxic Organics (TTO)- The sum of the concentrations of specific toxic organic compounds found in the wastewater discharge at a concentration greater than 10 ug/L. Each categorical standard (40 CFR 405 - 471) lists the specific toxic organic compounds that are to be included in the summation.

Total Identifiable Chlorinated Hydrocarbons (TICH) - The sum of the concentrations of all quantifiable values equal to or greater than the detection limit for all chlorinated hydrocarbons identified by EPA Method 624.

Wastewater Discharge Limits - A wastewater discharge limit is the maximum concentration of a pollutant allowed to be discharged during a specific period of time. Wastewater discharge limits may be of three types: Monthly Average, 4-day Average, and Maximum.

Monthly Average - The maximum arithmetic average value of all samples taken in a calendar month.

4-day Average - The maximum arithmetic average value of four consecutive samples taken on different days.

Maximum - The maximum concentration of a pollutant allowed to be discharged at any time, as determined from the analysis of a grab or composite sample.

w:\ids\permits\standard terms and conditions.doc

APPENDIX: TABLE OF APPROVED TEST METHODS
Required Preservation & Holding Times

The District has approved the following test methods for wastewater analysis. These methods are generally used for District and self-monitoring. Other methods not listed in this table may be required. Refer to the self-monitoring section of your wastewater discharge permit for required specific test methods.

Parameter	Preservative	Maximum Hold Time	EPA Method	STD Methods* 18 th Ed.
Arsenic (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	206.3 200.7	3114 B 3120 B
Cadmium (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	213.2 200.7	3113 B 3120 B
CODF, using a Whatman 934AH Glass Microfiber filter, or equivalent	Preserve with H ₂ SO ₄ to pH <2 Cool to 4°C	28 days		5220 D
Chromium (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	218.2 200.7	3113 B 3120 B
Copper (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	220.2 200.7	3113 B 3120 B
Cyanide (Amenable)	NaOH to pH>12 Ascorbic acid if Cl ₂ present Cool to 4°C	14 days	335.1	4500-CN G
Cyanide (Total)	NaOH to pH>12, ascorbic acid if Cl ₂ present Cool to 4°C	14 days	335.2	4500-CN B-E
Iron (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	200.7	3113 B 3120 B
Lead (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	239.2 200.7	3113 B 3120 B
Mercury (Total)	HNO ₃ to pH<2 Cool to 4°C	28 days	245.1 245.2	3112 B
Nickel (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	249.2 200.7	3113 B 3120 B
Oil & Grease (Total) Oil & Grease (HC)	H ₂ SO ₄ to pH<2 Cool to 4°C	28 days	1664 HEM 1664 HEM- SGT	
Phenolic Compounds	H ₂ SO ₄ to pH<2 Cool to 4°C	28 days	420.1	5530-D
pH, Hydrogen Ion	None	Analyze Immediately	150.1	4500-H+ B
Silver (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	272.2 200.7	3113 B 3120 B
Temperature (°C)	None	Analyze immediately	170.1	2550 B

Parameter	Preservative	Maximum Hold Time	EPA Method	STD Methods* 18 th Ed.
Total Suspended Solids TSS, filtered with Whatman 934 AH Glass Microfiber filter, or equivalent	Cool to 4°C	7 days	160.2	
Zinc (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	289.2 200.7	
Organochlorine Pesticides & Poly Chlorinated Biphenyls (PCBs)	Cool to 4°C	7 days until extraction; 40 days after extraction	608	6630B & C
Purgeable Organics (BTEX)	HCl to pH <2, add ascorbic acid if Cl ₂ is present. VOA vials, No headspace. Cool to 4°C	14 days	624 ¹ 8021 B 8260 B	
Semi-Volatile Organics (BNA's)	Cool to 4°C	7 days until extraction; 40 days after extraction	625	
Total Identifiable Chlorinated Hydrocarbon (Volatile Organics)	HCl to pH<2, add ascorbic acid if Cl ₂ is present. VOA vials, No headspace. Cool to 4°C	14 days	624 8260 B	

¹ EPA Method 624 table in 40CFR Part 136 does not list xylenes, however, EBMUD may accept xylenes detected by this method.

* Standard Methods for the Examination of Water and Wastewater

W:\IDS\Permits\Standard Terms and Conditions\Table of Approved Test Methods.doc



APPENDIX B

Laboratory Results and Chain of Custody Forms for the Treatment System



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

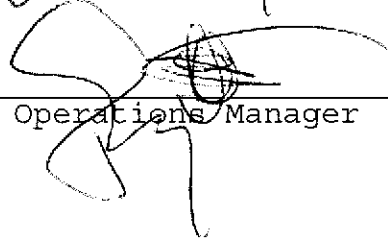
Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 19-NOV-03
Lab Job Number: 168577
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	168577	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	11/03/03
Units:	ug/L	Received:	11/03/03
Batch#:	85870		

Field ID:	INFLUENT	Lab ID:	168577-001
Type:	SAMPLE		

Analyte	Result	RL	Diln Fac	Analyzed	Analysis
Gasoline C7-C12	3,900	50	1.000	11/04/03	8015B
MTBE	1,700	10	2.000	11/05/03	EPA 8021B
Benzene	180	5.0	1.000	11/04/03	EPA 8021B
Toluene	150	5.0	1.000	11/04/03	EPA 8021B
Ethylbenzene	ND	5.0	1.000	11/04/03	EPA 8021B
m,p-Xylenes	390	10	2.000	11/05/03	EPA 8021B
o-Xylene	230	5.0	1.000	11/04/03	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Analyzed	Analysis
Trifluorotoluene (FID)	134	57-150	1.000	11/04/03	8015B
Bromofluorobenzene (FID)	120	65-144	1.000	11/04/03	8015B
Trifluorotoluene (PID)	88	54-149	1.000	11/04/03	EPA 8021B
Bromofluorobenzene (PID)	94	58-143	1.000	11/04/03	EPA 8021B

Field ID:	GAC-1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	11/04/03
Lab ID:	168577-002		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	101	57-150	8015B
Bromofluorobenzene (FID)	116	65-144	8015B
Trifluorotoluene (PID)	76	54-149	EPA 8021B
Bromofluorobenzene (PID)	88	58-143	EPA 8021B

ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

Curtis & Tompkins Laboratories Analytical Report

Lab #:	168577	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	11/03/03
Units:	ug/L	Received:	11/03/03
Batch#:	85870		

Field ID:	PSP#1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	11/05/03
Lab ID:	168577-003		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	101	57-150	8015B
Bromofluorobenzene (FID)	115	65-144	8015B
Trifluorotoluene (PID)	76	54-149	EPA 8021B
Bromofluorobenzene (PID)	89	58-143	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231012	Analyzed:	11/04/03

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	104	57-150	8015B
Bromofluorobenzene (FID)	116	65-144	8015B
Trifluorotoluene (PID)	81	54-149	EPA 8021B
Bromofluorobenzene (PID)	92	58-143	EPA 8021B

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2

GC07 TVH 'A' Data File RTX 502

Sample Name : 168577-001,85870,eff

Sample #: a1.0

Page 1 of 1

FileName : G:\GC07\DATA\308A007.raw

Date : 11/4/03 07:29 PM

Method : TVHBTXE

Time of Injection: 11/4/03 07:03 PM

Start Time : 0.00 min End Time : 26.00 min

Low Point : -38.00 mV

High Point : 1066.95 mV

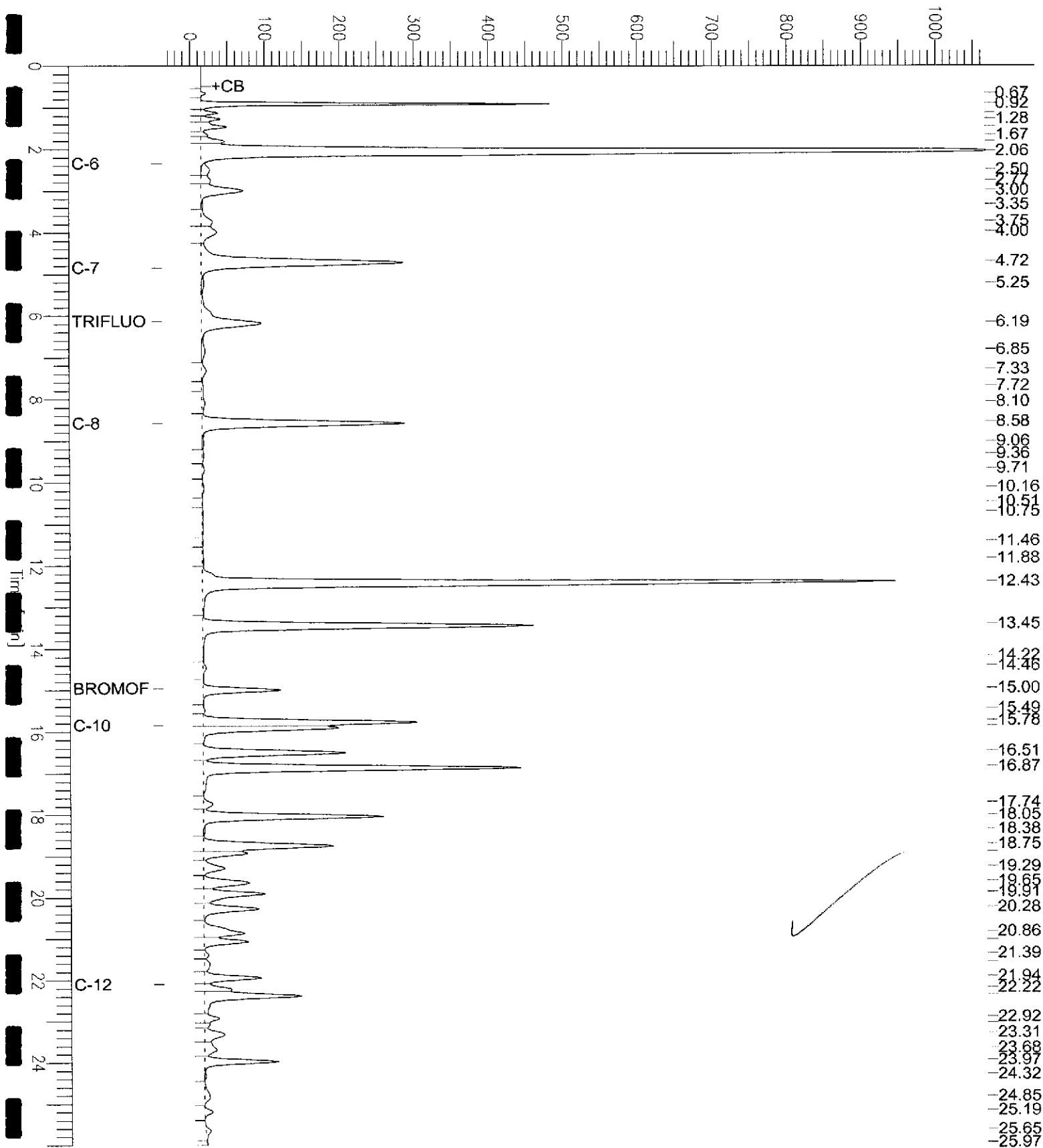
Scale Factor: 1.0

Plot Offset: -38 mV

Plot Scale: 1104.9 mV

Influent

Response [mV]

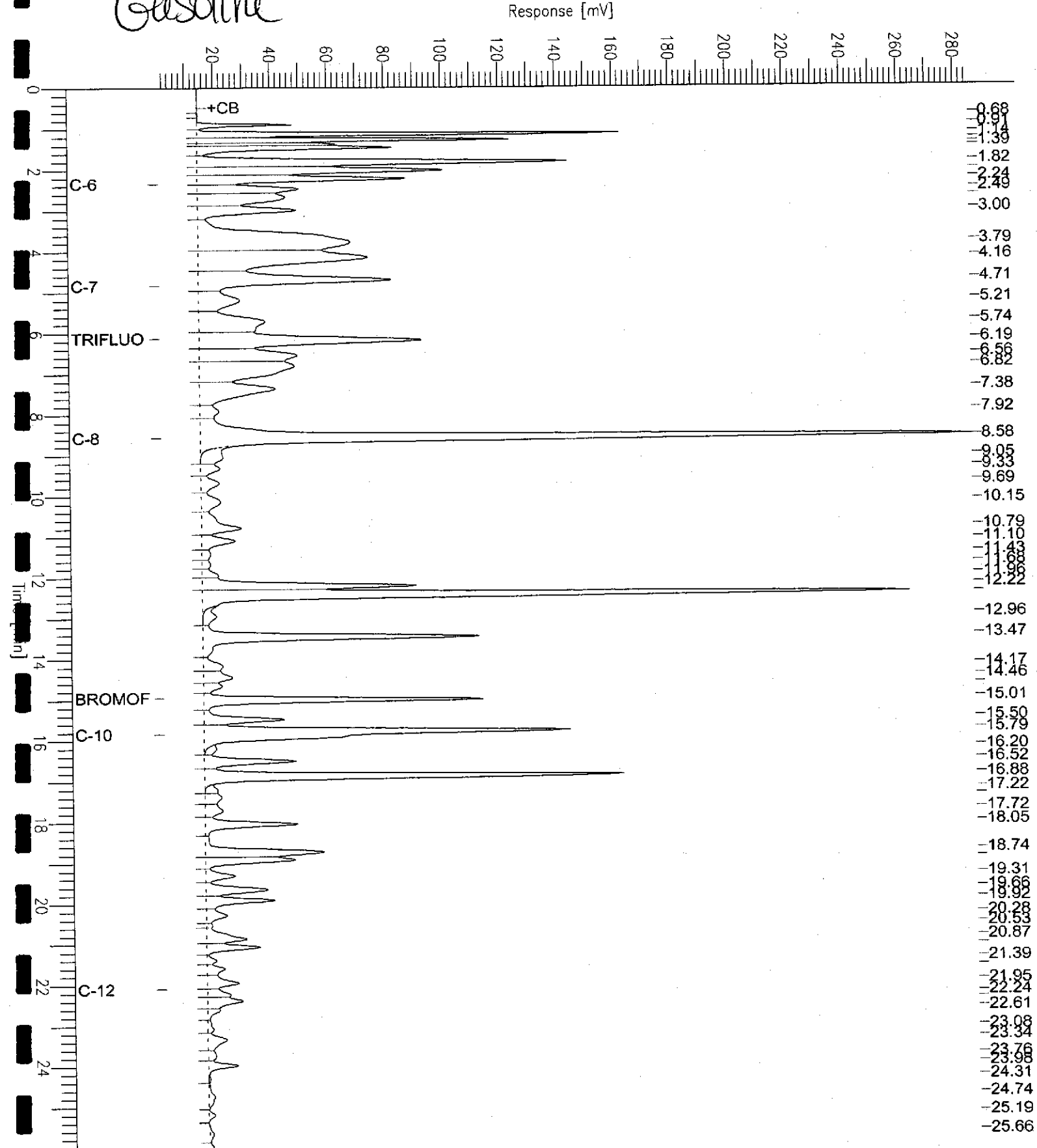


GC07 TVH 'A' Data File RTX 502

Sample Name : ccv/lcs,qc231014,85870,03ws1767,5/5000
 File Name : G:\GC07\DATA\308A002.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Scale Factor : 1.0

Sample # :
 Date : 11/4/03 04:17 PM
 Time of Injection: 11/4/03 03:51 PM
 Low Point : 0.87 mV
 Plot Scale: 284.3 mV

Gasoline



Curtis & Tompkins Laboratories Analytical Report

Lab #: 168577	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	Analysis: EPA 8021B
Type: LCS	Diln Fac: 1.000
Lab ID: QC231013	Batch#: 85870
Matrix: Water	Analyzed: 11/04/03
Units: ug/L	

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12		NA		
MTBE	20.00	18.97	95	63-133
Benzene	20.00	20.45	102	78-123
Toluene	20.00	19.06	95	79-120
Ethylbenzene	20.00	18.03	90	80-120
m,p-Xylenes	40.00	40.22	101	76-120
o-Xylene	20.00	18.96	95	80-121

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)	NA		
Bromofluorobenzene (FID)	NA		
Trifluorotoluene (PID)		71	54-149
Bromofluorobenzene (PID)		79	58-143

Curtis & Tompkins Laboratories Analytical Report

Lab #:	168577	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC231014	Batch#:	85870
Matrix:	Water	Analyzed:	11/04/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,020	101	80-120
MTBE		NA		
Benzene		NA		
Toluene		NA		
Ethylbenzene		NA		
m,p-Xylenes		NA		
o-Xylene		NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		118	57-150
Bromofluorobenzene (FID)		114	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Curtis & Tompkins Laboratories Analytical Report

Lab #:	168577	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Diln Fac:	1.000
MSS Lab ID:	168575-001	Batch#:	85870
Matrix:	Water	Sampled:	11/03/03
Units:	ug/L	Received:	11/03/03

Type: MS Analyzed: 11/04/03
 Lab ID: QC231015

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<18.00	2,000	1,977	99	76-120
MTBE			NA		
Benzene			NA		
Toluene			NA		
Ethylbenzene			NA		
m,p-Xylenes			NA		
o-Xylene			NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		119	57-150
Bromofluorobenzene (FID)		119	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Type: MSD Analyzed: 11/05/03
 Lab ID: QC231016

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,965	98	76-120	1	20
MTBE			NA			
Benzene			NA			
Toluene			NA			
Ethylbenzene			NA			
m,p-Xylenes			NA			
o-Xylene			NA			

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		125	57-150
Bromofluorobenzene (FID)		126	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

NA= Not Analyzed
 RPD= Relative Percent Difference
 Page 1 of 1

Purgeable Aromatics by GC/MS

Lab #:	168577	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	86000
Lab ID:	168577-001	Sampled:	11/03/03
Matrix:	Water	Received:	11/03/03
Units:	ug/L	Analyzed:	11/08/03
Diln Fac:	12.50		

Analyte	Result	RL
MTBE	1,700	6.3

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	77-129
Toluene-d8	96	80-120
Bromofluorobenzene	97	80-123

Purgeable Aromatics by GC/MS

Lab #:	168577	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC231522	Batch#:	86000
Matrix:	Water	Analyzed:	11/08/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	106	80-123

Purgeable Aromatics by GC/MS

Lab #:	168577	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	86000
Units:	ug/L	Analyzed:	11/08/03
Diln Fac:	1.000		

Type: BS Lab ID: QC231514

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	48.17	96	69-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	77-129
Toluene-d8	98	80-120
Bromofluorobenzene	96	80-123

Type: BSD Lab ID: QC231515

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	48.16	96	69-124	0	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	77-129
Toluene-d8	101	80-120
Bromofluorobenzene	99	80-123



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

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 27-OCT-03
Lab Job Number: 168184
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins Laboratories Analytical Report

Lab #:	168184	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	10/13/03
Units:	ug/L	Received:	10/13/03
Batch#:	85298	Analyzed:	10/14/03

Field ID:	INFLUENT	Lab ID:	168184-001
Type:	SAMPLE	Diln Fac:	5.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	6,100	250	8015B
MTBE	1,400	25	EPA 8021B
Benzene	640	25	EPA 8021B
Toluene	200	25	EPA 8021B
Ethylbenzene	200	25	EPA 8021B
m,p-Xylenes	390	25	EPA 8021B
o-Xylene	230	25	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	127	57-150	8015B
Bromofluorobenzene (FID)	107	65-144	8015B
Trifluorotoluene (PID)	110	54-149	EPA 8021B
Bromofluorobenzene (PID)	111	58-143	EPA 8021B

Field ID:	GAC-1	Lab ID:	168184-002
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	103	57-150	8015B
Bromofluorobenzene (FID)	103	65-144	8015B
Trifluorotoluene (PID)	103	54-149	EPA 8021B
Bromofluorobenzene (PID)	104	58-143	EPA 8021B

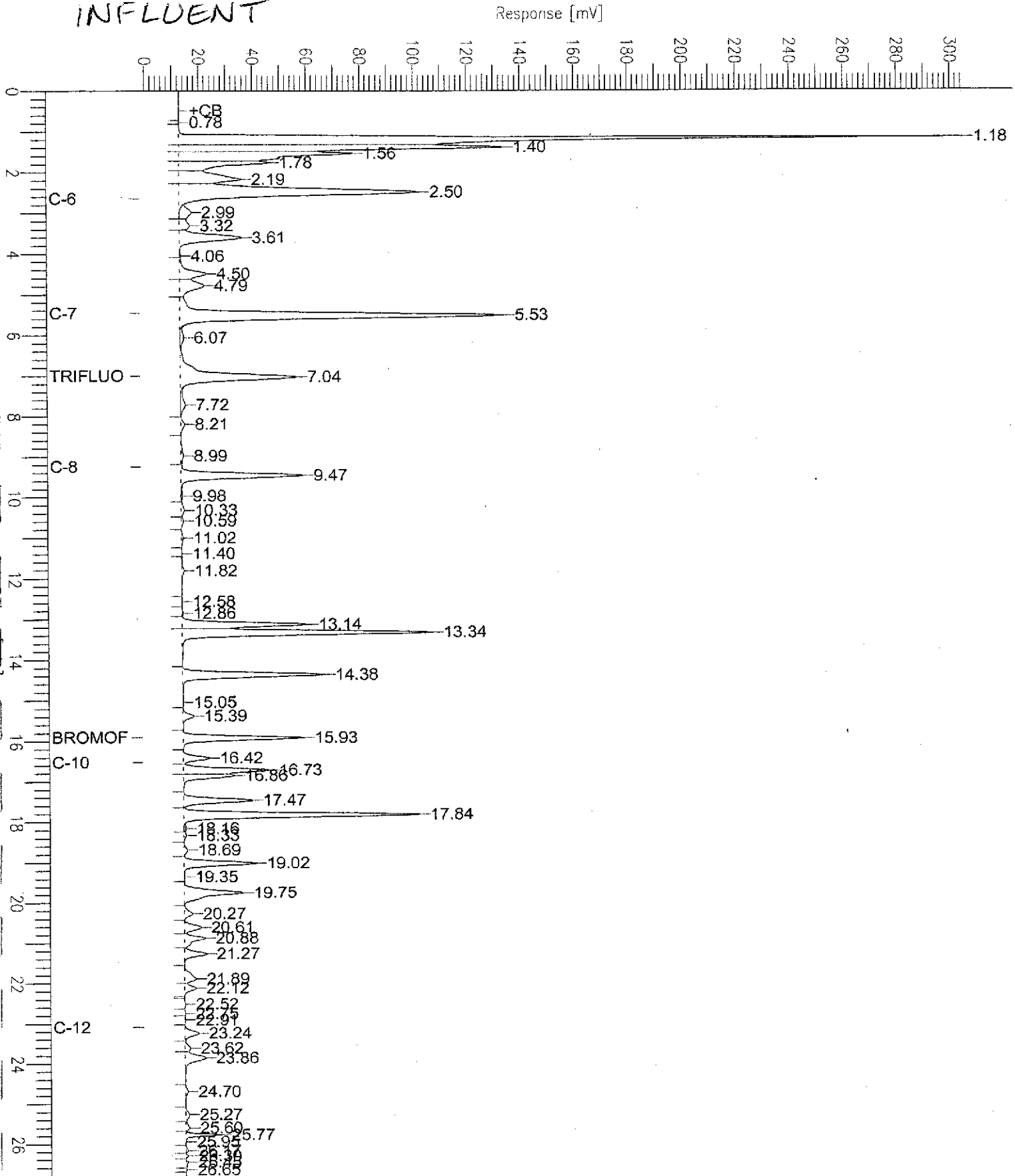
ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

GC19 TVH 'X' Data File (FID)

Sample Name : 168184-001_85298
 File Name : G:\GC19\DATA\287X011.raw
 Method : TVHBTXE
 Start Time : 0.00 min End Time : 26.80 min
 Scale Factor : 1.0 Plot Offset : -2 mV

Sample #: c1.3 Page 1 of 1
 Date : 10/14/03 04:18 PM
 Time of Injection: 10/14/03 03:51 PM
 Low Point : -1.90 mV High Point : 305.16 mV
 Plot Scale: 307.1 mV

INFLUENT





Curtis & Tompkins Laboratories Analytical Report

Lab #:	168184	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	10/13/03
Units:	ug/L	Received:	10/13/03
Batch#:	85298	Analyzed:	10/14/03

Field ID:	PSP#1	Lab ID:	168184-003
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	5.3	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	106	57-150	8015B
Bromofluorobenzene (FID)	107	65-144	8015B
Trifluorotoluene (PID)	105	54-149	EPA 8021B
Bromofluorobenzene (PID)	109	58-143	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC228786		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	94	57-150	8015B
Bromofluorobenzene (FID)	96	65-144	8015B
Trifluorotoluene (PID)	94	54-149	EPA 8021B
Bromofluorobenzene (PID)	97	58-143	EPA 8021B

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 2

GC19 TVH 'X' Data File (FID)

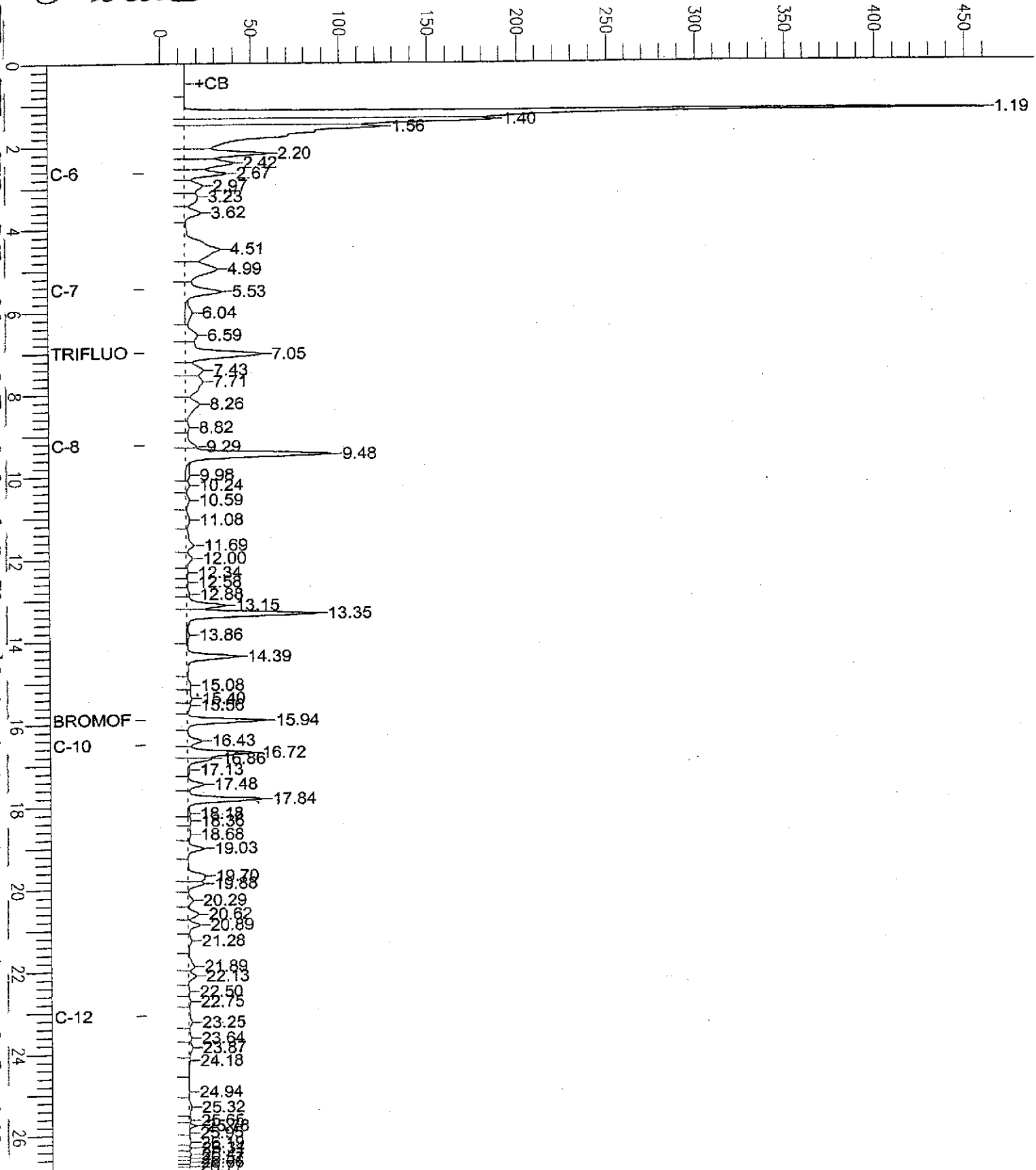
Sample Name : ccv/ba,gc228787,85298,03ws1625,2.5/5000
FileName : g:\gc19\data\287x003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.80 min
Scale Factor : 1.0 Plot Offset : -9 mV

Sample # :
Date : 10/14/03 07:14 PM
Time of Injection : 10/14/03 11:13 AM
Low Point : -9.14 mV High Point : 460.45 mV
Plot Scale : 469.6 mV

Page 1 of 1

Gasoline

Response [mV]





Curtis & Tompkins Laboratories Analytical Report

Lab #:	168184	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC228788	Batch#:	85298
Matrix:	Water	Analyzed:	10/14/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12		NA		
MTBE	10.00	9.582	96	63-133
Benzene	10.00	10.72	107	78-123
Toluene	10.00	10.21	102	79-120
Ethylbenzene	10.00	9.904	99	80-120
m,p-Xylenes	20.00	20.66	103	76-120
o-Xylene	10.00	10.04	100	80-121

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)	NA		
Bromofluorobenzene (FID)	NA		
Trifluorotoluene (PID)		101	54-149
Bromofluorobenzene (PID)		102	58-143



Curtis & Tompkins Laboratories Analytical Report

Lab #:	168184	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	BS	Diln Fac:	1.000
Lab ID:	QC228787	Batch#:	85298
Matrix:	Water	Analyzed:	10/14/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,058	106	80-120
MTBE		NA		
Benzene		NA		
Toluene		NA		
Ethylbenzene		NA		
m,p-Xylenes		NA		
o-Xylene		NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		121	57-150
Bromofluorobenzene (FID)		106	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		



Curtis & Tompkins Laboratories Analytical Report

Lab #:	168184	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	BSD	Diln Fac:	1.000
Lab ID:	QC228881	Batch#:	85298
Matrix:	Water	Analyzed:	10/14/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,089	104	80-120	1	20
MTBE		NA				
Benzene		NA				
Toluene		NA				
Ethylbenzene		NA				
m,p-Xylenes		NA				
o-Xylene		NA				

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		123	57-150
Bromofluorobenzene (FID)		110	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Curtis & Tompkins Laboratories Analytical Report

Lab #:	168184	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Field ID:	ZZZZZZZZZZ	Batch#:	85298
MSS Lab ID:	168216-007	Sampled:	10/14/03
Matrix:	Water	Received:	10/14/03
Units:	ug/L	Analyzed:	10/14/03
Diln Fac:	1.000		

Type: MS Lab ID: QC228844

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12			NA		
MTBE	1.310	20.00	18.97	88	38-149
Benzene	<0.06500	20.00	21.02	105	75-128
Toluene	<0.03700	20.00	20.49	102	79-127
Ethylbenzene	<0.04500	20.00	19.52	98	78-124
m,p-Xylenes	<0.07200	40.00	41.49	104	67-121
o-Xylene	<0.05700	20.00	20.54	103	77-131

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)	NA		
Bromofluorobenzene (FID)	NA		
Trifluorotoluene (PID)		103	54-149
Bromofluorobenzene (PID)		107	58-143

Type: MSD Lab ID: QC228845

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12		NA				
MTBE	20.00	19.10	89	38-149	1	38
Benzene	20.00	21.24	106	75-128	1	20
Toluene	20.00	19.77	99	79-127	4	20
Ethylbenzene	20.00	20.44	102	78-124	5	20
m,p-Xylenes	40.00	40.83	102	67-121	2	20
o-Xylene	20.00	20.45	102	77-131	0	20

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)	NA		
Bromofluorobenzene (FID)	NA		
Trifluorotoluene (PID)		104	54-149
Bromofluorobenzene (PID)		107	58-143

NA= Not Analyzed

RPD= Relative Percent Difference



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

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

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

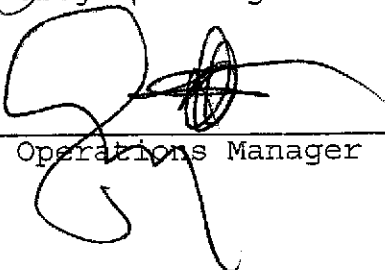
Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 22-SEP-03
Lab Job Number: 167576
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins Laboratories Analytical Report

Lab #:	167576	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	09/15/03
Units:	ug/L	Received:	09/15/03
Batch#:	84579	Analyzed:	09/17/03

Field ID: INFLUENT Lab ID: 167576-001
 Type: SAMPLE

Analyte	Result	RL	Diln Fac	Analysis
Gasoline C7-C12	4,200	50	1.000	8015B
MTBE	1,100	10	2.000	EPA 8021B
Benzene	460	10	2.000	EPA 8021B
Toluene	210	5.0	1.000	EPA 8021B
Ethylbenzene	69	5.0	1.000	EPA 8021B
m,p-Xylenes	360	5.0	1.000	EPA 8021B
o-Xylene	200	5.0	1.000	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Analysis
Trifluorotoluene (FID)	144	57-150	1.000	8015B
Bromofluorobenzene (FID)	143	65-144	1.000	8015B
Trifluorotoluene (PID)	93	54-149	1.000	EPA 8021B
Bromofluorobenzene (PID)	106	58-143	1.000	EPA 8021B

Field ID: GAC-1 Lab ID: 167576-002
 Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	6.0	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	100	57-150	8015B
Bromofluorobenzene (FID)	128	65-144	8015B
Trifluorotoluene (PID)	81	54-149	EPA 8021B
Bromofluorobenzene (PID)	106	58-143	EPA 8021B

ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

Curtis & Tompkins Laboratories Analytical Report

Lab #:	167576	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	09/15/03
Units:	ug/L	Received:	09/15/03
Batch#:	84579	Analyzed:	09/17/03

Field ID:	PSP#1	Lab ID:	167576-003
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	93	57-150	8015B
Bromofluorobenzene (FID)	117	65-144	8015B
Trifluorotoluene (PID)	74	54-149	EPA 8021B
Bromofluorobenzene (PID)	95	58-143	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC225976		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	97	57-150	8015B
Bromofluorobenzene (FID)	118	65-144	8015B
Trifluorotoluene (PID)	76	54-149	EPA 8021B
Bromofluorobenzene (PID)	93	58-143	EPA 8021B

Chromatogram

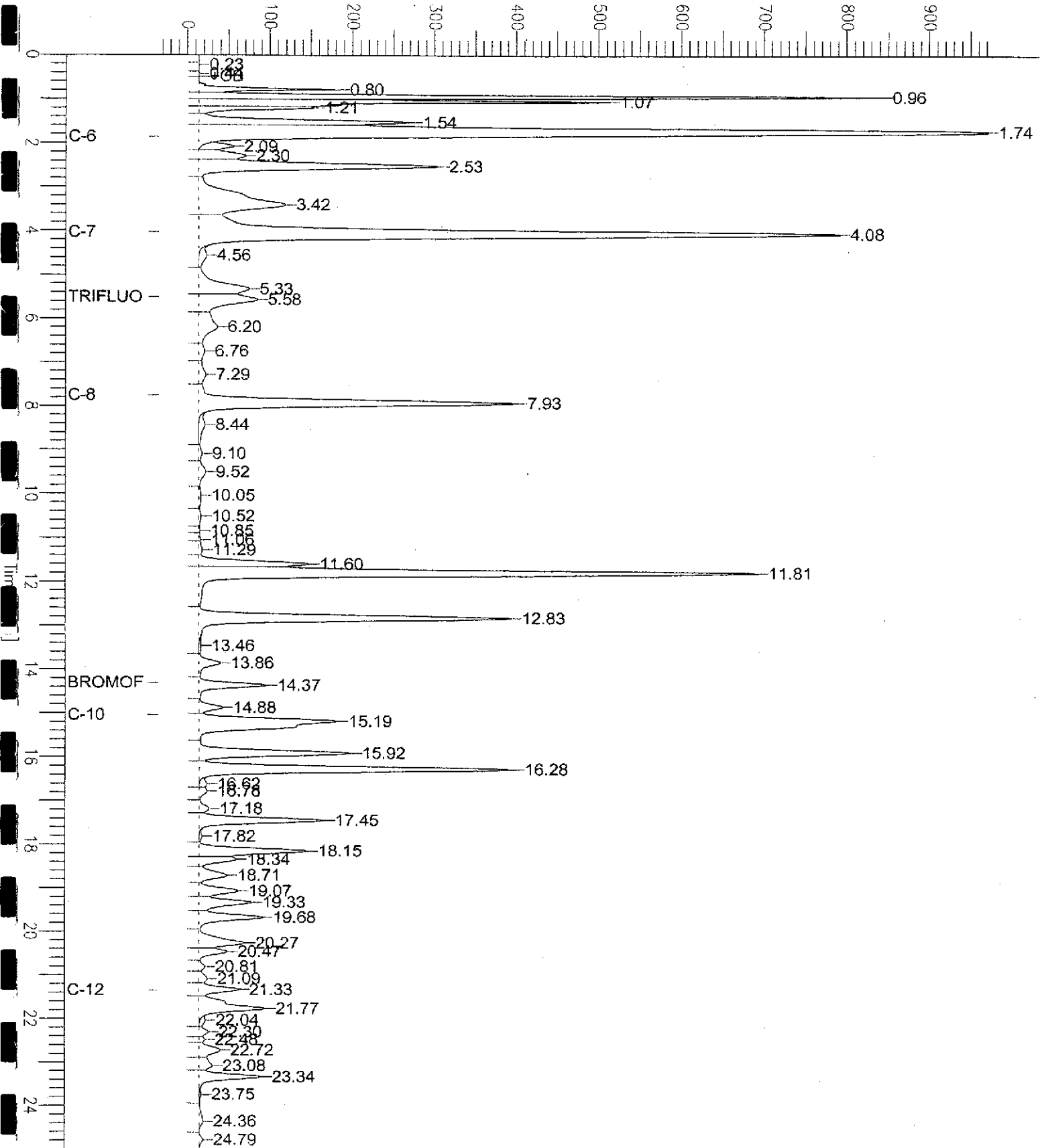
Sample Name : 167576-001,84579
File Name : G:\GC05\DATA\260G006.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor : 1.0

End Time : 25.00 min
Plot Offset : -34 mV

Sample #: a1.0
Date : 9/17/03 03:43 PM
Time of Injection: 9/17/03 03:18 PM
Low Point : -33.99 mV
High Point : 971.63 mV
Plot Scale : 1005.6 mV

influent

Response [mV]



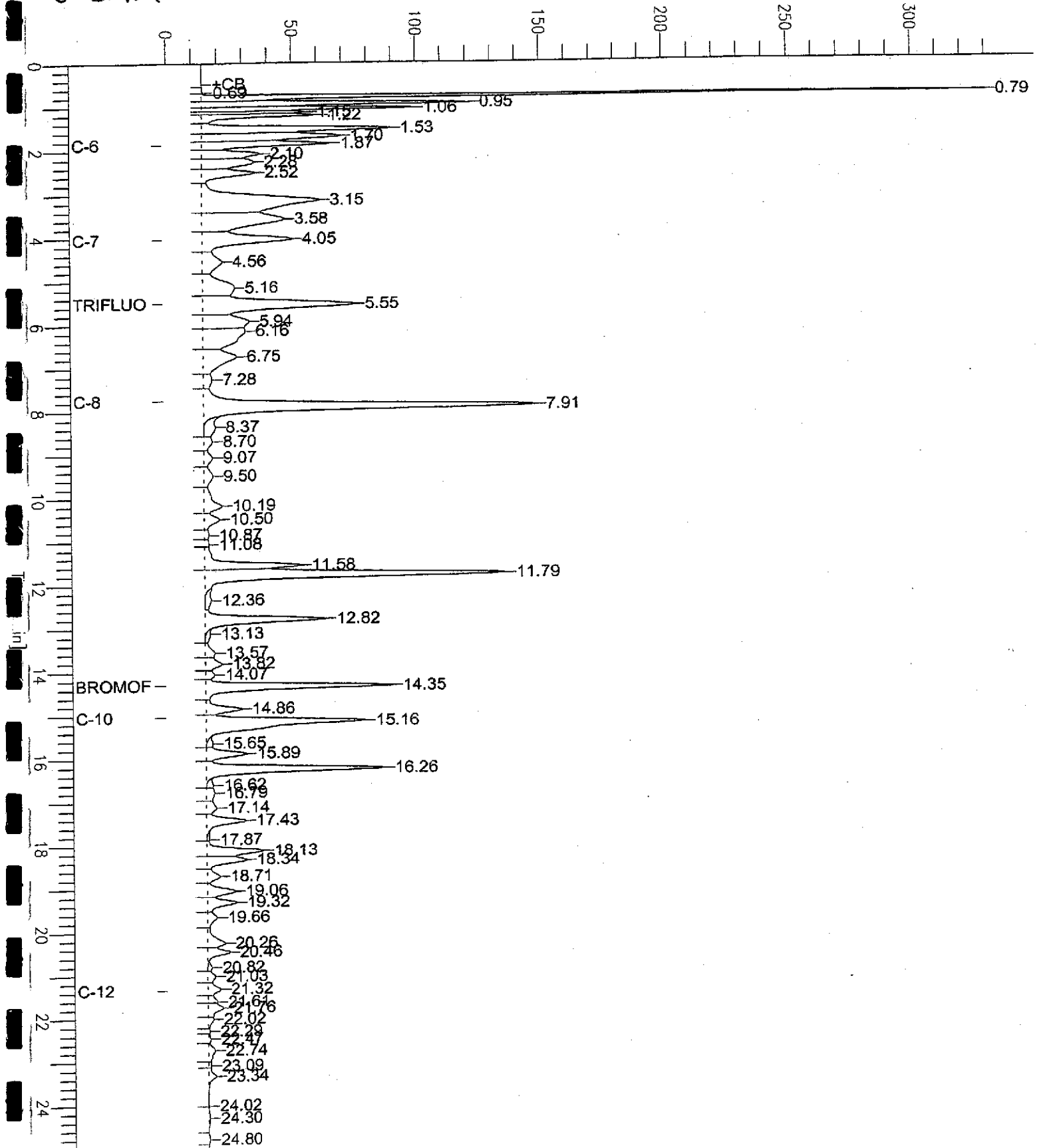
Chromatogram

Sample Name : ccv/lcs,qc225978,84579,03ws1335,2.5/5000
File Name : G:\GC05\DATA\260g002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 25.00 min
Scale Factor : 1.0 Plot Offset : -2 mV

Sample # :
Date : 9/17/03 01:15 PM
Time of Injection : 9/17/03 12:41 PM
Low Point : -1.77 mV High Point : 330.56 mV
Plot Scale : 332.3 mV

Gasoline

Response [mV]





Total Volatile Hydrocarbons

Lab #:	167576	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC225978	Batch#:	84579
Matrix:	Water	Analyzed:	09/17/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	1,151	115	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	57-150
Bromofluorobenzene (FID)	130	65-144

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	167576	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC225977	Batch#:	84579
Matrix:	Water	Analyzed:	09/17/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	10.00	8.881	89	63-133
Benzene	10.00	10.12	101	78-123
Toluene	10.00	9.573	96	79-120
Ethylbenzene	10.00	9.941	99	80-120
m, p-Xylenes	20.00	21.03	105	76-120
o-Xylene	10.00	10.36	104	80-121

Surrogate	%REC	Limits
Trifluorotoluene (PID)	77	54-149
Bromofluorobenzene (PID)	95	58-143



Total Volatile Hydrocarbons

Lab #:	167576	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	PSP#1	Batch#:	84579
MSS Lab ID:	167576-003	Sampled:	09/15/03
Matrix:	Water	Received:	09/15/03
Units:	ug/L	Analyzed:	09/17/03
Diln Fac:	1.000		

Type: MS Lab ID: QC226019

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	17.50	2,000	2,193	109	76-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	120	57-150
Bromofluorobenzene (FID)	139	65-144

Type: MSD Lab ID: QC226020

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,246	111	76-120	2	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	57-150
Bromofluorobenzene (FID)	140	65-144



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

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

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

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 18-SEP-03
Lab Job Number: 167282
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins Laboratories Analytical Report

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	09/02/03
Units:	ug/L	Received:	09/02/03
Batch#:	84173		

Field ID:	INFLUENT	Diln Fac:	5.000
Type:	SAMPLE	Analyzed:	09/04/03
Lab ID:	167282-001		

Analyte	Result	RL	Analysis
Gasoline C7-C12	5,000	250	8015B
MTBE	1,500	25	EPA 8021B
Benzene	660	25	EPA 8021B
Toluene	320	25	EPA 8021B
Ethylbenzene	100	25	EPA 8021B
m, p-Xylenes	520	25	EPA 8021B
o-Xylene	270	25	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	121	57-150	8015B
Bromofluorobenzene (FID)	141	65-144	8015B
Trifluorotoluene (PID)	91	54-149	EPA 8021B
Bromofluorobenzene (PID)	113	58-143	EPA 8021B

Field ID:	GAC-1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	09/03/03
Lab ID:	167282-002		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m, p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	96	57-150	8015B
Bromofluorobenzene (FID)	124	65-144	8015B
Trifluorotoluene (PID)	79	54-149	EPA 8021B
Bromofluorobenzene (PID)	102	58-143	EPA 8021B

Chromatogram

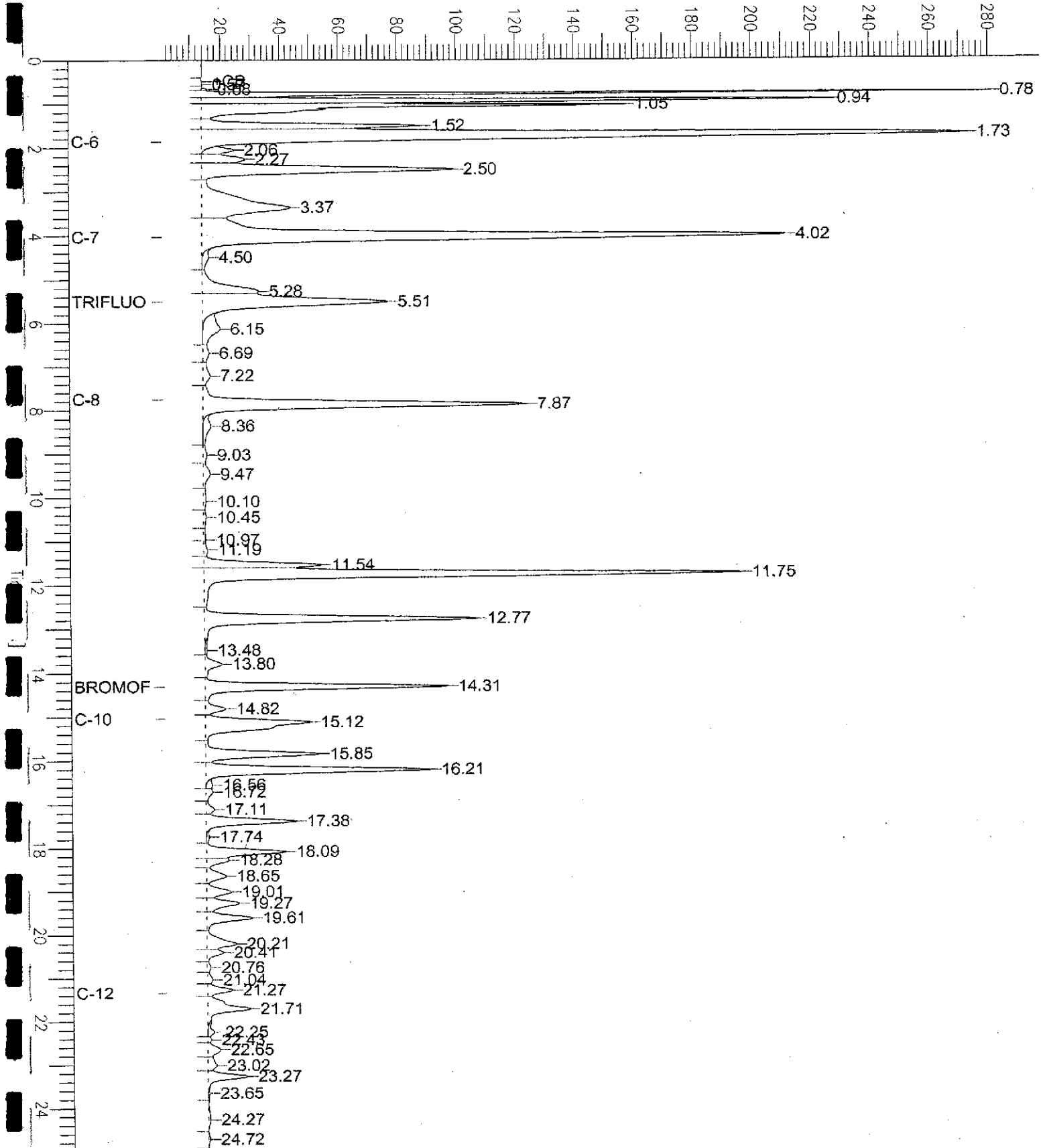
Sample Name : 167282-001,84173,bttxe only
Sample Name : g:\gc05\data\245g022.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor : 1.0

End Time : 25.00 min
Plot Offset: 0 mV

Page 1 of 1
Sample #: a1.0
Date : 9/4/03 11:28 AM
Time of Injection: 9/4/03 12:22 AM
Low Point : 0.47 mV
Plot Scale: 280.3 mV
High Point : 280.81 mV

INFLUENT

Response [mV]





Curtis & Tompkins Laboratories Analytical Report

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	09/02/03
Units:	ug/L	Received:	09/02/03
Batch#:	84173		

Field ID:	PSP#1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	09/03/03
Lab ID:	167282-003		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	99	57-150	8015B
Bromofluorobenzene (FID)	127	65-144	8015B
Trifluorotoluene (PID)	80	54-149	EPA 8021B
Bromofluorobenzene (PID)	105	58-143	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC224358	Analyzed:	09/03/03

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	102	57-150	8015B
Bromofluorobenzene (FID)	125	65-144	8015B
Trifluorotoluene (PID)	82	54-149	EPA 8021B
Bromofluorobenzene (PID)	103	58-143	EPA 8021B

Chromatogram

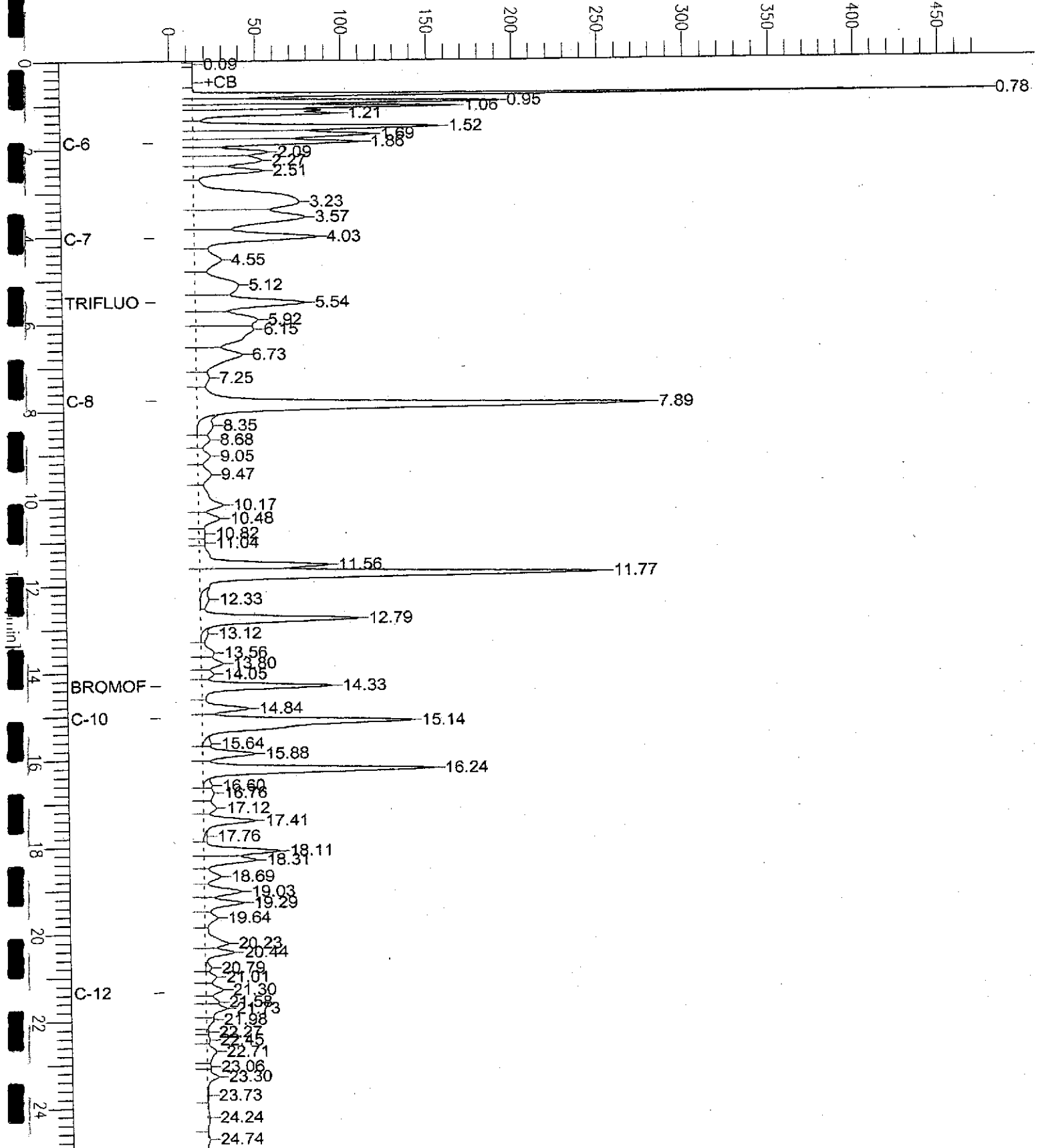
Sample Name : CCV/LCS,qc224360,84173,03ws1335,5/5000
File Name : G:\GC05\DATA\245G002.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor : 1.0

Sample # :
Date : 9/3/03 01:26 PM
Time of Injection: 9/3/03 01:01 PM
Low Point : -9.51 mV
Plot Scale: 487.5 mV
End Time : 25.00 min
Plot Offset: -10 mV
High Point : 478.02 mV

Page 1 of 1

Gasoline

Response [mV]





Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC224359	Batch#:	84173
Matrix:	Water	Analyzed:	09/03/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	18.37	92	63-133
Benzene	20.00	20.39	102	78-123
Toluene	20.00	18.96	95	79-120
Ethylbenzene	20.00	19.64	98	80-120
m,p-Xylenes	40.00	41.00	102	76-120
o-Xylene	20.00	20.07	100	80-121

Surrogate	%REC	Limits
Trifluorotoluene (PID)	73	54-149
Bromofluorobenzene (PID)	91	58-143



Total Volatile Hydrocarbons

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC224360	Batch#:	84173
Matrix:	Water	Analyzed:	09/03/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,226	111	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	123	57-150
Bromofluorobenzene (FID)	136	65-144



Total Volatile Hydrocarbons

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Batch#:	84173
MSS Lab ID:	167298-001	Sampled:	09/02/03
Matrix:	Water	Received:	09/02/03
Units:	ug/L	Analyzed:	09/04/03
Diln Fac:	1.000		

Type: MS Lab ID: QC224404

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	33.24	2,000	2,135	105	76-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	116	57-150
Bromofluorobenzene (FID)	137	65-144

Type: MSD Lab ID: QC224405

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,165	107	76-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	117	57-150
Bromofluorobenzene (FID)	140	65-144



Purgeable Aromatics by GC/MS

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	84307
Lab ID:	167282-001	Sampled:	09/02/03
Matrix:	Water	Received:	09/02/03
Units:	ug/L	Analyzed:	09/09/03
Diln Fac:	10.00		

Analyte	Result	RL
MTBE	1,200	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	77-129
Toluene-d8	101	80-120
Bromofluorobenzene	95	80-123



Purgeable Aromatics by GC/MS

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC224878	Batch#:	84307
Matrix:	Water	Analyzed:	09/08/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	106	80-123



Purgeable Aromatics by GC/MS

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC224977	Batch#:	84307
Matrix:	Water	Analyzed:	09/08/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	77-129
Toluene-d8	99	80-120
Bromofluorobenzene	106	80-123



Purgeable Aromatics by GC/MS

Lab #:	167282	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	84307
Units:	ug/L	Analyzed:	09/08/03
Diln Fac:	1.000		

Type: BS Lab ID: QC224876

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	47.73	95	69-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	77-129
Toluene-d8	102	80-120
Bromofluorobenzene	104	80-123

Type: BSD Lab ID: QC224877

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	48.19	96	69-124	1	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	105	77-129
Toluene-d8	102	80-120
Bromofluorobenzene	102	80-123



Purgeable Aromatics by GC/MS

Lab #: 167282	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	Analysis: EPA 8260B
Field ID: ZZZZZZZZZZ	Batch#: 84307
MSS Lab ID: 167227-003	Sampled: 08/28/03
Matrix: Water	Received: 08/28/03
Units: ug/L	Analyzed: 09/08/03
Diln Fac: 1.000	

Type: MS Lab ID: QC224958

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.1100	50.00	43.99	88	67-127

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	77-129
Toluene-d8	105	80-120
Bromofluorobenzene	94	80-123

Type: MSD Lab ID: QC224959

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	46.11	92	67-127	5	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	77-129
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-123



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

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

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

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

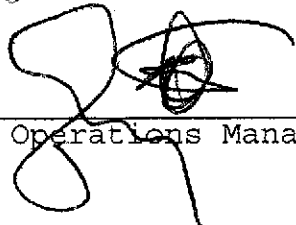
Date: 03-SEP-03
Lab Job Number: 167027
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.

Laboratory Number: 167027
Client: SOMA Environmental Engineering Inc.
Project: 3609 International Blvd
Request Date: 08/19/2003

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for three water samples requested from the above referenced project on August 19, 2003. The samples were received cold and intact.

TVH/BTXE:

In the influent sample, the recovery for the surrogate trifluorotoluene is outside control limits due to the coelution of the surrogate peak with other hydrocarbon peaks. The associated surrogate recoveries are acceptable.

No other analytical problems were encountered.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	167027	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	08/19/03
Units:	ug/L	Received:	08/19/03
Batch#:	83853	Analyzed:	08/20/03

Field ID: INFLUENT Lab ID: 167027-001
 Type: SAMPLE Diln Fac: 5.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	6,700	250	8015B
MTBE	1,600	25	EPA 8021B
Benzene	710	25	EPA 8021B
Toluene	370	25	EPA 8021B
Ethylbenzene	130	25	EPA 8021B
m,p-Xylenes	710	25	EPA 8021B
o-Xylene	370	25	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	152 *	57-150	8015B
Bromofluorobenzene (FID)	107	65-144	8015B
Trifluorotoluene (PID)	132	54-149	EPA 8021B
Bromofluorobenzene (PID)	106	58-143	EPA 8021B

Field ID: GAC-1 Lab ID: 167027-002
 Type: SAMPLE Diln Fac: 1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	117	57-150	8015B
Bromofluorobenzene (FID)	104	65-144	8015B
Trifluorotoluene (PID)	115	54-149	EPA 8021B
Bromofluorobenzene (PID)	102	58-143	EPA 8021B

*= Value outside of QC limits; see narrative
 ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

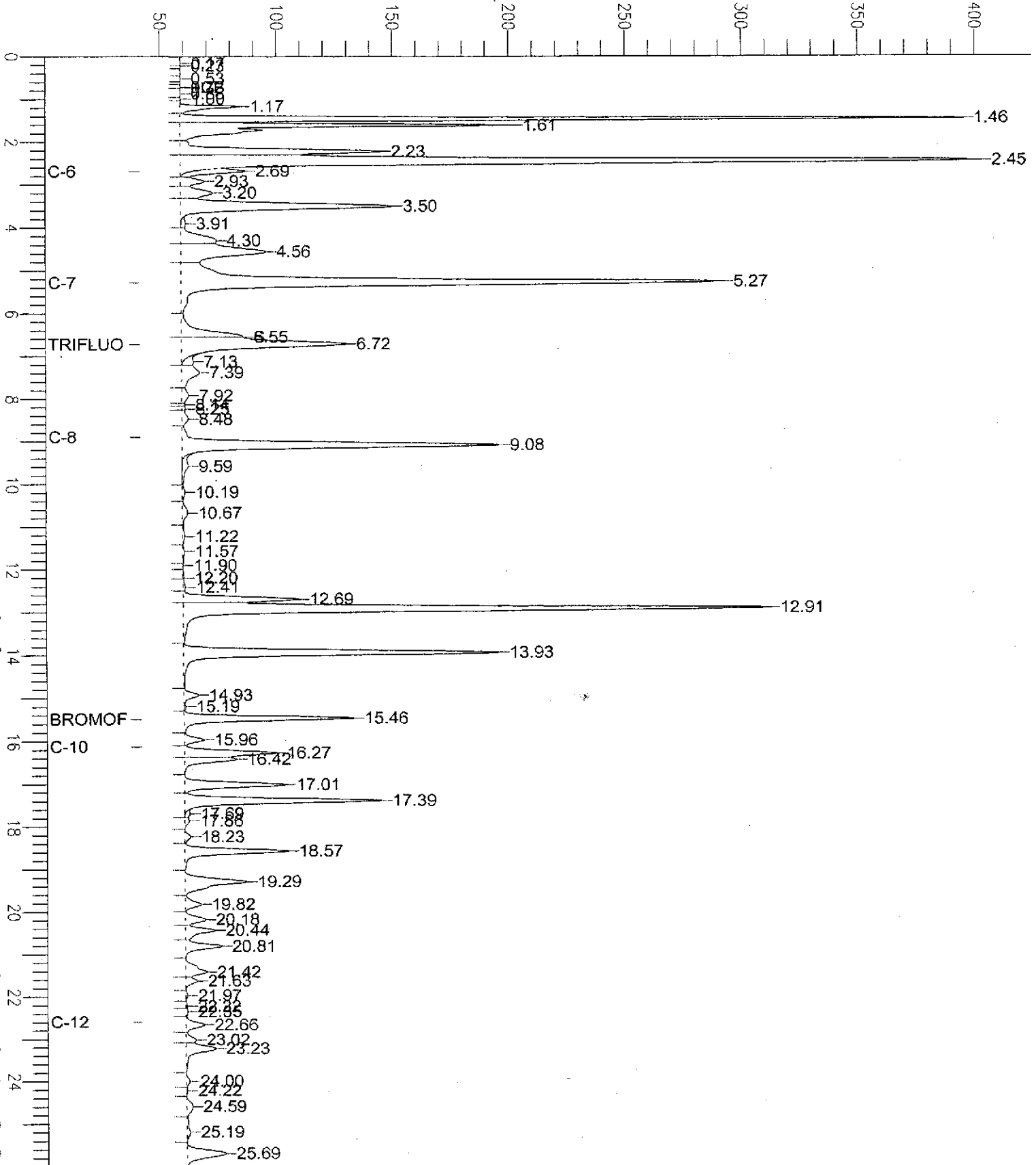
GC04 TVH 'J' Data File FID

Sample Name : 167027-001,83853
File Name : G:\GC04\DATA\232J011.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor: 1.0

Sample #: a1.0
Date : 8/21/03 08:02 AM
Time of Injection: 8/20/03 06:43 PM
Low Point : 41.44 mV
Plot Scale: 361.6 mV

INFLUENT

Response [mV]





Curtis & Tompkins Laboratories Analytical Report

Lab #:	167027	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	08/19/03
Units:	ug/L	Received:	08/19/03
Batch#:	83853	Analyzed:	08/20/03

Field ID:	PSP#1	Lab ID:	167027-003
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	119	57-150	8015B
Bromofluorobenzene (FID)	106	65-144	8015B
Trifluorotoluene (PID)	117	54-149	EPA 8021B
Bromofluorobenzene (PID)	105	58-143	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC223003		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	102	57-150	8015B
Bromofluorobenzene (FID)	89	65-144	8015B
Trifluorotoluene (PID)	101	54-149	EPA 8021B
Bromofluorobenzene (PID)	88	58-143	EPA 8021B

*= Value outside of QC limits; see narrative

ND= Not Detected

RL= Reporting Limit

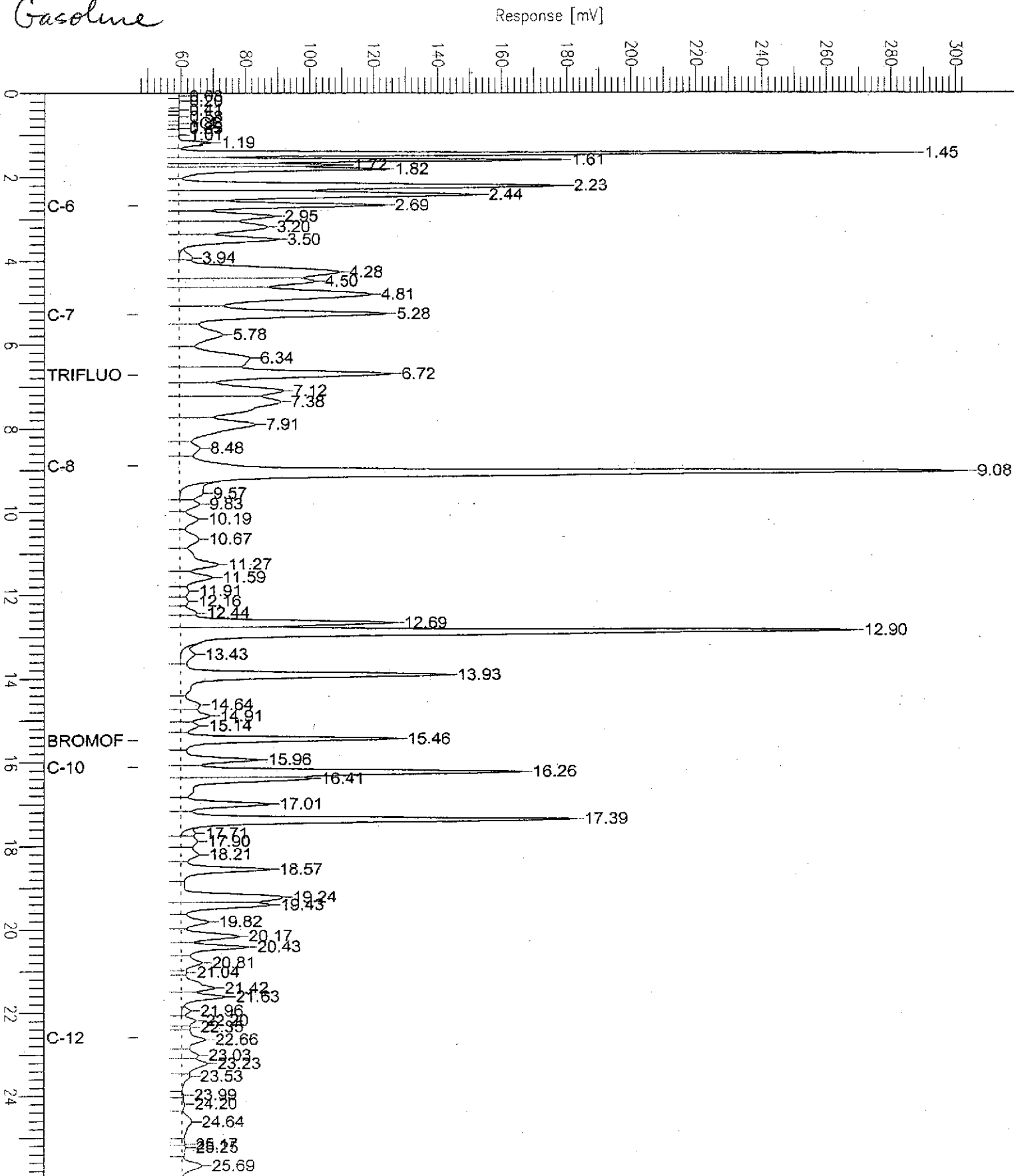
Page 2 of 2

GC04 TVH 'J' Data File FID

Sample Name : ccv/lcs,qc223005,83853,03ws1106,5/5000
File Name : G:\GC04\DATA\232j002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor : 1.0 Plot Offset : 47 mV

Sample # :
Date : 8/20/03 01:10 PM Page 1 of 1
Time of Injection: 8/20/03 11:48 AM
Low Point : 47.00 mV High Point : 303.08 mV
Plot Scale : 256.1 mV

Gasoline





Curtis & Tompkins Laboratories Analytical Report

Lab #: 167027	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	Analysis: EPA 8021B
Type: LCS	Diln Fac: 1.000
Lab ID: QC223004	Batch#: 83853
Matrix: Water	Analyzed: 08/20/03
Units: ug/L	

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12		NA		
MTBE	10.00	9.322	93	63-133
Benzene	10.00	10.27	103	78-123
Toluene	10.00	9.655	97	79-120
Ethylbenzene	10.00	9.663	97	80-120
m,p-Xylenes	20.00	20.64	103	76-120
o-Xylene	10.00	9.936	99	80-121

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)	NA		
Bromofluorobenzene (FID)	NA		
Trifluorotoluene (PID)		107	54-149
Bromofluorobenzene (PID)		96	58-143



Curtis & Tompkins Laboratories Analytical Report

Lab #:	167027	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC223005	Batch#:	83853
Matrix:	Water	Analyzed:	08/20/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,157	108	80-120
MTBE		NA		
Benzene		NA		
Toluene		NA		
Ethylbenzene		NA		
m,p-Xylenes		NA		
o-Xylene		NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		135	57-150
Bromofluorobenzene (FID)		101	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Curtis & Tompkins Laboratories Analytical Report

Lab #:	167027	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Batch#:	83853
MSS Lab ID:	167040-007	Sampled:	08/18/03
Matrix:	Water	Received:	08/19/03
Units:	ug/L	Analyzed:	08/20/03
Diln Fac:	1.000		

Type: MS Lab ID: QC223018

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	40.55	2,000	2,192	108	76-120
MTBE			NA		
Benzene			NA		
Toluene			NA		
Ethylbenzene			NA		
m,p-Xylenes			NA		
o-Xylene			NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		137	57-150
Bromofluorobenzene (FID)		103	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Type: MSD Lab ID: QC223019

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,177	107	76-120	1	20
MTBE		NA				
Benzene		NA				
Toluene		NA				
Ethylbenzene		NA				
m,p-Xylenes		NA				
o-Xylene		NA				

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		135	57-150
Bromofluorobenzene (FID)		102	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

NA= Not Analyzed

RPD= Relative Percent Difference



Purgeable Aromatics by GC/MS

Lab #:	167027	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	83890
Lab ID:	167027-001	Sampled:	08/19/03
Matrix:	Water	Received:	08/19/03
Units:	ug/L	Analyzed:	08/22/03
Diln Fac:	12.50		

Analyte	Result	RL
MTBE	1,300	6.3

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	114	77-129
Toluene-d8	101	80-120
Bromofluorobenzene	114	80-123

Purgeable Aromatics by GC/MS

Lab #:	167027	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC223145	Batch#:	83890
Matrix:	Water	Analyzed:	08/21/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	77-129
Toluene-d8	100	80-120
Bromofluorobenzene	113	80-123



Purgeable Aromatics by GC/MS

Lab #:	167027	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	83890
Units:	ug/L	Analyzed:	08/21/03
Diln Fac:	1.000		

Type: BS Lab ID: QC223143

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	48.40	97	69-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	106	77-129
Toluene-d8	98	80-120
Bromofluorobenzene	97	80-123

Type: BSD Lab ID: QC223144

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	50.30	101	69-124	4	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	104	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	99	80-123



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

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

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

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 30-JUL-03

Lab Job Number: 166439

Project ID: 2333

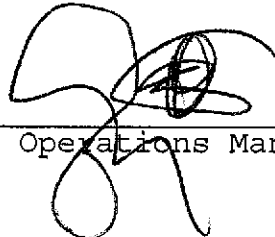
Location: 3609 International Blvd

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

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins Laboratories Analytical Report

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	07/21/03
Units:	ug/L	Received:	07/21/03
Batch#:	83036	Analyzed:	07/22/03

Field ID:	INFLUENT	Lab ID:	166439-001
Type:	SAMPLE		

Analyte	Result	RL	Diln Fac	Analysis
Gasoline C7-C12	6,400	500	10.00	8015B
MTBE	3,100	50	10.00	EPA 8021B
Benzene	1,000	50	10.00	EPA 8021B
Toluene	190	5.0	1.000	EPA 8021B
Ethylbenzene	69	5.0	1.000	EPA 8021B
m,p-Xylenes	950	50	10.00	EPA 8021B
o-Xylene	320	5.0	1.000	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Analysis
Trifluorotoluene (FID)	117	57-150	10.00	8015B
Bromofluorobenzene (FID)	127	65-144	10.00	8015B
Trifluorotoluene (PID)	121	54-149	1.000	EPA 8021B
Bromofluorobenzene (PID)	111	58-143	1.000	EPA 8021B

Field ID:	GAC-1	Lab ID:	166439-002
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	40	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	95	57-150	8015B
Bromofluorobenzene (FID)	113	65-144	8015B
Trifluorotoluene (PID)	96	54-149	EPA 8021B
Bromofluorobenzene (PID)	113	58-143	EPA 8021B

ND= Not Detected
 RL= Reporting Limit
 Page 1 of 2

Curtis & Tompkins Laboratories Analytical Report

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	07/21/03
Units:	ug/L	Received:	07/21/03
Batch#:	83036	Analyzed:	07/22/03

Field ID:	PSP#1	Lab ID:	166439-003
Type:	SAMPLE	Diln Fac:	1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	93	57-150	8015B
Bromofluorobenzene (FID)	121	65-144	8015B
Trifluorotoluene (PID)	95	54-149	EPA 8021B
Bromofluorobenzene (PID)	122	58-143	EPA 8021B

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC219800		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	95	57-150	8015B
Bromofluorobenzene (FID)	106	65-144	8015B
Trifluorotoluene (PID)	97	54-149	EPA 8021B
Bromofluorobenzene (PID)	109	58-143	EPA 8021B

ND = Not Detected
 RL = Reporting Limit

Curtis & Tompkins Laboratories Analytical Report

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC219801	Batch#:	83036
Matrix:	Water	Analyzed:	07/22/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	Analysis
Gasoline C7-C12		NA			
MTBE	20.00	19.68	98	63-133	EPA 8021B
Benzene	20.00	19.96	100	78-123	EPA 8021B
Toluene	20.00	19.07	95	79-120	EPA 8021B
Ethylbenzene	20.00	19.33	97	80-120	EPA 8021B
m,p-Xylenes	40.00	38.73	97	76-120	EPA 8021B
o-Xylene	20.00	19.38	97	80-121	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	98	57-150	8015B
Bromofluorobenzene (FID)	107	65-144	8015B
Trifluorotoluene (PID)	99	54-149	EPA 8021B
Bromofluorobenzene (PID)	108	58-143	EPA 8021B

Curtis & Tompkins Laboratories Analytical Report

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC219802	Batch#:	83036
Matrix:	Water	Analyzed:	07/22/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,012	101	80-120
MTBE		NA		
Benzene		NA		
Toluene		NA		
Ethylbenzene		NA		
m,p-Xylenes		NA		
o-Xylene		NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		117	57-150
Bromofluorobenzene (FID)		116	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		



Curtis & Tompkins Laboratories Analytical Report

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Batch#:	83036
MSS Lab ID:	166471-001	Sampled:	07/22/03
Matrix:	Water	Received:	07/22/03
Units:	ug/L	Analyzed:	07/23/03
Diln Fac:	1.000		

Type: MS Lab ID: QC219815

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	23.64	2,000	1,926	95	76-120
MTBE			NA		
Benzene			NA		
Toluene			NA		
Ethylbenzene			NA		
m,p-Xylenes			NA		
o-Xylene			NA		

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		112	57-150
Bromofluorobenzene (FID)		118	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

Type: MSD Lab ID: QC219816

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,950	96	76-120	1	20
MTBE		NA				
Benzene		NA				
Toluene		NA				
Ethylbenzene		NA				
m,p-Xylenes		NA				
o-Xylene		NA				

Surrogate	Result	%REC	Limits
Trifluorotoluene (FID)		106	57-150
Bromofluorobenzene (FID)		115	65-144
Trifluorotoluene (PID)	NA		
Bromofluorobenzene (PID)	NA		

NA= Not Analyzed
 RPD= Relative Percent Difference
 Page 1 of 1



Purgeable Aromatics by GC/MS

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	83122
Lab ID:	166439-001	Sampled:	07/21/03
Matrix:	Water	Received:	07/21/03
Units:	ug/L	Analyzed:	07/25/03
Diln Fac:	20.00		

Analyte	Result	RL
MTBE	2,900	10

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	93	77-129
Toluene-d8	88	80-120
Bromofluorobenzene	101	80-123



Purgeable Aromatics by GC/MS

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	83122
Lab ID:	166439-002	Sampled:	07/21/03
Matrix:	Water	Received:	07/21/03
Units:	ug/L	Analyzed:	07/25/03
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	34	0.5

Surrogate	REC	Limits
1,2-Dichloroethane-d4	96	77-129
Toluene-d8	92	80-120
Bromofluorobenzene	104	80-123



Purgeable Aromatics by GC/MS

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC220066	Batch#:	83122
Matrix:	Water	Analyzed:	07/24/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	77-129
Toluene-d8	90	80-120
Bromofluorobenzene	102	80-123



Purgeable Aromatics by GC/MS

Lab #:	166439	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	83122
Units:	ug/L	Analyzed:	07/24/03
Diln Fac:	1.000		

Type: BS Lab ID: QC220063

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	45.11	90	69-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	96	77-129
Toluene-d8	94	80-120
Bromofluorobenzene	93	80-123

Type: BSD Lab ID: QC220064

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	46.60	93	69-124	3	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	97	77-129
Toluene-d8	95	80-120
Bromofluorobenzene	96	80-123



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

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

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

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 22-JUL-03
Lab Job Number: 166254
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins Laboratories Analytical Report

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	07/09/03
Units:	ug/L	Received:	07/09/03

Field ID:	INFLUENT	Lab ID:	166254-001
Type:	SAMPLE		

Analyte	Result	RL	Diln Fac	Batch#	Analyzed	Analysis
Gasoline C7-C12	9,300	50	1.000	82810	07/11/03	8015B
MTBE	4,300	25	5.000	82840	07/13/03	EPA 8021B
Benzene	1,100	25	5.000	82840	07/13/03	EPA 8021B
Toluene	310	5.0	1.000	82810	07/11/03	EPA 8021B
Ethylbenzene	110	5.0	1.000	82810	07/11/03	EPA 8021B
m,p-Xylenes	970	25	5.000	82840	07/13/03	EPA 8021B
o-Xylene	370	25	5.000	82840	07/13/03	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed	Analysis
Trifluorotoluene (FID)	107	57-150	1.000	82810	07/11/03	8015B
Bromofluorobenzene (FID)	103	65-144	1.000	82810	07/11/03	8015B
Trifluorotoluene (PID)	133	54-149	5.000	82840	07/13/03	EPA 8021B
Bromofluorobenzene (PID)	116	58-143	5.000	82840	07/13/03	EPA 8021B

Field ID:	GAC-1	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	82840
Lab ID:	166254-002	Analyzed:	07/13/03

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	36	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	105	57-150	8015B
Bromofluorobenzene (FID)	107	65-144	8015B
Trifluorotoluene (PID)	109	54-149	EPA 8021B
Bromofluorobenzene (PID)	116	58-143	EPA 8021B

ND= Not Detected
RL= Reporting Limit

GC04 TVH 'J' Data File FID

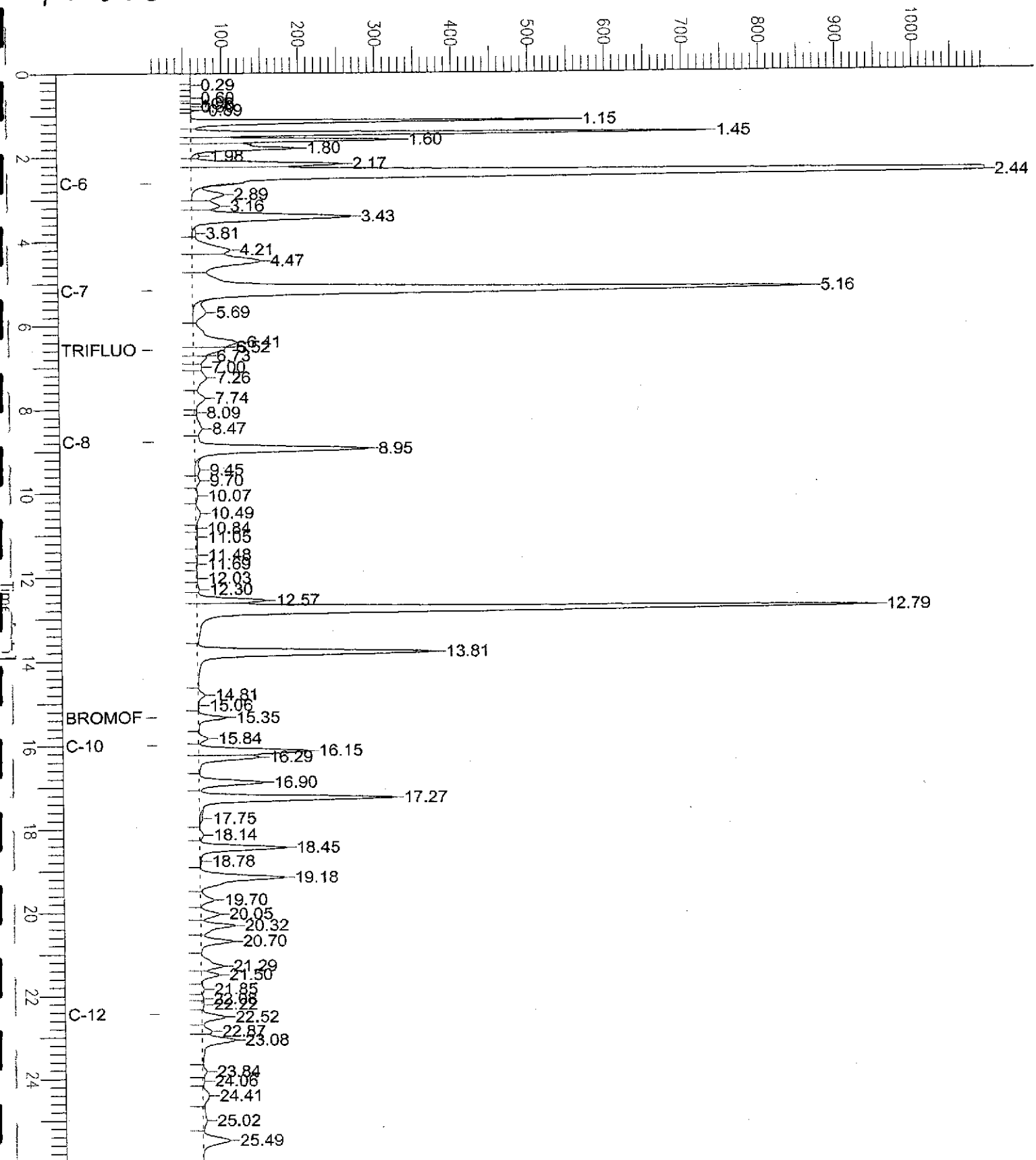
Sample Name : 166254-001,82810
File Name : G:\GC04\DATA\192J006.raw
Method : TVHBTXE
Start Time : 0.00 min
End Time : 26.00 min
Scale Factor : 1.0
Plot Offset : 8 mV

Sample #: a1
Date : 7/12/03 12:31 PM
Time of Injection: 7/11/03 12:52 PM
Low Point : 8.06 mV
High Point : 1094.43 mV
Plot Scale: 1086.4 mV

Page 1 of 1

INFLUENT

Response [mV]





Curtis & Tompkins Laboratories Analytical Report

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		
Matrix:	Water	Sampled:	07/09/03
Units:	ug/L	Received:	07/09/03

Field ID:	PSP#1	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	82810
Lab ID:	166254-003	Analyzed:	07/11/03

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	103	57-150	8015B
Bromofluorobenzene (FID)	102	65-144	8015B
Trifluorotoluene (PID)	108	54-149	EPA 8021B
Bromofluorobenzene (PID)	110	58-143	EPA 8021B

Type:	BLANK	Batch#:	82810
Lab ID:	QC218944	Analyzed:	07/11/03
Diln Fac:	1.000		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	101	57-150	8015B
Bromofluorobenzene (FID)	99	65-144	8015B
Trifluorotoluene (PID)	106	54-149	EPA 8021B
Bromofluorobenzene (PID)	104	58-143	EPA 8021B

ND= Not Detected
 RL= Reporting Limit
 Page 2 of 3

GC04 TVH 'J' Data File FID

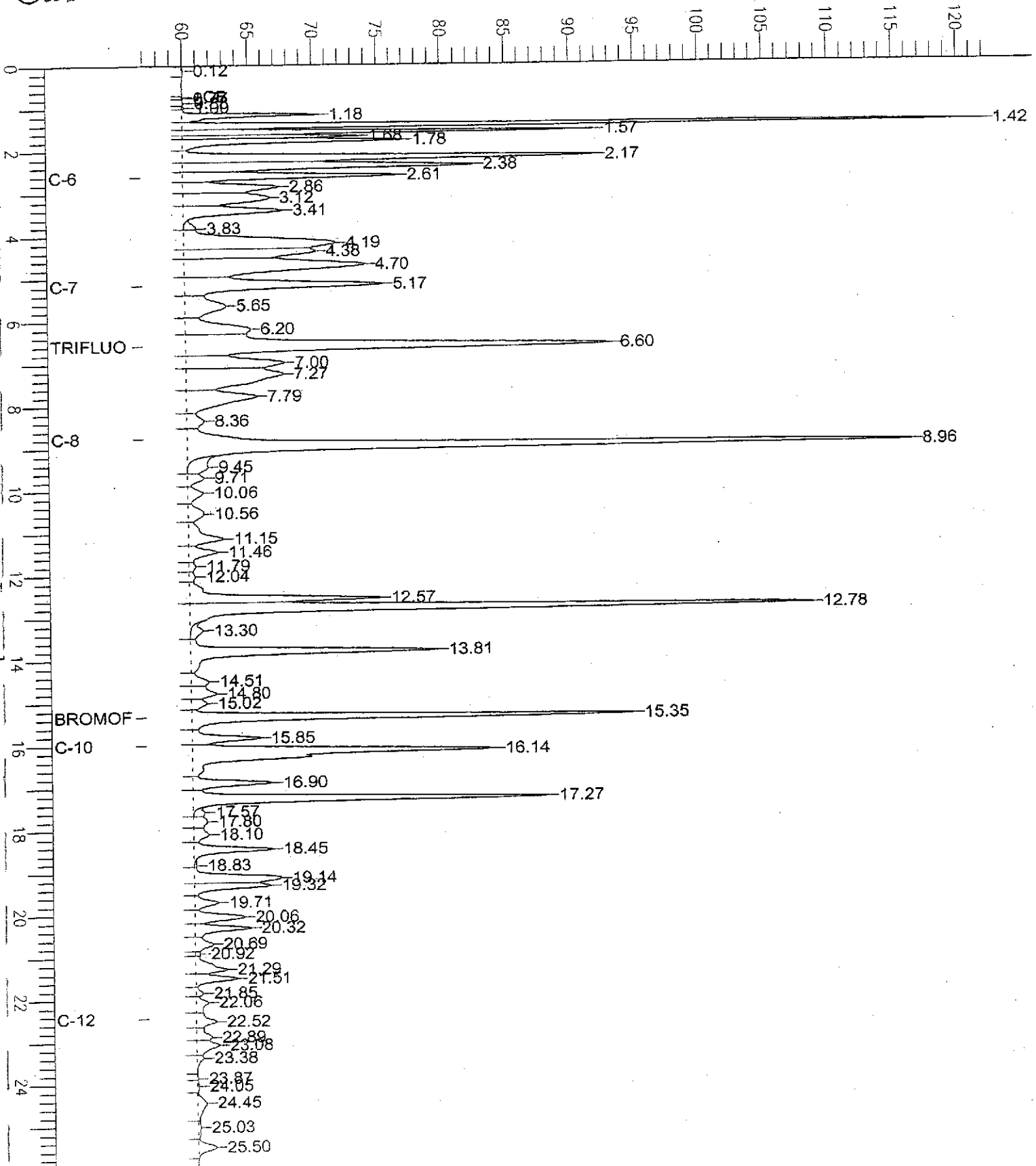
Sample Name : ccv/lcs.qc218946,82810.03ws1106,2.5/5000
File Name : G:\GC04\DATA\192J003.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor : 1.0

Sample # :
Date : 7/11/03 10:18 AM
Time of Injection : 7/11/03 09:52 AM
Low Point : 56.83 mV
Plot Scale : 65.2 mV

Page 1 of 1

Gasoline

Response [mV]



Curtis & Tompkins Laboratories Analytical Report

Lab #: 166254	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	
Matrix: Water	Sampled: 07/09/03
Units: ug/L	Received: 07/09/03

Type: BLANK	Batch#: 82840
Lab ID: QC219069	Analyzed: 07/12/03
Diln Fac: 1.000	

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	8015B
MTBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	96	57-150	8015B
Bromofluorobenzene (FID)	90	65-144	8015B
Trifluorotoluene (PID)	102	54-149	EPA 8021B
Bromofluorobenzene (PID)	99	58-143	EPA 8021B

Total Volatile Hydrocarbons

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC218946	Batch#:	82810
Matrix:	Water	Analyzed:	07/11/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	882.8	88	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	57-150
Bromofluorobenzene (FID)	96	65-144



Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	BS	Diln Fac:	1.000
Lab ID:	QC218945	Batch#:	82810
Matrix:	Water	Analyzed:	07/11/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	10.00	11.14	111	63-133
Benzene	10.00	10.43	104	78-123
Toluene	10.00	10.29	103	79-120
Ethylbenzene	10.00	9.610	96	80-120
m,p-Xylenes	20.00	19.53	98	76-120
o-Xylene	10.00	9.994	100	80-121

Surrogate	%REC	Limits
Trifluorotoluene (PID)	91	54-149
Bromofluorobenzene (PID)	89	58-143



Total Volatile Hydrocarbons

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC219070	Batch#:	82840
Matrix:	Water	Analyzed:	07/12/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	3,000	2,651	88	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	114	57-150
Bromofluorobenzene (FID)	100	65-144

Benzene, Toluene, Ethylbenzene, Xylenes

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC219071	Batch#:	82840
Matrix:	Water	Analyzed:	07/12/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
MTBE	20.00	19.35	97	63-133
Benzene	20.00	20.67	103	78-123
Toluene	20.00	20.35	102	79-120
Ethylbenzene	20.00	18.70	93	80-120
m,p-Xylenes	40.00	37.44	94	76-120
o-Xylene	20.00	19.54	98	80-121

Surrogate	%REC	Limits
Trifluorotoluene (PID)	97	54-149
Bromofluorobenzene (PID)	99	58-143



Total Volatile Hydrocarbons

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	PSP#1	Batch#:	82810
MSS Lab ID:	166254-003	Sampled:	07/09/03
Matrix:	Water	Received:	07/09/03
Units:	ug/L	Analyzed:	07/11/03
Diln Fac:	1.000		

Type: MS Lab ID: QC218996

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	26.12	2,000	1,797	89	76-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	57-150
Bromofluorobenzene (FID)	99	65-144

Type: MSD Lab ID: QC218997

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,788	88	76-120	0	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	119	57-150
Bromofluorobenzene (FID)	99	65-144



Benzene, Toluene, Ethylbenzene, Xylenes

Lab #: 166254	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	Analysis: EPA 8021B
Field ID: ZZZZZZZZZZ	Batch#: 82840
MSS Lab ID: 166274-003	Sampled: 07/09/03
Matrix: Water	Received: 07/10/03
Units: ug/L	Analyzed: 07/12/03
Diln Fac: 1.000	

Type: MS Lab ID: QC219078

Analyte	MSS Result	Spiked	Result	%REC	Limits
MTBE	<0.4200	20.00	29.52	148	38-149
Benzene	<0.09400	20.00	23.82	119	75-128
Toluene	<0.1200	20.00	24.07	120	79-127
Ethylbenzene	<0.08300	20.00	21.66	108	78-124
m,p-Xylenes	<0.07100	40.00	45.44	114	67-121
o-Xylene	<0.1100	20.00	22.90	115	77-131

Surrogate	%REC	Limits
Trifluorotoluene (PID)	107	54-149
Bromofluorobenzene (PID)	113	58-143

Type: MSD Lab ID: QC219079

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	20.00	29.66	148	38-149	0	38
Benzene	20.00	22.83	114	75-128	4	20
Toluene	20.00	23.60	118	79-127	2	20
Ethylbenzene	20.00	21.69	108	78-124	0	20
m,p-Xylenes	40.00	44.11	110	67-121	3	20
o-Xylene	20.00	22.55	113	77-131	2	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	104	54-149
Bromofluorobenzene (PID)	104	58-143



Purgeable Aromatics by GC/MS

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	82849
Lab ID:	166254-001	Sampled:	07/09/03
Matrix:	Water	Received:	07/09/03
Units:	ug/L	Analyzed:	07/14/03
Diln Fac:	33.33		

Analyte	Result	RL
MTBE	3,400	17

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	102	80-123



Purgeable Aromatics by GC/MS

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	82849
Lab ID:	166254-002	Sampled:	07/09/03
Matrix:	Water	Received:	07/09/03
Units:	ug/L	Analyzed:	07/14/03
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	27	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	108	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	104	80-123



Purgeable Aromatics by GC/MS

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC219110	Batch#:	82849
Matrix:	Water	Analyzed:	07/14/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	0.5

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	104	80-123



Purgeable Aromatics by GC/MS

Lab #:	166254	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	82849
Units:	ug/L	Analyzed:	07/14/03
Diln Fac:	1.000		

Type: BS Lab ID: QC219108

Analyte	Spiked	Result	%REC	Limits
MTBE	50.00	53.98	108	69-124

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	113	77-129
Toluene-d8	102	80-120
Bromofluorobenzene	101	80-123

Type: BSD Lab ID: QC219109

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
MTBE	50.00	52.18	104	69-124	3	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	107	77-129
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-123



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

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900, Fax (510) 486-0532

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

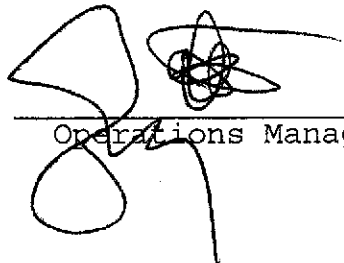
Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 23-JUN-03
Lab Job Number: 165746
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by: 
Project Manager

Reviewed by: 
Operations Manager

This package may be reproduced only in its entirety.



Total Volatile Hydrocarbons

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Matrix:	Water	Batch#:	82102
Units:	ug/L	Sampled:	06/10/03
Diln Fac:	1.000	Received:	06/10/03

Field ID:	INFLUENT	Lab ID:	165746-001
Type:	SAMPLE	Analyzed:	06/12/03

Analyte	Result	RL
Gasoline C7-C12	9,500	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	134	57-150
Bromofluorobenzene (FID)	90	65-144

Field ID:	GAC-1	Lab ID:	165746-002
Type:	SAMPLE	Analyzed:	06/12/03

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	57-150
Bromofluorobenzene (FID)	89	65-144

Field ID:	PSP#1	Lab ID:	165746-003
Type:	SAMPLE	Analyzed:	06/11/03

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	89	57-150
Bromofluorobenzene (FID)	88	65-144

Type:	BLANK	Analyzed:	06/11/03
Lab ID:	QC216164		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	87	57-150
Bromofluorobenzene (FID)	88	65-144

Chromatogram

Sample Name : 165746-001,82102
Sample Name : G:\GC05\DATA\162G022.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor : 1.0

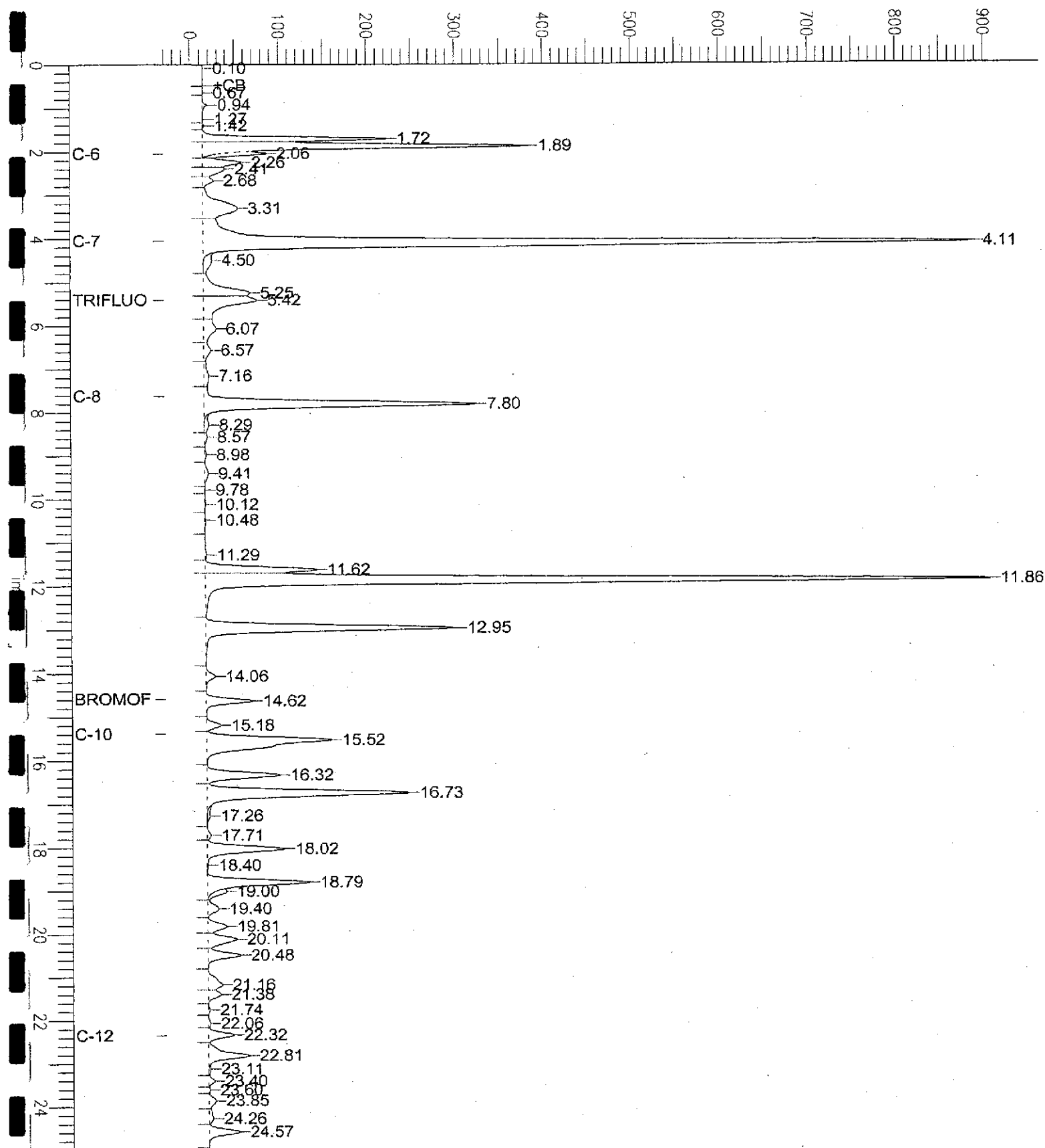
End Time : 25.00 min
Plot Offset : -30 mV

Sample #: c1
Date : 6/12/03 02:22 AM
Time of Injection: 6/12/03 01:57 AM
Low Point : -30.28 mV
Plot Scale: 937.9 mV
High Point : 907.60 mV

Page 1 of 1

(INFLUENT)

Response [mV]



Chromatogram

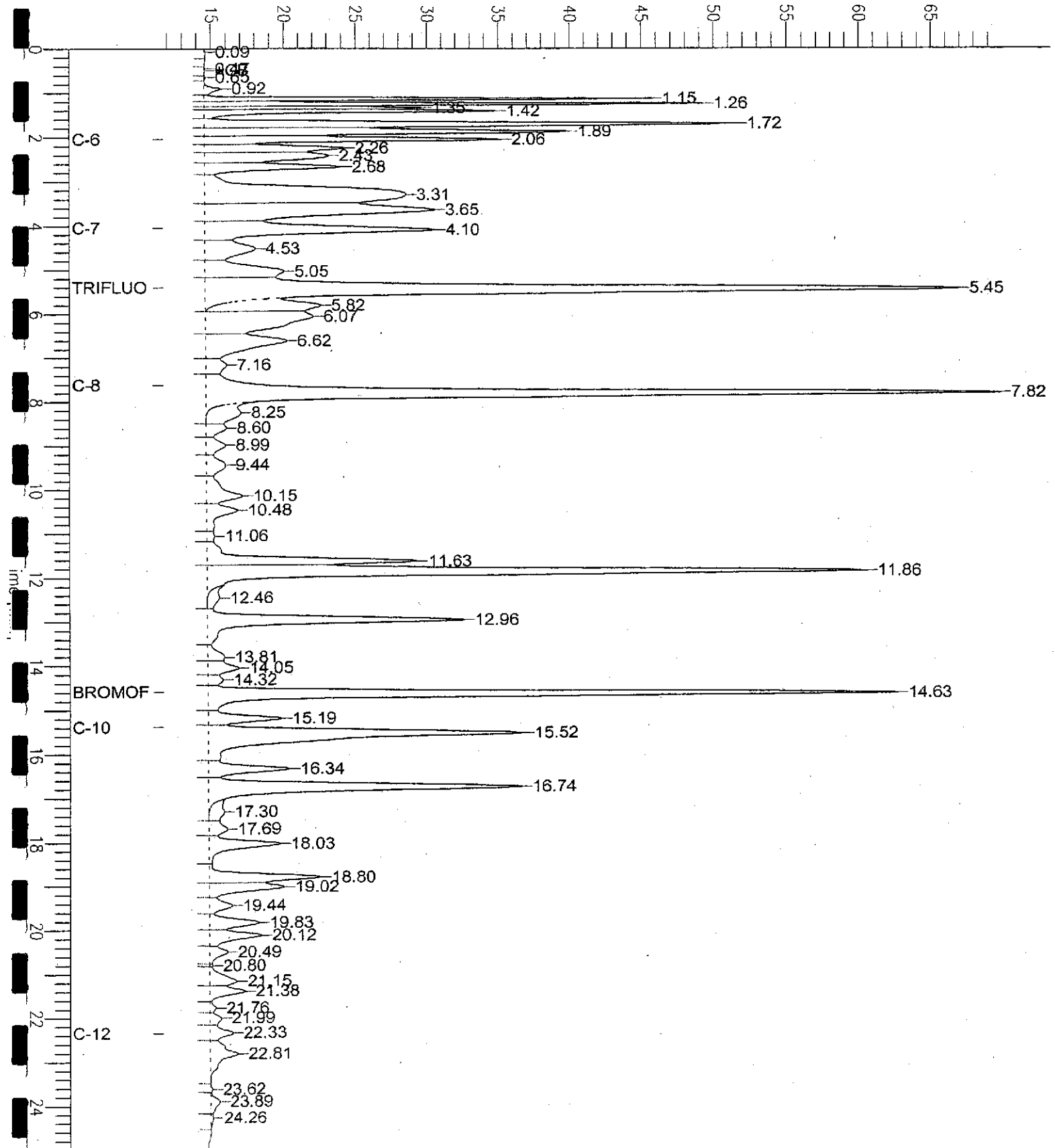
Sample Name : CCV/LCS,qc216165,82102,03ws0819,2.5/5000
FileName : G:\GC05\DATA\162002.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor : 1.0

Sample # :
Date : 6/11/03 01:28 PM
Time of Injection: 6/11/03 01:03 PM
Low Point : 11.75 mV
Plot Scale: 58.0 mV

Page 1 of 1

Gasoline

Response [mV]





Total Volatile Hydrocarbons

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC216165	Batch#:	82102
Matrix:	Water	Analyzed:	06/11/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	958.0	96	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	97	57-150
Bromofluorobenzene (FID)	83	65-144



Total Volatile Hydrocarbons

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	PSP#1	Batch#:	82102
MSS Lab ID:	165746-003	Sampled:	06/10/03
Matrix:	Water	Received:	06/10/03
Units:	ug/L	Analyzed:	06/11/03
Diln Fac:	1.000		

Type: MS Lab ID: QC216202

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	<13.00	2,000	1,930	96	76-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	106	57-150
Bromofluorobenzene (FID)	95	65-144

Type: MSD Lab ID: QC216203

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,916	96	76-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	57-150
Bromofluorobenzene (FID)	93	65-144



Purgeable Aromatics by GC/MS

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	82091
Lab ID:	165746-001	Sampled:	06/10/03
Matrix:	Water	Received:	06/10/03
Units:	ug/L	Analyzed:	06/11/03
Diln Fac:	25.00		

Analyte	Result	RL
MTBE	3,600	130
Benzene	1,100	130
Toluene	390	130
Ethylbenzene	130	130
m,p-Xylenes	1,100	130
o-Xylene	310	130

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	99	77-129
Toluene-d8	96	80-120
Bromofluorobenzene	101	80-123



Purgeable Aromatics by GC/MS

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	82091
Lab ID:	165746-002	Sampled:	06/10/03
Matrix:	Water	Received:	06/10/03
Units:	ug/L	Analyzed:	06/11/03
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	101	77-129
Toluene-d8	96	80-120
Bromofluorobenzene	105	80-123



Purgeable Aromatics by GC/MS

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	PSP#1	Batch#:	82091
Lab ID:	165746-003	Sampled:	06/10/03
Matrix:	Water	Received:	06/10/03
Units:	ug/L	Analyzed:	06/11/03
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	77-129
Toluene-d8	91	80-120
Bromofluorobenzene	103	80-123



Purgeable Aromatics by GC/MS

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC216131	Batch#:	82091
Matrix:	Water	Analyzed:	06/11/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	77-129
Toluene-d8	91	80-120
Bromofluorobenzene	103	80-123

Purgeable Aromatics by GC/MS

Lab #:	165746	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	82091
Units:	ug/L	Analyzed:	06/11/03
Diln Fac:	1.000		

Type: BS Lab ID: QC216128

Analyte	Spiked	Result	%REC	Limits
Benzene	50.00	49.65	99	80-120
Toluene	50.00	53.46	107	80-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	77-129
Toluene-d8	101	80-120
Bromofluorobenzene	96	80-123

Type: BSD Lab ID: QC216129

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	50.00	48.21	96	80-120	3	20
Toluene	50.00	51.31	103	80-120	4	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	98	77-129
Toluene-d8	98	80-120
Bromofluorobenzene	96	80-123



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

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

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

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

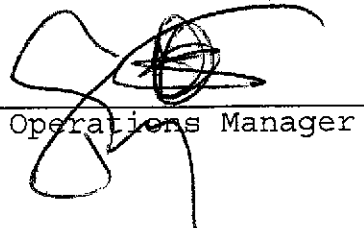
Date: 29-MAY-03
Lab Job Number: 165379
Project ID: 2333
Location: 3609 International Blvd

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

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.



Total Volatile Hydrocarbons

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Matrix:	Water	Sampled:	05/21/03
Units:	ug/L	Received:	05/21/03
Batch#:	81639		

Field ID:	INFLUENT	Diln Fac:	5.000
Type:	SAMPLE	Analyzed:	05/23/03
Lab ID:	165379-001		

Analyte	Result	RL
Gasoline C7-C12	9,100	250

Surrogate	%REC	Limits
Trifluorotoluene (FID)	135	68-145
Bromofluorobenzene (FID)	119	66-143

Field ID:	GAC-1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	05/23/03
Lab ID:	165379-002		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	68-145
Bromofluorobenzene (FID)	112	66-143

Field ID:	PSP#1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	05/22/03
Lab ID:	165379-003		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	113	68-145
Bromofluorobenzene (FID)	117	66-143

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC214307	Analyzed:	05/22/03

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	112	68-145
Bromofluorobenzene (FID)	109	66-143

GC04 TVH 'J' Data File FID

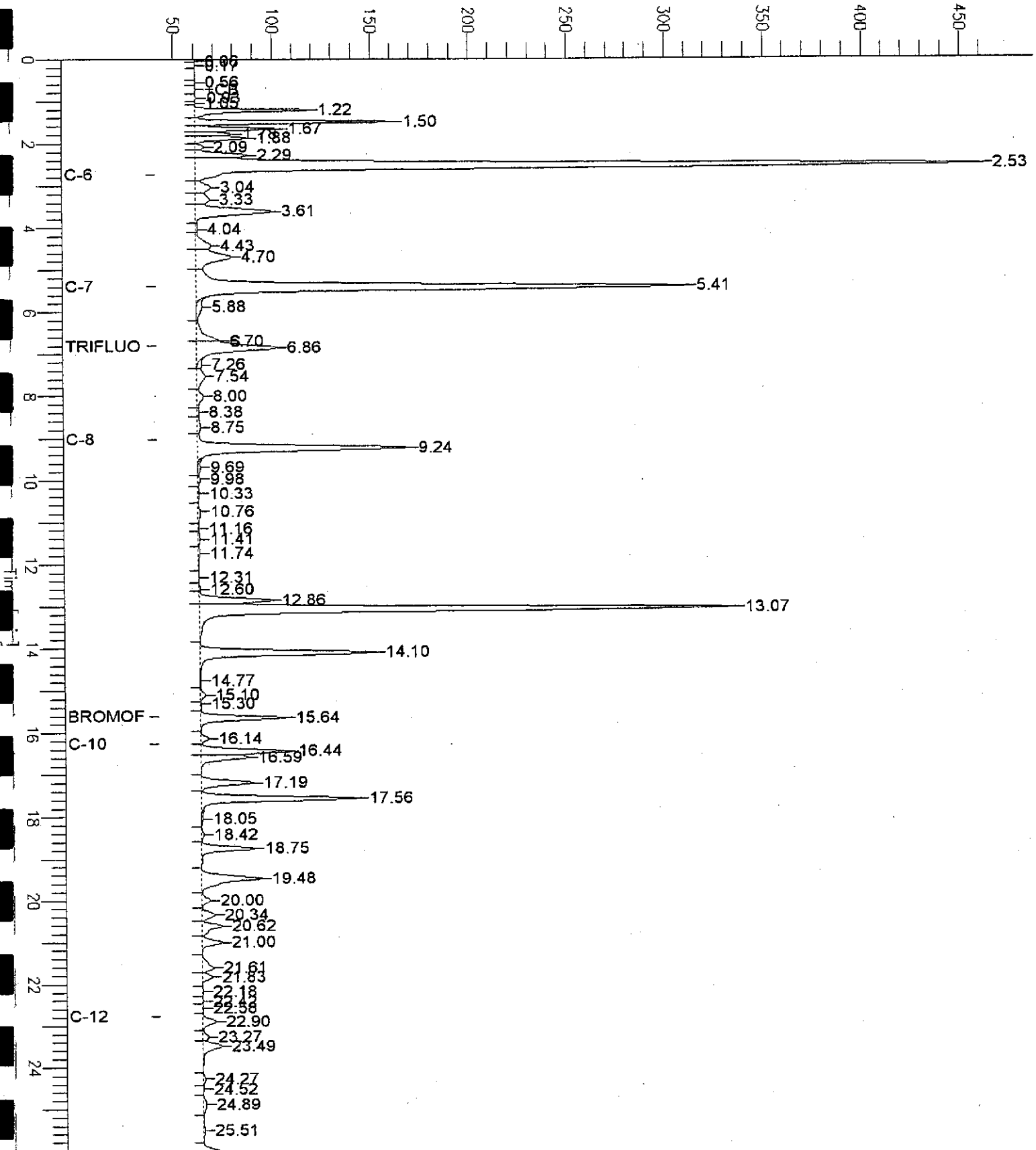
Sample Name : 16S379-001,81639,tvh only
FileName : G:\GC04\DATA\142J028.raw
Method : TVHBTXE
Start Time : 0.00 min
Scale Factor: 1.0

Sample #: a1
Date : 5/23/03 11:08 AM
Time of Injection: 5/23/03 10:53 AM
Low Point : 40.82 mV
Plot Scale: 421.2 mV

Page 1 of 1

INFLUENT

Response [mV]



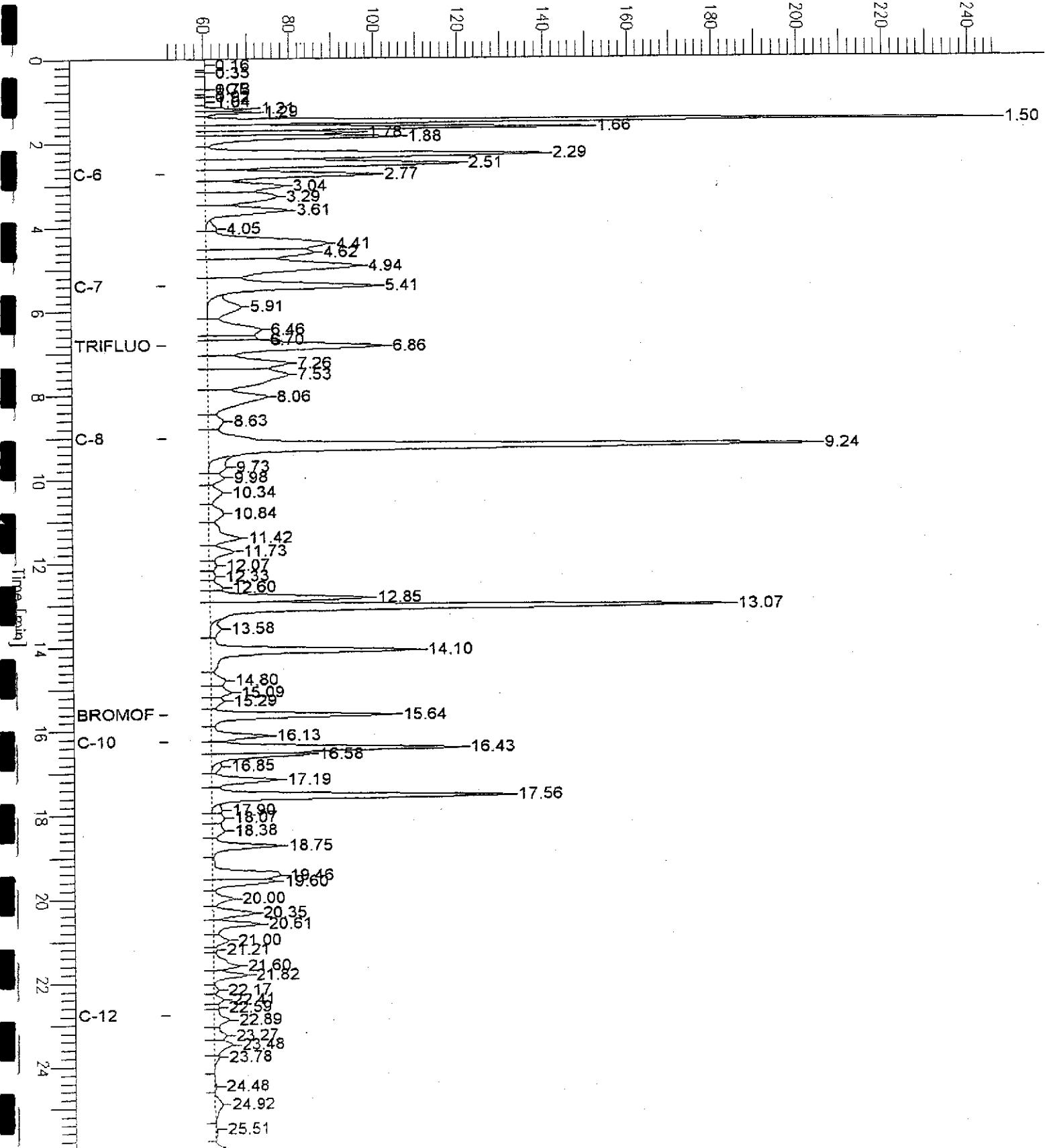
GC04 TVH 'J' Data File FID

Sample Name : ccv/lcs,qc214309,81639,03ws0682,5/5000
File Name : G:\GC04\DATA\142J002.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor : 1.0 Plot Offset : 51 mV

Sample # :
Date : 5/23/03 11:08 AM
Time of Injection : 5/22/03 12:53 PM
Low Point : 51.13 mV High Point : 246.61 mV
Plot Scale : 195.5 mV

Gasoline

Response [mV]





Total Volatile Hydrocarbons

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC214309	Batch#:	81639
Matrix:	Water	Analyzed:	05/22/03
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	1,985	99	79-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	134	68-145
Bromofluorobenzene (FID)	121	66-143

Total Volatile Hydrocarbons

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	ZZZZZZZZZZ	Batch#:	81639
MSS Lab ID:	165391-001	Sampled:	05/21/03
Matrix:	Water	Received:	05/22/03
Units:	ug/L	Analyzed:	05/23/03
Diln Fac:	1.000		

Type: MS Lab ID: QC214327

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	29.77	2,000	2,012	99	67-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	137	68-145
Bromofluorobenzene (FID)	126	66-143

Type: MSD Lab ID: QC214328

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	2,020	99	67-120	0	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	134	68-145
Bromofluorobenzene (FID)	119	66-143



Purgeable Aromatics by GC/MS

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	81634
Lab ID:	165379-001	Sampled:	05/21/03
Matrix:	Water	Received:	05/21/03
Units:	ug/L	Analyzed:	05/22/03
Diln Fac:	20.00		

Analyte	Result	RL
MTBE	3,400	100
Benzene	1,300	100
Toluene	620	100
Ethylbenzene	170	100
m,p-Xylenes	1,400	100
o-Xylene	430	100

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	113	77-130
Toluene-d8	105	80-120
Bromofluorobenzene	92	80-120



Purgeable Aromatics by GC/MS

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	GAC-1	Batch#:	81616
Lab ID:	165379-002	Sampled:	05/21/03
Matrix:	Water	Received:	05/21/03
Units:	ug/L	Analyzed:	05/21/03
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	77-130
Toluene-d8	92	80-120
Bromofluorobenzene	92	80-120



Purgeable Aromatics by GC/MS

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	PSP#1	Batch#:	81616
Lab ID:	165379-003	Sampled:	05/21/03
Matrix:	Water	Received:	05/21/03
Units:	ug/L	Analyzed:	05/21/03
Diln Fac:	1.000		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	91	77-130
Toluene-d8	84	80-120
Bromofluorobenzene	92	80-120



Purgeable Aromatics by GC/MS

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1:000
Lab ID:	QC214213	Batch#:	81616
Matrix:	Water	Analyzed:	05/21/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	103	77-130
Toluene-d8	93	80-120
Bromofluorobenzene	96	80-120



Purgeable Aromatics by GC/MS

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC214281	Batch#:	81634
Matrix:	Water	Analyzed:	05/22/03
Units:	ug/L		

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	110	77-130
Toluene-d8	103	80-120
Bromofluorobenzene	94	80-120



Purgeable Aromatics by GC/MS

Lab #: 165379	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	Analysis: EPA 8260B
Matrix: Water	Batch#: 81616
Units: ug/L	Analyzed: 05/21/03
Diln Fac: 1.000	

Type: BS Lab ID: QC214211

Analyte	Spiked	Result	%REC	Limits
Benzene	50.00	47.72	95	76-120
Toluene	50.00	46.97	94	79-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	102	77-130
Toluene-d8	95	80-120
Bromofluorobenzene	86	80-120

Type: BSD Lab ID: QC214212

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	50.00	46.00	92	76-120	4	20
Toluene	50.00	45.35	91	79-120	4	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	100	77-130
Toluene-d8	95	80-120
Bromofluorobenzene	88	80-120



Purgeable Aromatics by GC/MS

Lab #:	165379	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	81634
Units:	ug/L	Analyzed:	05/22/03
Diln Fac:	1.000		

Type: BS Lab ID: QC214279

Analyte	Spiked	Result	%REC	Limits
Benzene	50.00	49.76	100	76-120
Toluene	50.00	54.95	110	79-120

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	113	77-130
Toluene-d8	101	80-120
Bromofluorobenzene	90	80-120

Type: BSD Lab ID: QC214280

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	50.00	47.65	95	76-120	4	20
Toluene	50.00	51.09	102	79-120	7	20

Surrogate	%REC	Limits
1,2-Dichloroethane-d4	111	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	90	80-120



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

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

ANALYTICAL REPORT

Prepared for:

SOMA Environmental Engineering Inc.
2680 Bishop Dr.
Suite 203
San Ramon, CA 94583

Date: 15-MAY-03

Lab Job Number: 165046

Project ID: 2333

Location: 3609 International Blvd

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

Reviewed by:


Project Manager

Reviewed by:


Operations Manager

This package may be reproduced only in its entirety.



Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	165046	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Matrix:	Water	Sampled:	05/01/03
Units:	ug/L	Received:	05/01/03
Batch#:	81243		

Field ID:	PSP-1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	05/02/03
Lab ID:	165046-001		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
1,1-Difluorotoluene (FID)	97	68-145
Bromofluorobenzene (FID)	109	66-143

Field ID:	GAC-1	Diln Fac:	1.000
Type:	SAMPLE	Analyzed:	05/02/03
Lab ID:	165046-002		

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
Trifluorotoluene (FID)	94	68-145
Bromofluorobenzene (FID)	107	66-143

Field ID:	INFLUENT	Diln Fac:	5.000
Type:	SAMPLE	Analyzed:	05/03/03
Lab ID:	165046-003		

Analyte	Result	RL
Gasoline C7-C12	12,000	250

Surrogate	%REC	Limits
1,1-Difluorotoluene (FID)	109	68-145
Bromofluorobenzene (FID)	109	66-143

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC212772	Analyzed:	05/02/03

Analyte	Result	RL
Gasoline C7-C12	ND	50

Surrogate	%REC	Limits
1,1-Difluorotoluene (FID)	95	68-145
Bromofluorobenzene (FID)	104	66-143

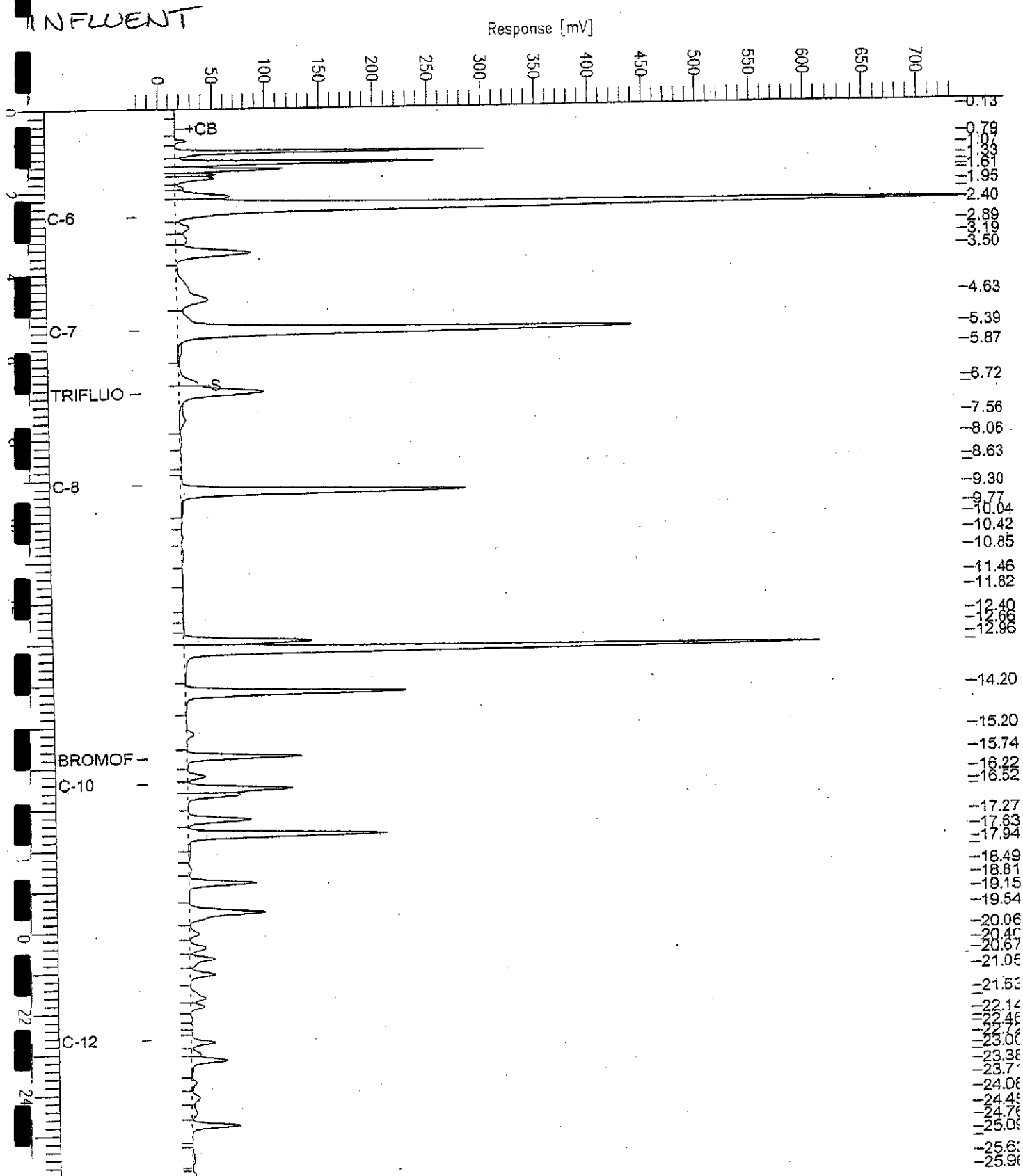
GC07 TVH 'A' Data File RTX 502

Name : 165046-003,81243,tvh only
 File : G:\GC07\DATA\122A031.raw
 Method : TVHBTXE
 Start Time : 0.00 min
 Load Factor : 1.0

End Time : 25.00 min
 Plot Offset : -20 mV

Sample #: a1
 Date : 5/6/03 10:28 AM
 Time of Injection: 5/3/03 02:45 AM
 Low Point : -20.08 mV
 Plot Scale: 756.4 mV
 High Point : 736.32 mV

Page 1 of 1



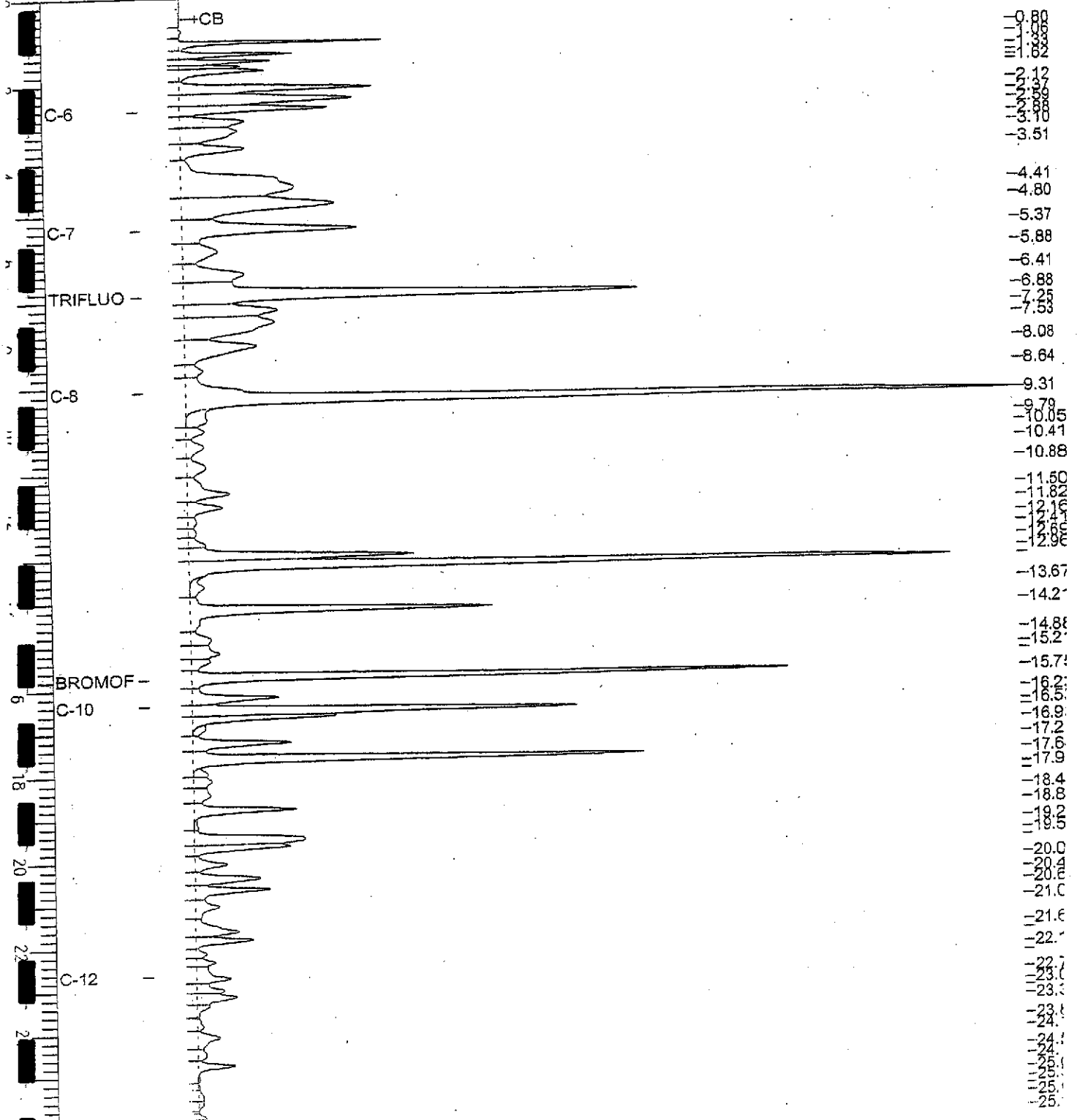
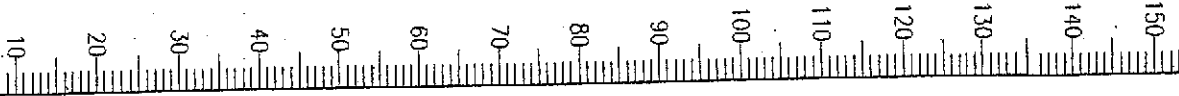
GC07 TVH 'A' Data File RTX 502

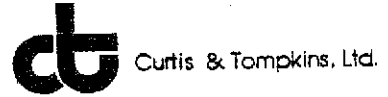
Sample Name : ccv/lcs.qc212774, 81243, 03ws0682, 2.5/5000
Name : G:\GC07\DATA\122A003.raw
Sample ID : TVHBTXE
Injection Time : 0.00 min
End Time : 26.00 min
Plot Offset : 9 mV
Injection Volume : 1.0

Sample #: _____ Page 1 of 1
Date : 5/2/03 10:40 AM
Time of Injection: 5/2/03 10:14 AM
Low Point : 8.89 mV High Point : 154.65 mV
Plot Scale : 145.8 mV

Gasoline

Response [mV]





Total Volatile Hydrocarbons

Job #:	165046	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC212774	Batch#:	81243
Matrix:	Water	Analyzed:	05/02/03
Units:	ug/L		

Analyte	Spiked	Result	EREC	Limits
Gasoline C7-C12	1,000	1,011	101	79-120

Surrogate	EREC	Limits
Trifluorotoluene (FID)	108	68-145
Bromofluorobenzene (FID)	104	66-143



Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Job #:	165046	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	8015B
Field ID:	PSP-1	Batch#:	81243
MS Lab ID:	165046-001	Sampled:	05/01/03
Matrix:	Water	Received:	05/01/03
Units:	ug/L	Analyzed:	05/02/03
Voln Fac:	1.000		

MS Lab ID: QC212775

Analyte	MSD Result	Spiked	Result	%RSD	Limits
Gasoline C7-C12	<18.00	2,000	1,917	96	67-120
Surrogate	%RSD		Limits		
1,1-Difluorotoluene (FID)	114		68-145		
1,2-Dibromofluorobenzene (FID)	116		66-143		

MSD Lab ID: QC212776

Analyte	Spiked	Result	%RSD	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,831	92	67-120	5	20
Surrogate	%RSD		Limits			
1,1-Difluorotoluene (FID)	112		68-145			
1,2-Dibromofluorobenzene (FID)	113		66-143			



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #: 165046	Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc.	Prep: EPA 5030B
Project#: 2333	Analysis: EPA 8260B
Field ID: PSP-1	Batch#: 81241
Lab ID: 165046-001	Sampled: 05/01/03
Matrix: Water	Received: 05/01/03
Units: ug/L	Analyzed: 05/02/03
Con Fac: 1.000	

Analyte	Result	RL
MSE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC Limits	
1,2-Dichloroethane-d4	117	77-130
Toluene-d8	109	80-120
Bromofluorobenzene	98	80-120



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #: 165046 Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B
Project#: 2333 Analysis: EPA 8260B
Field ID: GAC-1 Batch#: 81241
Lab ID: 165046-002 Sampled: 05/01/03
Matrix: Water Received: 05/01/03
Units: ug/L Analyzed: 05/02/03
Diln Fac: 1.000

Analyte	Result	RL
MTBE	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%REC	Limite
1,2-Dichloroethane-d4	108	77-130
Toluene-d8	103	80-120
Bromofluorobenzene	96	80-120



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Job #:	165046	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Field ID:	INFLUENT	Batch#:	81241
Job ID:	165046-003	Sampled:	05/01/03
Matrix:	Water	Received:	05/01/03
Units:	ug/L	Analyzed:	05/02/03
Flow Fac:	25.00		

Analyte	Result	RL
MPEE	4,200	130
Benzene	1,400	130
Toluene	760	130
Ethylbenzene	310	130
m-Xylenes	1,600	130
p-Xylene	500	130

Surrogate	SPCC	Limits
1,2-Dichloroethane-d4	110	77-130
Toluene-d8	99	80-120
Bromofluorobenzene	97	80-120



Purgeable Aromatics by GC/MS

Job #: 165046 Location: 3609 International Blvd
Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B
Project#: 2333 Analysis: EPA 8260B
Type: BLANK Diln Fac: 1.000
Job ID: QC212767 Batch#: 81241
Matrix: Water Analyzed: 05/02/03
Units: ug/L

Analyte	Result	RL
MIBK	ND	5.0
Benzene	ND	5.0
Toluene	ND	5.0
o-Tolylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	REC	Limds
1,2-Dichloroethane-d4	103	77-130
Toluene-d8	101	80-120
Bromofluorobenzene	98	80-120



Curtis & Tompkins, Ltd.

Purgeable Aromatics by GC/MS

Lab #:	165046	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	81241
Units:	ug/L	Analyzed:	05/02/03
Min Fac:	1.000		

Type: BS Lab ID: QC212764

Analyte	Spiked	Result	REC	Limits
Benzene	50.00	48.65	97	76-120
Toluene	50.00	52.23	104	79-120

Surrogate	REC	Limits
1,2-Dichloroethane-d4	91	77-130
Chlorobenzene-d8	98	80-120
Bromofluorobenzene	92	80-120

Type: BSD Lab ID: QC212765

Analyte	Spiked	Result	REC	Limits	RPD	Lim
Benzene	50.00	48.16	96	76-120	1	20
Toluene	50.00	52.83	106	79-120	1	20

Surrogate	REC	Limits
1,2-Dichloroethane-d4	90	77-130
Chlorobenzene-d8	99	80-120
Bromofluorobenzene	92	80-120