

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

June 2, 2004

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 for Permit No. 50427421 from November 2003 to May 2004" 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

No. CO42928
EXP. 3-31-06
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OF CALIFORNIA

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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 prepared under my direction or supervidesigned to assure that the qualified perso information submitted. Based on my incomanage the system, or those persons information, the information submitted is, to true, accurate, and complete. I am aware submitting false information, including the parameters of the property of the pro	ision in acco nnel properly (quiry of the po directly resp the best of m that there are	rdance with a system gather and evaluate the erson or persons who consible for gathering y knowledge and belief, significant penalties for
Signature		
6/2/04 Date		

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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 November 2003 to May 2004. This report is being submitted on behalf of Mr. Abolghassem Razi, the property owner. The property is Tony's Express Auto Service, which is located at 3609 International Boulevard, Oakland, California (the "Site").

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) 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 January 9, 2004, the on-site pneumatic down hole pumps in the French drain were converted into electrical pumps by SOMA Environmental. A carbon changeout was performed on March 17, 2004.

On May 10, 2004, 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.

Based on the results from the Second Quarter 2004 monitoring event, since the First Quarter 2004, the concentration trends in the vicinity of the USTs were as follows:

In well MW-1, total petroleum hydrocarbons as gasoline (TPH-g) slightly increased, however, all benzene, toluene, ethylbenzene, and total xylene (BTEX) analytes, as well as, MtBE decreased. In well MW-3 both TPH-g and MtBE decreased, and benzene slightly increased.

Based on the results of the Second Quarter 2004 monitoring event, the highest TPH-g concentration was detected in well MW-6, which is in the vicinity of the SVE system and southeast of the USTs. The TPH-g result for well MW-6 can be

attributed to the inoperability of the SVE system, from November 2003 to April 2004. The SVE system is inoperable during the rainy seasons the year.

Further detailed information on the groundwater concentrations encountered throughout the Site is presented in SOMA's "Second Quarter 2004 Groundwater Monitoring and Remediation System Operation Report," dated May 25, 2004.

2.0 TREATMENT SYSTEM OPERATION

The operation of the treatment system began on December 6, 1999. Since then, (recording date is May 3, 2004) approximately 2,497,350 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 influent samples have been collected from the 550-gallon holding tank. The effluent samples have been collected 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. During October 2002, during the laboratory testing, 2-Butanone was detected at a high concentration of 200,000 μ g/L in only the effluent sample. The influent sample concentration for 2-Butanone was only 20 μ 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 the 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 November 2003 to May 2004.

The treatment system has removed approximately 171 pounds of hydrocarbons and 81 pounds of MtBE from the initial start-up in December 1999 to May 3,

2004. Since the previous semi-annual report, approximately 409,680 gallons of chemically impacted groundwater has been treated by the groundwater remediation system (from November 17, 2003 to May 3, 2004).

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

3.0 CONCLUSIONS AND RECOMMENDATIONS

- Approximately 409,680 gallons of groundwater has been treated and discharged at the Site since the last EBMUD Semi-Annual Discharge Report (November 17, 2003 to May 3, 2004). Approximately 2,497,350 gallons of chemically impacted groundwater has been treated since the treatment system's initial start-up in December 1999. Approximately 171 pounds of hydrocarbons and 81 pounds of MtBE have been removed from the groundwater.
- Based on the analytical results from the Second Quarter 2004 monitoring event, it appears that several groundwater constituents have decreased in the vicinity of the USTs, especially in wells MW-1 and MW-3.
- Based on the historical treatment system analytical data and the number of carbon change-out cycles since the initial start-up in December 1999, SOMA is planning to replace the 55-gallon carbon vessel at a minimum of every 18 weeks. SOMA will collect samples from the treatment system at a minimum of every 3 to 4 weeks and will perform routine system maintenance on a weekly basis.

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.

TABLE

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

		Meter	Lab Results	For Effluent	and GAC-1			
		Reading	(concentration	ns in ug/L)				
Month	Date	(gallons)	MtBE ²	TPH-g	Benzene	Toluene	Ethyl benzene	Total Xylenes
May	5/3/2004	2,497,350	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
iviay	0/0/2001	2,401,000	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
April	4/15/2004	2,436,190	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
112 4 1								
March	3/17/2004	2,376,200	Cart	on Change-	out of 2000 lb	vessel and	55 gallon polis	hing vessel
	0.00 / 100.00 /	0.070.770				. 5.0		4.F.O
February	2/24/2004	2,276,770	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
January	1/27/2004	2,165,220	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
variuary	112112004	2,100,220	< 5.0 < 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			-0.5	- 55	, , , , , , , , , , , , , , , , , , ,		9.9	
	1/13/2004	2,116,720	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
liga i sakabi wa Jawa waliofali		elia es y en las personas. Pelanco tamba es acadales es		The Land	and the second	. Art.		
December	12/8/2003	2,092,330	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	444710000					. 5.0	150	-50
November	11/17/2003	2,087,670	< 5.0	< 50	< 5.0	< 5.0	< 5.0 < 5.0	< 5.0 < 5.0
			<5.0	< 50	< 5.0	< 5.0	~ 5.0	V 5.0
	11/3/2003	2,079,460	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	11/3/2003	2,019,400	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
				- 100		0.0	5.5	
October	10/13/2003	2,073,060	5.3	< 50	< 5.0	< 5.0	< 5.0	< 5.0
		1	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	10/1/2003	2,072,610	Cart	oon Change-	out of 2000 lb	vessel and	55 gallon polis	hing vessel
See Market 18 1 4 1	المعاقب والمداد والأواد	in a see of completion.	e wile and a second		ik ditani in in	المتا يفتقه فتستع	والمعاشب للمارين	
September	9/15/2003	2,056,910	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	ļ		6	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	0/0/0000	2.040.040	-F ^	EA	- E O	∠ E O	< 5.0	< 5.0
	9/2/2003	2,040,040	<5.0 <5.0	< 50 < 50	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0
	-		\0.0	<u> </u>	~ 3.0	\ J.U	3.0.0	- 3.0
August	8/19/2003	2,021,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
, 100g001	5, 15,2555	1 -,,	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
		1	<u> </u>	<u></u>				
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
	<u></u>	<u> </u>	36	< 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

			Т	-				
		Meter	Lab Results I		and GAC-1			
		Reading	(concentratio	ns in ug/L)				
			2		_		Ethyl	Total
Month	Date	(gallons)	MtBE ²	TPH-g	Benzene	Toluene	benzene	Xylenes
June	6/18/2003	1,978,560	Cart	on Change-	out of 2000 It	vessel and	55 gallon polis	hing vessel
	21/2/22					. = 0	- 50	- F.O.
	6/10/2003	1,972,780	< 5.0	< 50	< 5.0	< 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
May	3/2 1/2003	1,801,000	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			V 3.0	V 30	¥_0.0	7 5.0	- 0.0	* 0.0
	5/1/2003	1,918,270	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	0/1/2000	1,010,270	< 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
жріп	4/11/2000	1,002,110	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	e de la colonia							
March	3/19/2003	1,846,490	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
101001011	3, 3, 3, 3	.,,	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
February	2/25/2003	1,804,960	repla	aced 55-gallo	on polishing v	essel with ne	ew 55 gallon c	arbon 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
		<u></u>						
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
		4.055.000				150	150	~ F O
	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
					The state of the s	The second of th	1	ব্যান্তব্যক্তি । সঞ্জুলাসক
a da a a a a a a a a a a a a a a a a a	4040/0000	4 670 070	45.0	7.50		// · / · · · · · · · · · · · · · · · ·	< 5.0	< 5.0
December	12/10/2002	1,672,870	< 5.0 < 5.0	< 50 < 50	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0	< 5.0
			\ J.0	7.30	V 3.0	- 3.0	\ J.U_	- 0.0
November	11/22/2002	1,668,650	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
Movember	11/22/2002	1,000,000	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			1 0.0					
	11/13/2002	1,664,780	replac	ed gasket or	top of 2000	lb GAC vess	sel, slight leak	was detected
		, , , , , , , , , , , , , , , , , , , ,			1			
	11/7/2002	1,663,880	Cart	on Change-	out of 2000 II	vessel and	55 gallon polis	shing vessel
October	10/16/02 ³	1,661,590	< 310	2,000 Y Z	< 310	< 310	< 310	< 310
	1		< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
		as a law and lander than					A CONTRACTOR OF THE CONTRACTOR	ne in the second
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
	ļ		< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			ļ					
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

		Meter	Lab Results	For Effluent	and GAC-1			<u> </u>	
		Reading	(concentration					_	
		riodeing	(0011001101010	<u> 19</u> , 2,			Ethyl	Total	
Month	Date	(gallons)	MtBE 2	TPH-g	Benzene	Toluene	benzene	Xylenes	
AND THE PERSON NAMED IN		CASE STREET	A CONTROL OF STREET	Collinario arconolia fina	Sandania Comer	The state of the s	The second second		
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	rem	noved newly i	nstalled com	pressor, insta	alled another o	ompressor	
	5/8/2002	1,538,850				new compre			
	5/1/2002	1,529,650	·	j	nstalled new	55 gallon GA	C Vessel	<u> </u>	
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					on compressor	anne ann ann an a	
Make of Section 1									
March	3/25/2002	1,478,420		perform			treatment syst	em	
	3/18/2002	NR	replaced piston on compressor						
	3/14/2002	1,478,330	ŀ	, 0	ompressor ne	ot 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	
							10.5	.0.5	
January	1/22/2002	1,381,370	< 2.0	< 50	< 0.5	< 0.5	< 0.5 < 0.5	< 0.5 < 0.5	
* T (4" 187*	146	- control of a control of a large control of the control of	< 2.0	< 50	< 0.5	< 0.5	< U.5	< 0.5	
<u> </u>		· ····································	4		e as an explication to the contract of the con		<u>رى سائىسىئىت سىر</u>	in jew i to sala	
December	12/12/2001	1,311,340	ND	ND	ND	ND	ND	ND ND	
			ND	ND .	ND	ND_	ND_	ND	
NI	44/0/0004	4.070.000	ND	ND	NID	NID	ND	ND	
November	11/2/2001	1,272,660	ND 0.6	ND ND	ND ND	ND	ND	ND ND	
		and the second s	d,U	ND	ND.	ND	ND	ND.	
Contour	0/00/0004	A LA	ND	NB	NO	, iii	ND	ND	
September	9/28/2001	NA .	ND ND	ND ND	ND ND	ND ND	ND	ND ND	
			I NO	ND.	ND _	- ND	IND	ND	
August	9/22/2004	1,243,100	ND	ND	ND	ND	ND	ND	
August	0/22/2001	1,243,100	ND ND	ND ND	ND	ND ND	ND ND	ND ND	
	ł		אט	שאו	IND _	IND	140		
July	7/26/2001	1,227,270	ND	ND	ND	ND	ND	ND	
July	772072001	1,221,270	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 NA	
 	1/11/2001	1,220,730	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	
L	L	L	IVM	LINA	11/	1 177	11/	13/7	

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

	1	Meter	Lab Results I	For Effluent	and GAC-1			
	+	Reading	(concentratio		I I			
Month	Date	(gallons)	MtBE ²	TPH-g	Benzene	Toluene	Ethyl benzene	Total Xylenes
\$ 11 T	7.87212.37							ENGMENSA WASH
June	6/29/2001	1,224,600	NA	NA	NA	NA	NA NA	NA NA
			. ND	ND	ND	ND	ND	ND
	6/26/2001	NR				new compre		
	6/16/2001	1,216,580	NA	NA _	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA NA
							ed compresso	
	6/7/2001	1,216,580	NA	NA	NA NA	ŅĀ	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	NA	NA NA
	5/23/2001	1,194,390	NA	NA	NA	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 ND
	5/10/2001	1,166,850	NA	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	<u>N</u> A	NA	NA	NA NA
April	4/28/2001	1,135,690	NA	NA NA	NA	NA	NA NA	NA NA
тътп	#120/2001	1,100,000	NA	NA.	NA	NA NA	NA	NA
	4/21/2001	1,113,570	NA NA	NA.	NA	NA.	NA	NA
	7/21/2001	1,110,070	NA	NA	NA NA	NA	NA NA	NA
	4/11/2001	1,082,700	NA	ND	ND	ND	ND	ND
	# T II Z U U I	1,002,700	ND	ND	ND	ND	ND	ND
	4/6/2001	1,065,540	NA.	NA	NA	NA	NA.	NA
		.,,,	NA	NA	NA	NA	NA	NA
Barta el la la					Section 1			and the second of the second
March	3/29/2001	1,036,330	NA	NA	NA	NA	NA NA	NA
11101017	0/20/2001	1,000,000	NA.	NA	NA	NA	NA	NA
				· · · · · · · · · · · · · · · · · · ·	system	was re-start	ed	
	3/21/2001	1,036,070	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
					belt replac	ed on comp	ressor	
	3/17/2001	1,035,100	NA	NA	NA	NA	NA	NA
		Î	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	NÄ	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	3/1/2002	NR		sys	tem re-starte	d after carbo	n change-out	
C-b	2/00/0000	ND.	Carbara	hanaa autii	loo porform -	lon GAC 1	vachod alges	from holding tank
February	2/28/2002	. NR	Carbon C		as perrormed aned 2000 It			non noung tank
	1				2.100 2000 10	,		
	2/10/2001	975,490		System	shut down f	or maintenan	ce and cleani	ng.
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

	T	Meter	Lab Results	For Effluent	and GAC-1			
		Reading	(concentration					
			ľ	, <u>, , , , , , , , , , , , , , , , , , </u>		-	Ethyl	Total
Month	Date	(gallons)	MtBE 2	TPH-g	Benzene	Toluene	benzene	Xylenes
				2000 C		v Mac Bullion	response i companya di serie d	
December	12/5/2000		ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
November	11/24/2000	NR	ND	ND	ND	ND	ND	ND
NOVEITIDEL	11/24/2000	1417	ND ND	ND	ND	ND	ND	ND ND
	11/1/2000	842,000	ND	ND	ND	ND	ND	ND
	11/1/2000	042,000	ND ND	ND	ND	ND	ND	ND ND
The second second								
October	10/1/2000		ND	ND	ND	ND	ND	ND
O GROBE G	10/1/2000	555,555	ND ND	ND	ND	ND	ND	ND
	1							
August	8/27/2000	781,000	ND	ND	ND	ND	ND	ND
	8/24/2000		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		ND	ND	ND	ND	ND	ND
	Action of the second					Section of the sectio	and the second second second	
June	6/29/2000	700,000	ND	ND	ND	ND	ND	ND
	6/21/2000		ND	ND	ND	ND	ND	ND
	6/16/2000		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
, w.e.y	5/23/2000		ND	ND	ND ND	ND	ND	ND
	5/18/2000	,	ND	ND	ND	ND	ND	ND
	5/10/2000		ND	ND	ND	ND	ND	ND
April	4/30/2000		ND	ND	ND	ND	ND	ND
	4/18/2000	485,300	ND	ND	ND	ND	ND	0.51
							n until April 29	
	4/10/2000		ND	ND	ND	ND	ND	ND
	4/4/2000		ND	ND	ND	ND	ND	ND
l	4/2/2000	NR		per	formed a carb	on change-c	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

		Meter	Lab Results	For Effluent ¹	and GAC-1		_	
		Reading	(concentratio	ns in ug/L)				
Mon th_		(gallons)	MtBE ²	TPH-g	Benzene	Toluene	Ethyl benzene	Total Xylenes
March	3/31/2000	P	rep	laced GAC-2	with a specia	al GAC desig	ned for remov	val 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	ИD	ND	ND	ND	ND
	3/3/2000	300,000	t	ransfer overt	neated, repair	red pump, re	started systen	n 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
								<u>-</u>
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					0 lb GAC unit	
							ith 55 gallon C	
	1/14/2000	83,500	185	ND	ND	ND	ND_	ND
Macconduction of the second			ne Suddin, see tada, e Sagara	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 De	ecember 6, 1	999		

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

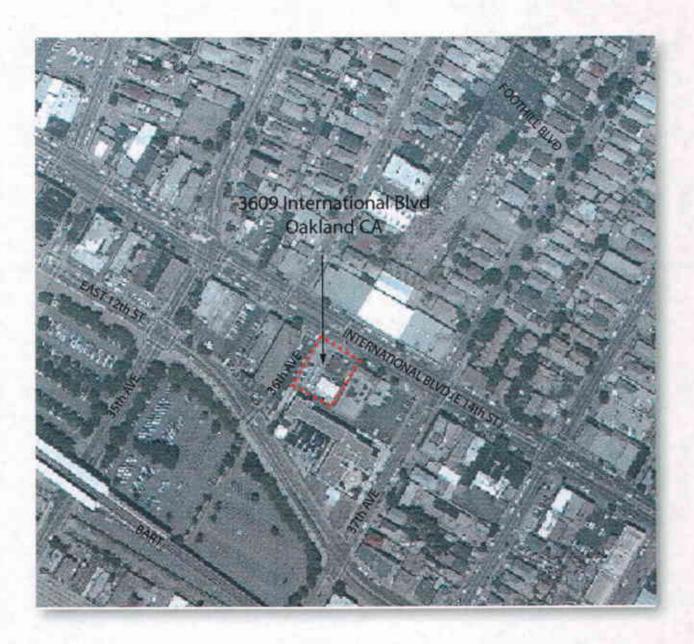
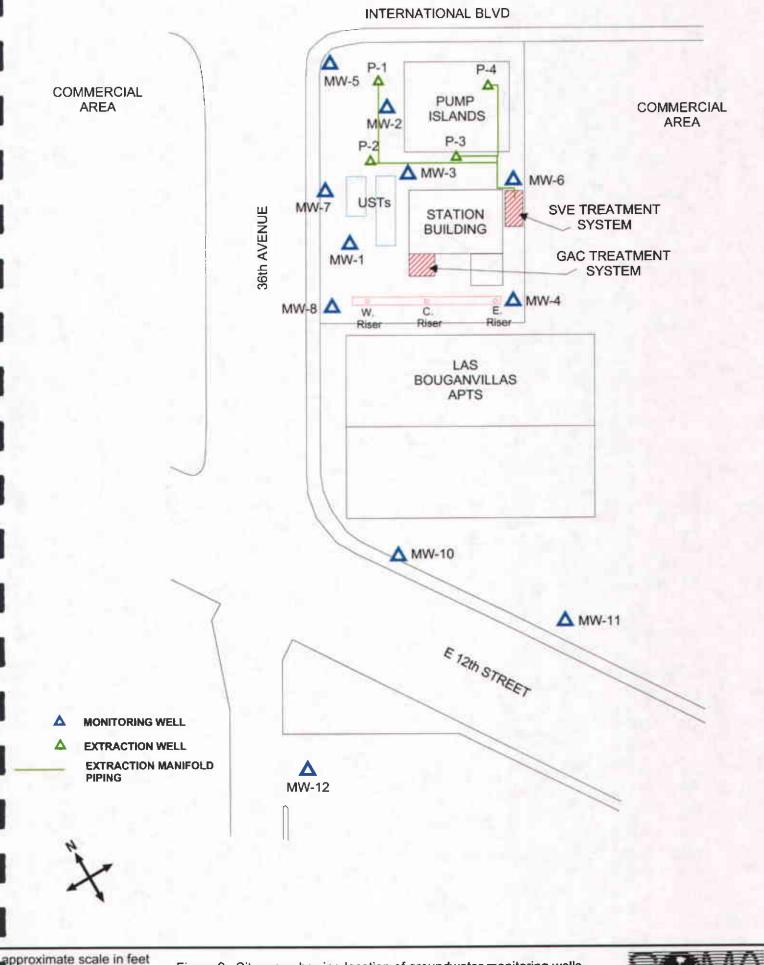




Figure 1: Site vicinity map.



approximate scale in feet 25

50

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Figure 2: Site map showing location of groundwater monitoring wells, French drain, SVE system, and GAC system.



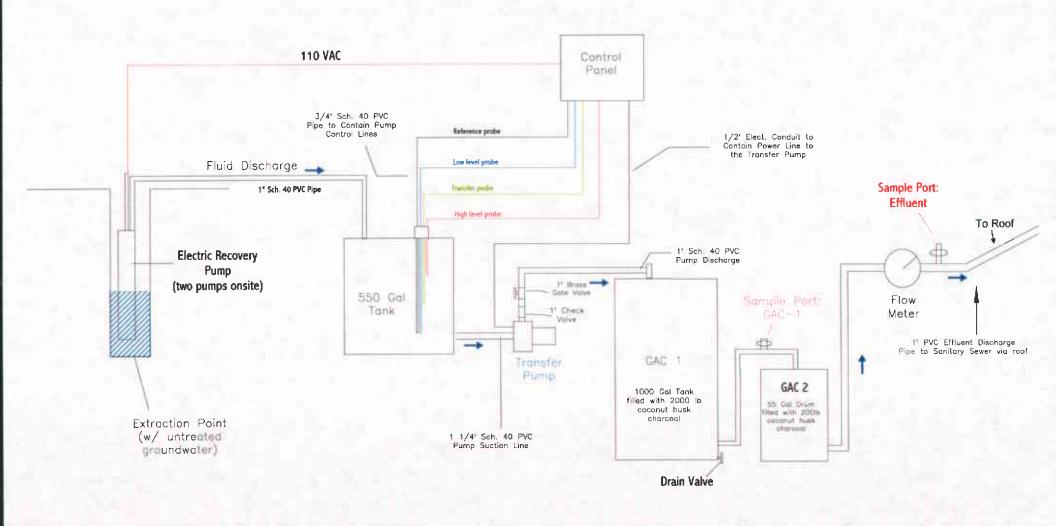
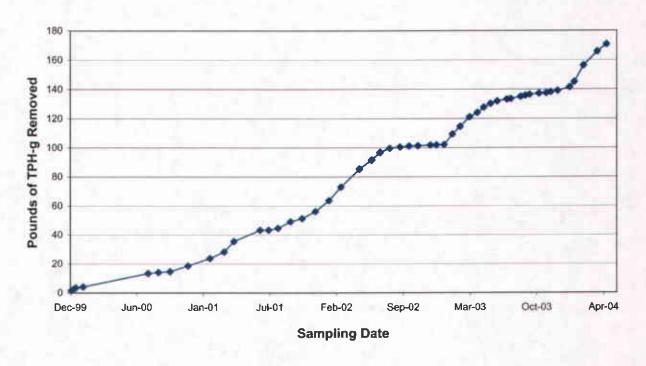


Figure 3: Schematic of the Groundwater Remediation System.





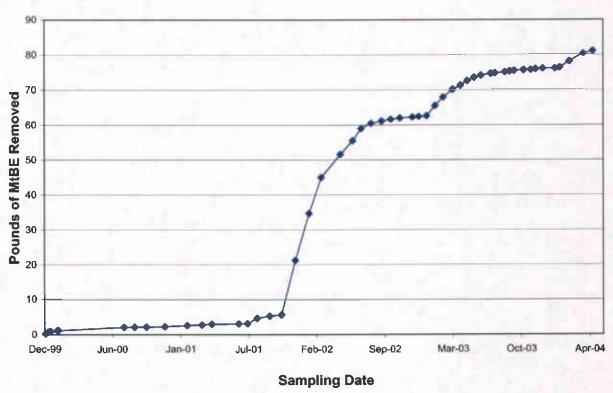


Figure 4. Cumulative mass of TPH-g and MtBE removed from groundwater since the installation of the treatment system.



APPENDIX A

EBMUD DISCHARGE PERMIT



WAS I EWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000 Terms and Conditions

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

GENERAL CONDITIONS

- 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.
- This Permit is granted to Tony's Express Auto Service to discharge treated Π. groundwater from 3609 International Boulevard in Oakland.
- Tony's Express Auto Service shall cease discharge of groundwater immediately if Ш 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.
- Π. 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).
- Ш. 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.



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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:

,		
Date Due		Reporting Period

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.
- Certification and signature prepared in accordance with Section B Part V of <u>STANDARD TERMS AND CONDITIONS</u>, 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:

KEGULATED.	PARAMETER		DAILY MAXIMUM
Benzene Toluene Ethylbenzene Xylenes, total			0.005 mg/L 0.005 mg/L 0.005 mg/L
A VICHES, IOIAL		•	U.UUD III 9717



WASTEWATER DISCHARGE PERMIT

REVISION EFFECTIVE JULY 1, 2000

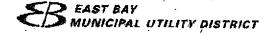
Terms and Conditions

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 <u>STANDARD TERMS</u> <u>AND CONDITIONS</u>, 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



DA VED R. WILLIAMS DRECTOR OF WASTINGTER

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 E	ffective	
	FY02	FX03	% Change
Flow (\$/Cel)	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 84823-1085 . 1510) 287-1405

W.\IDS\Administration\Budget\FY2003\vevision transmittal letter doc

Aug. 09 2002 69:22AM P1

FRY NO. :4154572178

FROM : RAZI



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:

@ \$540.00 each =

\$1,080.00 / year

Analyses Per Year:

Tests

Charge

Total Charge

Parameter

per year

per test

per year

EPA 624

\$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 = Discharge Volume =

/Ccf \$0.44 Cef/mo. 61

(based on 1,500 gpd average)

Wastewater Disposal Chargo =



WASTEWATER DISCHARGE PERMIT STANDARD TERMS AND CONDITIONS

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SECTION A. GENERAL PROVISIONS

I. <u>Duty to Comply</u>

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. <u>Dilution Prohibition</u>

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)
- e) 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
 - 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



- 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. <u>Signatory Requirements</u>

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)



- 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)



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.

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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	14 days	335.2	4500-CN B-E	
	Cl ₂ present Cool to 4°C	·	7007	3113 B	
Iron (Total)	HNO ₃ to pH<2 Cool to 4°C	6 months	200.7	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	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)	HCI 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	

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

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

^{*} Standard Methods for the Examination of Water and Wastewater

APPENDIX B

Laboratory Results and Chain of Custody Forms for the Treatment System



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: 19-MAY-04

Lab Job Number: 172058 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:

Reviewed by:

perations Manager

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NELAP # 01107CA

Page 1 of

CHAIN OF CUSTODY

Page	 of	

Curtis	&	Tom	pkins,	Ltd

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN# 172058

Analyses

Project	No:	2333

Lab

No.

Project Name:3609 International Blvd., Oakland Company:

Sample ID.

Turnaround Time: Standard

Influent

-3 PSP#1

GAC-1

Sampler:	Mehran	NOW 100 Z1	_

3-VOAs

3-VOAs

3-VOAs

Tony Perini Report To: **SOMA Environmental**

925-244-6600 Telephone:

925-244-6601 Fax:

Matrix

8021B BTEX & MIBE TPH-g 8015 Preservative # of 그 기가 있었다. Containers 그 기가 있었다.

Notes: EDF OUTPUT REQUIRED **Grab Sample Totalizer Reading:**

RELINQUISHED BY:

2:35 Pm Mehran Nowroom

5/3/04 DATE/FIME

RECEIVED BY:

DATE/TIME

DATE/TIME

DATE/TIME

DATE/TIME

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Revid cold fintact on use

Sampling Date

Time

5/3164

5/3/04

513104

12:00 PM

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WYSOAM



Total Volatile Hydrocarbons 3609 International Blvd EPA 5030B Location: _ab #: 172058 SOMA Environmental Engineering Inc. Prep: lient: coject#: atrix: 2333 Sampled: 05/03/04 Water 05/03/04 ug/L 90780 Received: Tnits: Batch#:

reld ID:

INFLUENT

Diln Fac: Analyzed: 5.000 05/04/04

me: b ID:

SAMPLE

172058-001

		Đ.	Analysis	
Gasoline C7-C12	9,600	250	EPA 8015B	
TBE	í,500	10	EPA 8021B	
enzene	680	2.5	EPA 8021B	
bluene	410	2.5	EPA 8021B	
Lthylbenzene	320	2.5	EPA 8021B EPA 8021B	
m p-Xylenes	1,200	2.5 2.5	EPA 8021B	
-Xylene	600			

AREC Limits Analysis Surrogate 117 . 74-142 EPA 8015B Trifluorotoluene (FID) EPA 8015B romofluorobenzene (FID) 80-139 127 107 55-139 EPA 8021B rifluorotoluene (PID) 62-134 EPA B021B 115 romofluorobenzene (PID)

eld ID:

GAC-1

SAMPLE

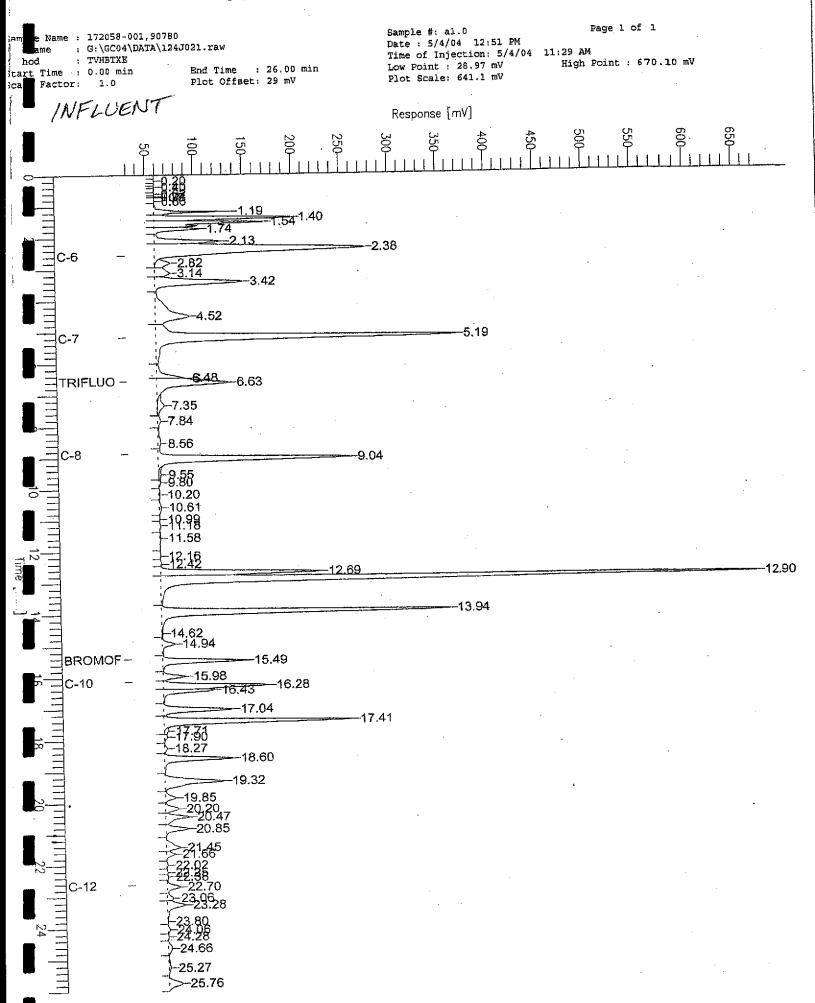
Diln Fac: Analyzed: 1.000 05/04/04

/pe: Lab ID: 172058-002

	Pec: Tr	RL	Analysis
asoline C7-C12	ND	50	EPA 8015B
MTBE	ND	2.0	EPA 8021B
Renzene	ND	0.50	EPA 8021B
oluene	ND	0.50	EPA 8021B
thylbenzene	ND	0.50	EPA 8021B
n,p-Xylenes	ND	0.50	EPA 8021B
o-Vylene	ND	0.50	EPA 8021B

Surrogate	*REC	Limits		Analysis
rifluorotoluene (FID)	89	74-142	EPA	8015B
Bromofluorobenzene (FID)	128	80-139		8015B
Prifluorotoluene (PID)	78	55-139		8021B
romofluorobenzene (PID)	113	62-134	EPA	8021B

GC04 TVH 'J' Data File FID





Total Volatile Hydrocarbons 3609 International Blvd EPA 5030B Location: цаb #: 172058 SOMA Environmental Engineering Inc. Prep: ient: 2333 05/03/04 05/03/04 bject#: Sampled: Water latrix: Received: ug/L 90780 Jnits: Betch#

Field ID:

PSP#1

SAMPLE

Diln Fac: Analyzed:

1.000 05/04/04

172058-003

		Dr Analysis
Analyte	K48176	50 EPA 8015B
Gasoline C7-C12	ND	2.0 EPA 8021B
M BE	ND ND	0.50 EPA 8021B
nzene	ND ND	0.50 EPA 8021B
'oluene	ND ND	0.50 EPA 8021B
<u>Ethylbenzene</u>	ND ND	0.50 EPA 8021B
r p-Xylenes	ND	0.50 <u>EPA 8021B</u>
Xvlene		

				SOCIOCOCO TOPO PORTO TOPO			
Comments to	*REC	Limitos			<u> </u>		
1 (TTD)	0.7	74-142	EPA	8015B			į.
Trifluorotoluene (FID)	2 1			8015B			Į.
omofluorobenzene (FID)	128	80-139			•		
OHIOT TROP ON COLL TITLE	76	55-139	EPA	8021B			1
ifluorotoluene (PID)	, ,		TO TO IN	00212	*	,	<u></u>
romofluorobenzene (PID)	111	<u>62-134</u>	<u> LFR</u>	00210			 _
ST OHIOT TROPOSCION APPLIA							

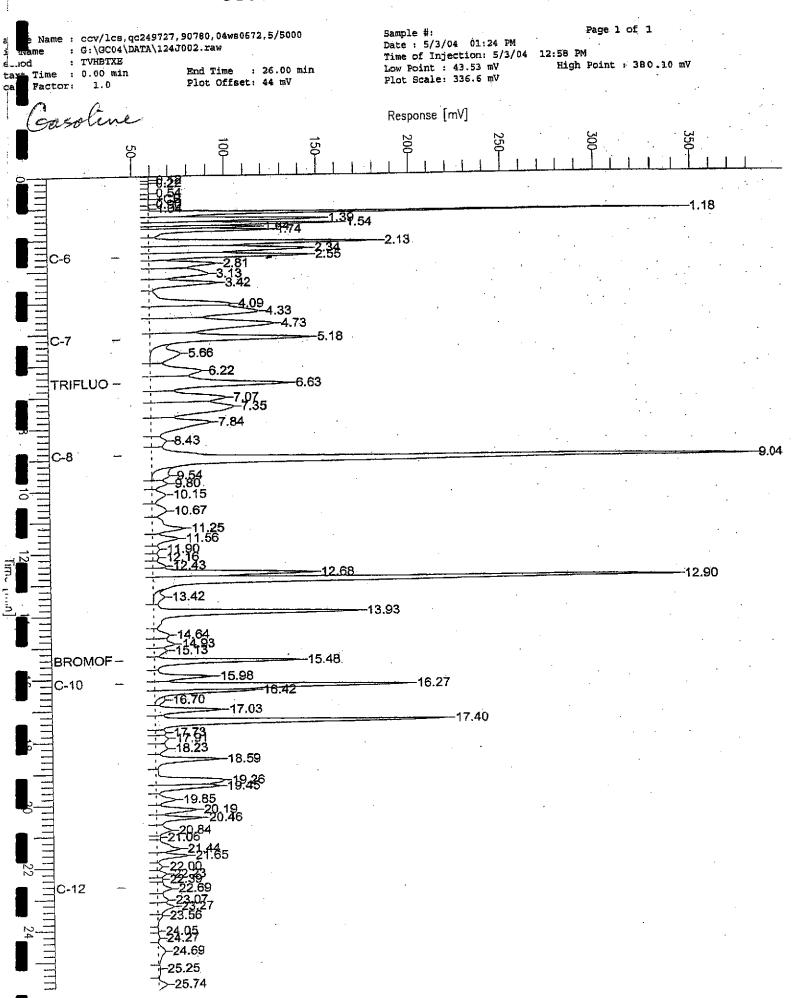
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Diln Fac: Analyzed: 1.000 05/03/04

D ID:	QC243,20	· · · · · · · · · · · · · · · · · · ·	
		R1	Analysis
Analy	te resum	50 EPA	8015B
soline C7-C12	ND	2.0 EPA	8021B
TEE	עמ	0.50 EPA	8021B
Benzene	ND		8021B
Dluene	ND	0.50 EPA	8021B
hylbenzene	ND	0.50 EPA	8021B
T.p-Xylenes	ND		8021B
y-Xvlene	ND ND		

			TO THE PERSON OF		
	9.0 77	T. innits	Ana.	2375315	
rifluorotoluene (FID)	27	74-142	EPA 8015B		ļ
TITUOTO COMMONTO (1 TT)	375	1 1 1 1	EPA 8015B	3	1
3romofluorobenzene (FID)	115	55-139	EPA 8021B		l
Trifluorotoluene (PID)	76		EPA 8021B		ı
Promofluorobenzene (PID)	101	62-134	FEW OASTE		

GC04 TVH 'J' Data File FID





ch QC Report

ch Qc		Fotal Volatile Hydrocarbor	ns
_	172058 SOMA Environmental Er	Location: ngineering Inc. Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8021B
oject#: pe: ab ID: trix: its:	LCS QC249726 Water ug/L	Diln Fac: Batch#: Analyzed:	1.000 90780 05/03/04

	Spiked	Result	%REC	! Limits	
Analyte		A		·	
soline C7-C12	20.00	17.86	89	59-131	ļ
TIBE	20.00	17.27	86	80-120	
Benzene	20.00	17.30	87	80-120	
luene		17.63	88	80-120	
hylbenzene	20.00	17.34	87	80-120	
n,p-Xylenes	20.00 20.00	17.46	87	80-120	<u> </u>
Xylene	20.00				

	Pesu	1+ %REC	Limits	
Shriogace	NA			
Trifluorotoluene (FID)	NA			Ī
comofluorobenzene (FID)	INT	68	55-139	
Trifluorotoluene (PID)		87	62-134	
Bromofluorobenzene (PID)		- 0,		



ch QC Report

		Total Volatile	Hydrocarbons	
	172058 SOMA Environmental	Engineering Inc.	Location: Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8015B
oject#: pe: Lab ID: htrix: hits:	LCS QC249727 Water ug/L		Diln Fac: Batch#: Analyzed:	1.000 90780 05/03/04

Analyte	Spiked		Result	%REC	Limits	
Isoline C7-C12	2,000		2,028	101	80-120	
TBE	·	NA				
Benzene	•	NA				
luene		$\mathbf{N}\mathbf{A}$				
hylbenzene		. NA				
a, p-Xylenes		NA			•	
hylbenzene n,p-Xylenes e-Xylene		NA			<u> </u>	

Surrogate		Result	%REC	Limits		
Trifluorotoluene (FID)			129	74-142		
comofluorobenzene (FID)			122	80-139		
rifluorotoluene (PID)	AИ				•	
Aromofluorobenzene (PID)	AM	, , , , , , , , , , , , , , , , , , ,				



ch QC Report

		Total Volatil	e Hydrocarbons	
lient: So	72058 DMA Environmental	Engineering Inc.	Location: Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8015B
oject#: 23 eld ID: ISS Lab ID: etrix: lits:	ZZZZZZZZZZZ		Batch#: Sampled: Received: Analyzed:	90780 05/03/04 05/03/04 05/04/04
iln Fac:	1.000			

.ype:

MS

Lab ID:

QC249786

- 1 E					
		Spiked	Result	% REC	Limits
Analyte	MSS Result	2,000	2,065	102	B0-120
Gasoline C7-C12	21.04	2,000	NA		
MTBE			NA		
enzene			NA		•
Toluene			NA		
Ethylbenzene			NA		
, p-Xylenes -Xylene			NA		
-Xvlene					

Surrogate		result %REC	Limits	
rifluorotoluene (FID)		132	74-142	
Bromofluorobenzene (FID)		136	80-139	
Trifluorotoluene (PID)	NA			
romofluorobenzene (PID)	NA			

pе

MSD

Lab ID:

QC249787

•	Smiked	Result	%REC	Limits	RPD	Lin
Analyte Wasoline C7-C12	2,000	2,096	104	80-120	2	20
MTBE	- ,	AN				
_Benzene		NA				
oluene		NA				
Ethylbenzene		AK				
m,p-Xylenes		NA				
-Xylene		NA				

Surrogate	Rest	ile %REC	Limits	
Trifluorotoluene (FID)		129	74-142	1
Bromofluorobenzene (FID)		133	80-139	
Trifluorotoluene (PID)	NA			-
Bromofluorobenzene (PID)	NA _.			ئــــ

NA= Not Analyzed

_PD= Relative Percent Difference

age 1 of 1



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

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

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

Date: 21-APR-04

Lab Job Number: 171567

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:

Reviewed by:

perations Manager

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NELAP # 01107CA

Page 1 of 0



Laboratory Number:

171567

Client:

SOMA Environmental Engineering Inc.

Project:

2333

Request Date:

4/5/2004

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for three water samples requested from the above referenced project on April 5, 2004. The samples were received cold and intact.

TVH/BTXE:

The recoveries for the surrogate trifluorotoluene in the spikes exceed control limits due to coelution of the surrogate peak with other hydrocarbon peaks. The associated surrogates are acceptable.

No other analytical problems were encountered.

CHAIN OF CUSTODY

		J	
Page	•	ot	1

DATE/TIME

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~ .	~. ~. ~	-	_	 	

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN # 171567

Sampler: Nehran Now1007

Analyses

8021B

DATE/TIME

Project No: 2333

Tony Perini

Project Name:3609 International Blvd., Oakland Company:

SOMA Environmental

Turnaround Time: Standard

Telephone:

Report To:

925-244-6600

Fax:

925-244-6601

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	•		Matrix	1	Pr	esen	/ative		8015	MtBE									-	
Lab No.	Sample ID.	Sampling Date Time	Soil Water Waste	# of Containers	HCL	H ₂ SO ₄	ICE		TPH-g 80	BTEX &									, .	
-\	Influent	415104 1:10 PM		3-VOAs	X		XI.		X	X										
-7	GAC-1	4,5104 1:15 RM	X	3-V.OAs	X		<u> </u>	ļ ·	×	\geq		\perp								
-3	PSP#1	415104 1:20 RM	1 7	3-VOAs	\times	<u> </u>	$ \mathbf{X} $		×	凶				_ _					\dashv	\dashv
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Notes	FDF OUTBUT DEOUB	<u>l</u>	BELINO	UISHED BY:	_!!			 -	H)	CE	IVE	DB	٧٢				<u> </u>	11		\neg
110100	EDF OUTPUT REQUIR Grab Sample	EN	<u> </u>	1:10 man			4/5/ DATE/		11	Γ	M	t			H	. 1	4/3	5/04	/ () E/11	31
	Totalizer Reading:		Treb.	an Non	<u> </u>	<u> </u>	UNIL		TY	\mathcal{H}_{τ}	V.L.	4/_	100	<u> </u>	<u>UN</u>			יאכ		VIE
	oping to the property of the p	Received 2 Ambie	,-0	(- Os.w		<i>ر</i> ب	DATE/	TIM	[· ·			<u> </u>	, 	·			DAT	E/TI	ME



EPA 8021B

5.0

Curtis & Tompkins Laboratories Analytical Report

ab #: 171567 Location: 3609 International Blvd

Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B

Project#: 2333

 atrix:
 Water
 Sampled:
 04/05/04

 shits:
 ug/L
 Received:
 04/05/04

 Batch#:
 90037
 Analyzed:
 04/06/04

Field ID: INFLUENT Lab ID: 171567-001
Tabe: SAMPLE Diln Fac: 5.000

Analyte	Result	RL	Analysis
asoline C7-C12	7,100	250	EPA 8015B
TBE	1,700	25	EPA 8021B
Benzene	730	25	EPA 8021B
m pluene	210	25	EPA 8021B
thylbenzene	120	25	EPA 8021B
hylbenzene m,p-Xylenes	870	25	EPA 8021B
A-Xylene	550	25	EPA 8021B

Surrogate	%REC	Limits	Analysis		
Trifluorotoluene (FID)	126	74-142	EPA 8015B	•	
romofluorobenzene (FID)	109	80-139	EPA 8015B	•	1
rifluorotoluene (PID)	132	55-139	EPA 8021B		
Bromofluorobenzene (PID)	114	62-134	EPA 8021B		

Field ID: GAC-1 Lab ID: 171567-002
Tabe: SAMPLE Diln Fac: 1.000

ND

Analysis Result Analyte EPA 8015B 50 asoline C7-C12 ND TBE 5.0 EPA 8021B ND 5.0 EPA 8021B Benzene ND EPA 8021B pluene ND 5.0 EPA 8021B thylbenzene ND 5.0 m, p-Xylenes 5.0 EPA 8021B ND

Surrogate	%REC	Limits	Analy	sis
Trifluorotoluene (FID)	107	74-142	EPA 8015B	
romofluorobenzene (FID)	115	80-139	EPA 8015B	
rifluorotoluene (PID)	108	55-139	EPA 8021B	
Bromofluorobenzene (PID)	117	62-134	EPA 8021B	

Not Detected.

RL= Reporting Limit

<u>o</u>-Xylene



Curtis & Tompkins Laboratories Analytical Report 3609 International Blvd Location: 171567 EPA 5030B SOMA Environmental Engineering Inc. Prep: Client: Project#: 2333 Sampled: 04/05/04 Water atrix: 04/05/04 Received: ug/L nits: 04/06/04 Analyzed: 90037 Batch#:

eld ID:

PSP#1

SAMPLE

Lab ID:

171567-003

Diln Fac:

1.000

Analyte	Result	RL	Analysis
asoline C7-C12	ND	50	EPA 8015B
TBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
Coluene	ND	5.0	EPA 8021B
	ND	5.0	EPA 8021B
thylbenzene m,p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits		Anal	ysis
Trifluorotoluene (FID)	100	74-142	EPA	8015B	•
romofluorobenzene (FID)	119	80-139	EPA	8015B	
rifluorotoluene (PID)	101	55-139	EPA	8021B	
Bromofluorobenzene (PID)	121	62-134	EPA	8021B	

BLANK

QC246889

Diln Fac:

1.000

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

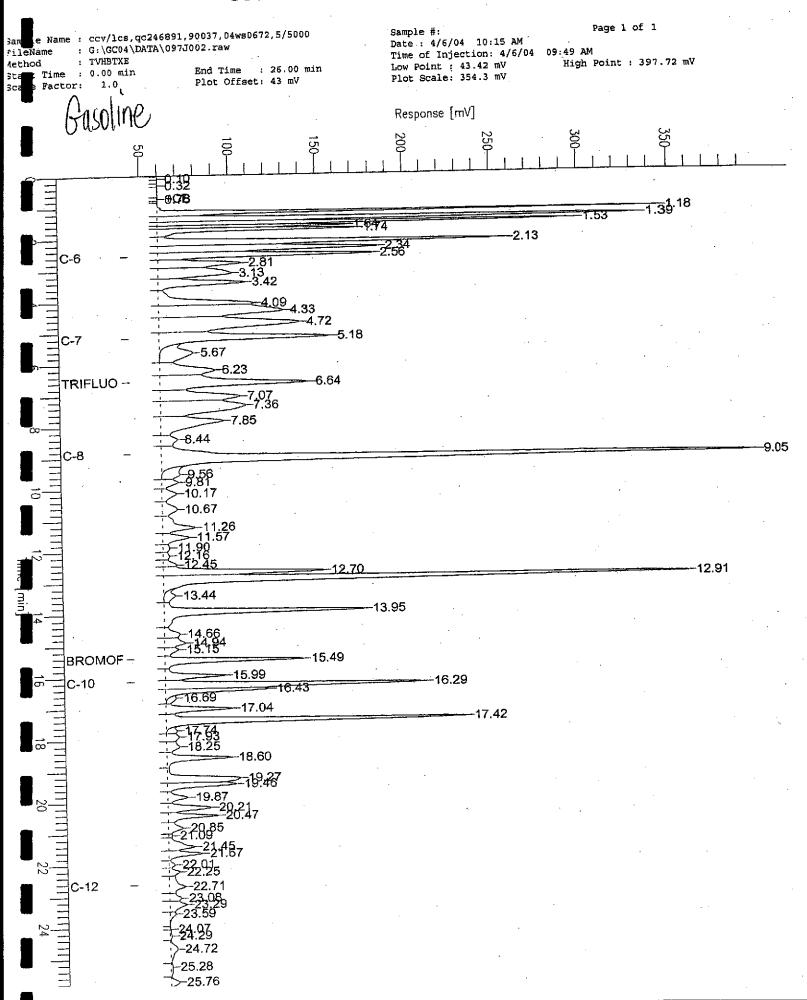
	%REC	Limits		Analysis
Surrogate	SALINE			
Trifluorotoluene (FID)	93	74-142	EPA	8015B
Bromofluorobenzene (FID)	106	80-139	EPA	8015B
Frifluorotoluene (PID)	93	55-139	EPA	8021B
Bromofluorobenzene (PID)	106	62-134	EPA	8021B

Not Detected RL= Reporting Limit age 2 of 2

GC04 TVH 'J' Data File FID

Page 1 of 1 Sample #: a1.0 le Name : 171567-001,90037 Date: 4/7/04 12:24 PM Name : G:\GC04\DATA\097J009.raw Time of Injection: 4/6/04 02:07 PM : TVHBTXE Method High Point : 489.82 mV Low Point : 38.30 mV End Time : 26.00 min Start Time : 0.00 min Plot Scale: 451.5 mV e Factor: 1.0 Plot Offset: 38 mV Sc Influent Response [mV] 1.191.5440 7.74 -2.38C-6 > 2.81 > 3,14 3.43 3.81 4.53 5.20 C-7 -5.66 6.49 TRIFLUO -6.64 \$.06 7.35 -7.85 8 49 C-8 9.05 -9.57 10.18 -10.6510.99 11.88 12.43 12.91 -13.9514.95 **BROMOF** --15.49 -15.99 C-10 16.44 16.29 17.05 ~17.42 -17.90 -18.28--18.61 18.92 -19.33 -19.86 --20.21 ----20.47 ----20.86 21.646 -22.02 -22.46 -22.72 -23.03.29 -23.59 -24.26 24.29 24.66 25.28 > 25.77

GC04 TVH 'J' Data File FID





Bech QC Report

sech Qc	Curtis & Tompkins Labor	atories Anal	ytical Report
Lab #: Client:	171567 SOMA Environmental Engineering Inc.	Location:	3609 International Blvd EPA 5030B EPA 8021B
roject#: Type: Lab ID: atrix: hits:	LCS QC246890 Water ug/L	Diln Fac: Batch#: Analyzed:	1.000 90037 04/06/04

Analyte	Spiked	Result	%REC	: Limits
asoline C7-C12	20.00	A . 19.53	98	59-131
TBE	20.00	18.45	92	80-120
enzene	20.00	18.45	92	80-120
oluene	20.00	19.19	96	80-120
hylbenzene	40.00	36.94	92	80-120
,p-Xylenes Xylene	20.00	18.07	90	80-120

	Regult	%REC	Limits			▩ .
Surrogate						
rifluorotoluene (FID)	AM					-
romofluorobenzene (FID)	NA		455	,		
Trifluorotoluene (PID)		91	55-139			
Trilinoloforness (ETD)		107	62-134			
Bromofluorobenzene (PID)		107.	<u> </u>			



B tch QC Report

	Curtis & Tompkins Labor	atories Analyt	ical Report
Sab #:	171567	Location:	3609 International Blvd
lient:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
roject#:		Analysis:	EPA 8015B
/pe:	LCS	Diln Fac:	1.0,00
ab ID:	QC246891	Batch#:	90037
atrix:	Water	Analyzed:	04/06/04
hits:	ug/L		

Analyte	Spiked	Result	%REC	Limits
	2,000	2,181	109	80-120
asoline C7-C12 MTBE		NA		
Benzene		NA		
		AK		
thylbenzene		NA		
m,p-Xylenes	·	NA		
pluene thylbenzene m,p-Xylenes -Xylene		NA		

Surrogate	Rea	sult %R	yC'	Bimits
Trifluorotoluene (FID)		148	*	74-142
romofluorobenzene (FID)		122		80-139
rifluorotoluene (PID)	NA			
Bromofluorobenzene (PID)	AN			



Ba ch QC Repo	ort		
	Curtis & Tompkins Labo	ratories Anal	ytical Report
100 #: 1715 Geient: SOMA Project#: 2333	67 Environmental Engineering Inc	Location: . Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8015B 90037
Field ID: Field ID: MS Lab ID: Mitrix: Units: Diln Fac:	ZZZZZZZZZ 171571-004 Water ug/L 1.000	Batch#: Sampled: Received: Analyzed:	04/02/04 04/06/04 04/07/04

Type:

MS

Lab ID:

QC246915

		Spiked	Result	#REC	
Analyte	MSS Result		2,078	103	8.0-120
(soline C7-C12	24.88	2,000	NA		ľ
BE					1
			NA	•	1
Benzene			NA		1
Toluene			NA		Į.
hylbenzene			NA		\
p-Xylenes			NA		
o-Xylene					·

	GILF %REC Limits	
Surrogate (FID)	151 * 74-142	· [
rifluorotoluene (FID) romofluorobenzene (FID)	120 80-139	
Trifluorotoluene (PID) NA		· · ·
Bromofluorobenzene (PID) NA		

Typė:

MSD

Lab ID:

QC246916

TAbe:				SOURCE SOURCE SOURCE	on the second second	Lim
	C. 4.5 P. 4.5	Result	%REC	Limits	×KFD ∞	
Analyte	<u>Spiked</u> 2,000	2,086	103	80-120	0	20
asoline C7-C12	2,000 N	A)
MTBE	И	A				
Renzene		A	•			
thylhenzene		IA	•			
oluene thylbenzene m,p-Xylenes		IA				
o-Xylene	N	IA				

L				
			Nimits	
r	Surrogate	KCS COLUMN	W 4 0 4 0	
Ŀ		152 *	74-142	
ſ	rifluorotoluene (FID)	100	80-139	
-1	(ETD)	120	80-133	
1	Bromofluorobenzene (FID)			
- 1	Trifluorotoluene (PID)	NA	•	1
- I	Tricinorocordene (175)	NA		
- E	romofluorobenzene (PID)	NA	· · · · · · · · · · · · · · · · · · ·	
- 1	TOWOTTOOT OF STREET			

^{*=} Value outside of QC limits; see narrative NA= Not Analyzed RPD= Relative Percent Difference Page 1 of 1



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

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

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

Date: 08-MAR-04 Lab Job Number: 170765

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:

mojeck Manager

Reviewed by:

enations Manager

This package may be reproduced only in its entirety.

NELAP # 01107CA

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Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN # 170765

Analyses

` ~ .		-
Sampler:	Mchran	Nowroozi

Project No: 2333

Report To: Tony Perini

Project Name:3609 International Blvd., Oakland Company:

SOMA Environmental

Turnaround Time: Standard

Telephone: 925-244-6600

Fax: 925-244-6601

		T. T. S.	Matrix	1	Prese	rvative	8015 & MtB		
Lab No.	Sample ID.	Sampling Date Time	Soil Water Waste	# of Containers	HCL H₂SO ₄	HNOS	TPH-9 8C		
__	Influent	2/24,04 2100 Pm	X	3-VOAs	\times		XX		
12	GAC-1	2,24,04 2'05 Pm	LX	3-VOAs	\times	1×	\boxtimes		
<i>-</i> 3	PSP#1	2/24/04 211087		3-VOAs	\bowtie		XX		
							,		
		· .							
				• .					
Notes	EDE OUTDUT DEOLUD	ED	DEI INOI	IISHED BV.			DECE	:11/1::D 13/-	

Notes: EDF OUTPUT REQUIRED
Grab Sample
Totalizer Reading:

Received On ice Cold Ambient Intact

R	EL	INQUISHED	BY:

2:40 PM

2,24,04

Mehran Nowroot

DATE/TIME

DATE/FIME

DATE/TIME

RECEIVED BY:

E 8021B

DATECTIME

DATE/TIME

DATE/TIME



5.000

Curtis & Tompkins Laboratories Analytical Report

3609 International Blvd Location:

EPA 5030B SOMA Environmental Engineering Inc. Prep: lient:

Project#: 2333

o-Xylene

02/24/04 Sampled: Water latrix:

02/24/04 Received: mits: ug/L

Diln Fac: INFLUENT Field ID: Batch#:

88749 SAMPLE Type: 02/25/04 Analyzed: b ID: 170765-001

Analysis Result Analyte EPA 8015B 250 asoline C7-C12 12,000 EPA 8021B 25 1,900 TBE EPA 8021B 25 1,000 Benzene EPA 8021B 25 480 Toluene EPA 8021B 25 280 thylbenzene EPA 8021B 25 1,100 m,p-Xylenes EPA 8021B 25 630

%REC Limits Analysis Surrogate EPA 8015B Trifluorotoluene (FID) 141 74-142 EPA 8015B 106 80-139 Bromofluorobenzene (FID) EPA 8021B rifluorotoluene (PID) 125 55-139 EPA 8021B 62-134 117 Bromofluorobenzene (PID)

1.000 Diln Fac: GAC-1 Field ID: 88708 Batch#: SAMPLE

02/24/04 Analyzed: 170765-002 b ID:

■ Analyte	Result	RL	Analysis	
Gasoline C7-C12	ND	50	EPA 8015B	
MTBE	ND	5.0	EPA 8021B	
_Benzene	ND	5.0	EPA 8021B	
foluene	ND	5.0	EPA 8021B	
Ethylbenzene	ND	5.0	EPA 8021B	
m,p-Xylenes	ND	5.0	EPA 8021B	
b-Xylene	ND	5.0	EPA 8021B	

Surrogate	%REC	Limits	Analysis	
Trifluorotoluene (FID)	101	74-142	EPA 8015B	
Bromofluorobenzene (FID)	115	80-139	EPA 8015B	
Trifluorotoluene (PID)	105	55-139	EPA 8021B	
Bromofluorobenzene (PID)	119	62-134	EPA 8021B	

= Not Detected RL= Reporting Limit

age 1 of 3



Curtis & Tompkins Laboratories Analytical Report 3609 International Blvd Location: 170765 EPA 5030B SOMA Environmental Engineering Inc. Prep: Client: Project#: 2333 02/24/04 Sampled: atrix: Water 02/24/04 Received: nits: \mathtt{ug}/\mathtt{L}

Field ID:

D:

PSP#1

SAMPLE

170765-003

Diln Fac:

Batch#:

Analyzed:

1.000

88708 02/24/04

Analyte	Result	RL		Analysis
asoline C7-C12	ND	50	EPA	8015B
TBE	ND	5.0	EPA	8021B
Benzene	ND	5.0	. EPA	8021B
Coluene	ND	5.0	EPA	8021B
	ND	5.0	EPA	8021B
m.n-Xvlenes	ND	5.0	EPA	8021B
thylbenzene m,p-Xylenes e-Xylene	ND	5.0	EPA	8021B

·				
Surrogate	%REC	Limits	Analys	sis .
Trifluorotoluene (FID)	99	74-142	EPA 8015B	·
romofluorobenzene (FID)	113	80-139	EPA 8015B	
rifluorotoluene (PID)	104	55-139	EPA 8021B	
Bromofluorobenzene (PID)	117	62-134	EPA 8021B	

BLANK

QC241859

Batch#: Analyzed: 88708 02/24/04

ln Fac: 1:000

Analyte	Result	RL	Analysis
asoline C7-C12	ND ·	50	EPA 8015B
MTBE	ND	5.0	EPA 8021B
enzene	ND	5.0	EPA 8021B
oluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
m n-Yvlenes	ND	5.0	EPA 8021B
m,p-Xylenes -Xylene	ND	5.0	EPA 8021B

%REC	Limits		Analysis
98	74-142	EPA	8015B
106	80-139	EPA	8015B
105	55-139	EPA	8021B
114	62-134	EPA	8021B
	106 105	98 74-142 106 80-139 105 55-139	98 74-142 EPA 106 80-139 EPA 105 55-139 EPA

= Not Detected

RL= Reporting Limit

age 2 of 3



Curtis & Tompkins Laboratories Analytical Report 3609 International Blvd Location: 170765 ab #: EPA 5030B SOMA Environmental Engineering Inc. Prep: Client: Project#: 2333 02/24/04 Sampled: Water atrix: 02/24/04 Received: ug/L onits:

Type:

BLANK

b ID:

QC242015

Batch#:

88749

Analyzed:

02/25/04

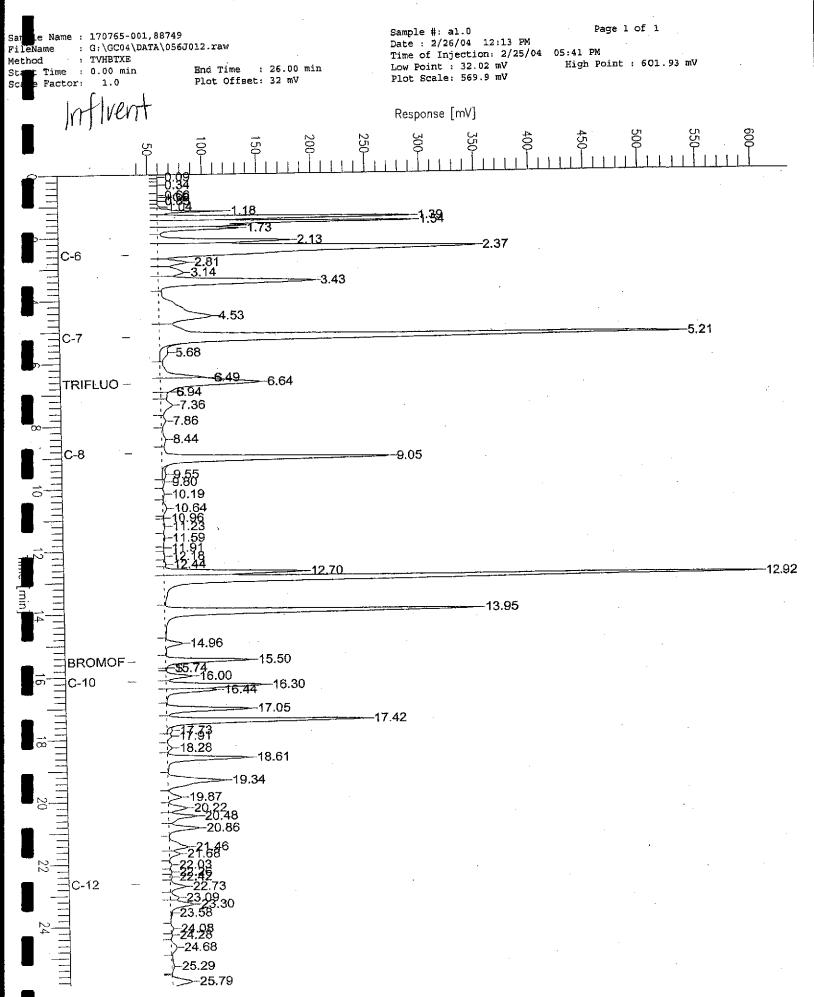
ln Fac:

1.000

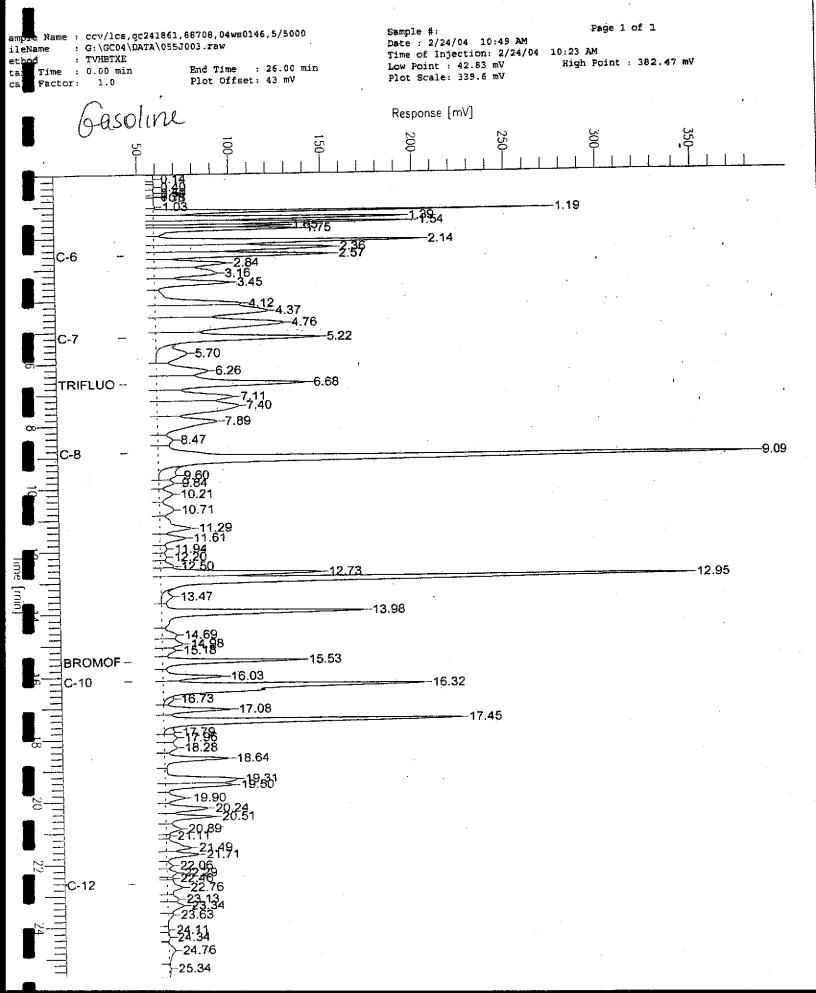
	Result	RL	Analysis	
Analyte	ND	50	EPA 8015B	
Basoline C7-C12	ND	5.0	EPA 8021B	
MTBE	ND	5.0	EPA 8021B	
Benzene	ND	5.0	EPA 8021B	
roluene	ND ·	5.0	EPA 8021B	
Ethylbenzene	ND	5.0	EPA 8021B	
m,p-Xylenes		5.0	EPA 8021B	
p-Xylene	ND			

Surrogate	%REC	Limits		Analysis
Trifluorotoluene (FID)	97	74-142	EPA	8015B
Bromofluorobenzene (FID)	111	80-139	EPA	8015B
Trifluorotoluene (PID)	99	55-139	EPA	8021B
Bromofluorobenzene (PID)	116	62-134	EPA	8021B

GC04 TVH 'J' Data File FID



GC04 TVH 'J' Data File FID





	Curtis &	Tompkins Labor	atories Ana	alytical Report
ab #:	170765		Location:	3609 International Blvd
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:			Analysis:	EPA 8021B
vne ·	LCS		Diln Fac:	1.000
ype: ab ID:	OC241860		Batch#:	88708
Matrix:	Water		Analyzed:	02/24/04
nits:	ug/L			

Sasoline C7-C12	1	NA			
TBE	20.00	19.77	99	59-131	
	20.00	19.74	99	80-120	
Benzene	20.00	19.77	99	80-120	
roluene	20.00	20.63	103	80-120	
thylbenzene	40.00	39.09	98	80-120	
h,p-Xylenes o-Xylene	20.00	19,14	96	80-120	

Surrogate	Res	mit	%REC	Limits
Trifluorotoluene (FID)	NA			
Bromofluorobenzene (FID)	NA			
rifluorotoluene (PID)		4	98	55-139
Bromofluorobenzene (PID)		<u> </u>	105	62-134



Curtis & Tompkins Laboratories Analytical Report

3609 International Blvd Location: ab #:

EPA 5030B SOMA Environmental Engineering Inc. Prep: Client:

EPA 8015B

Analysis: Project#: 2333 LCS уре:

Diln Fac: 1.000

88708 Batch#: QC241861 ab ID:

02/24/04 Analyzed: Matrix: Water nits: ug/L

%REC Limits Result Spiked 2,000 2,157 asoline C7-C12 NА TBE NA Benzene NA Toluene NA thylbenzene ΝA ,p-Xylenes NAo-Xylene

Surrogate	Resu	1+ %REC	Limits		
Trifluorotoluene (FID)		133	74-142		
Bromofluorobenzene (FID)		106	80-139	•	
rifluorotoluene (PID)	NA		,	•	
Bromofluorobenzene (PID)	AN				



Curtis & Tompkins Laboratories Analytical Report 3609 International Blvd Location: 170765 ab #: EPA 5030B SOMA Environmental Engineering Inc. Prep: Client: EPA 8021B Analysis: Project#: 2333 1.000 LCS Diln Fac: уре: 88749 Batch#: QC242016 ab ID: 02/25/04 Analyzed: Matrix: Water ug/L nits:

Gasoline C7-C12	1	NA.		
ITBE	20.00	17.63	88	59-131
Benzene	. 20.00	18.73	94	80-120
Toluene	20.00	19.03	95	80-120
Cthylbenzene	20.00	19.90	100	80-120
	40.00	39.06	98	80-120
h,p-Xylenes o-Xylene	20.00	19.12	96	80-120

Surrogate	Res	ult %REC	Limits	
Trifluorotoluene (FID)	NA			
Bromofluorobenzene (FID)	NА			
rifluorotoluene (PID)	•	94	55-139	
Bromofluorobenzene (PID)		112	62-134	



ab #: 170765 Location: 3609 International Blvd

Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B

Project#: 2333 Analysis: EPA 8015B

 Type:
 LCS
 Diln Fac:
 1.000

 Lab ID:
 QC242017
 Batch#:
 88749

 Matrix:
 Water
 Analyzed:
 02/25/04

nits: ug/L

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,253	113	80-120
NTBE	·	NA .		
Benzene	-	NA		
Toluene	•	NA		
		NA		
n.p-Xvlenes		NA		
Ethylbenzene h,p-Xylenes o-Xylene		NA .		

Surrogate	R	esult	#REC	Limits
Trifluorotoluene (FID)			136	74-142
Bromofluorobenzene (FID)			114	80-139
Frifluorotoluene (PID)	NA			, and the second se
Bromofluorobenzene (PID)	NA			



		Curtis &	Tompkins I	abor	atories Anal	lytical Report
ab #:	17076	55			Location:	3609 International Blvd
	SOMA	Environmental	Engineering	Inc.	Prep:	EPA 5030B
roject#:	2333		-		Analysis:	EPA 8015B
ield ID:		ZZZZZZZZZZ			Batch#:	88708
SS Lab ID) <u>.</u>	170740-001			Sampled:	02/23/04
latrix:		Water			Received:	02/23/04
nits:		ug/L	•		Analyzed:	02/24/04
iln Fac:		1.000				,

Type:

MS

Lab ID:

QC241880

Analyte	MSS Result	Spiked	Result	%REC	Limits
asoline C7-C12	17.59	2,000	2,270	113	80-120
MTBE	4		NA		
Menzene		•	NA		
oluene	. *		NA		
Ethylbenzene	•		NA		
m.p-Xvlenes			NA		
m,p-Xylenes -Xylene	•		NA		

				
Surrogate		Result %REC	C Limita	
rifluorotoluene (FID)		140	74-142	
romofluorobenzene (FID)		114	80-139	
Trifluorotoluene (PID)	NA		·	
romofluorobenzene (PID)	NA			

me:

MSD

Lab ID:

QC241881

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Casoline C7-C12	2,000	2,285	113	80-120	1	20
ITBE		NA				
Benzene		NA				
-Toluene	NA					
Ethylbenzene	,	NA				
m,p-Xylenes		NA				
Sthylbenzene m,p-Xylenes o-Xylene		NA				

	Deserv	14 %DE/C	Limits	
Surrogate Trifluorotoluene (FID)	Keau	140	74-142	
Bromofluorobenzene (FID)		113	80-139	
Trifluorotoluene (PID)	NA			
Bromofluorobenzene (PID)	NA			

NA= Not.Analyzed

RPD= Relative Percent Difference

age 1 of 1



	Curtis &	Tompkins Labor	atories Analyt	
ab #:	170765		Location:	3609 International Blvd
Client: S	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#: 2		-	Analysis:	EPA 8015B
ield ID:	ZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZZ		Batch#:	88749
SS Lab ID			Sampled:	02/25/04
	Water		Received:	02/25/04
Matrix: T nits:	ug/L			02/25/04
iln Fac:	1.000			

Type:

MS

Lab ID:

QC242109

Analyte	MSS Result	Spiked	Result	%REC	Limits
asoline C7-C12	23.65	2,000	2,272	112	80-120
MTBE			NA NA		•
Benzene			NA NA		
Coluene			NA NA		
Ethylbenzene			NA		
m,p-Xylenes b-Xylene		•	NA		
b-Xylene					

Surrogate	Re	sult %REC	Limits		
rifluorotoluene (FID)		130	74-142	•	
Bromofluorobenzene (FID)		113	80-139		-
Trifluorotoluene (PID)	AN				
Bromofluorobenzene (PID)	NA		<u> </u>		

ype:

MSD

Lab ID:

QC242110

Spiked	Result	%REC	Limits	RPD	
2,000	2,264	112	80-120	0	20
	NA				
•	NA				
	NA .				,
	Spiked 2,000	2,000 2,264 NA NA NA NA NA NA NA	2,000 2,264 112 NA NA NA NA NA NA NA NA NA N	2,000 2,264 112 80-120 NA NA NA NA NA NA NA NA NA	2,000 2,264 112 80-120 0 NA NA NA NA NA NA NA NA

Surrogata	Resu	lt %REC	Limits	
Trifluorotoluene (FID)		129	74-142	
Bromofluorobenzene (FID)		112	80-139	
Trifluorotoluene (PID)	NA			
Bromofluorobenzene (PID)	NA		<u> </u>	

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



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: 10-FEB-04 Lab Job Number: 170222 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:

Operations Manager

Operations Manager

This package may be reproduced only in its entirety.

NELAP # 01107CA

Page 1 of 9

CHANGE COTODY

Analyses



Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN # 170222

Sampler: Mchran Nowrooz

Project No: 2333 Report To: Tony Perini

Project Name:3609 International Blvd., Oakland Company: **SOMA Environmental**

Turnaround Time: Standard Telephone: 925-244-6600

> 925-244-6601 Fax:

		·	Mat	rix :		Р	res	erv	attv	e	ļ
Lab No.	Sample ID.	Sampling Date Time	Soil	Waste	# of Containers	도 당	H ₂ SO ₄	HNO3	E)		
-	Influent	1,27,04 2:30 PM	X		3-VOAs	\times			X		
-5	GAC-1	1,27104 2:35 PM	X		3-VOAs	\times		Ĺ	\boxtimes		
-2	PSP#1	1,27,04 2:40PA	X		3-VOAs	×			\times		
		·						<u> </u>			
									,		
7											-
				1908 11/01	ived On ice	act					
	·										
· · · · · · · · · · · · · · · · · · ·						<u> </u>					
									Ŀ	<u> </u>	L
Notes	EDF OUTPUT REQUIF	RED	RELI	NQL	JISHED BY:						

Grab Sample

Totalizer Reading: 1, ₹92,320

1,27/04

Mehran Nowrooz' DATE/FIME

DATE/TIME

DATE/TIME

RECEIVED BY:

8021B

& MIBE

TPH-9 8015 BTEX

> DATE/TIME QATE/TIME

> > DATE/TIME



ab #: 170222 Client:

Location: 3609 International Blvd SOMA Environmental Engineering Inc. Prep: EPA 5030B

Project#: 2333

Matrix: Water Sampled: 01/27/04 Jnits: ug/L Received: 01/27/04

Batch#: 87995 Analyzed: 01/28/04

Field ID: pe:

INFLUENT

SAMPLE

Lab ID:

170222-001

Diln Fac:

5.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	9,000	250	EPA 8015B
ITBE	680	25	EPA 8021B
enzene	1,400	25	EPA 8021B
Toluene	190	25	EPA 8021B
thylbenzene	58	25	EPA 8021B
, p-Xylenes O-Xylene	700	25	EPA 8021B
O-Xylene	460	25	EPA 8021B

Surrogate	%REC	Limits	Anal	yais	
rifluorotoluene (FID)	118	57-150	EPA 8015B		
Bromofluorobenzene (FID)	120	65-144	EPA 8015B		
Frifluorotoluene (PID)	108	54-149	EPA 8021B		
romofluorobenzene (PID)	113	58-143	EPA 8021B		

ld ID:

GAC-1

SAMPLE

Lab ID:

170222-002

Diln Fac: 1.000

Analyte	Result	RL	Analysis
asoline C7-C12	ND	50	EPA 8015B
MTBE	ND	5.0	EPA 8021B
enzene	ND	5.0	EPA 8021B
pluene	ND	5.0	EPA 8021B
Ethylbenzene	ND	5.0	EPA 8021B
n, p-Xylenes	ND .	5.0	EPA 8021B
Xylene	ND	5.0	EPA 8021B

Surrogate	%RBC	Limits	Analysis
Prifluorotoluene (FID)	1.06	57-150	EPA 8015B
comofluorobenzene (FID)	114	65-144	EPA 8015B
#rifluorotoluene (PID)	100	54-149	EPA 8021B
3romofluorobenzene (PID)	111	58-143	EPA 8021B

D= Not Detected

KL Reporting Limit

e 1 of 2



ab #: 170222 Location: 3609 International Blvd

lient: SOMA Environmental Engineering Inc. Prep: EPA 5030B

Project#: 2333

 latrix:
 Water
 Sampled:
 01/27/04

 Inits:
 ug/L
 Received:
 01/27/04

 Batch#:
 87995
 Analyzed:
 01/28/04

Field ID: PSP#1

PSP#1 Lab ID: 170222-003 SAMPLE Diln Fac: 1.000

Analysia asoline C7-C12 ND50 EPA 8015B TBE ND 5.0 EPA 8021B enzene ND 5.0 EPA 8021B Toluene ND 5.0 EPA 8021B thylbenzene ND 5.0 EPA 8021B ,p-Xylenes ND 5.0 EPA 8021B o-Xylene ND 5.0 EPA 8021B

Surrogate	%RBC	Limits	Analysis
rifluorotoluene (FID)	106	57-150	EPA 8015B
Bromofluorobenzene (FID)	117	65-144	EPA 8015B
rifluorotoluene (PID)	103	54-149	EPA 8021B
romofluorobenzene (PID)	117	58-143	EPA 8021B

I**s**pe: Tab ID:

BLANK QC239175 Diln Fac:

1.000

Analyte	Result	RL		Analysis
Gasoline C7-C12	ND	50		8015B
4TBE	ND	5.0		8021B
nzene	ND	5.0	EPA	8021B
luene	ND	5.0	EPA	8021B
Sthylbenzene	ND	5.0	EPA	8021B
n.p-Xylenes Xylene	ND	5.0	EPA	8021B
Ayrene	ND ND	5.0	EPA	8021B

3romofluorobenzene (PID)	92	58-143	EPA 8021B	
Frifluorotoluene (PID)	86	54-149	EPA 8021B	
comofluorobenzene (FID)	98	65-144	EPA 8015B	
ifluorotoluene (FID)	91	57-150	EPA 8015B	
Surrogate	%REC	Limits	Aria l'	ysis

D= Not Detected

Reporting Limit

je 2 of 2

ple Name : 170222-001,87995 Sample #: al.0 Date: 1/29/04 08:46 AM Page 1 of 1 : G:\GC05\DATA\028G004.raw leName chod : TVHBTXE Time of Injection: 1/28/04 12:29 PM rt Time : 0.00 min End Time : 25.00 min Low Point : -5.32 mV High Point : 420.83 mV Plot Offset: -5 mV le Factor: Plot Scale: 426.2 mV Response [mV] -0.13 -+CB 0.80-1.22 ---1.54 -1.72 2.54 -3.42 C-7 4.08 -4.58 **-5**.38 TRIFLUO --5.58-6.21 6.75 7.38 C-8 --7.93 -8.43 -8.70 -9.09 -9.47 -10.15 -10.54 -10.99 -11.27 -11.80 12.82 13.84 BROMOF -14.35 14.86 C-10 15.16 --15.90 -16.2616.58 17.16 17.79 =18.34^{18.13} -18.69 -19.05 -19.32 -19.66 =20.45 C-12 20.80 21.07 21.32 -21.75 23.07 23.33 -23.75 -24.37 -24.79



ab #: 170222

SOMA Environmental Engineering Inc.

Prep:

Location:

Diln Fac:

3609 International Blvd

lient:

Analysis:

EPA 5030B

Project#: 2333

EPA 8015B

ype: ab ID:

QC239176

1.000

Matrix:

Water

Batch#:

87995

lnits:

ug/L

Analyzed: 01/28/04

Gasoline C7-C12				*REC	
_	2,000		2,125	106	80-120
TBE		NA			
enzene		NА			
Toluene		NA			
Ethylbenzene ,p-Xylenes Xylene		NA			
,p-Xylenes		NA			
-Xylene		NA			•

Surrogate	Res	ult %REC	Limits	
rifluorotoluene (FID)		122	57-150	
Bromofluorobenzene (FID)		119	65-144	
Trifluorotoluene (PID)	NA			
romofluorobenzene (PID)	NA			
**			· · · · · · · · · · · · · · · · · · ·	



170222 lient:

SOMA Environmental Engineering Inc.

Prep:

3609 International Blvd

EPA 5030B

Project#: 2333

Analysis:

EPA 8021B

ype: ab ID: LÇS QC239177

Diln Fac:

Location:

1.000

Matrix:

Water

Batch#: Analyzed: 87995 01/28/04

Units:

ug/L

Gasoline C7-C12		NA	%REC	Limits
TBE	20.00	17.93	90	63-133
enzene	20.00	20.12	101	78-123
foluene	20.00	17.97	90	79-120
Ethylbenzene	20.00	18.62	93	80-120
,p-Xylenes	40.00	34.38	86	76-120
-Xylene	20.00	18.63	93	80-121

1	Surrogate		Result	%REC	Limits		
ŧ,	rifluorotoluene (FID)	NA					
ľ	Bromofluorobenzene (FID)	NA					
ر ا	Trifluorotoluene (PID)			88	54-149	•	
	romofluorobenzene (PID)			92	58-143		
1		-					



	Curtis & Tompkins Lab	oratories Anal	ytical Report
ab #:	170222	Location:	3609 International Blvd
lient:	SOMA Environmental Engineering In	c. Prep:	EPA 5030B
?roject#:	2333	Analysis:	EPA 8015B
ield ID:	PSP#1	Batch#:	87995
SS Lab II	D: 170222-003	Sampled:	01/27/04
latrix:	Water	Received:	01/27/04
Inits:	ug/L	Analyzed:	01/28/04
iln Fac:	1.000		·

pe:

MS

Lab ID:

QC239193

Analyte		der von verstagen im verstämte der verstämte der verstämte der verstämte der verstämte der verstämte der verst	Result	%REC	
asoline C7-C12	14.81	2,000	2,201	109	76-120
TBE	•		NA		
Benzene	•		NA		
- oluene			NA		
thylbenzene		•	NA		•
thylbenzene m,p-Xylenes b-Xylene			NA		
o-Xylene			NA		

1						•
Ĺ	Surrogate	Re	sult %REC	Limits		
Г	Trifluorotoluene (FID)		1.36	57-150		
4	Promofluorobenzene (FID)		140	65-144		
ļ	rifluorotoluene (PID)	NA				
ľ	romofluorobenzene (PID)	NA .		1.0	•	

^rγpe :

MSD

Lab ID:

QC239194

Analyte	Spiked	Result	%RBC	Limits	RPD	Lim
Masoline C7-C12	2,000	2,233	111	76-120	1	20
MTBE		NA				
enzene		NA				
pluene ·		NA				
Ethylbenzene n,p-Xylenes		NA				
$\underline{\mathfrak{m}}$, p-Xylenes	•	NA				
-Xylene		NA				

Surrogate	Re	sult %REC	Limits	
Frifluorotoluene (FID)	,	133	57-150	
romofluorobenzene (FID)		139	65-144	
Trifluorotoluene (PID)	NA			
Bromofluorobenzene (PID)	NА			
				

NA= Not Analyzed

kPD= Relative Percent Difference

ge 1 of 1



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

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

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

Date: 26-JAN-04 Lab Job Number: 169944

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:

Manager

Reviewed by:

etations Manager

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NELAP # 01107CA

Page 1 of 10



Laboratory Number:

169944

Client:

SOMA Environmental Engineering Inc

Project:

2333

Request Date:

1/13/04

CASE NARRATIVE

This hardcopy data package contains sample results and batch QC results for three water samples requested from the above referenced project on January 13, 2004. The samples were received cold and intact.

TVH/BTXE:

The recovery for the surrogate bromofluorobenzene in the sample PSP#1 is outside control limits due to coelution of the surrogate peak with other hydrocarbon peaks. The associated surrogate recoveries are acceptable.

No other analytical problems were encountered.

CHAIN OF CUSTODY

		. ===
'age	0	f <u> </u>

Cur	tis	&	Tom	pkins,	. Ltd

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

Project No: 2333

C&T LOGIN # 19944

Analyses

8021B

Sampler: Mehlan Nouloez

Report To: Tony Perini

Project Name:3609 International Blvd., Oakland Company: SOMA Environmental

Turnaround Time: Standard Telephone: 925-244-6600

Fax: 925-244-6601

		<u> </u>	ax:				925-244-66	<u>01</u>						Ш	ł			[]	li	l	. 1	•	1	
		<u> </u>		M	atri	x] -	I	res	erv	/ativ	⁄e	15	& MIBE		ĺ								.
Lab No.	Sample ID.	Sampling Dat Time	te	Soil	Waste		# of Containers	HCL	H ₂ SO ₄	HNOS	ICE		TPH-g 8015	BTEX &)	,		,							
-1	Influent	1,13,04 /0:30	o An	\	₹		3-VOAs	×			X		X	X							十		1	
-2	GAC-1	113/04 10:35			₹ <u> </u>	Π	3-VOAs	X	-		X		区	X						\neg		1.	1	
-3	PSP#1	1,13,04 10:40	- 1	5	1		3-VOAs	X			X		X	X								\Box	T	1.1
			5.										,						_				T	
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Notes:	EDF OUTPUT REQUIRE	ED .		RE	LIN	QL	JISHED BY:					<u> </u>	HE	CE	IVE									
	Grab Sample		- 7		٠		2150	**			177	3/04		•	1-	13	·-C	<u> </u>	<u> </u>		<u>.</u>	وزر ح	τ ο/	w
	Totalizer Reading: R	oceived On ice	11	w.	ا الا ع	ra	n Nows	202	_		DAT	E/FIME	-	` _		\subset			•		/			TIME
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											DAT	E/TIME	1_							· .		DA	TE/	ПМЕ



Curtis & Tompkins Laboratories Analytical Report Lab #: 169944 Location: SOMA Environmental Engineering Inc. 3609 International Blvd EPA 5030B Client: Prep: <u>Project#:</u> 2333 Matrix: Water Jnits: Batch#: Sampled: 01/13/04 01/13/04 ug/L 87607 Received:

Field ID:

ype: ab ID:

INFLUENT SAMPLE

169944-001

Diln Fac: Analyzed:

5.000 01/13/04

Gasoline C7-C12	Result 12,000	544	Analys	8
MTBE		250	8015B	
Benzene	180	2.5	EPA 8021B	
Foluene	1,600	25	EPA 8021B	7
Ethylbenzene	260	25	EPA 8021B	€.
m,p-Xylenes	53	25	EPA 8021B	
p-Xylene	1,200	25	EPA 8021B	
	670	25	EPA 8021B	•

Trifluorotoluene (FID) 129 57-150 65-144 8015B Bromofluorobenzene (FID) 116 8015B rifluorotoluene (PID) 114 54-149 EPA 8021B Bromofluorobenzene (PID) 58-143 107 EPA 8021B

eld ID:

rpe: ib ID:

GAC-1 SAMPLE 169944-002

Diln Fac: Analyzed: 1.000 01/13/04

TBE	Analyte asoline C7-C12	Result	RL	Analy	
	TBE Benzene Toluene Ethylbenzene ,p-Xylenes	ND ND ND ND ND	50 5.0 5.0 5.0 5.0	8015B EPA 8021B EPA 8021B EPA 8021B EPA 8021B EPA 8021B	建 业 <i>用</i>

Surrogate	*REC	Limits	Analy	72.		
rifluorotoluene (FID)	107	57-150	8015B			66 ₂₃
romofluorobenzene (FID)	108	65-144	8015B	•	• ,	İ
rifluorotoluene (PID)	105	54-149	EPA 8021B			- [
Bromofluorobenzene (PID)	107	58-143	EPA 8021B		•	

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



Lab #: . 169944 Blient: SOMA En -roject#: 2333	vironmental	Engineeri	ng Inc.	Location: Prep:		3609 Int EPA 5030	ernation. B	al Blv	ď
atrix: Jnits:	Water ug/L 87607			Sampled: Received:		01/13/04 01/13/04		· · ·	
<u>y</u> pe: S.	5P#1 AMPLE 69944-003			Diln Fac: Analyzed:		1.000 01/14/04			
Analyt Gasoline C7-C12	3	ND	esult		RL 50	8	Ana. 015B	ysip	
4TBE		NĎ			5.0		PA 8021B	4	
enzene		ИD			5.0		PA 8021B		
pluene		ND			5.0		PA 8021B		
thylbenzene		ND			5.0		PA 8021B	,	
n,p-Xylenes -Xylene		ND ND			5.0 5.0		PA 8021B PA 8021B		
Surroga		%RBC	Limits	Analys	is				
rifluorotoluene			57-150	8015B	٠				
romofluorobenzen	≘ (FID)		65-144	8015B					
rifluorotoluene romofluorobenzen			54-149 58-143	EPA 8021B EPA 8021B					

pe:	BLANK	Diln Fac:	1.000
b ID:	QC237679	Analyzed:	01/13/04
¥ ± 5 .	2025/075	miary zeu.	01/13/04

Analyte	Result	RI,	Analy	SEB .	W
<u>G</u> asoline C7-C12	ND	50	8015B	1000	٠.
TBE ·	ND	5.0	EPA 8021B	* -	
enzene	ND	5.0	EPA 8021B		İ
T bluene	ND	5.0	EPA 8021B	. '	
('Ethylbenzene	ND	5.0	EPA 8021B	•	į
p-Xylenes	ND	5.0	EPA 8021B		
Xylene	ND	5.0	EPA 8021B		

	e new	000 1 00202020			
Trifluorotoluene (FID)	0.4	57-150	00152	7818	
	84	J/ 1J0	8015B		
Promofluorobenzene (FID)	125	65-144	8015B	•	
rifluorotoluene (PID)	80	54-149	EPA 8021B		
romofluorobenzene (PID)	126	<u> 58-143</u>	EPA 8021B	· · · · · · · · · · · · · · · · · · ·	

Fage 2 of 2

le Name : 169944-001,87607 Sample #: a1.0 Page 1 of 1 : G:\GC05\DATA\013G022.raw eName Date: 1/14/04 08:08 AM TVHBTXE thod Time of Injection: 1/13/04 11:09 PM Start Time : 0.00 min End Time : 25.00 min Low Point : -9.35 mV High Point : 512.17 mV e Factor: 1.0 Plot Offset: -9 mV Plot Scale: 521.5 mV Influent Response [mV] -1.05 0.95 -1.67 C-6 2.50 **--3.3**7 4.02 C-7 4.51 **~5.30** -5.51 TRIFLUO --}-6.15 ° -6.69 -7.22 C-8 -7.86 -8.34 -8.63 -9.03 **⊢9.4**5 **909**57 18:47 -11.19 -11.74 -12.76 13.78 -14.29 BROMOF --14.80 C-10 -15.10 15.83 16.20 18.58 17.10 -17.36 17.71 18.27 -18.63 -18.99 -19.25 -19,60 ≥ 20:39 -20:74 -21:26 > 21:26 C-12 21.69 21.95 22.22 22.64 22.99 23.25 -23.66

-24.27 -24.70



	169944		Location:	3609	Interna	ational Bl	vd
lient:	SOMA Environmental	l Engineering Inc.	Prep:		5030B		,
Project#:			Analysis:	EPA	8021B		- :
,Àbe:	LCS		Diln Fac:	1.00	0		
ab ID:	QC237680		Batch#:	8760	7	. :	
atrix:	Water		Analyzed:	01/1	3/04		
nits:	ug/L		_	·	•		
				·			:
	Analyte	Spiked	R	esult	*REC	Limits	
asoline C	7-C12		NA				
LBE .		20.00		20.34	102	63-133	
	•	20.00		21.78	109	78-123	
				. 19.33	97	79-120	
oluene		20.00					
oluene	ne	20.00					•
enzene Oluene thylbenzer ,p-Xylenes				20.99	105 92	80-120 76-120	

Surrogate	Result	%REC	Limits		<u> : :</u>
rifluorotoluene (FID					
Tromofluorobenzene (F)	ID) NA				•
Trifluorotoluene (PID)		82	54-149		
romofluorobenzene (P	ID)	126	58-143	 	



ab #: 169944 Location: 3609 International Blvd

hient: SOMA Environmental Engineering Inc. Prep: EPA 5030B

Project#: 2333 . Analysis: 8015B

 ype:
 LCS
 Diln Fac:
 1.000

 ab ID:
 QC237681
 Batch#:
 87607

 Bat ID:
 QC237681
 Batch#:
 87607

 Matrix:
 Water
 Analyzed:
 01/13/04

Units: ug/L

Analyte	Spiked	Result	*REC	Limits	
Gasoline C7-C12	2,000	2,098	105	80-120	
(TBE		NA .		1	
enzene		NA		2	
Toluene		NA			
Ethylbenzene	•	NA			
,p-Xylenes -Xylene		NA			:
-Xylene		NA			٠ ,

Surrogate	Res	milt %REC	Limits		
rifluorotoluene (FID)	· · · · · · · · · · · · · · · · · · ·	107	57 -150		
Fromofluorobenzene (FID)		142	65-144	-	·
Trifluorotoluene (PID)	NА				
romofluorobenzene (PID)	AИ				
}					



		Curtis &	Tomokins I	ahor	atories An	alvtical	Report		
									
ab #:	16994	4			Location:	3609	International	Blvd	
C lient:	SOMA	Environmental	Engineering	Inc.	Prep:	EPA S	5030B		
Project#:	2333				Analysis:	EPA 8	3021B		
ield ID:		ZZZZZZZZZZ			Batch#:	8760	7		
SS Lab ID	١:	169921-001	•		Sampled:	01/12	2/04		
Matrix:		Water			Received:	01/12	2/04		
<u>U</u> nits:		ug/L			Analyzed:	01/13	3/04		
iln Fac:		1.000			-	_			

MS

Lab ID:

QC237725

asoline C7-C12		N	A		
TBE	1.585	20.00	22.73	106	38-149
Benzene	<0.1200	20.00	22.65	113	75-128
T oluene	0.09893	20.00	20.17	100	79-127
thylbenzene	<0.03800 ,	20.00	20.70	103	78-124
n, p-Xylenes	<0.05100	40.00	37.52	94	67-121
o-Xylene	<0.03400	20.00	20.74	104	77-131

	Surrogate	Re	sult %REC	Limits			
Tr	ifluorotoluene (FID)	NA				· · · · ·	
Br	omofluorobenzene (FID)	NA					
r	ifluorotoluene (PID)		107	54-149			
S r	omofluorobenzene (PID)		109	58-143			• •

Type:

MSD

Lab ID:

QC237726

Analyte	Spiked	Result	%RBC	Limits	RPD	Lim
asoline C7-C12	NZ	A				
MTBE	20.00	20.37	94	38-149	1.1	38
Penzene	20.00	22.07	110	75-128	3	20
pluene	20.00	19.69	98	79-127	2	20
Ethylbenzene	20.00	19.64	98	78-124	5	20
m,p-Xylenes	40.00	37.11	93	67-121	i	.20
-Xylene	20.00	20.06	100	77-131	. 3	20

Surrogate	Res	ult %REC	Limits	
_Trifluorotoluene (FID)	NA			
romofluorobenzene (FID)	NA			
'Trifluorotoluene (PID)		104	54-149	
Bromofluorobenzene (PID)		107	58-143	22.7

NA≃ Not Analyzed

RPD= Relative Percent Difference I ge 1 of 1



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

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

ANALYTICAL REPORT

Prepared for:

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

Date: 22-DEC-03 Lab Job Number: 169296

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 Manage

Reviewed by:

Manager

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NELAP # 01107CA

Page 1 of 10



Laboratory Number: 169296

Receipt Date: 12/08/03

Client: SOMA Environmental Engineering Inc.

Location: 3609 International Blvd

Project: 2333

CASE NARRATIVE

This hardcopy data package contains sample and QC results for three water samples that were received on November 08, 2003. The samples were received cold and intact.

TVH / BTXE by EPA 8015B/8021B: High surrogate recovery was observed for Trifluorotoluene in sample ID Influent (C&T#169296-001) due to coleution with a hydrocarbon peak. No other analytical problems were encountered.

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone

C&T LOGIN# 169296

Analyses

(510)486-0532 Fax	Sampler: Mel	ran Nouroozi
		•

Project No: 2333

Report To: Tony Perini

Project Name: 3609 International Blvd., Oakland Company:

SOMA Environmental

	round Time: Standard		hone:	925-244-6600)	· .		80218							
•		Fax:	·	925-244-6601		· —		π ∞							
	·		Matrix		Preservative	•	8015	& MTBE							
Lab No.	Sample ID.	Sampling Date Time	Soil Water Waste	# of Containers	H2SO ₄ HNO ₃		£ i	B LEX &							
- 1	Influent	12/8/03 3:15 BM		3-VOAs			区	X							
-ن	GAC-1	12,8,03 3:20 PM		3-VOAs	< 1×		M.	\leq							
/3	PSP#1	12/8/03 3:25 PM		3-VOAs	$\langle \ \ \ \ \ \ \ \ \ \ \ $		\times	<u> </u>				!			Ŀ
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Notes	EDF OUTPUT REQUIR	<u> </u>	RELINO	UISHED BY:	<u> </u>		REC	EIVE	D BY						
	Grab Sample	la la la la la la la la la la la la la l			PM 12.	8,05	_	12	2-8	-0-	3	· · ·	つ	:35	
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Curtis & Tompkins Laboratories Analytical Report Lab #: 169296 Location: 3609 International Blvd SOMA Environmental Engineering Inc. ilient: Prep: EPA 5030B roject#: 2333 latrix: Water 12/08/03 Sampled: ug/L 86743 Units: Received: 12/08/03 Batch# INFLUENT rield ID: Lab ID: 169296-001 Type: SAMPLE Analyte Diln Fac Analyzed Analysis Result RL asoline C7-C12 21,000 250 5.000 12/08/03 8015B MTBE 3,200 1,700 25 5.000 12/08/03 **EPA 8021B** Benzene 25 5.000 12/08/03 EPA 8021B oluene thylbenzene 2,100 700 12/09/03 50 10.00 EPA 8021B 25 12/08/03 5.000 EPA 8021B M,p-Xylenes 2,000 50 10.00 12/09/03 EPA 8021B o-<u>Xylene</u> 1,000 5.000 12/08/03 EPA 8021B Surrogate *REC 1:mits 57-150 Diln Fac Analyzed Analysis rifluorotoluene (FID) 158 5.000 8015B 12/08/03 Bromofluorobenzene (FID) 109 65-144 5.000 12/08/03 8015B

Trifluorotoluene (PID) 86 54-149 5.000 12/08/03 **EPA 8021B** <u>romofluorobenzene (PID)</u> 5<u>8-143</u> 5.000 12/08/03 EPA 8021B

ield ID:

GAC-1 pe: b ID:

SAMPLE 169296-002 Diln Fac: Analyzed: 1.000 12/09/03

Analyte Result Analysis Gasoline C7-C12 ND 50 8015B TBE enzene 5.0 5.0 ND EPA 8021B ND EPA 8021B oluene ND 5.0 EPA 8021B Ethylbenzene ND 5.0 EPA 8021B p-Xylenes ND 5.0 EPA 8021B Xylene ND EPA 8021B 5.0

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	98	57-150	8015B
Promofluorobenzene (FID)	105	65-144	8015B
rifluorotoluene (PID)	67	54-149	EPA 8021B
romofluorobenzene (PID)	. 74	58-143	EPA 8021B

Value outside of QC limits; see narrative Not Detected L= Reporting Limit

ple Name : 169296-001,86743 Sample #: a1.0 Page 1 of 1 eName : G:\GC07\DATA\342A010.raw Date: 12/8/03 08:32 PM M hod : TVHBTXE Time of Injection: 12/8/03 08:06 PM Low Point: -34.33 mV High Po Start Time : 0.00 min End Time : 26.00 min High Point : 10.67.06 mV le Factor: 1.0 Plot Offset: -34 mV Plot Scale: 1101.4 mV Response [mV] C-6 =3:77 -4.74 --5.25 TRIFLUO --6.20 -6.86 --7.35 -8.11 C-8 -8.59 $-9.06 \\ -9.35$ -9.72-10.12=18.56 -11.14 _11.95 _12.25 -13.48-14.49**BROMOF** ----15.02=15.51=15.80C-10 <u>-18.78</u> -19.32 -19.67 -19.94 -20.30_20.89 C-12 _21.41 -22.64 -22.95 -23.34 -23.71 -24.00 -25.68

ple Name : ccv/lcs,qc234422,76743,03ws1887,5/5000 Page 1 of 1 Sample #: . LeName : G:\GC07\DATA\342A002.raw Date: 12/8/03 12:30 PM thod : TVHBTXE Time of Injection: 12/8/03 12:04 PM rt Time : 0.00 min Low Point: 4.45 mV Plot Scale: 280:1 mV End Time : 26.00 min High Point : 284.57 mV le Factor: 1.0 Plot Offset: 4 mV Response [mV] =8:9ξ ≣1:3ξ _1.82 _2.24 _2.45 C-6 -3.01-3.81 -4,18 -4.73 -5.23 -5.76 TRIFLUO ---6.22 -6.55 -6.84 -7.40-7.94 -8.6C -9.08 -9.3€ -9.72 -10.1-12.9 -13.4 <u>=</u>14:3 **BROMOF** -15.0C-10 -17.7 -18.0 _18.7 -19.3 -19.6 -19.9 -20.3 -20.9 <u>--</u>21.4 C-12 -24.7-25.2-25.6



Curtis & Tompkins Laboratories Analytical Report Lab #: 169296 Location: 3609 International Blvd SOMA Environmental Engineering Inc. Client: Prep: EPA 5030B Project#: Matrix: 2333 Water Sampled: 12/08/03 Units: ug/L Received: 12/08/03 Batch#: <u>86743</u> Field ID: PSP#1 Diln Fac: 1.000 Cype: ab ID: SAMPLE Analyzed: 12/08/03 169296-003 Analyte Analveis Gasoline C7-C12 ND 50 8015B MTBE ND 5.0 EPA 8021B Benzene ND5.0 EPA 8021B Coluene ND 5:0 EPA 8021B Ethylbenzene ND 5.0 EPA 8021B m, p-Xylenes ND 5.0 EPA 8021B p-Xylene ND 5.0 EPA 8021B *REC Limits 102 57-150 110 65-144 Surrogate Trifluorotoluene (FID) Analysis 8015B Bromofluorobenzene (FID) 8015B Frifluorotoluene (PID) 69 54-149 EPA 8021B romofluorobenzene (PID) 58-143 EPA 8021B

me: b ID:

BLANK QC234421

Diln Fac:

1.000

' B .b 1D:	QC234421			Analyzed:	,12/	08/03	
Gasoline C7- ITBE Lenzene Toluene Ethylbenzene T,p-Xylenes	-C12	и и и и	D D D D D D		8L 50 5.0 5.0 5.0 5.0 5.0	Analysis 8015B EPA 8021B EPA 8021B EPA 8021B EPA 8021B EPA 8021B	
Trifluorotol Promofluorob Frifluorotol	oenzene (FID)	%REC 98 102 71 74		8015B 8015B 8015B EPA 8021B	5.0 sis	EPA 8021B	

= Value outside of QC limits; see narrative D= Not Detected LL= Reporting Limit Page 2 of 2



blient: So			Location:	3609	Interna	ational Blvd	*******
	OMA Environmental	Engineering Inc.	Prep:	EPA 5		·· · -	
Project#: 23			Analysis:	8015E	3		
Type:	LCS		Diln Fac:	1.000)		
Lab ID:	QC234422		Batch#:	86743	3		
Matrix:	Water	•	Analyzed:	12/08	3/03		
Jnits:	ug/L						
	ınalyte	Spiked	Re	sult	%REC	Limits	
asoline C7-	C12	2,000		983	99	80-120	<u> </u>
TBE			NA				
enzene	•		NA				•
oluene	•		NA		•		
thylbenzene	!		NA				
ı,p-Xylenes			NA				
-Xylene			NA				
ć.i.	rrogate						
rifluorotol	vone (ETD)	Result	****************	dmits			
	enzene (FID)		118 5	7-150		1 1	
			110 6	5-144			



ab #: 169296

SOMA Environmental Engineering Inc.

Location: Prep:

3609 International Blvd

client:

EPA 5030B

Project#: 2333 Гуре:

LCS

Analysis:

EPA 8021B

Lab ID:

QC234423

Diln Fac:

1.000 86743

Matrix: Units:

Water ug/L

Batch#: Analyzed:

12/08/03

Analyte Gasoline C7-C12	Spiked	Result IA	%REC	Limits
MTBE	20.00	16.99	85	63-133
Benzene	20.00	19.82	99	78-123
Toluene	20.00	18.94	95	79-120
Ethylbenzene	20.00	18.50	93	80-120
n,p-Xylenes >-Xylene	40.00	40.76	102	76-120
>-Xylene	20.00	19.36	97	80-121

Surrogate	Į	Result	%REC	: Limita	
Prifluorotoluene (FID)	NA				
Promofluorobenzene (FID)	NA			•	
Trifluorotoluene (PID)	•		70	54-149	•
Bromofluorobenzene (PID)			75	58-143	



	Curtis &	Tempkins Labor	atories Ana	alytical Report
⊾ab #:	169296		Location:	3609 International Blvd
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		Analysis:	8015B
Field ID:	ZZ2ZZZZZZZ		Batch#:	86743
1SS Lab ID	: 169297-001		Sampled:	12/08/03
Matrix:	Water		Received:	12/08/03
<u>U</u> nits:	ug/L		Analyzed:	12/09/03
oiln Fac:	1.000		-	·

boe:

MS

Lab ID:

QC234489

asoline C7-C12	12.88	2,000	1,878	93	76-120
TBE			NA		
Benzene			NA		
Toluene			NA		
Ethylbenzene			NA		
thylbenzene n,p-Xylenes o-Xylene			NA		
o-Xylene			NA		

Surrogate	Re	sult	%REC	Limits	
- 163					
Trifluorotoluene (FID)			119	57-150	·
D 61 1 /7751				-	•
_Bromofluorobenzene (FID)			115	65-144	
1.161					
rifluorotoluene (PID)	NA				
womefluorehan-ana (DID)	NTR				
■romofluorobenzene (PID)	NA				

Туре:

MSD

Lab ID:

QC234490

Analyte		Spiked		Result	%RE(3 Limits	RPD	Lim
asoline C7-C12		2,000		1,895	94	76-120	1	- 20
MTBE			. NA					
Benzene			AИ					
Coluene			NA					
Ethylbenzene			NA					
m, p-Xylenes			NA					
-Xylene			NA					
<u>.</u>								
Surrogate		Result	%REC	Limits				
Trifluorotoluene (FID)			119	57-150				
romofluorobenzene (FID)			115	65-144				
rifluorotoluene (PID)	NA							
Bromofluorobenzene (PID)	NA							

NA= Not Analyzed

κPD= Relative Percent Difference

age 1 of 1



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: 05-DEC-03

Lab Job Number: 168910 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

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NELAP # 01107CA

Page 1 of ______

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN # 168910

Analyses

Meteran NourooZi Project No: 2333

Report To: Tony Perini

Project Name: 3609 International Blvd., Oakland Company: **SOMA Environmental**

Sampler:

Turnaround Time: Standard		Telep	hor	e:	925-244	-6600)			· 	•	8021B											
•			Fax:		•	925-244-	6601						Ш										
				Matrix			ĿΓ	Preservative			15	& MIBE	1 1					ľ				į	
Lab No.	Sample ID.	Samplin Tin	ig Date ne	Soil	Waste	# of Contains	ers 3	H2SO4	HNOS	띨		TPH-g 8015	BTEX & 1							,			
-1	Influent	14/7/03	Q:2580		<u> </u>	3-VOA	s ×	1		ZT		X	又		1		+	T	H	┌╼╂	十	-	\dashv
12	GAC-1	1417/07	9130 PM		$A \perp$	3-VOA	s ×			\times	_ ·	\boxtimes	\boxtimes					1			_		
-3	PSP#1	1417/03	2:35 80		41	3-VOA	3 >	4_		X	_	\bowtie	\times										٦
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EPA 8021B

Curtis & Tompkins Laboratories Analytical Report

ab #: 168910 Location: 3609 International Blvd

lient: SOMA Environmental Engineering Inc. Prep: EPA 5030B Project#: 2333

atrix: Water Sampled: 11/17/03 nits: ug/L Received: 11/17/03

 nits:
 ug/L
 Received:
 11/17/03

 Batch#:
 86223
 Analyzed:
 11/17/03

Field ID:

,p-Xylenes

INFLUENT Lab ID: 168910-001 SAMPLE Diln Fac: 10.00

1,100

58-143

93

Analyte Result Analysis Gasoline C7-C12 12,000 500 8015B TBE 3,400 50 EPA 8021B enzene 820 50 EPA 8021B Toluene 770 50 EPA 8021B <u>E</u>thylbenzene 370 50 EPA 8021B

1 4.1

-Xylene 860 50 EPA 8021B Surrogate %REC Limits Analysis rifluorotoluene (FID) 108 57-150 8015B Bromofluorobenzene (FID) 116 65-144 8015B Trifluorotoluene (PID) 80 54-149 EPA 8021B

EPA 8021B

50

[']H ∍ld ID: GAC-1

romofluorobenzene (PID)

GAC-1 Lab ID: 168910-002 SAMPLE Diln Fac: 1.000

Analyte Result Analysis asoline C7-C12 ND 50 8015B MTBE ND EPA 8021B 5.0 Benzene ND EPA 8021B 5.0 oluene ND 5.0 EPA 8021B chylbenzene ND 5.0 EPA 8021B m,p-Xylenes ND 5.0 EPA 8021B -Xylene 5.0 EPA 8021B

Surrogate %REC Limits Analysis Trifluorotoluene (FID) 97 57-150 8015B romofluorobenzene (FID) 120 65-144 8015B rifluorotoluene (PID) 76 54-149 EPA 8021B Bromofluorobenzene (PID) 93 -58-143 EPA 8021B

D= Not Detected KL= Reporting Limit F ge 1 of 2



Curtis & Tompkins Laboratories Analytical Report 168910 Location: 3609 International Blvd EPA 5030B SOMA Environmental Engineering Inc. lient: Prep: Project#: 2333 atrix: Water Sampled: 11/17/03 nits: ug/L Received: 11/17/03 11/17/03 Batch#: 86223 Analyzed:

Field ID: þe:

PSP#1

SAMPLE

Lab ID:

168910-003

Diln Fac:

1.000

Analyte	Result	RL	Analysis
<u>G</u> asoline C7-C12	ND	50	8015B
rbe	ND	5.0	EPA 8021B
enzene	ND	5.0	EPA 8021B
Toluene	ND	5. 0 _.	EPA 8021B
E thylbenzene	ND	5.0	EPA 8021B
thylbenzene , p-Xylenes	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

	·				
1	Surrogate	%REC	Limits	Analysis	
ı	rifluorotoluene (FID)	97	57-150	8015B	
[Bromofluorobenzene (FID)	117	65-144	8015B	
	<u> T</u> rifluorotoluene (PID)	76	54-149	EPA 8021B	
1	romofluorobenzene (PID)	92	58-143	EPA 8021B	

Lab ID:

BLANK

QC232381

Diln Fac:

1.000

Analyte	Result	RL	Analysis	
asoline C7-C12	ND -	50	8015B	
MTBE	ND	5.0	EPA 8021B	
enzene	ND	5.0	EPA 8021B	-
pluene	ND	5.0	EPA 8021B	j
Ethylbenzene	ND	5.0	EPA 8021B	
m,p-Xylenes	ND	5.0	EPA 8021B	•
-Xylenė	- ND	5.0	EPA 8021B	

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	95	57-150	8015B
romofluorobenzene (FID)	113	65-144	8015B
Trifluorotoluene (PID)	75	54-149	EPA 8021B
Bromofluorobenzene (PID)	90	58-143	EPA 8021B

D= Not Detected

<u>L</u>= Reporting Limit

ge 2 of 2

le Name : 168910-001,86223 Name : G:\GC07\DATA\321A024.raw Page 1 of 1 Sample #: a1.3 Date: 11/18/03 08:04 AM thod : TVHBTXE Time of Injection: 11/17/03 11:41 PM t Time : 0.00 min e Factor: 1.0 High Point : 359.23 mV End Time : 26.00 min Low Point : 1.80 mV Plot Offset: 2 mV Plot Scale: 357.4 mV influent Response [mV] 350 C-6 <u>-3:74</u> -4.70 -5.22_5.95 TRIFLUO --6.80-7.31 -8.07-8.55C-8 -9.03 -9:31 -9.70 -10.1C -10.47 -10.77 -11.1C -13.43-14.45 -14.98 **BROMOF-**C-10 -19.27 -19.63 -19.85 -20.25 <u>-20.8</u>4 _21.37 C-12 _21.9; _22.2; _22.9(-23.2(-23.6(-23.9(-24.3(

-24.74 -25.1 --25.6 --25.9

ım il an ≳tnod

actor:

C-10

C-12

1.0



	Curtis &	Tempkins Labor	atories Ana	alytical Report
ab #:	168910		Location:	3609 International Blvd
elient:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		Analysis:	EPA 8021B
ype:	BS		Diln Fac:	1.000
ab ID:	QC232382.		Batch#:	86223
Matrix:	Water		Analyzed:	11/17/03
<u>U</u> nits:	ug/L			

soline C7-C12	N.	A.		
ГВЕ	20.00	19.55	98	63-133
enzene	20.00	22.36	112	78-123
oluene	20.00	21.07	105	79-120
Ethylbenzene	20.00	21.20	106	80-120
,p-Xylenes -Xylene	40.00	43.63	109	76-120
-Xylene	20.00	21.13	106	80-121

Surrogate	Res	ilt %REG] Limits		
rifluorotoluene (FID)	NA				
Bromofluorobenzene (FID)	NA			•	:
Trifluorotoluene (PID)	•	76	54-149		
romofluorobenzene (PID)		93	58-143	•	



Curtls & Tompkins Laboratories Analytical Report 168910 Location: 3609 International Blvd lient: SOMA Environmental Engineering Inc. Prep: EPA 5030B Project#: 2333 Analysis: EPA 8021B ype: BSD Diln Fac: 1.000 ab ID: QC232466 Batch#: 86223 Matrix: Water Analyzed: 11/18/03 <u>U</u>nits: ug/L

Gasoline C7-C12	.]	JA				
TBE	20.00	18.99	95	63-133	3	27
enzene	20.00	20.97	105	78-123	6	20
Toluene	20.00	19.70	99	79-120	7	20
Ethylbenzene	20.00	18.96	95	80-120	11	20
,p-Xylenes	40.00	41.01	103	76-120	б	20
-Xylene	20.00	19.70	99	80-121	7	20

Surrogate	Resu	lt %REC	: Limits	
rifluorotoluene (FID)	NA			
Bromofluorobenzene (FID)	NA			
Trifluorotoluene (PID)		74	54-149	
romofluorobenzene (PID)		87	58-143	



Lab #:	168910		Location:		3609 Intern	ational Blv	d
Client:	SOMA Environmental	Engineering Inc.	Prep:	•	EPA 5030B		
Project#:	2333		Analysis:		8015B		
'ype:	LCS		Diln Fac:		1.000		
ab ID:	QC232383		Batch#:		86223		
atrix:	Water		Analyzed:		11/17/03		-
mits:	ug/L						
<u> </u>	Analyte	Spiked		Result	%RE:	3 Limits	
asoline C	7-C12	2,000		1,819	91	80-120	
TBE	•		NA				
enzene			NA				
oluene			AИ				-
thylbenze			NA				
,p-Xylene	S		NA				
-Xylene			NA				
	Surrogate	Result	*REC	Limite	ı		
	oluene (FID)		114	57-150			
	obenzene (FID)		117	65-144	1		



	Curtis &	Tompkins Labor	atories An	alytical Report
ab #:	168910		Location:	3609 International Blvd
lient: .	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	•	Analysis:	8015B
ield ID:	222222222		Batch#:	86223
S Lab ID	168901-002		Sampled:	11/14/03
latrix:	Water		Received:	11/17/03
Inits:	ug/L		Analyzed:	11/18/03
lln Fac:	1.000			

MS

Lab ID:

· QC232437

Analyte	MSS Result	Spiked	Result	%REC	Limite
asoline C7-C12	<18.00	2,000	1,828	91	76-120
rbe			NA		
Benzene			NA		
<u>T</u> oluene			AN		,
hylbenzene	•		NA		
m, p-Xylenes			NA		
m,p-Xylenes o-Xylene			NA		

Surrogate	Re	sult %REC	Limite	
Trifluorotoluene (FID)		104	57-150	
Bromofluorobenzene (FID)		111	65-144	
rifluorotoluene (PID)	NA			
romofluorobenzene (PID)	NA			

 \mathtt{MSD}

Lab ID:

QC232438

Analyte	Spiked	Result	%RB	C Limits	RPD	Lin
asoline C7-C12	2,000	1,933	97	76-120	6	20
MTBE		NA				
Benzene		NA				
Benzene pluene Ethylbenzene		МA				
athylbenzene		АИ				
m,p-Xylenes		NA				
-Xylene		NA				

Surrogate	Res	ult %REC	Limits	
Trifluorotoluene (FID)		116	57-150	
romofluorobenzene (FID)		123	65-144	
rifluorotoluene (PID)	AИ	•		
Bromofluorobenzene (PID)	NA	· · · · · · · · · · · · · · · · · · ·		

NA= Not Analyzed

APD= Relative Percent Difference
ge 1 of 1



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: 10-FEB-04

Lab Job Number: 170222 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:

dieck Mahage

Reviewed by:

perations Manager

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NELAP # 01107CA

Page 1 of _____

セイオスペマドマしょう Crey

Curtis & Tompkins, Ltd.

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN # 170 222

Analyses

Sampler: Mchron Nowrooz Tony Perini Report To: Project No: 2333

Project Name:3609 International Blvd., Oakland Company:

SOMA Environmental

Turnar	ound Time: Standard		Telep	ho	ne:		925-244-66	00			.		8021B				,					
•			Fax:	[]	/latri	×	925-244-660 		res	erv	ative	5	Ш									
Lab No.	Sample ID.	Sampling Time	Date		Waste	ΤĖ	# of Containers		4	E N H N O ₃	JOE	TPH-q 8015	BTEX & N									
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	GAC-1		135 PM		$\stackrel{\times}{\downarrow}$		3-VOAs 3-VOAs	Š	-	-	\ge	Ž	爻				 -	\dashv	- -	╁	\vdash	
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		٠.	•								DATE/T	11.45							 -	-	D'AT	E/TIM



Curtis & Tompkins Laboratories Analytical Report

ab #: 170222 Location:

3609 International Blvd lient: SOMA Environmental Engineering Inc. EPA 5030B Prep:

Project#: 2333

atrix: Water Sampled: 01/27/04 nits: ug/L Received: 01/27/04 Batch#:

87995 Analyzed: 01/28/04

Field ID:

INFLUENT Lab ID: pe:

170222-001 5.000

SAMPLE Diln Fac:

Analyte	Result	RL	Analysis	
Gasoline C7-C12	9,000	250	EPA 8015B	200000000
TBE	680	25	EPA 8021B	
enzene	1,400	25	EPA 8021B	
Toluene	190	25	EPA 8021B	,
f thylbenzene	58	25	EPA 8021B	
,p-Xylenes	700	25	EPA 8021B	
o-Xylene	460	25	EPA 8021B	

Surrogate	%REC	Limits	Analysis	
rifluorotoluene (FID)	118	57-150	EPA 8015B	200.000.000
Bromofluorobenzene (FID)	120	65-144	EPA 8015B	
Prifluorotoluene (PID)	108	54-149	EPA 8021B	
romofluorobenzene (PID)	113	58-143	EPA 8021B	1

eld ID:

GAC-1

SAMPLE

Lab ID:

170222-002

Diln Fac: 1.000

Analyte	Result	RL		Analysis
Casoline C7-C12	ND	50	EPA	8015B
MTBE	ND	5.0	EPA	8021B
enzene	ND	5.0	EPA	8021B
pluene	ND	5.0	EPA	8021B
Ethylbenzene	ND	5.0	EPA	8021B
n,p-Xylenes	ND	5.0	EPA	8021B
-Xylene	ND	. 5.0	EPA	8021B

Surrogate	%REC	Limits	Analysis
rifluorotoluene (FID)	106	57-150	EPA 8015B
romofluorobenzene (FID)	114	65-144	EPA 8015B
Trifluorotoluene (PID)	100	54-149	EPA 8021B
Bromofluorobenzene (PID)	111	58-143	EPA 8021B

D= Not Detected

Reporting Limit

e 1 of 2



Curtus & Tompkins Laboratories Analytical Report

ab #: 170222

SOMA Environmental Engineering Inc. Prep:

3609 International Blvd

EPA 5030B

Project#: 2333

Water ug/L 87995 Sampled:

Location:

01/27/04

Received: 01/2 Analyzed: 01/2

01/27/04 01/28/04

[**=**

Field ID:

lient:

atrix:

nits:

Batch#:

PSP#1 SAMPLE

Lab ID:

170222-003

Diln Fac:

1.000

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
TBE	ND	5.0	EPA 8021B
enzene	ND .	5.0	EPA 8021B
Toluene	ND	5.0	EPA 8021B
thylbenzene ,p-Xylenes	ND	5.0	EPA 8021B
	ND	5.0	EPA 8021B
o-Xylene	ND	5.0	EPA 8021B

Surrogate	%REC	Limits	Analysis	
rifluorotoluene (FID)	106	57-150	EPA 8015B	******
Bromofluorobenzene (FID)	117	65-144	EPA 8015B	1
rifluorotoluene (PID)	1.03	54-149	EPA 8021B	
romofluorobenzene (PID)	117	58-143	EPA 8021B	

þe:

ab ID:

BLANK

QC239175

Diln Fac:

1.000

Analyte	Result	RL	Analysis	
soline C7-C12	ND	50	EPA 8015B	
4TBE	ND	5.0	EPA 8021B	
enzene	ND	5.0	EPA 8021B	
pluene	ND	5.0	EPA 8021B	
3thylbenzene	ND	5.0	EPA 8021B	
n,p-Xylenes	ND	5.0	EPA 8021B	
Xylene	ND	5.0	EPA 8021B	

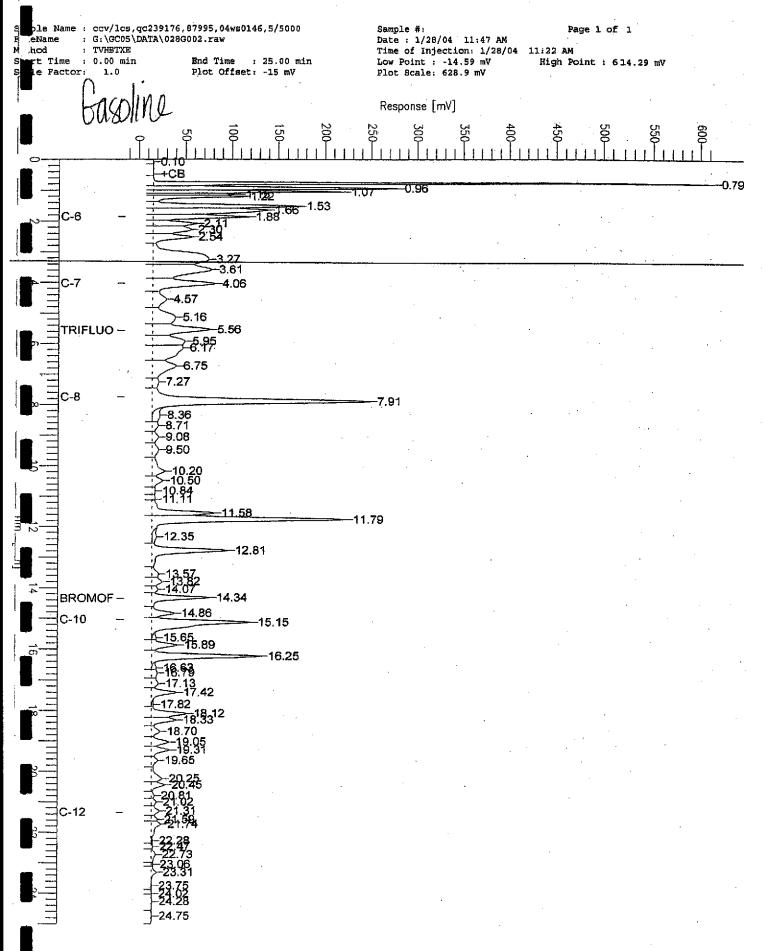
Surrogate	%RBC	' Limits	Analysis	
Frifluorotoluene (FID)	91	57-150	EPA 8015B	
romofluorobenzene (FID)	98	65-144	EPA 8015B	
Trifluorotoluene (PID)	86	54-149	EPA 8021B	ı
3romofluorobenzene (PID)	92	58-143	EPA 8021B	

D= Not Detected

RL= Reporting Limit

ge 2 of 2

ple Name : 170222-001,87995 Sample #: a1.0 Date : 1/29/04 08:46 AM Page 1 of 1 . eName : G:\GC05\DATA\028G004.raw chod : TVHBTXE Time of Injection: 1/28/04 12:29 PM art Time : 0.00 min End Time : 25.00 min Plot Offset: ~5 mV Low Point : -5.32 mV High Point : 420.83 mV le Factor: Plot Scale: 426.2 mV Response [mV] 250 =0.13 _+CB -0.80 -0.96 1.07 -1.22 ---1.54 -1.72 C-6 \$ 3.192 -2.54 -3.42 C-7 4.08 -4.58 **-5**.38_ TRIFLUO --5.58 6.21 6.75 -7.38 C-8 -7.93 8.43 8.70 -9.09 -9.47 -10.15 -10.54-10.99 -11.27 -11.80 12.82 13.84 BROMOF --14.35 14.86 C-10 15.16 -15.90 16.26 18.58 <u>17</u>.16 -17,43 17.79 ≥=18.34^{18.13} -18.69 >-19.05 >-19.32 >--19.66 ≥20.45 20.80 21.32 21.32 C-12 -21.75 23.29 22.71 23.07 23.75 24.37 -24,79





	Curtis &	Tempkins Labor	atories Ar	nalytical Report
b #:	170222		Location:	3609 International Blvd
Tient:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2333		Analysis:	EPA 8015B
pe:	LCS	,	Diln Fac:	1.000
pe: b ID:	QC239176	•	Batch#:	87995
Matrix:	Water		Analyzed:	01/28/04
wits:	ug/L			

Analyte	Spiked	Result	%REC	Limits	
Gasoline C7-C12	2,000	2,125	106	80-120	
BE		NA			
nzene .		.NA			
Toluene		NА			
Ethylbenzene		NA			
p-Xylenes	•	NA			
Xylene		NA			

	Surrogate	Re	enlt *REC	Limite	
if	luorotoluene (FID)		122	57-150	
Bron	ofluorobenzene (FID)		119	65-144	
Trif	luorotoluene (PID)	NA			
Off	nofluorobenzene (PID)	NA			 ·
4					



	70222			Location:	3609	Interna	tional Blvd	633366
Client: S	SOMA Environmenta	l Engineering	Inc.	Prep:		5030B	21011011	
Project#: 2	333	_		Analysis:		8021B		
l'ype :	LCS			Diln Fac:	1.00	0		
lab ID:	QC239177			Batch#:	8799	5	,	
Matrix:	Water			Analyzed:	01/2	8/04		
Jnits:	ug/L			-		-,		
A CONTRACTOR OF THE PROPERTY O	Analyte	Spil	ced	R	esult	*REC	Limits	
Gasoline C7		Spil	ced	R NA	esult	%REC	Limits	
Gasoline C7 TBE			ced.		esult 17.93	%REC 90		
Gasoline C7 ITBE Jenzene							63-133	
Gasoline C7 NTBE Benzene			20.00		17.93	90 101	63-133 78-123	
Gasoline C7 NTBE Benzene Poluene	-C12		20.00		17.93 20.12 17.97	90 101 90	63-133 78-123 79-120	
Gasoline C7 TTBE Jenzene Toluene Ethylbenzen	-C12 e	2	20.00 20.00 20.00		17.93 20.12	90 101	63-133 78-123	

	Surrogate	Rest	ilt %re(: Limits		
ŧ,	rifluorotoluene (FID)	NA		·		0000000000
	Promofluorobenzene (FID)	NA				
ĺ.	Trifluorotoluene (PID)		88	54-149		
	romofluorobenzene (PID)		92	58-143	*	



Curtis & Tompkins Laboratories Analytical Report 170222 Location: 3609 International Blvd lient: SOMA Environmental Engineering Inc. Prep: EPA 5030B Project#: 2333 EPA 8015B Analysis: Held ID: PSP#1 Batch#: 87995 SS Lab ID: 170222-003 Sampled: 01/27/04 Matrix: Water Received: 01/27/04 <u> M</u>nits: ug/L Analyzed: 01/28/04 iln Fac: 1.000

þe:

MS

Lab ID:

QC239193

Analyte	MSS Result	Spiked	Result	%REC	Limits
asoline C7-C12	14.81	2,000	2,201	109	76-120
I BE	•		NA		
Benzene			AИ		
p luene	•	·	NA		
thylbenzene m,p-Xylenes o-Xylene			NA		
m,p-Xylenes			NA		
o-Xylene			NA		

	Surrogate	Re	sult %REC	Limits		
	Trifluorotoluene (FID)		136	57-150 .	·	
	Aromofluorobenzene (FID)		140	65-144		-
	rifluorotoluene (PID)	NA				
Ц	romofluorobenzene (PID)	NА				

rγpe:

MSD

Lab ID:

QC239194

Analyte	Spiked	Result	2REC	Limits	RPD	Lim
asoline C7-C12	2,000	2,233	111	76-120	1	20
MTBE		NA				
przene		NA		•		
pluene		NA				
Ethylbenzene		NA				
$\underline{\mathbf{m}}$, p-Xylenes		NA .		-		
-Xylene		NA	<u> </u>	·····		

	Surrogate	Res	ult %REC	Limits	
Frifluor	otoluene (FID)		133	57-150	
comoflu	orobenzene (FID)		139	65-144	· · ·
F rifluor	otoluene (PID)	NА			·
Bromoflu	orobenzene (PID)	AN			

NA= Not Analyzed

kPD= Relative Percent Difference

ge 1 of 1

4.0



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

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

ANALYTICAL REPORT

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:

Reviewed by:

perations Manager

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NELAP # 01107CA

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Page	_ /	of	<u>-/</u> :

Curtis	&	Tompkins,	Ltd

Analytical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone (510)486-0532 Fax

C&T LOGIN#

Analyses

Project No:	2333	•	Report To:

Tony Perini

Project Name:3609 International Blvd., Oakland Company:

Sampler:

SOMA Environmental

Turnaround Time: Standard

Telephone:

925-244-6600

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ース	GAC-1			11,3,03	11:25 AM		X	┸	3-VOAs	\geq			×		.]	Δ	시	_	_	_	4	1_			.	_
\	Influent	; .	*	11/3/03	11:20 AM		XL	┸	3-VOAs	\trianglerighteq		Ĺ.,	X,		1	\simeq	X	_		\perp		<u> </u>				
Lab No.		Sample II	D.		ling Date Time		Water	V V Q D Q	# of Containers	걸	H ₂ SO ₄	ÑH H	ICE			TPH-98	BTEX &	·								
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				•	Fax:		<u> </u>		925-244-66								삤			İ		1				

Grab Sample

Totalizer Reading:

Received Pronice

Cold Dambient Clinical

2150 PM

11,3,03 DATE/TIME

DATE/TIME

DATE/TIME

8021B

2,50 ---DATE/TIME DATE/TIME

DATE/TIME



Curtis & Tompkins Laboratories Analytical Report

Tab #: 168577 Location: 3609 International Blvd

lient: SOMA Environmental Engineering Inc. Prep: EPA 5030B

roject#: 2333

 Matrix:
 Water
 Sampled:
 11/03/03

 Inits:
 ug/L
 Received:
 11/03/03

atch#: 85870

eld ID: INFLUENT Lab ID: 168577-001

pe: SAMPLE

Analyte	Result	ŘL	Diin Pa	c Analyzed	Analvsis
asoline C7-C12	3,900	50	1.000	11/04/03	8 O15B
ITBE	1,700	10	2.000	11/05/03	EPA 8021B
Penzene	180	5.0	1.000	11/04/03	EPA 8021B
pluene	150	5.0	1.000	11/04/03	EPA 8021B
T hylbenzene	ND	5.0	1.000	11/04/03	EPA 8021B
ı, p-Xylenes	390	10	2.000	11/05/03	EPA 8021B
-Xylene	230	50	1.000	11/04/03	BPA 8021B

ľ	Surrogate	%REC	Limits	Diln Fac	: Analyzed	Analysis
١.	crifluorotoluene (FID)	134	57-150	1.000	11/04/03	8015B
	romofluorobenzene (FID)	120	65-144	1.000	11/04/03	8015B
ı	rifluorotoluene (PID)	88	54-149	1.000	11/04/03	EPA 8021B
_	romofluorobenzene (PID)	94	50-143	1.000	11/04/03	EPA 8021B

Field ID: GAC-1 Diln Fac: 1.000
The: SAMPLE Analyzed: 11/04/03

ID: 168577-002

Analyte	Result	RŁ	Analysis
soline C7-Cl2	ND	50	8015B
TBE	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
b luene	ND	5.0	EPA 8021B
hylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
hylbenzene m,p-Xylenes n-Xylene	ND ·	5.0	EPA 8021B

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

Not Detected
Reporting Limit
Page 1 of 2



Curtis & Tompkins Laboratories Analytical Report

168577

SOMA Environmental Engineering Inc.

Prep:

3609 International Blvd

ÉPA 5030B

oject#: 2333

Lient:

Matrix: Water Inits:

ug/L

Sampled: Received:

Location:

11/03/03 11/03/03

tch#: 85870

eld ID:

PSP#1

Diln Fac:

1.000

SAMPLE

Analyzed:

11/05/03

ıb ID:

168577-003

Analyte	Recult	RL	Amalysis
Jasoline C7-C12	ND	50	8015B
TRE	ND	5.0	EPA 8021B
enzene	ND	5.0	EPA 8021B
Dluene	ND	5.0	EPA 8021B
lthylbenzene	ND	5.0	EPA 8021B
p-Xylenes	ND	5.0	EPA 8021B
Xylene	ND	5.0	EPA 8021B

	Surrogate	HREC	Limits	Analysis
	rifluorotoluene (FID)	101	57-150	8015B
	romofluorobenzene (FID)	115	65-144	8015B
	rifluorotoluene (PID)	76	54-149	EPA 8021B
1	comofluorobenzene (PID)	89 -	58-143	EPA 8021B

BLANK

QC231012

Diln Fac:

1.000

Analyzed:

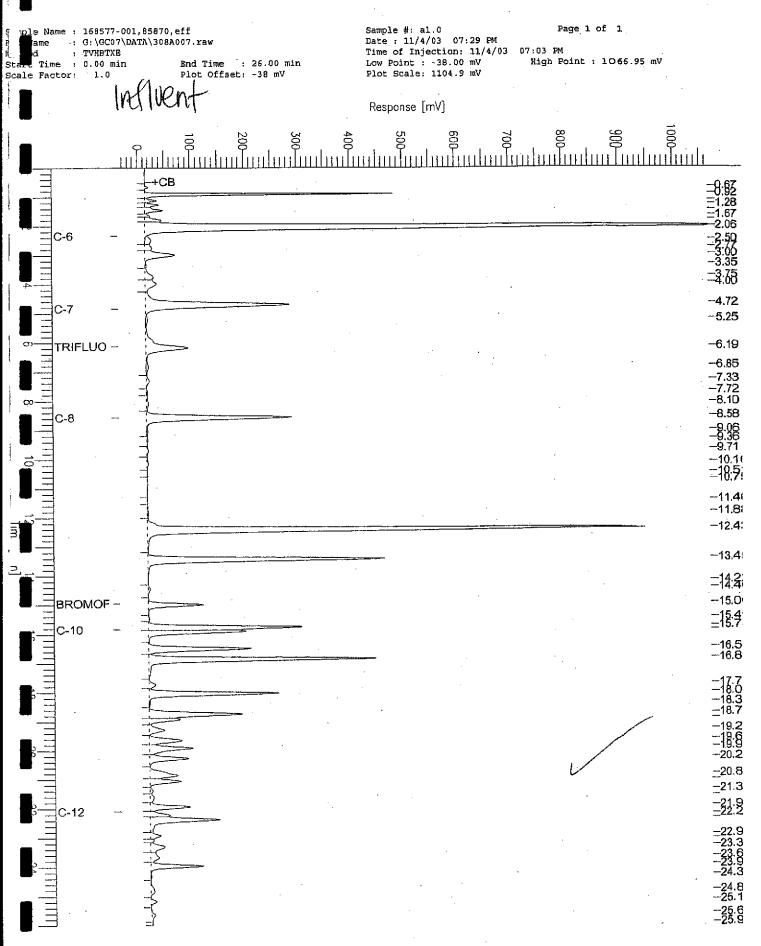
11/04/03

Analyte	Result	RF.	Amalysis
soline C7-C12	ND	. 50	8015B
Tree	ND	5.0	EPA 8021B
Benzene	ND	5.0	EPA 8021B
luene	ND	5.0	EPA 8021B
hylbenzene	ND	5.0	EPA 8021B
m,p-Xylenes	ND	5.0	EPA 8021B
hylbenzene m,p-Xylenes o-Xylene	ND	5.0	EPA 8021B

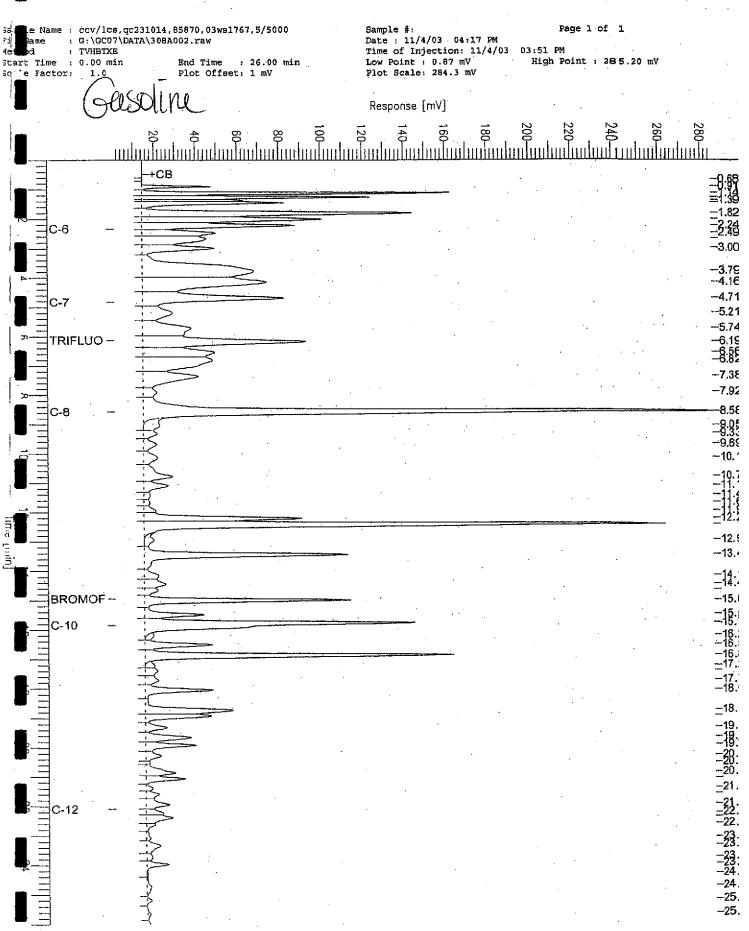
Surrogate	FREC	Limits	Analysis
Trifluorotoluene (FID)	104	57-150	8015B
momofluorobenzene (FID)	116	65-144	8015B
ifluorotoluene (PID)	81	54-149	EPA 8021B
Bromofluorobenzene (PID)	92	58-143	EPA 8021B

Not Detected Reporting Limit Page 2 of 2

GC07 TVH 'A' Data File RTX 502



GC07 TVH 'A' Data File RTX 502





	Curtis & Tompkins Labor	atories Ar	nalytical Report
Tab #:	168577	Location:	3609 International Blvd
m ient:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
i oject#:	2333	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
ے. b ID:	QC231013	Batch#:	85870
trix:	Water	Analyzed:	11/04/03
Lits:	ug/L		

■ Analyte	Spiked	Result	EREC	Limits	
(soline C7-C12	N.	A		ē ē	
TBE	20.00	18.97	95	63~133	• •
Benzene	20.00	20.45	102	78-123	
luene	20.00	19.06	95	79-120	
hylbenżene	20.00	18.03	90	80-120	•
	40.00	40.22	101	76-120	
Np-Xylenes	20.00	18.96	95	80-121	

Surrogate		Result	%RE	C Limite		
rifluorotoluene (FID)	AN					
momofluorobenzene (FID)	ИA				•	
ifluorotoluene (PID)			71	54-149		
romofluorobenzene (PID)			79	58-143	· · · · · · · · · · · · · · · · · · ·	•



1	Curtis & Tompkins Labor	atories Ana	lytical Report
Sab #: Maient:	168577 SOMA Environmental Engineering Inc.	Location: Prep:	3609 International Blvd EPA 5030B
oject#:	2333	Analysis:	8015B
Type:	LCS	Diln Fac:	1.000
ab ID:	QC231014	Batch#:	85870
trix:	Water	Analyzed:	11/04/03
its:	ug/L		

Analyte	Spikad		Result	*REC	Limits
soline C7-C12	2,000		2,020	101	80-120
HE	•	AN .		-	
Benzene	•	NA			
luene		NA		_	
hylbenzené		AN	•		
a, p-Xylenes	-	NA	•		·
hylbenzené n,p-Xylenes n-Xylene		NA		<u> </u>	

Surrogate	Pe	en't REC	Limits	
rifluorotoluene (FID)		118	57-150	
momofluorobenzene (FID)		114	65-144	
ifluorotoluene (PID)	AИ			
3romofluorobenzene (PID)	NA	·		



Curtis & Tompkins Laboratories Analytical Report 168577 Location: 3609 International Blvd lient: SOMA Environmental Engineering Inc. Prep: EPA 5030B roject#: 2333 Analysis: 8015B Field ID: ZZZZZZZZZZ Diln Fac: 1.000 1SS Lab ID: 168575-001 Batch#: 85870 atrix: Water Sampled: 11/03/03 hits: ug/L Received: 11/03/03 MS11/04/03 Analyzed: ıb ID: QC231015 Analyte MSS Result Spiked Result Sasoline C7-C12 2,000 <18.00 1,977 NA enzene NA bluene NA Sthylbenzene NΆ p-Xylenes NA Xylene Result %REC Limits ifluorotoluene (FID) 119 57-150 romofluorobenzene (FID) 119 65-144 Prifluorotoluene (PID) NА comofluorobenzene (PID) NA

TD.

MSD

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QC231016

Analyzed:

11/05/03

■ Analyte	Spiked		Result	%.REC	Limits	RPD	Lin
soline C7-C12	2,000		1,965	98	76-120	1	20
TIBE		NA	•				
Benzene		NA					
luene		NA	F				
thylbenzene		NA					
m,p-Xylenes		NA			•		•
<u>~-Xylene</u>		NA					
Surrogate	Result	%RBC	Limits				
Trifluorotoluene (FID)		125	57-150				
momofluorobenzene (FID)		126	65-144		•		
rifluorotoluene (PID)	NА						
Bromofluorobenzene (PID)	NA						

= Not Analyzed

Page 1 of 1



		Purge	eable Aro	matics by G	2/MS	
• "	L68577			Location:	3609 International Bl	⁄d
lient: S	SOMA Environmental	Enginee	ering Inc.	Prep:	EPA 5030B	
coject#: 2	2333		•	Analysis:	EPA 8260B	•
ield ID:	INFLUENT			Batch#:	86000	
ab ID:	168577-001			Sampled:	11/03/03	
atrix:	Water			Received:	11/03/03	
hits:	ug/L			Analyzed:	11/08/03	
iln Fac:	12.50			_		
	Analyte		Result	1	ST.	
I'BE		٠,	1,700		6.3	
	jurrogate	*REC	: Limits			
2-Dichlor	oethane-d4	107	77-129			
oluene-d8		96	80-120	· .		
romofluoro	benzene	97	80-123		•	



	Purgeable Aro	matics by Go	Z/MS
iab #: lent: leoject#:	168577 SOMA Environmental Engineering Inc. 2333	Location: Prep: Analysis:	3609 International Blvd EPA 5030B EPA 8260B
Type: pb ID: trix: thits:	BLANK QC231522 Water ug/L	Diln Fac: Batch#: Analyzed:	1.000 86000 11/08/03

	Analyte	Result	Ru	
Į	BE	D	0.5	
_				
30	- nva			

Suzrogata	%REC	Limits		
2-Dichloroethane-d4	110	77-129	•	•
Luene-d8	97	80-120		
3romofluorobenzene	106	80-123		



Purgeable Aromatics by GC/MS Lab #: 3609 International Blvd Location: Lient: SOMA Environmental Engineering Inc. Prep: EPA 5030B coject#: 2333 Analysis: **EPA 8260B** Macrix: Water Batch#: 86000 Inits: ug/L Analyzed: 11/08/03 ln Fac: 1.000

be:

BS

Lab ID:

QC231514

CBE		50.00	48.17	96	69-124
			+0127		05 IZI
Surrogate	%REC	Limits			

	104	77-129			
2-Dichloroethane-d4	104	77-129			
2-Dichloroethane-d4 luene-d8 romofluorobenzene	**************************************				

/pe:

BSD

Lab ID:

QC231515

TBE		50.00	48.16	96	69-124	0	20
Surrogate	###¢	. Limits		-			
2-Dichloroethane-d4	105	77-129					*****
Toluene-d8	101	80-120					
<u>Bromofluorobenzene</u>	99	80-123					