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February 8, 2006

Mr. Jerry Wickham Alameda County Department of Environmental Health Services 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: StID#3337 Site Address: 3609 International Blvd., Oakland, California

Dear Mr. Wickham:

SOMA's "First Quarter 2006 Groundwater Monitoring and Remediation System Operation Report" for the subject property has been uploaded to the State's GeoTracker database for your review.

Thank you for your time in reviewing our report. If you have any questions or comments, please call me at (925) 734-6400.

Sincerely,

Mansour Sepehr, Ph.D.,PE Principal Hydrogeologist

Enclosure

cc: Mr. Abolghassem Razi w/report enclosure Tony's Express Auto Service

Mr. Vince Tong w/report enclosure Traction International







ENVIRONMENTAL ENGINEERING, INC 6620 Owens Drive, Suite A • Pleasanton, CA 94588-3334 TEL (925)734-6400 • FAX(925)734-6401

# First Quarter 2006 Groundwater Monitoring and Remediation System Operation Report Tony's Express Auto Service

3609 International Boulevard Oakland, California

February 8, 2006

Project 2331

Prepared for

Tony's Express Auto Service 3609 International Boulevard Oakland, California

Prepared by SOMA Environmental Engineering, Inc. 6620 Owens Drive, Suite A Pleasanton, California

#### 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 Alameda County Environmental Health Services' requirements for the First Quarter 2006 groundwater monitoring event.

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



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#### 1.0 Introduction

This monitoring report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Mr. Abolghassem Razi, the owner of Tony's Express Auto Service, which is located at 3609 International Boulevard, at the intersection of 36<sup>th</sup> Avenue in Oakland, California (the "Site"), as shown in Figure 1.

This report summarizes the results of the First Quarter 2006 groundwater monitoring event conducted at the Site on January 3 and 4, 2006, and includes the laboratory analytical results on the groundwater samples.

A natural attenuation study was conducted during this monitoring event. The objective of the natural attenuation study was to evaluate whether the petroleum hydrocarbons found in the groundwater were biodegrading.

The groundwater monitoring activities were performed in accordance with the general guidelines of the Regional Water Quality Control Board (RWQCB) and the Alameda County Environmental Health Services (ACEHS). A description of SOMA's groundwater monitoring procedures is included in Appendix A. Figure 2 shows the locations of the wells and risers.

This report also describes the operation of the groundwater extraction system installed by SOMA in December 1999. The vapor extraction system was installed by SOMA in July 2000. The locations of the groundwater extraction system and the vapor extraction system are displayed in Figure 2.

#### 1.1 Background

In July 1993, Soil Tech Engineering, 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 underground storage tanks (USTs) replaced these tanks. Currently, there is one 10,000-gallon double-walled gasoline tank and two 6,000-gallon double-walled gasoline tanks beneath the Site. The locations of the USTs are shown in Figure 2.

In December 1997, Western Geo-Engineers (WEGE) conducted additional investigations and groundwater monitoring events. The results of the groundwater monitoring events indicated elevated levels of petroleum hydrocarbons and Methyl tertiary Butyl Ether (MtBE) in the groundwater.

In April 1999, Mr. Razi, the owner, retained SOMA to conduct groundwater monitoring, risk-based corrective action (RBCA), a corrective action plan (CAP), as well as soil and groundwater remediation, at the Site. The results of the RBCA study indicated that the Site is a high-risk groundwater site; therefore, the soil and groundwater in the on and off-site areas warranted remedial actions.

The source of the petroleum hydrocarbons in the groundwater was believed to have been the former USTs, which were used to store gasoline at the Site. The

results of the CAP study indicated that the installation of a French drain combined with a vapor extraction system would be the most cost effective alternative for the Site's remediation.

In late August 1999, SOMA installed a French drain and groundwater treatment system to prevent further migration of the chemically impacted groundwater. In July 2000, SOMA installed a vapor extraction system.

In January 2002, Environmental Fabric removed the former product dispensers and installed new ones.

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

On April 1, 2005, SOMA conducted a pilot test to evaluate the use of ozone sparging to actively remediate the groundwater at the Site. Based on the test results, the sediment was determined to be permeable enough to allow for the operation of an ozone sparging system.

#### 2.0 Results

The following sections provide the results of the field measurements and laboratory analyses for the January 3 and 4, 2006 groundwater monitoring event.

#### 2.1 Field Measurements

As shown in Table 1, the depths to groundwater for the monitoring wells ranged from 6.39 feet in monitoring well MW-7 to 9.18 feet in monitoring well MW-4R. The corresponding groundwater elevations ranged from 28.95 feet in well MW-12 to 34.35 feet in well MW-5. The groundwater elevations for the center, east, and west risers were 27.53 feet, 30.23 feet, and 26.55 feet, respectively.

Figure 3 displays a groundwater elevation contour map. The groundwater flows towards the French drain at an approximate gradient of 0.085 feet/feet. The lowest site-wide groundwater elevation was measured in the western French drain riser. The French drain is providing excellent hydraulic control in preventing the contaminants from migrating further off-site.

The field notes for the physical, chemical and biodegradation parameters measured during this monitoring event are included in Appendix B.

The more positive the redox potential of an electron acceptor, the more energetically favorable the reaction utilizing that electron acceptor is. The most energetically preferred electron acceptor for redox reactions is dissolved oxygen (DO). Evaluating the distribution of electron acceptors can provide evidence of where and to what extent hydrocarbon biodegradation is occurring.

**SOMA** Environmental Engineering, Inc.

Detectable DO concentrations ranged from 1.86 mg/L in well MW-8 to 3.12 mg/L in well MW-12. ORP showed negative redox potentials in wells MW-1, MW-3, MW-5, MW-6, and MW-8. Oxidation of petroleum hydrocarbons could have occurred in these monitoring wells. Negative redox potentials indicate that contaminants in the groundwater are conducive to anaerobic biodegradation.

Ferrous iron concentrations can be used as an indicator of anaerobic biodegradation. Ferrous iron concentrations ranged from 0.31 mg/L in well MW-7 to the equipment's maximum allowable tolerance range of 3.30 mg/L in wells MW-3. Ferrous iron was not detected in well MW-2 and MW-10.

Nitrate concentrations were below the equipment's minimum allowable level in all the groundwater samples. High ferrous iron concentrations in combination with non-detectable nitrate levels are indicative of anaerobic biodegradation beneath the Site.

The absence of sulfate in the groundwater samples may be indicative of an anaerobic methanogenesis process. Sulfate was below the equipment's tolerance level in the groundwater samples collected from wells MW-1, MW-3, MW-6, MW-8, MW-10, and MW-12. Detectable sulfate concentrations ranged from 9 mg/L in well MW-4R to 61 mg/L in well MW-5.

### 2.2 Laboratory Analysis

Table 1 presents the results of the laboratory analyses on the groundwater samples collected during this monitoring event.

Total petroleum hydrocarbons as gasoline (TPH-g) was detected throughout the Site. Detectable TPH-g concentrations ranged from 170 ug/L in well MW-5 to 55,000 ug/L in well MW-1. Figure 4 displays a contour map of TPH-g concentrations in the groundwater. The TPH-g concentration in the vicinity of the USTs, in well MW-1, was several orders of magnitude higher than the remaining site wells.

In well MW-5, toluene was below the laboratory reporting limit. In well MW-7, both toluene and total xylenes were below the laboratory reporting limit. In well MW-12, all benzene, toluene, ethylbenzene, total xylenes (BTEX) analytes were below the laboratory reporting limit, with the exception of a trace benzene concentration. The highest benzene, toluene, ethylbenzene, and total xylenes concentrations were detected in well MW-1 at 1,100 ug/L, 510 ug/L, 1,100 ug/L, and 4,070 ug/L, respectively.

Figure 5 displays a contour map of benzene concentrations in the groundwater. The highest benzene concentration was detected in the vicinity of the USTs, in well MW-1. Methyl tertiary Butyl Ether (MtBE) was below the laboratory reporting limit in monitoring wells MW-2, MW-4R, and MW-6. Detectable MtBE concentrations ranged from 1.10 ug/L in wells MW-5 and MW-7 to 2,200 ug/L in well MW-1. Figure 6 displays a contour map of MtBE concentrations (analyzed using EPA Method 8260B) in the groundwater. The highest MtBE concentration was detected in well MW-1, which is in the vicinity of the USTs.

The laboratory report and COC form for this monitoring event are included in Appendix C.

## 3.0 Groundwater Treatment System Operation

The treatment system began operating on December 9, 1999. Since that time, 3,122,610 gallons of groundwater has been treated and discharged under the existing discharge permit (as of January 4, 2006), into the East Bay Municipal Utility District's (EBMUD's) sewer system.

As of January 9, 2004, the previously installed pneumatic downhole pumps in the western and center French drain risers were removed and replaced with electrical downhole pumps. On May 4, 2005, to maintain accurate recordings of the total flow through the system, a newer totalizer meter was installed. On September 29, 2005, the existing 2,000-pound carbon vessel was replaced with a newer 2,000-pound carbon vessel. The newer vessel was refurbished with new carbon; the 55-gallon carbon drum was also replaced. The former 2,000-pound vessel had become rusted due to prolonged usage. A schematic diagram of the remediation system is displayed in Figure 7.

Table 2 presents the total volume of treated groundwater and the groundwater analytical results. Table 2 shows that all of the effluent samples have remained below the discharge limits set forth by EBMUD. The most current laboratory reports for the groundwater treatment system are included in Appendix D of this report.

The treatment system has removed approximately 198 pounds of hydrocarbons and 85.5 pounds of MtBE, as of January 4, 2006. Figure 8 shows the approximate masses of TPH-g and MtBE removed from the impacted groundwater during the operation of the treatment system.

# 4.0 Soil Vapor Extraction System Operation

The soil vapor extraction (SVE) system consists of 6 vapor extraction wells, a demoisturizing unit, a blower, and four drums of granulated active carbon (GAC) filters. The vapor extraction system began operating on July 24, 2000. The SVE system has remained in compliance with the Bay Area Air Quality Management District's (BAAQMD's) operating permit. The operating permit for the SVE system was extended by BAAQMD until August 2006. On November 9, 2005, all four-vapor phase carbon drums were replaced with newer ones. As of November 22, 2005, approximately 814.20 pounds of petroleum hydrocarbons have been removed from the vadose zone beneath the Site. Table 3 presents the total masses of hydrocarbons removed from the Site by the SVE system, as well as the historical operational conditions.

### 5.0 Conclusions and Recommendations

The findings of the First Quarter 2006 groundwater monitoring event can be summarized as follows:

- 1. The groundwater remediation system is providing excellent hydraulic control in preventing further migration of the contaminants.
- 2. The bio-attenuation study confirmed the occurrence of biodegradation beneath the Site. Based on this study, the affected areas appear to be in the vicinity of the USTs, around wells MW-1 and MW-3, as well as the eastern section of the Site, around well MW-6. The source area still remains in the vicinity of wells MW-1, MW-3, and MW-6.
- 3. Since the previous monitoring event, both benzene and MtBE decreased in well MW-1. In well MW-3, TPH-g, benzene, and MtBE all decreased. In well MW-6, benzene decreased and MtBE remained at a non-detectable level.
- 4. In general, the GAC and SVE systems have effectively reduced contaminants beneath the Site. Since initial start-up, approximately 198 pounds of hydrocarbons and 85.5 pounds of MtBE have been removed from the groundwater. Approximately 814.2 pounds of petroleum hydrocarbons have been removed from the vadose zone.

Based on the results of this monitoring event, SOMA recommends:

- Continual monitoring of the treatment system to maintain the removal rate of the contaminant masses in the groundwater;
- Continual site monitoring of the biodegradation parameters to determine if the injection of concentrated solutions of terminal electron receptors into the groundwater, in the vicinity of the more contaminated wells, may enhance the biodegradation process;
- Continued quarterly monitoring programs to better understand the seasonal variations in the groundwater quality conditions; and
- Based on the results from the quarterly monitoring events, the source area appears to remain in the vicinity of wells MW-1, MW-3, and MW-6. Air sparging should effectively aid in reducing the contaminant

source area. SOMA is currently in the process of installing an air sparging system at the Site.

#### 6.0 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 summaries of data produced by 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 the 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.

# TABLES

Monitoring Well	Date	Top Of Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	ten Genera	Benzene (µg l.)	Toluene (µg1.)	Ethyl Benzene (ug.l.)	Total Xylenes (ng L)	MtBE EPA 82608 (µŋ/L)
MW-1	Oct-94	97.99	15.39	82.60	320,000	24,000	21,000	2,600	15,000	NA
10100-1	Dec-94	97.99	9.32	88.67	80,000	3,800	6,600	2,300	11,000	NA
	Mar-95	97.99	8.07	89.92	32,000	190	160	150	490	NA
	Jun-95	97.99	9.53	88.46	21,000	950	650	570	150	NA
	Oct-95	97.99	13.29	84.70	59,000	140	130	140	390	NA
	Jan-96	97.99	10.07	87.92	30,000	71	73	50	120	NA
	Apr-96	97.99	8.29	89.70	31,000	98	120	63	170	NA
	Dec-96	97.99	11.67	86.32	NA	NA	NA	NA	NA	NA
	Apr-97	97.99	11.14	86.85	NA	NA	NA	NA	NA	NA
	Dec-97	97.99	9.30	88.69	27,000	2,300	2,100	1,400	5,100	NA
	Sep-98	97.99	13.58	84.41	NA	NA	NA	NA	NA	NA
	Dec-98	97.99	11.10	86.89	65,000	2,500	2,400	2,300	9,500	160
	Mar-99	97.99	9.91	88.08	17,000	480	860	850	3,000	190
	Jun-99	97.99	11.10	86.89	25,000	1,110	1,460	1,330	5,265	77
	Aug-99	97.99	13.35	84.64	19,750	678	463	893	2,938	38
	Nov-99	97.99	14.45	83.54	10,000	693	15	<5	3,471	50
	Feb-00	97.99	11.20	86.79	40,000	2,280	1,380	8	6,130	47
	May-00	97.99	11.49	86.50	15,610	610	350	310	1,400	<5
	Aug-00	97.99	13.36	84.63	11,000	638	<5	<5	<5	17.1
	Nov-00	97.99	13.20	84.79	7,050	435	52	ND	689	10
	Mar-01	97.99	8.96	89.03	14,570	1,005	440	108	2,030	16
	May-01	97.99	11.50	86.49	4,900	310	81	82	388	150
	Aug-01	97.99	13.51	84.48	14,820	852	342	568	1,606	2,000
	Nov-01	97.99	14.01	83.98	41,000	2,700	5,100	1,000	4,570	74,000
	Feb-02	97.99	10.11	87.88	260,000	3,700	12,000	3,700	19,200	23,000
	May-02	97.99	10.86	87.13	53,000	4,400	5,100	1300	7,000	32,000
	Jul-02	40.11	12.80	27.31	29,000	2,400	2,500	920	4,400	13,000
	Oct-02	40.11	15.50	24.61	27,000	2,200	2,400	950	4,500	34,000

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

								FthyL	Total	MIBE
		Top Of Casing	Depth to Groundwater	Groundwater Elevation	TPH-q	Benzene	Tobiene	Benzenz	Xylenes	EPA 82508
Monitoring		Elevation <sup>1</sup>	Groundwater (feet)	(feet)	(µg C)	(uqit)	(µq'1)	(uql)	(EG1)	(µg/L)
Well	Date	(feet)						1600	9,700	48,000
MW-1 cont.	Jan-03	40.11	9.73	30.38	62,000	3,500	6,000	1500	9,700 7,000	48,000 14,000
	May-03	40.11	9.71	30.40	59,000	3,100 4,800	2,700 1,800	1300	7,000 5,600	25,000
	Jul-03	40.11	12.44	27.67	36,000	4,800 3,300	1,800 1900 C	3600	27,700	25,000
	Oct-03	40.11	13.89	26.22	630,000 H 39,000	3,300	1,600	950	4,300	8,500
	Jan-04	40.11	10.45	29.60	39,000 41,000	1,200	350C	830	2,740	4,300
	Apr-04	40.11	11.49 13.81	26.30	22,000	2,000	220	560	3,090	6,900
	Aug-04	40.11	13.81	29.01	22,000	1,634	319	895	2,851	5,504
	Dec-04	40.11	8.40	31.71	44,400	3,150	811	1,090	2,856	7,180
	Mar-05	40.11	9.72	30.39	33,900	3,440	1,700	1,090	2,276	3,210
	May-05	40.11 40.11	9.72 11.31	28.80	50,100	4,350	1,760	1,500	2,853	3,980
	Jul-05	40.11	13.51	26.60	43,100	1,960	325	639	3,080	3,000
	Oct-05 Jan-06	40.11	8.82	31.29	55,000	1,100	510	1,100	4,070	2,200
	Jan-00	40.11	0.02	0120		.,			•	
-	Oct-94	98.58	15.36	83.22	NA	NA	NA	NA	NA	NA
MW-2	Dec-94	98.58	8.60	89.98	NA	NA	NA	NA	NA	NA
	Mar-95	98.58	7.68	90.90	490	3	3	3	1	NA
	Jun-95	98.58	9.59	88.99	8,000	220	330	350	660	NA
	Oct-95	98.58	13.42	85.16	46,000	160	130	93	240	NA
	Jan-96	98.58	9.93	88.65	46,000	160	130	93	240	NA
	Apr-96	98.58	8.13	90.45	27,000	0.1	92	44	13	NA
	Dec-96	98.58	11.67	86.91	6,200	11	7	2	14	ND
	Apr-97	98.58	11.40	87.18	53,000	150	110	37	0.12	ND
	Dec-97	98.58	9.04	89.54	35,000	4,900	4,900	1,600	7,000	NA
	Jun-98	98.58	NM	NM	25,000	2,000	2,000	1,300	4,300	NA
	Sep-98	98.58	13.58	85.00	29,000	290	180	160	360	<0.5
	Dec-98	98.58	10.94	87.64	26,000	1,400	1,600	880	9,500	<5
	Mar-99	98.58	7.60	90.98	7,600	730	830	610	1,900	55
	Jun-99	98.58	11.24	87.34	3,500	290	428	211	744	ND
	Aug-99	98.58	13.50	85.08	60	6	9	4	11	ND
	Nov-99	98.58	14.10	84.48	<50	<5	<5	<5	<5	<5
	Feb-00	98.58	9.85	88.73	6,400	372	639	46	134	8
	May-00	98.58	10.88	87.70	2,930	130	330	130	570	<5
	Aug-00	98.58	13.03	85.55	<50	<5	<5	<5	<5	<5
	Nov-00	98.58	12.60	85.98	ND	ND	ND	ND	ND	ND
	Mar-01	98.58	8.55	90.03	932	18	34	1.3	225	ND
	May-01	98.58	11.00	87.58	870	37	75	55	179	2.7
	Aug-01	98.58	13.53	85.05	125	4	4	3	11	ND
	Nov-01	98.58	13.43	85.15	470	13	64	22	83	14

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

Monitoring Well	Date	Top Of Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	i Prositi Gali II F	Benzene (uq.L)	Loluene (µgʻl.)	Ethyl. Benzene (pg L)	Total Xylenes (µq.L.)	MtBE EPA 8260B (µg:L)
MW-2 cont.	Feb-02	98.58	8.99	89.59	1,700	26	180	95	360	<2
	May-02	98.58	10.59	87.99	1,800	31	140	110	348	<2
	Jul-02	40.71	12.70	28.01	180	11	6.3	9.4	27	<2.0
	Oct-02	40.71	14.23	26.48	<50	<0.5	<0.5	<0.5	0.64	<2.0
	Jan-03	40.71	8.66	32.05	510	5	30.0	24.0	92	<2.0
	May-03	40.71	9.17	31.54	1,300	14	88.0	78.0	271	<2.0
	Jul-03	40.71	12.23	28.48	220	3.9	4.3	7	14.5	<2.0
	Oct-03	40.71	13.65	27.06	170 H	1.9	<0.5	2.2	2.2	<2.0
	Jan-04	40.71	9.54	31.17	860	7.2	37	50	151	<2.0
	Apr-04	40.71	10.80	29.91	730	6.6	19	38	87	<2.0
	Aug-04	40.71	13.54	27.17	220	2.2	1.9	7	11.7	<0.5
	Dec-04	40.71	10.52	30.19	99	1.7	3.3	8.3	25.1	< 0.5
	Mar-05	40.71	8.06	32.65	5,690	18.7	120	315	876	<1.0
	May-05	40.71	9.10	31.61	6,320	12.5	75	429	557	<2.15
	Jul-05	40.71	11.10	29.61	7,680	14.1	46.3	522	471	<2.15
	Oct-05	40.71	13.25	27.46	562	4.25	3.28	15	8.29	< 0.50
	Jan-06	40.71	6.72	33.99	340	2.5	4.4	22	50.2	<0.5
									100.000	
MW-3	Oct-94	97.78	15.79	81.99	3,000,000	190,000	740,000	310,000	130,000	NA
	Dec-94	97.78	9.79	87.99	250,000	19,000	22,000	4,400	28,000	NA
	Mar-95	97.78	8.69	89.09	350,000	20,000	42,000	5,800	36,000	NA
	Jun-95	97.78	10.25	87.53	350,000	20,000	42,000	5,800	36,000	NA
	Oct-95	97.78	12.91	84.87	150,000	510	410	210	65	NA
	Jan-96	97.78	10.55	87.23	150,000	510	410	210	650	NA
	Apr-96	97.78	8.76	89.02	NA	NA	NA	NA	NA	NA
	Dec-96	97.78	12.02	85.76	NA	NA	NA	NA	NA	NA
	Apr-97	97.78	11.73	86.05	NA	NA	NA	NA	NA	NA
	Dec-97	97.78	NM	NM	NA	NA	NA	NA	NA	NA
	Sep-98	97.78	14.68	83.10	NA	NA	NA	NA	NA	NA
	Dec-98	97.78	11.55	86.23	51,000	5,700	3,900	1,200	6,300	410
	Mar-99	97.78	8.44	89.34	45,000	4,100	6,400	1,000	6,100	470
	Jun-99	97.78	11.8	85.98	46,000	8,245	6,425	1,015	7,173	274
	Aug-99	97.78	13.85	83.93	64,000	7,484	8,052	1,744	9,749	141
	Nov-99	97.78	14.7	83.08	26,000	3,218	1,319	<5	6,697	126
	Feb-00	97.78	10.95	86.83	44,000	6,090	3,360	<5	5,780	276
	May-00	97.78	11.68	86.10	68,000	15,000	8,900	1,500	7,400	<5
	Aug-00	97.78	13.73	84.05	76,000	8,900	5,636	883	7,356	176
	Nov-00	97.78	13.4	84.38	48,000	6,789	4,816	676	7,258	83

Table 1 Historical Groundwater Elevation Data & Analytical Results 3609 International Boulevard, Oakland, California

		Top Of Casing	Depth to	Groundwater				Ethyl	Total	MtBE
Monitoring		Elevation <sup>1</sup>	Groundwater	Elevation	ТРН-д	Benzrné	Tolgene	Bonzeni	Xylenes	EPA 8260
Well	Date	(feet)	(feet)	(feet)	$-\alpha q(t)$	(Fpu)	(Engl)	(µ(4)U)	(pq1)	(μ <b>g</b> /L)
MW-3 cont.	Mar-01	97.78	9.43	88.35	14,754	2,250	140	ND	1,284	110
	May-01	97.78	11.81	85.97	44,000	5,400	3,100	1,400	6,400	200
	Aug-01	97.78	14.1	83.68	41,750	3,485	2,670	1,255	5,420	52
	Nov-01	97.78	14.32	83.46	NA	NA	NA	NA	NA	NA
	Feb-02	97.78	10.01	87.77	62,000	6,000	7,600	1,900	9,200	12,000
	May-02	97.78	11.28	86.50	54,000	6,700	3,200	1,800	7,100	9,100
	Jul-02	40.91	13.25	27.66	45,000	8,900	1,700	1,600	5,600	2,600
	Oct-02	40.91	14.98	25.93	70,000	4,900	5,100	2,100	11,900	21,000
	Jan-03	40.91	9.79	31.12	35,000	2,900	1,300	860	5,200	13,000
	May-03	40.91	10.01	30.90	48,000	5,800	1,400	1,600	7,400	5,900
	Jul-03	40.91	12.94	27.97	31,000	4,700	990	1,400	5,200	16,000
	Oct-03	40.91	14.29	26.62	30,000	4,400	930	1,600	5,400	7,400
	Jan-04	40.91	10.57	30.34	45,000	2,100	850	1,500	5,700	2,900
	Apr-04	40.91	11.84	29.07	31,000	4,200	590	1,600	4,370	900
	Aug-04	40.91	14.24	26.67	21,000	3,400	370	1,000	2,350	1,100
	Dec-04	40.91	11.32	29.59	6,441	978	109	490	941	201
	Mar-05	40.91	8.87	32.04	22,300	1,280	456	729	1,870	2,400
	May-05	40.91	9.96	30.95	17,600	764	302	735	1,227	1,800
	Jul-05	40.91	11.50	29.41	34,600	1,390	492	1,460	2,054	1,090
	Oct-05	40.91	13.78	27.13	15,000	1,290	267	675	838	893
	Jan-06	40.91	7.50	33.41	8,700	650	98	330	860	280
		1	10.11	07.74	0.000	230	110	10	29	NA
MW-4	Jan-96	97.85	10.11	87.74	9,300				29 14	
	Apr-96	97.85	8.35	89.50	1,900	12	8	5	14	NA
	Dec-96	97.85	11.58	86.27	4,000	14	6	4		ND
	Apr-97	97.85	11.23	86.62	ND	ND	ND	ND	ND	ND
	Dec-97	97.85	9.43	88.42	2,300	410	270	100	1,500	NA
	Jun-98	97.85	NM	NM	1,700	780	160	54	200	NA
	Sep-98	97.85	13.64	84.21	6,200	910	77	68	200	18
	Dec-98	97.85	11.13	86.72	1,400	590	33	28	94	24
	Mar-99	97.85	8.46	89.39	600	200	35	19	56	11
	Jun-99	97.85	11.30	86.55	1,000	298	44	19	64	13
	Aug-99	97.85	13.20	84.65	660	497	41	54	145	6
	Nov-99	97.85	14.10	83.75	<50	<5	<5	<5	<5	<5
	Feb-00	97.85	11.25	86.60	7,800	1,200	61	<5	781	<5
	May-00	97.85	11.46	86.39	552	42	19	16	67	<5
	Aug-00	97.85	13.35	84.50	370	5.08	<5	<5	<5	<5
	Nov-00	97.85	13.05	84.80	ND	5.30	ND	ND	8	ND

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

		Top Of Casing	Depth to	Groundwater				Ethyl	Testal	MIBE
Manifesting		Elevation <sup>1</sup>	Groundwater	Elevation	1997.4	Benzene	Toluenc	Benzene	Xylenes	EPA 8260B
Monitoring Well	Date	(feet)	(feet)	(feet)		(µg L)	(ng L)	(µg.L)	(na.1.)	$(\mu g(t))$
MW-4 cont.	Mar-01	97.85	9.24	88.61	62	ND	ND	3.2	8.7	ND
MAA-+ CONT	May-01	97.85	11.50	86.35	80	12	1.9	4.1	9.8	ND
	Aug-01	97.85	13.80	84.05	133	12	2.2	3.9	9	ND
	Nov-01	97.85	13.68	84.17	670	180	5	17	53	ND
	Feb-02	97.85	9.97	87.88	450	63	4.1	22	28.7	<2
	May-02	97.85	10.81	87.04	570	72	29	27	74	<2
	Jul-02	40.01	12.62	27.39	450	20	24	19	74	<2.0
	Oct-02	40.01	14.34	25.67	320	69	0.99	9	5.49	<2.0
	Jan-03	40.01	9.79	30.22	310	49	2.5	13	26.7	<2.0
	May-03	40.01	9.78	30.23	120	27	1.8	9	14.6	<2.0
	Oct-03	40.01	13.72	26.29	70	12	<0.5	4.7	3.0	<2.0
	Jan-04	40.01	10.55	29.46	230	18	2.1	8.1	17.1	<2.0
	Apr-04	40.01	11.39	28.62	<50	3.8	<0.5	1.6	1.9	<2.0
	Aug-04	40.01	13.68	26.33	<50	1.6	<0.5	0.66	0.53	<2.0
	Dec-04	40.01	10.95	29.06	<50	1.3	< 0.5	2.80	<1.0	< 0.5
	Mar-05	40.01	8.61	31.40	661	72	4.13	39.7	48.42	<0.5
								100	1010	
MW-4R	May-05	40.34	9.88	30.46	7,780	170	11.1	192	121.2	<0.5
	Jul-05	40.34	11.61	28.73	847	25.3	<2.0	28.2	10.9	<0.5
	Oct-05	40.34	13.73	26.61	785	35.5	<2.0	48.2	8.35	< 0.50
	Jan-06	40.34	9.18	31.16	2,500	65	3.8	70	62	<0.5
				05.47	1,500	T 1	1	4	5	NA
MW-5	Oct-95	99.04	13.57	85.47 89.01	1,500	1	$\frac{1}{1}$	4	5	NA
	Jan-96	99.04	10.03	90.80	780	1	1	5	4	NA
	Apr-96	99.04	8.24	1	NA	NA	NA	NA	NA	NA
	Dec-96	99.04	11.48	87.56 87.69	NA	NA NA	NA	NA	NA	NA
	Apr-97	99.04	11.35	87.69	790	82	66	59	160	NA
	Dec-97	99.04	9.15	89.89 NM	400	<5	<5	15	<10	NA
	Jun-98	99.04	NM		270	2	1	3	3	<.5
	Sep-98	99.04	13.82	85.22	1	1	1	ND	2	ND
	Dec-98	99.04	11.20	87.84	1,400	3	1	16	2	10
	Mar-99	99.04	7.73	91.31	650	3	3	6	4	ND
	Jun-99	99.04	11.50	87.54	270 120	4 ND	4	ND	4	ND
	Aug-99	99.04	13.55	85.49		ND <5	4 <5	ND <5	4 <5	ND <5
	Nov-99	99.04	14.30	<u>84.74</u> 89.19	<50 70	<5	<5	<5	7	<5
	Feb-00	99.04	9.85		627.4	7.4	24	12	32.4	<5
	May-00	99.04	11.03	88.01 85.82	<50	<5	<5	<5	<5	<5 <5
	Aug-00	99.04	13.22	85.82	ND ND	ND ND	ND	ND	ND	ND
	Nov-00	99.04	13.55	85.49						

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

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		Top Of Casing	Depth to	Groundwater				Ethyl-	Total	MtBE
		Elevation <sup>1</sup>	Groundwater	Elevation	1PH-g	Benzene	Tolarine	Benzene	Xyleni s	EPA 82608
Monitoring Well	Date	(feet)	(feet)	(feet)	(uq(L))	(µg E)	(an't)	(sq.L)	((q1)	(µg/L)
		99.04	8.67	90.37	382	6.1	1.9	6.6	5.9	ND
MW-5 cont.	Mar-01	99.04 99.04	11.12	87.92	180	ND	ND	2.1	0.57	4.4
	May-01	99.04 99.04	13.79	85.25	258	1	1.1	3.4	7.3	1.4
	Aug-01 Nov-01	99.04 99.04	13.79	85.32	920	17	160	26	135	40
	Feb-02	99.04	9.04	90.00	290	3.5	2	6.2	6.2	< 0.5
	May-02	99.04	10.69	88.35	160	< 0.5	0.78 C	2	2.15	2.3
	Jul-02	41.16	12.94	28.22	110	< 0.5	<0.5	0.77	<0.5	< 0.5
	Oct-02	41.16	14.51	26.65	77	< 0.5	<0.5	< 0.5	<0.5	<2.0
	Jan-03	41.16	8.73	32.43	450 Y	< 0.5	< 0.5	4	0.54	2.1
	May-03	41.16	9.24	31.92	130	<0.5	< 0.5	1	<0.5	3.1
	Jul-03	41.16	12.45	28.71	300	<0.5	1.9 C	0.76	<0.5	<2.0
	Oct-03	41.16	13.89	27.27	460 H	< 0.5	< 0.5	< 0.5	<0.5	1.9
	Jan-04	41.16	9.60	31.56	160	< 0.5	<0.5	0.55 C	<0.5	<5.0
	Apr-04	41.16	11.06	30.10	280	<0.5	0.74C	0.62	<0.5	2.1
	Aug-04	41.16	13.75	27.41	250	< 0.5	<0.5	<0.5	<0.5	2
	Dec-04	41.16	10.73	30.43	150	<0.5	<0.5	<0.5	<1.0	2.6
	Mar-05	41.16	8.18	32.98	496	<0.5	< 0.5	<0.5	<1.0	1.91
	May-05	41.16	9.22	31.94	360	<0.5	<0.5	<0.5	<1.0	1.72
	Jui-05	41.16	11.30	29.86	267	<0.5	<2.0	<0.5	<1.0	1.74
	Oct-05	41.16	13.57	27.59	404	< 0.50	<2.0	<0.50	<1.0	0.93
	Jan-06	41.16	6.81	34.35	170	2.2	<0.5	1.8	3.1	1.1
MW-6	Oct-95	98.77	13.94	84.83	NA	NA	NA	NA	NA	NA
	Jan-96	98.77	10.55	88.22	120,000	350	310	200	610	NA
	Apr-96	98.77	8.76	90.01	NA	NA	NA	NA	NA	NA
	Dec-96	98.77	12.04	86.73	NA	NA	NA	NA	NA	NA
	Apr-97	98.77	11.76	87.01	NA	NA	NA	NA	NA	NA
	Dec-97	98.77	9.30	89.47	NA	NA	NA	NA	NA	NA
	Sep-98	98.77	14.10	84.67	NA	NA	NA	NA	NA	NA
	Dec-98	98.77	11.60	87.17	NA	NA	NA	NA	NA	NA
	Mar-99	98.77	8.40	90.37	37,000	3,900	4,300	1,600	7,000	180
	Jun-99	98.77	11.90	86.87	18,500	2,060	1,650	735	3,170	ND
	Aug-99	98.77	13.90	84.87	42,000	3,806	3,649	1,554	7,996	10
	Nov-99	98.77	14.75	84.02	40,000	1,084	130	<5	10,940	<5
	Feb-00	98.77	10.95	87.82	17,000	1,360	521	<5	4,150	6
	May-00	98.77	11.70	87.07	21,700	1,700	1,200	17	3,600	<5
	Aug-00	98.77	13.78	84.99	24,000	1,306	870	<5	5,162	<5
	Nov-00	98 77	13.40	85.37	19,000	1,387	618	ND	5,250	ND
	May-01	98.77	11.82	86.95	27,000	760	450	1,600	4,270	ND
	Aug-01	98.77	NM	NM	NA	NA	NA	NA	NA	NA
	Nov-01	98.77	NM	NM	NA	NA	NA	NA	NA	NA

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

Monitoring Well	Date	Top Of Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH q (LQ.13	Benzene (µgl)	Toluene (pgl)	Ethyl Renzene (µg.U)	Total Xylenes (uq.L)	MIBE EPA 8260F (µg/L)
MW-6 cont.	Oct-95	98.77	14.10	84.67	120,000	350	310	200	610	NA
	Feb-02	98.77	9.92	88.85	14,000	440	180	750	1,020	<10
	May-02	98.77	11.33	87.44	10,000	400	160	470	970	<2
	Jul-02	40.92	13.28	27.64	24,000	1,000	410	1,400	3,770	<20
	Oct-02	40.92	14.93	25.99	22,000	1,200	620	1,300	2,800	<20
	Jan-03	40.92	9.78	31.14	12,000	730	230	740	1,690	<20
	May-03	40.92	9.92	31.00	150,000 H	1,400	780	2,500	8,700	<40
	Jul-03	40.92	12.98	27.94	29,000	1,600	520	1,500	4,400	<200
	Oct-03	40.92	14.35	26.57	36,000	1,300	430	1,600	4,570	<40
	Jan-04	40.92	10.60	30.32	30,000	1,300	320	1,500	3,040	<50
	Apr-04	40.92	11.80	29.12	99,000	1,700	580 C	2,200	5,200	<50
	Aug-04	40.92	14.36	26.56	12,000	580	130	520	1,020	<10
	Dec-04	40.92	11.22	29.70	12,631	649	134	1,009	2,037	<2.15
	Mar-05	40.92	8.94	31.98	18,300	546	126	705	1,069	<2.15
	May-05	40.92	10.02	30.90	38,500	1,290	395	1,550	1,652	<5.50
	Jul-05	40.92	11.78	29.14	50,100	1,510	409	1,900	1,920	<5.50
	Oct-05	40.92	14.04	26.88	9,620	513	97.4	523	422.3	<2.15
	Jan-06	40.92	7.86	33.06	13,000	260	79.0	680	750	<4.2
MW-7	Oct-95	97.83	12.95	84.88	NA	10	12	17	NA	3,300
IVI ##- /	Jan-96	97.83	9.57	88.26	3,300	9	12	17	45	NA
	Apr-96	97.83	7.75	90.08	1,900	2	3	5	7	NA
	Dec-96	97.83	10.97	86.86	NA	NA	NA	NA	NA	NA
	Apr-97	97.83	12.95	84.88	NA	NA	NA	NA	NA	NA
	Dec-97	97.83	8.65	89.18	1,400	130	98	75	200	NA
	Jun-98	97.83	NM	NM	620	4	<5	9	<10	NA
	Sep-98	97.83	13.09	84.74	1,800	1	1	1	2	68
	Dec-98	97.83	10.52	87.31	990	5	10	5	20	160
	Mar-99	97.83	7.00	90.83	300	3	1	1	1	62
	Jun-99	97.83	10.70	87.13	320	3	7	4	3	26
	Aug-99	97.83	12.80	85.03	570	5	10	ND	ND	ND
	Nov-99	97.83	13.25	84.58	290	<5	9	<5	<5	12
	Feb-00	97.83	9.50	88.33	80	<5	<5	<5	<5	23
	May-00	97.83	10.52	87.31	494.9	4.9	22	4.2 <5	21.9 <5	29 11.7
	Aug-00	97.83	12.63	85.20	80	<5	<5 ND	<5 ND	<5 ND	9.1
	Nov-00	97.83	11.95	85.88	50 82	ND 0.97	ND ND	0.76	ND ND	9.1
	Mar-01	97.83	8.04	89.79	370	0.97 ND	9.1	1.3	2,3	28
	May-01	97.83	10.60 13.02	87.23 84.81	610	3.7	3	6.2	18.9	10
	Aug-01 Nov-01	97.83 97.83	13.02	85.00	1,700	24	220	41	205	69

Table 1 Historical Groundwater Elevation Data & Analytical Results 3609 International Boulevard, Oakland, California

		Top Of Casing	D. the	Groundwater				Ethyl.	Total	MtBE
		Elevation <sup>1</sup>	Depth to Groundwater	Elevation	FPH q	Beuzene	Tolgene	Benzene	Xylenes	EPA 8260B
Monitoring Well	<b>D</b> -4-	(feet)	(feet)	(feet)	(uqd.)	(041)	(11911)	(nq L)	(nq(t))	(µg/t.)
	Date		8.91	88.92	380	< 0.5	2.5	2	3.8	78
MW-7 cont.	Feb-02	97.83	8.91 10.13	87.70	560	15	2.5	9.2	44.0	37
	May-02	97.83		27.79	270	5.3	1.3 C	2.3	8.1	46
	Jul-02	39.94	12.15 13.74	26.20	350	< 0.5	2.1 C	< 0.5	3.1 C	43
	Oct-02	39.94	8.45	31.49	220 Y	< 0.5	< 0.5	0.78	0.55	19
	Jan-03	39.94	7.69	32.25	280	< 0.5	< 0.5	< 0.5	< 0.5	11
	May-03	39.94	11.72	28.22	230	< 0.5	1.3 C	< 0.5	0.63	5.9
	Jul-03	39.94 39.94	13.10	26.84	460	< 0.5	<0.5	< 0.5	< 0.5	5.0
	Oct-03	<u>39.94</u> 39.94	9.23	30.71	380	< 0.5	1.4 C	< 0.5	< 0.5	<5.0
	Jan-04	39.94	10.40	29.54	480	< 0.5	2.5 C	< 0.5	0.90	0.62
	Apr-04	39.94	12.92	27.02	410	< 0.5	.81 C	< 0.5	< 0.5	1.70
	Aug-04	39.94	10.28	29.66	96	<0.5	< 0.5	< 0.5	<1.0	< 0.5
	Dec-04 Mar-05	39.94	7.44	32.50	209	< 0.5	< 0.5	< 0.5	<1.0	1.74
	Mar-05 May-05	39.94	8.53	31.41	262	4.85	2.19	2.36	4.24	0.73
	Jul-05	39.94	10.61	29.33	753	20.6	11.9	16.8	33.23	2.36
	Oct-05	39.94	12.80	27.14	1,690	5.3	2.71	12.6	54	1.93
	Jan-06	39.94	6.39	33.55	250 Y	0.80	<0.5	0.61	<0.5	1.1
	<u>5411-00</u>	00.04				<b>_</b>				•
MW-8	Oct-95	97.25	12.86	84.39	NA	NA	NA	NA	NA	NA
10100-0	Jan-96	97.25	9.79	87.46	94,000	310	250	180	480	NA
	Apr-96	97.25	7.98	89.27	58,000	250	170	140	330	NA
	Dec-96	97.25	11.13	86.12	27,000	88	43	44	80	ND
	Apr-97	97.25	12.95	84.30	24,000	86	55	50	100	ND
	Dec-97	97.25	8.95	88.30	28,000	6,000	1,600	2,100	4,700	NA
	Jun-98	97.25	NM	NM	54,000	4,600	2,800	3,500	7,300	NA
	Sep-98	97.25	13.02	84.23	NA	NA	NA	NA	NA	NA
	Dec-98	97.25	10.75	86.50	61,000	6,300	1,700	2,200	4,400	1,300
	Mar-99	97.25	7.58	89.67	22,000	1,800	470	2,000	2,000	820
	Jun-99	97.25	10.80	86.45	39,500	3,610	1,635	2,175	5,913	988
	Aug-99	97.25	12.75	84.50	58,000	5,379	2,438	3,001	6,960	639
	Nov-99	97.25	13.65	83.60	10,500	92	<5	<5	3,414	769
	Feb-00	97.25	10.85	86.40	44,200	1,080	617	<5	4,160	240
	May-00	97.25	11.15	86.10	25,940	940	130	1,600	3,960	75
	Aug-00	97.25	12.87	84.38	22,000	632	5.38	<5	2,686	37.3
	Nov-00	97.25	12.55	84.70	3,000	278	350	209	980	21
	Mar-01	97.25	8.75	88.50	2,360	81	16	71	270	221
	May-01	97.25	11.15	86.10	3,100	110	28	140	194	410
	Aug-01	97.25	12.97	84.28	5,620	153	46	373	345	174
	Nov-01	97.25	13.19	84.06	13,000	600	270	750	1,200	400

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

Monitoring Well	Date	Top Of Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	terta Ggar	Benzene (µg L)	Toluene (igl)	Ethyl: Ben <b>z</b> ene (ug.t.)	Total Xylenes (µq11)	MtBE EPA 8260B (µg/t.)
MW-8 cont.	Feb-02	97.25	9.88	87.37	240,000	1,400	<25	4,200	6,560	<100
	May-02	97.25	10.32	86.93	9,000	360	56	560	622	2,100
	Oct-02	39.38	13.80	25.58	18,000	950	75	1,400	1,269	700
	Jan-03	39.38	9.48	29.90	8,100	300	29	370	302	1,100
	May-03	39.38	9.48	29.90	18,000	380	33 C	1,000	516	540
	Jul-03	39.38	11.92	27.46	12,000	460	54 C	910	435	890
	Oct-03	39.38	13.09	26.29	16,000	830	87	2,000	675	280
	Jan-04	39.38	10.32	29.06	18,000	330	37 C	860	239	500
	Apr-04	39.38	11.23	28.15	12,000	240	26 C	650	128.8 C	<4
	Aug-04	39.38	13.02	26.36	6,000	310	27	660	56.8 C	<4
	Dec-04	39.38	10.79	28.59	6,650	171	15	360	35	166
	Mar-05	39.38	7.62	31.76	11,400	125	21	418	55.3	865
	May-05	39.38	9.15	30.23	10,100	122	13.2	440	34.73	406
	Jul-05	39.38	10.81	28.57	11,600	213	27.8	854	71.51	184
	Oct-05	39.38	12.81	26.57	6,590	256	27.7	655	48.50	375
	Jan-06	39.38	7.40	31.98	4,800	53	5.2	130	21	210
	· · · ·									
MW-10	Dec-96	94.54	10.44	84.10	NA	NA	NA	NA	NA	NA
	Apr-97	94.54	10.07	84.47	1,000	21	9	3	3	ND
	Dec-97	94.54	8.78	85.76	10,000	5,300	76	1,100	780	NA
	Sep-98	94.54	11.93	82.61	9,900	5,400	66	970	620	2,600
	Dec-98	94.54	10.19	84.35	8,700	3,800	51	790	420	1,800
	Mar-99	94.54	7.30	87.24	4,100	15	28	420	250	2,800
	Jun-99	94.54	9.95	84.59	4,200	1,168	34	264	154	1,195
	Aug-99	94.54	11.60	82.94	3,250	2,135	97	600	248	1,800
	Nov-99	94.54	12.50	82.04	2,950	1,134	20	<5	70	652
1	Feb-00	94.54	9.25	85.29	<50	<5	<5	<5	<5	448
	May-00	94.54	9.45	85.09	4,400	1,500	25	390	107.1	580
	Aug-00	94.54	11.52	83.02	6,800	1,055	26	54	53.8	1,283
]	Nov-00	94.54	11.35	83.19	ND	ND	ND	ND	ND	145

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

									Total	1.05
		Top Of Casing	Doption to	Groundwater			<b>.</b> .	Ethyl- Benzeni	Xylenes	MtBE EPA 82608
Monitoring		Elevation <sup>1</sup>	Groundwater	Elevation	тына	Benzene	Toluene			
Well	Date	(feet)	(feet)	(feet)	(µg4.)	(aq L)	(nd.) E	(ng L)	(n <b>q</b> 1)	(µg/L)
MW-10 cont.	Mar-01	94.54	8.07	86.47	4,935	969	18	41	72	630
	May-01	94.54	9.80	84.74	2,900	630	11	200	31	270
	Aug-01	94.54	11.64	82.90	242	35	1	11	2	64
	Nov-01	94.54	12.06	82.48	3,500	900	260	310	258	410
	Feb-02	94.54	8.28	86.26	4,700	1,100	20	370	63.7	500
	May-02	94.54	9.49	85.05	3,400	660	13	260	48.0	270
	Jul-02	36.71	10.93	25.78	160	26	0.55	8.1	1.0	72
	Oct-02	36.71	12.54	24.17	550	130	3.00	31.0	2.7	70
	Jan-03	36.71	8.23	28.48	17,000	870	11	290	27	270
	May-03	36.71	8.30	28.41	2,500	650	10	190	15.81 C	180
	Jul-03	36.71	10.76	25.95	750	160	4	58	6.66 C	79
	Oct-03	36.71	11.91	24.80	2,000	410	11	170	9.14 C	110
	Jan-04	36.71	8.91	27.80	4,000	600	15	280	15.3 C	110
	Apr-04	36.71	9.62	27.09	5,100	580	<1	330	26.4	160
	Aug-04	36.71	11.50	25.21	3,400	550	13	240	17.0	100
	Dec-04	36.71	9.29	27.42	2,524	556	10	184	16.0	144
	Mar-05	36.71	7.48	29.23	4,340	354	6.07	166	17.1	258
	May-05	36.71	8.24	28.47	4,750	415	6.87	254	10.4	126
	Jul-05	36.71	9.78	26.93	6,050	594	9.53	297	10.7	190
	Oct-05	36.71	11.32	25.39	6,230	811	11.3	355 210	5.6 16	167 88
	Jan-06	36.71	6.81	29.90	2,000	350	6.0	210	10	88
MW-11	Dec-96	95.94	11.99	83.95	NA	NA	NA	NA NA	NA NA	NA NA
	Apr-97	95.94	11.47	84.47	NA	NA	NA			4
	Dec-97	95.94	10.40	85.54	710	66	97	59	190	NA
	Jun-98	95.94	NM	NM	1,100	45	24	71	100	NA
	Sep-98	95.94	13.24	82.70	170	7	1	4	9	22
	Dec-98	95.94	11.58	84.36	650	27	4	25	33	>0.5
	Mar-99	95.94	8.81	87.13	710	30	6	53 290	84	8
	Jun-99	95.94	11.50	84.44	4,600	1,240	35		159	1,291
	Aug-99	95.94	12.75	83.19	170	4 <5	4	ND <5	6 <5	ND <5
	Nov-99	95.94	13.85	82.09	<50			<5	35	<5
	Feb-00	95.94	13.60	82.34	700	20 27	15 13	9.5	35 29.0	<5 <5
	May-00	95.94	13.80	82.14	477		13 5.94	9.5 <5	29.0	<5 <5
	Aug-00	95.94	14.87	81.07	590	10.5 ND		ND	7.75 ND	ND
	Nov-00	95.94	12.55	83.39	60		<u>ND</u> 2.1	10	14	ND ND
	Mar-01	95.94	9.61	86.33	273	8.6 12	2.1 8.3	3.3	9.8	ND 12
	May-01	95.94	11.15	84.79	280					
	Aug-01	95.94	13.04	82.90	NA	NA 7.0	NA	NA 5.1	NA 28.9	NA ND
	Nov-01	95.94	13.48	82.46	300	7.9	26	5.1	20.9	

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

		Top Of Casing	Depth to	Groundwater				Ethyl	Total	MIBE
Monitoring		Elevation <sup>1</sup>	Groundwater	Elevation	100 1	Benzene	Tohiene	Benzene	Xylenes	EPA 8260B
Well	Date	(feet)	(feet)	(feet)	(aq t)	(µg L)	(µ <b>q</b> 'L)	(ugit)	(ugʻt.)	(μg/L)
MW-11 cont.	May-02	95.94	10.99	84.95	280	16	3	7.6	7.6	<2
	Jul-02	NS	13.24	NC	120	5.6	< 0.5	0.61	0.53	<2.0
	Oct-02	NS	NM	NC	NA	NA	NA	NA	NA	NA
	Jan-03	NS	9.76	NC	700	32	5.7	25	14.10	<2.0
	May-03	NS	9.66	NC	280	17	1.5 C	8	4.10	<2.0
	Jul-03	NS	12.30	NC	340	19 C	3.2	0.58	0.89	<2.0
	Oct-03	NS	13.38	NC	210	5.0 C	<0.5	< 0.5	< 0.5	< 0.5
-	Jan-04	NS	NM	NC	NA	NA	NA	NA	NA	NA
	Apr-04	NS	NM	NC	NA	NA	NA	NA	NA	NA
	Aug-04	NS	NM	NC	NA	NA	NA	NA	NA	NA
	Dec-04	NS	10.54	NC	486	24	3.0	18	4.00	<0.5
	Mar-05	NS	NM	NC	NA	NA	NA	NA	NA	NA
	May-05	NS	NM	NC	NA	NA	NA	NA	NA	NA
	Jul-05	NS	NM	NC	NA	NA	NA	NA	NA	NA
	Oct-05	NS	NM	NC	NA	NA	NA	NA	NA	NA
	Jan-06	NS	NM	NC	NA	NA	NA	NA	NA	NA
					14 J.					
MW-12	Nov-99	94.84	13.20	81.64	80	<5	<5	<5	<5	229
	Feb-00	94.84	10.20	84.64	4,000	351	37	<5	24	513
	May-00	94.84	10.48	84.36	3,930	230	10	34	12	200
	Aug-00	94.84	12.07	82.77	1,730	15.4	12.4	<5	<5	185
	Nov-00	94.84	12.05	82.79	1,010	9.3	19.0	ND	7.40	215
	Mar-01	94.84	9.04	85.80	1,517	13	5.6	5.5	11	214
	May-01	94.84	10.52	84.32	31,000	1,200	ND	95	165	1,900
	Aug-01	94.84	12.24	82.60	2,090	71	1.8	3	4	142
	Nov-01	94.84	12.76	82.08	3,000	81	69	13	73	120
	Feb-02	94.84	8.78	86.06	2,500	77	< 0.5	5.7	7.4	95
	May-02	94.84	10.26	84.58	2,700	74	<0.5	20	5.1	94
	Jul-02	36.84	10.93	25.91	2,200	57	< 0.5	11	2.6	100
	Oct-02	36.84	13.13	23.71	2,600	71	< 0.5	<0.5	10.3	84
	Jan-03	36.84	9.23	27.61	2,300	65	< 0.5	1	4.00	86
	May-03	36.84	9.24	27.60	2,200	58	< 0.5	4.2 C	4.1 C	96
	Jul-03	36.84	11.44	25.40	2,200	32 C	16 C	< 0.5	9.20	66
	Oct-03	36.84	12.50	24.34	2200 H	31 C	<0.5	<0.5	3.5 C	49
	Jan-04	36.84	9.56	27.28	1,700	24 C	14 C	3	5.00	72
	Apr-04	36.84	10.21	26.63	2,000	11 C	< 0.5	<0.5	5 C	36
	Aug-04	36.84	12.00	24.84	1,900	8.9 C	<0.5	<0.5	1.1 C	26
	Dec-04	36.84	10.03	26.81	1,018	2	<0.5	<0.5	<1.0	26
	Mar-05	36.84	8.49	28.35	1,890	4.25	<0.5	6.38	<1.0	30.6
	May-05	36.84	9.07	27.77	1,080	< 0.5	<0.5	<0.5	<1.0	20.6
	Jul-05	36.84	10.43	26.41	1,580	2.71	<2.0	3.33	<1.0	29.3
	Oct-05	36.84	12.08	24.76	1,560	0.74	<2.0	<0.50	<1.0	28.1
	Jan-06	36.84	7.89	28.95	480 Y	13	<0.5	<0.5	<0.5	30

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

Monitoring Well	Date	Top Of Casing Elevation <sup>1</sup> (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	1РН д (µg/L)	Benzene (µgʻt)	(hdj)	Ethyl- Benzene (lig(t)	Total Xylenes (µg:t.)	МtВЕ ЕРА 8260В (µg/L)
									<b>N</b> 14	
FDC	Feb-00	97.10	15.40	81.70	NA	NA	NA	NA	NA	NA
	May-00	97.10	12.41	84.69	NA	NA	NA NA	NA NA	NA NA	NA NA
	Aug-00	97.10	15.70	81.40	NA NA	NA NA	NA NA	NA	NA	NA
	Nov-00	97.10	16.85	80.25 87.71	NA NA	NA	NA	NA	NA	NA
	Mar-01	97.10	9.39 15.85	81.25	NA	NA	NA	NA	NA	NA
	May-01	97.10 97.10	13.30	83.80	NA	NA	NA	NA	NA	NA
	Aug-01	97.10 97.10	17.82	79.28	NA	NA	NA	NA	NA	NA
	Nov-01 Feb-02	97.10	16.74	80.36	NA	NA	NA	NA	NA	NA
	May-02	97.10	10.36	86.74	NA	NA	NA	NA	NA	NA
	Jul-02	39.35	11.93	27.42	NA	NA	NA	NA	NA	NA
	Oct-02	39.35	13.74	25.61	NA	NA	NA	NA	NA	NA
	Jan-03	39.35	15.18	24.17	NA	NA	NA	NA	NA	NA
	May-03	39.35	16.20	23.15	NA	NA	NA	NA	NA	NA
	Jul-03	39.35	16.45	22.90	NA	NA	NA	NA	NA	NA
	Oct-03	39.35	16.53	22.82	NA	NA	NA	NA	NA	NA
	Jan-04	39.35	13.74	25.61	NA	NA	NA	NA	NA	NA
	Apr-04	39.35	16.30	23.05	NA	NA	NA	NA	NA	NA
	Aug-04	39.35	16.05	23.30	NA	NA	NA	NA	NA	NA
	Dec-04	39.35	14.56	24.79	NA	NA	NA	NA	NA	NA
	Mar-05	39.35	13.55	25.80	NA	NA	NA	NA	NA	NA
	May-05	39.35	14.88	24.47	NA	NA	NA	NA	NA	NA
	Jul-05	39.35	14.32	25.03	NA	NA	NA	NA	NA	NA
	Oct-05	39.35	14.99	24.36	NA	NA	NA	NA	NA	NA
	Jan-06	39.35	11.82	27.53	NA	NA	NA	NA	NA	NA
			·					1 NA		
FDE	May-00	97.90	13.22	84.68	NA	NA	NA	NA	NA	NA
	Aug-00	97.90	NM	NM	NA	NA	NA	NA NA	NA NA	NA NA
	Nov-00	97.90	12.75	85.15	NA	NA	NA	NA	NA	NA
	Mar-01	97.90	9.14	88.76	NA	NA NA	NA NA	NA	NA	NA
	May-01	97.90	13.05	84.85 84.21	NA NA	NA	NA	NA	NA	NA
	Aug-01	97.90	13.69	83.98	NA	NA	NA	NA	NA	NA
	Nov-01	97.90 97.90	13.92 13.18	83.98	NA NA	NA	NA	NA	NA	NA
	Feb-02	-	13.18	86.72	NA	NA	NA	NA	NA	NA
	May-02	97.90 40.06	12.81	27.25	NA	NA	NA	NA	NA	NA
	Jul-02 Oct-02	40.06	14.53	25.53	NA	NA	NA	NA	NA	NA
	Jan-03	40.06	13.13	26.93	NA	NA	NA	NA	NA	NA
	May-03	40.06	11.79	28.27	NA	NA	NA	NA	NA	NA
	Jul-03	40.06	13.10	26.96	NA	NA	NA	NA	NA	NA
	Oct-03	40.06	13.85	26.21	NA	NA	NA	NA	NA	NA

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

		Top Of Casing	Depth to	Groundwater				Ethyl	Total	MtBE
Monitoring		Elevation <sup>1</sup>	Groundwater	Elevation	SPH-11	Benzene	Toluene	Benzene	Xylenes	EPA 8260B
Well	Date	(feet)	(feet)	(feet)	4693.5	(µg·L)	(µg L)	(jig L)	(ng t)	(µg/L)
FDE cont.	Jan-04	40.06	13.27	26.79	NA	NA	NA	NA	NA	NA
	Apr-04	40.06	13.20	26.86	NA	NA	NA	NA	NA	NA
	Aug-04	40.06	14.97	25.09	NA	NA	NA	NA	NA	NA
	Dec-04	40.06	14.25	25.81	NA	NA	NA	NA	NA	NA
	Mar-05	40.06	12.50	27.56	NA	NA	NA	NA	NA	NA
	May-05	40.06	13.93	26.13	NA	NA	NA	NA	NA	NA
	Jul-05	40.06	13.98	26.08	NA	NA	NA	NA	NA	NA
	Oct-05	40.06	13.60	26.46	NA	NA	NA	NA	NA	NA
	Jan-06	40.06	9.83	30.23	NA	NA	NA	NA	NA	NA
FDW	May-00	96.90	12.20	84.70	NA	NA	NA	NA	NA	NA
	Aug-00	96.90	NM	NM	NA	NA	NA	NA	NA	NA
	Nov-00	96.90	15.50	81.40	NA	NA	NA	NA	NA	NA .
	Mar-01	96.90	10.12	86.78	NA	NA	NA	NA	NA	NA
	May-01	96.90	13.50	83.40	NA	NA	NA	NA	NA	NA
	Aug-01	96.90	13.08	83.82	NA	NA	NA	NA	NA	NA
	Nov-01	96.90	14.31	82.59	NA	NA	NA	NA	NA	NA
	Feb-02	96.90	12.78	84.12	NA	NA	NA	NA	NA	NA
	May-02	96.90	10.14	86.76	NA	NA	NA	NA	NA	NA
	Jul-02	39.16	11.79	27.37	NA	NA	NA	NA	NA	NA
	Oct-02	39.16	13.50	25.66	NA	NA	NA	NA	NA	NA
	Jan-03	39.16	12.13	27.03	NA	NA	NA	NA	NA	NA NA
	May-03	39.16 39.16	10.84 12.12	28.32 27.04	NA NA	NA NA	NA NA	NA NA	NA NA	NA
	Jul-03 Oct-03	39.16	13.48	25.68	NA	NA	NA	NA	NA	NA
	Jan-04	39.16	13.58	25.58	NA	NA	NA	NA	NA	NA
	Apr-04	39.16	13.58	25.26	NA	NA	NA	NA	NA	NA
	Apr-04 Aug-04	39.16	15.69	23.47	NA	NA	NA	NA	NA	NA
	Dec-04	39.16	14.85	24.31	NA	NA	NA	NA	NA	NA
	Mar-05	39.16	13.10	26.06	NA	NA	NA	NA	NA	NA
	May-05	39.16	14.60	24.56	NA	NA	NA	NA	NA	NA
	Jul-05	39.16	15.10	24.06	NA	NA	NA	NA	NA	NA
	Oct-05	39.16	13.34	25.82	NA	NA	NA	NA	NA	NA
	Jan-06	39.16	12.61	26.55	NA	NA	NA	NA	NA	NA

 Table 1

 Historical Groundwater Elevation Data & Analytical Results

 3609 International Boulevard, Oakland, California

1

# Table 1 Historical Groundwater Elevation Data & Analytical Results 3609 International Boulevard, Oakland, California

Monitoring Elevation Groundwater Elevation				Groundwater		,				Total Xylencs (ng L)	MtBE EPA 82600 (µg/L)
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Notes:

1

- Top of casing elevations were re-surveyed to comply with the EDF requirements for electronic reporting of data to the State Water Resources Control Board Database on August 9, 2002.
- MtBE was analyzed using the EPA Method 8021B and confirmed using 8260B.
- C Presence confirmed, but confirmation concentration differed by more than a factor of two.
- H: Heavier hydrocarbons may have contributed to the quantitation.
- NA: Not Analyzed
- NA: Not Applicable, Well/Drain did not exist at time of sampling
- NC: Not calculated. No top of casing elevation was available for MW-11.
- ND, < : Not Detected above laboratory reporting limits.
- NM: Not Measured
- NS: Not Surveyed.
- Y: Sample exhibits fuel pattern which does not resemble standard.
- FDC: French drain center riser.
- FDE: French drain east riser.
- FDW: French drain west riser.

Well MW-4R replaced damaged well MW-4 on April 11, 2005. The first time well MW-4R was monitored was in the Second Quarter 2005 NS: Not surveyed. Well MW-11 was not surveyed due to obstructions surrounding well.

 Table 2

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

 3609 International Boulevard, Oakland, California

		Meter		For Effluent <sup>1</sup>	and GAC-1			
		Reading	(concentratio					
Month	Date	(gallons)	MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
la muamu	4/4/0000	2 4 2 2 6 4 2	0.5	2006	0.5	0.5	0.5	0.5
January	1/4/2006	3,122,610	< 0.5	<50	<0.5	< 0.5	<0.5	<0.5
			<0.5	<50 2005	<0.5	<0.5	<0.5	<0.5
Deservation	40/0/0005	0.004 750	0.5		0.5	0.0	0.5	1.0
December	12/9/2005	3,081,750	< 0.5	<50	< 0.5	<2.0	<0.5	<1.0
			<0.5	<50	<0.5	<2.0	<0.5	<1.0
November	11/14/2005	3,072,540	<0.5	<50	<0.5	<2.0	<0.5	<1.0
November	11/14/2003	3,072,340	<0.5	<50	<0.5	<2.0	<0.5	<1.0
			<0.0	~00	<b>NO.0</b>	~2.0	<0.0	<1.0
October	10/17/2005	3,065,260	<0.5	<50	<0.5	<2.0	<0.5	<1.0
		-,,	<0.5	<50	<0.5	<2.0	<0.5	<1.0
		•						
			Deal	and autotic	- 0000 lb			
September	9/29/2005	3,060,640	Repla				l with newer 20 blishing vessel	UU ID VESSEI,
				als	l replaceu a	s gailon po	lishing vesser	
	9/12/2005	3,055,676	<0.5	<50	<0.5	<2.0	<0.5	<1.0
	0,12,2000	0,000,010	<0.5	<50	< 0.5	<2.0	<0.5	<1.0
				100				
August	8/8/2005	3,042,586	<0.5	<200	<0.5	<2.0	<0.5	<1.0
5			0.51	<200	<0.5	<2.0	<0.5	<1.0
July	7/7/2005	3,026,010	<0.5	<200	<0.5	<2.0	<0.5	<1.0
			<0.5	<200	<0.5	<2.0	<0.5	<1.0
		-						
June	6/9/2005	3,000,386	<0.5	<200	<0.5	<2.0	<0.5	<1.0
			0.61	<200	<0.5	<2.0	<0.5	<1.0
	E /0 /0005	0.074.400	0.5		0.5		0.5	
Мау	5/9/2005	2,971,430	< 0.5	<200	< 0.5	< 0.5	< 0.5	<1.0
			<0.5	<200	<0.5	<0.5	<0.5	<1.0
	5/4/2005	2,964,270	Carbo	 on Change-r	  t of 2000	h vossol ar	l nd 55 gallon pol	ishina yassal
	5/4/2003	2,304,270	Carbo	•			id 00 galloff por iding of 2,189,2	•
				lotanzo				10
April	4/4/2005	2,904,500	<0.5	<200	<0.5	<0.5	<0.5	<1.0
	., ., _000	_,	<0.5	<200	< 0.5	< 0.5	<0.5	<1.0
		•						
March	3/21/2005	2,874,170	<0.5	<200	<0.5	<0.5	<0.5	<1.0
			<0.5	<200	<0.5	<0.5	<0.5	<1.0
February	2/14/2005	2,828,000		1	55 Gallon	Drum Chai	nged Out	
	0/7/0007	0.040.000						
	2/7/2005	2,819,000	<5.0	<50	<5.0	<5.0	<5.0	<5.0
			<5.0	<50	<5.0	<5.0	<5.0	<5.0
January	1/19/2005	2,775,000	Carbo	n Change-r	L out of 2000 l	h vessel ar	nd 55 gallon pol	ishina vessel
January	1/13/2003	2,113,000	Carbo					
	1/3/2005	2,730,480	3.6	<50	<0.5	<0.5	<0.5	<0.5
		, ,	3.8	<50	< 0.5	< 0.5	<0.5	<0.5

 Table 2

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

 3609 International Boulevard, Oakland, California

		Meter		For Effluent	and GAC-1			
N 4	Data	Reading	(concentration MtBE <sup>2</sup>		<b>D</b>	<b>T</b> .1		TITLY
Month	Date	(gallons)	MILBE	TPH-g 2004	Benzene	Toluene	Ethylbenzene	Total Xylenes
December	12/6/2004	2,667,620	<0.5	<50	<0.5	<0.5	<0.5	<1.0
December	12/0/2004	2,007,020	<0.5 <0.5	<50 <50	<0.5	<0.5	<0.5	<1.0
			<0.5	<00	<0.5	<0.5	<0.5	<1.0
November	11/8/2004	2,631,600	<0.5	<50	<0.5	<0.5	<0.5	<0.5
			<0.5	<50	<0.5	<0.5	<0.5	<0.5
October	10/13/2004	2,606,420	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
			<2.0	<50	<0.5	<0.5	<0.5	<0.5
Santambar	9/13/2004	2 504 200	120	1 50	-0 F	-0 F	-0 E	<0.5
September	9/13/2004	2,594,390	< 2.0 < 2.0	< 50 < 50	<0.5 <0.5	<0.5 <0.5	<0.5 <0.5	<0.5
			< 2.0		<b>NO.0</b>	<b>NO.0</b>	<0.0	<0.0
August	8/25/2004	2,586,010	1	1	55 Gallon	Drum Chai	nged Out	
5		,,-						
	8/9/2004	2,581,250	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
July	7/13/2004	2,568,830	< 2.0	< 50	<0.5	< 0.5	<0.5	<0.5
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
	7/21/2004	2,564,710	55 Gallon Drum Changed Out					
	1/21/2001	2,001,110	35 Galion Drum Ghanged Gut					
	4							
June	6/14/2004	2,549,470	< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
			< 2.0	< 50	<0.5	<0.5	<0.5	<0.5
	E/00/0004	0.500.000	Carla	Channe d				inhin n
May	5/26/2004	2,530,000	Carbo	on Change-o	out of 2000 i	o vessei ar	nd 55 gallon poli	isning vessei
	5/10/2004	2,488,760		Semi Ann	ual Treatme	nt System	Meeting With El	bmud
	0,10,2001	2,100,100				in Oyotoini		billiad
	5/17/2004	2,518,910	Re	eplaced 55-g	gallon polish	ing vessel	and restarted th	ne system
								-
	5/5/2004	2,500,650		Carbon Cha	anged Out a	nd 55 Gallo	on Drum Chang	ed Out
	<b>E</b> /0/2004	0.407.050			0.5	0.5		
	5/3/2004	2,497,350	< 2.0	< 50	<0.5	< 0.5	<0.5	< 0.5
			< 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
1		,,	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
March	3/17/2004	2,376,200	Carbo	on Change-o	out of 2000 I	b vessel ar	nd 55 gallon poli	ishing vessel
E . h .:	0/04/2020	0.070.770				= 0		
February	2/24/2004	2,276,770	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
	+	1	<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
eaaury		_,:::::::::::::::::::::::::::::::::::::	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
							· -	
	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

 Table 2

 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 <sup>1</sup>	and GAC-1						
		Reading	(concentration	ons in ug/L)							
Month	Date	(gallons)	MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes			
		-	-	2003	r						
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			
November	11/17/2003	2,087,670	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
			<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
	11/3/2003	2,079,460	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
	11/0/2000	2,010,100	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
October	10/13/2003	2,073,060	5.3	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
OCIODEI	10/13/2003	2,073,000	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
	10/1/2003	2,072,610	Carbo	Carbon Change-out of 2000 lb vessel and 55 gallon polishing vessel							
September	9/15/2003	2,056,910	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
September	9/15/2003	2,050,910	< 5.0	< 50 < 50	< 5.0	< 5.0	< 5.0	< 5.0 < 5.0			
			0		< 0.0	< 0.0	< 0.0	< 0.0			
	9/2/2003	2,040,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
		-	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
August	8/19/2003	2,021,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
Augusi	0/19/2003	2,021,040	<5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
			<b>X0.0</b>	< 00	< 0.0		< 0.0	0.0			
July	7/21/2003	1,995,240	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
-			40	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
	7/0/0000	1 000 000	5.0	50	5.0	5.0	5.0				
	7/9/2003	1,990,260	< 5.0 36	< 50 < 50	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0	< 5.0 < 5.0			
			00	< 00	< 0.0	< 0.0	< 0.0	< 0.0			
June	6/18/2003	1,978,560	Carbo	on Change-o	out of 2000 I	b vessel ar	nd 55 gallon poli	shing vessel			
	6/10/2003	1,972,780	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
	0/10/2000	1,072,700	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
May	5/21/2003	1,951,830	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
		-	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
	5/1/2003	1,918,270	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
		,, -	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
April	4/11/2003	1,882,440	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0			

 Table 2

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

 3609 International Boulevard, Oakland, California

		Meter		For Effluent <sup>1</sup>	and GAC-1			
		Reading	(concentrati					
Month	Date	(gallons)	MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
<u></u> .								
March	3/19/2003	1,846,490	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
February	2/25/2003	1,804,960	repla	ced 55-gallo	n polishing	vessel with	new 55 gallon	carbon drum
	2/19/2003	1,791,720	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
January	1/27/2003	1,733,500	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
-			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
	1/2/2003	1,675,600	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
		-	1	2002				
December	12/10/2002	1,672,870	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
November	11/22/2002	1,668,650	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
November	11/22/2002	1,000,000	< 5.0	< 50	< 5.0	< 5.0	< 5.0	< 5.0
			< 0.0	< 50	< 5.0	< 0.0	< 0.0	< 0.0
	11/13/2002	1,664,780	replace	ed gasket on	top of 2000	) Ib GAC ve	essel, slight leal	was detected
	11/7/2002	1,663,880	Carb	on Change-c	out of 2000 I	b vessel ar	nd 55 gallon poli	ishing vessel
October	10/16/02 <sup>3</sup>	1,661,590	< 310	2,000 Y Z	< 310	< 310	< 310	< 310
			< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
	1		T				T T	
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
, lagust	0/20/2002	1,041,000	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5
			. 0.0		. 0.0	. 0.0	\$ 0.0	- 0.0
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 2

 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 <sup>1</sup>	and GAC-1					
		Reading	(concentratio							
Month	Date	(gallons)	MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes		
	0/04/0000	4 0 4 0 0 5 0		50	0.5	0.5				
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		
	0,00,2002	.,,	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5		
	5/20/2002	1,548,000	remo	oved newly i			stalled another	compressor		
	5/8/2002	1,538,850				l new comp				
	5/1/2002	1,529,650		ir	nstalled new	55 gallon (	GAC Vessel			
April	4/24/2002	1,528,740	< 0.5	< 50	< 0.5	< 0.5	< 0.5	< 0.5		
Арпі	4/24/2002	1,520,740	< 0.5	< 50 < 50	< 0.5	< 0.5	< 0.5	< 0.5 < 0.5		
	4/1/2002	1,478,500	repaired valve plate assembly on compressor							
	1									
March	3/25/2002	1,478,420		performed carbon change-out on treatment system						
	3/18/2002	NR	replaced piston on compressor							
	3/14/2002	1,478,330	compressor not building up pressure							
<b>F</b>	0/07/0000	4 440 000	< 0.5		< 0.5	< 0.5	< 0.5	< 0.5		
February	2/27/2002	1,449,830	< 0.5	< 50 < 50	< 0.5	< 0.5 < 0.5	< 0.5	< 0.5 < 0.5		
				00	< 0.0	< 0.0	0.0	0.0		
January	1/22/2002	1,381,370	< 2.0	< 50	< 0.5	< 0.5	< 0.5	< 0.5		
			< 2.0	< 50	< 0.5	< 0.5	< 0.5	< 0.5		
				2001						
December	12/12/2001	1,311,340	ND	ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND	ND		
November	11/2/2001	1,272,660	ND	ND	ND	ND	ND	ND		
	11/2/2001	1,272,000	0.6	ND	ND	ND	ND	ND		
			•				•			
September	9/28/2001	NA	ND	ND	ND	ND	ND	ND		
			ND	ND	ND	ND	ND	ND		
August	8/22/2001	1,243,100	ND	ND	ND	ND	ND	ND		
August	0/22/2001	1,243,100	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND		
								UN		
July	7/26/2001	1,227,270	ND	ND	ND	ND	ND	ND		
,			ND	ND	ND	ND	ND	ND		
	7/11/2001	1,226,730	NA	NA	NA	NA	NA	NA		
			NA	NA	NA	NA	NA	NA		

 Table 2

 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 <sup>1</sup>	and GAC-1			
		Reading	(concentratio	ons in ug/L)				
Month	Date	(gallons)	MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
June	6/29/2001	1,224,600	NA	NA	NA	NA	NA	NA
			ND	ND	ND	ND	ND	ND
	6/26/2001	NR			installed	l new comp	ressor	
	6/16/2001	1,216,580	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
							aired compresso	
	6/7/2001	1,216,580	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
May	5/30/2001	1,205,198	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	5/23/2001	1,194,390	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	5/17/2001	1,182,360	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	5/10/2001	1,166,850	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
	5/5/2001	1,151,600	NA	NA	NA	NA	NA	NA
			NA	NA	NA	NA	NA	NA
A	4/00/0004	4 405 000			NIA	N L A		
April	4/28/2001	1,135,690	NA	NA	NA	NA	NA	NA
	4/04/0004	4 4 4 9 5 7 9	NA	NA	NA	NA	NA	NA
	4/21/2001	1,113,570	NA	NA	NA	NA	NA	NA
	4/4.4/000.4	4 000 700	NA	NA	NA	NA	NA	NA
	4/11/2001	1,082,700	NA	ND	ND	ND	ND	ND
	4/0/0004	4 005 5 40	ND NA	ND	ND NA	ND NA	ND NA	ND
	4/6/2001	1,065,540		NA				NA
			NA	NA	NA	NA	NA	NA
Manah	2/20/2004	4 000 000		NLA	NLA	NLA	NIA	NIA
March	3/29/2001	1,036,330	NA	NA	NA NA	NA	NA	NA
			NA	NA		NA NA	NA	NA
	3/21/2001	1,036,070	NA	NA	NA	n was re-sta NA	NA	NA
	3/21/2001	1,030,070	NA	NA	NA	NA	NA	NA
			11/4	INA		ced on com		IN/A
	3/17/2001	1,035,100	NA	NA	NA	NA	NA	NA
	3/17/2001	1,035,100	NA	NA	NA	NA	NA	NA
	3/13/2001	1,032,500	ND	ND	ND	ND	ND	ND
	3/13/2001	1,032,300	NA	NA	NA	NA	NA	NA
	3/2/2001	996,520	NA	NA	NA	NA	NA	NA
	5/2/2001	330,320	NA	NA	NA	NA	NA	NA
	3/1/2002	NR					on change-out	11/3
	0/1/2002			oyot.			on onange out	
February	2/28/2002	NR	Carbon Ch				, washed algae started system	from holding tan
	2/10/2001	975,490		System	shut down f	or maintena	ance and cleani	ng.
January	1/29/2001	957,880	ND	ND	ND	ND	ND	ND
canadiy	1/20/2001		ND	ND	ND	ND	ND	ND

 Table 2

 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 <sup>1</sup>	and GAC-1			
		Reading	(concentrati	ons in ug/L)				
Month	Date	(gallons)	MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
				2000				
December	12/5/2000	883,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
November	11/24/2000	NR	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
	11/1/2000	842,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
Outobar	40/4/0000	000.000		ND	ND	ND		ND
October	10/1/2000	809,000	ND	ND	ND	ND	ND	ND
			ND	ND	ND	ND	ND	ND
August	8/27/2000	781,000	ND	ND	ND	ND	ND	ND
	8/24/2000	778,000					ading of 775,00	
		- /						-
July	7/26/2000	726,000	ND	ND	ND	ND	ND	ND
	7/19/2000	718,000	ND	ND	ND	ND	ND	ND
	7/13/2000	712,000	ND	ND	ND	ND	ND	ND
	7/7/2000	706,000	ND	ND	ND	ND	ND	ND
June	6/29/2000	700,000	ND	ND	ND	ND	ND	ND
	6/21/2000	682,220	ND	ND	ND	ND	ND	ND
	6/16/2000	669,720	ND	ND	ND	ND	ND	ND
	6/10/2000	651,200	ND	ND	ND	ND	ND	ND
May	5/31/2000	629,000	ND	ND	ND	ND	ND	ND
ividy	5/23/2000	603,700	ND	ND	ND	ND	ND	ND
	5/18/2000	570,000	ND	ND	ND	ND	ND	ND
	5/10/2000	530,400	ND	ND	ND	ND	ND	ND
	3/10/2000	330,400						ND
April	4/30/2000	488,300	ND	ND	ND	ND	ND	ND
	4/18/2000	485,300	ND	ND	ND	ND	ND	0.51
			C	ompressor s	topped, sys	tem shut de	own until April 2	9, 2000
	4/10/2000	440,200	ND	ND	ND	ND	ND	ND
	4/4/2000	390,100	ND	ND	ND	ND	ND	ND
	4/2/2000	NR	1	perfo	ormed a car	bon change	-out on GAC-1	

 Table 2

 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 <sup>1</sup>	and GAC-1			
		Reading	(concentratio	ons in ug/L)				
Month	Date	(gallons)	MtBE <sup>2</sup>	TPH-g	Benzene	Toluene	Ethylbenzene	Total Xylenes
March	3/31/2000	NR	repla	ced GAC-2	with a speci	ial GAC des	signed for remo	oval of MtBE
	3/24/2000	388,000	ND	ND	ND	ND	ND	ND
	3/17/2000	357,100	ND	ND	ND	ND	ND	ND
	3/10/2000	329,000	ND	ND	ND	ND	ND	ND
	3/3/2000	300,000	tra	ansfer overh	eated, repai	ired pump,	restarted syste	m 3/6/00
February	2/25/2000	274,000	ND	ND	ND	ND	ND	ND
	2/18/2000	233,000	ND	ND	ND	ND	ND	ND
	2/11/2000	190,000	ND	ND	ND	ND	ND	ND
	2/4/2000	160,800	ND	ND	ND	ND	ND	ND
January	1/28/2000	130,600	ND	ND	ND	ND	ND	ND
	1/21/2000	103,435	ND	ND	ND	ND	ND	ND
	1/17/2000	NR					000 lb GAC un	
			se	econd polish	ing GAC wa	s replaced	with 55 gallon	GAC unit
	1/14/2000	83,500	185	ND	ND	ND	ND	ND
				1999				
December	12/23/1999	51,680	1486	NA	ND	ND	ND	ND
			ND	NA	ND	ND	ND	ND
	12/16/1999	30,450	963	NA	ND	ND	ND	ND
			ND	NA	ND	ND	ND	ND
	12/9/1999		230	ND	ND	ND	ND	ND
		Pu	mping bega	n on Decem	ber 6, 19 <mark>9</mark> 9			

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

#### Table 3

#### Total Mass of Petroleum Hydrocarbons Removed by the Vapor Extraction System & Historical Operational Data 3609 International Boulevard, Oakland, California

		PID (p	opmv)	Flow Rate	Time Elapsed	Air Flow	Mass Removed <sup>1</sup>
Date	Time	Influent	Effluent	(ft^3/min)	(Hours)	(Liters)	(Pounds)
7/24/2000	5:00 PM	394	0	85	0.0	0	0.00
7/25/2000	5:15 PM	38	2	95	24.3	3,911,768	1.35
7/26/2000	5:05 PM	207	1	80	24.0	3,260,160	6.15
7/27/2000	9:00 AM	160	5	92	16.0	2,499,456	3.64
7/28/2000	4:30 PM	141	7	87	31.5	4,653,369	5.98
7/29/2000	1:30 PM	225	8	85	21.0	3,030,930	6.21
7/30/2000	9:00 AM	226	12	85	19.5	2,814,435	5.79
7/31/2000	3:00 PM	141	5	85	30.0	4,329,900	5.56
8/1/2000	5:00 PM	135	4	80	26.0	3,531,840	4.34
8/2/2000	4:00 PM	80	4	80	23.0	3,124,320	2.28
8/3/2000	5:00 PM	60	5	85	25.0	3,608,250	1.97
8/4/2000	3:00 PM	57	4	85	22.0	3,175,260	1.65
8/5/2000	2:00 PM	97	8	87	23.0	3,397,698	3.00
8/6/2000	12:00 PM	114	8	80	22.0	2,988,480	3.10
8/7/2000	12:00 PM	93	9	85	24.0	3,463,920	2.93
8/8/2000	4:30 PM	152	10	85	16.5	2,381,445	3.30
8/10/2000	10:00 AM	173	1	85	41.5	5,989,695	9.44
8/11/2000	7:00 AM	78	4	70	21.0	2,496,060	1.77
8/12/2000	9:00 AM	100	6	70	26.0	3,090,360	2.82
8/13/2000	5:00 PM	107	9	70	34.0	4,041,240	3.94
8/14/2000	12:30 PM	122	5	70	19.5	2,317,770	2.58
8/15/2000	6:00 PM	103	12	70	17.5	2,080,050	1.95
8/16/2000	12:30 PM	112	0	70	18.5	2,198,910	2.24
8/18/2000	9:00 AM	90	0	75	44.5	5,667,075	4.65
8/21/2000	12:00 PM	74	5	80	75.0	10,188,000	6.87
8/24/2000	12:00 PM	68	13	80	72.0	9,780,480	6.06
8/27/2000	12:30 PM	68.5	2	80	72.5	9,848,400	6.15
8/31/2000	1:30 PM	52	6	80	97.0	13,176,480	6.24
9/4/2000	12:30 PM	54	5	80	95.0	12,904,800	6.35
9/7/2000	12:00 PM	55	3	80	71.5	9,712,560	4.87
9/11/2000	4:30 PM <sup>2</sup>	141	0	80	100.5	13,651,920	17.54
9/14/2000	9:30 AM	56	5	80	65.0	8,829,600	4.50
9/18/2000	2:00 PM	46	9.5	80	101.5	13,787,760	5.78
9/18/2000	4:30 PM <sup>3</sup>	34	0	80	2.5	339,600	0.11
9/21/2000	4:30 PM	43	1	80	72.0	9,780,480	3.83
9/25/2000	5:30 PM	55	6	80	97.0	13,176,480	6.60
9/28/2000	9:00 AM	47.5	7.5	80	63.5	8,625,840	3.73

#### Table 3

#### Total Mass of Petroleum Hydrocarbons Removed by the Vapor Extraction System & Historical Operational Data 3609 International Boulevard, Oakland, California

		PID (ppmv)		Flow Rate	Time Elapsed	Air Flow	Mass Removed <sup>1</sup>
Date	Time	Influent	Effluent	(ft^3/min)	(Hours)	(Liters)	(Pounds)
10/1/2000	1:00 PM	38.5	6	80	76.0	10,323,840	3.62
10/5/2000	3:00 PM $^4$	28.5	3	80	98.0	13,312,320	3.46
10/5/2000	5:00 PM	36	0	80	2.0	271,680	0.09
10/8/2000	3:00 PM	28.5	3	80	70.0	9,508,800	2.47
10/14/2000	3:00 PM	24.5	2.5	80	144.0	19,560,960	4.37
10/17/2000	2:00 PM	36.5	3.5	80	71.0	9,644,640	3.21
10/20/2000	8:30 AM	18.5	3.5	80	66.5	9,033,360	1.52
10/25/2000	2:00 PM	38	3.7	80	125.5	17,047,920	5.90
10/29/2000	10:00 AM	35	4	80	93.0	12,633,120	4.03
11/2/2000	4:00 PM	30.5	4	80	102.0	13,855,680	3.85
11/7/2000	4:00 PM	30	6	80	120.0	16,300,800	4.46
11/19/2000	12:00 PM	92.7	5.5	80	284.0	38,578,560	32.57
11/24/2000	1:30 PM	25	6.5	80	121.5	16,504,560	3.76
11/29/2000	3:00 PM	14.5	3.5	80	121.5	16,504,560	2.18
12/4/2000	4:30 PM	10.7	1	80	121.5	16,504,560	1.61
12/13/2000	3:30 PM	24	3	80	263.0	35,725,920	7.81
12/28/2000	2:30 PM	10	6	85	359.0	51,814,470	4.72
-				2001			
1/4/2001 <sup>5</sup>	2:00 PM	8.7	3.7	85	167.5	24,175,275	1.92
8/8/2001	3:00 PM	217	0	85	0.5	72,165	0.14
9/6/2001	12:00 PM	85	0	85	693.0	100,020,690	77.45
9/13/2001	4:00 PM	186	8	85	172.0	24,824,760	42.07
9/18/2001	3:00 PM	184	9	85	119.0	17,175,270	28.79
9/21/2001 <sup>6</sup>					NC	NC	NC
10/12/01 <sup>7</sup>					NC	NC	NC
10/23/2001	5:00 PM	114	58	87	0.5	73,863	0.08
10/25/01 4	3:00 PM	133	0	85	46.0	6,639,180	8.04
10/29/2001 8	1:20 PM	569	0	85	94.5	13,639,185	70.70
11/7/2001	3:30 PM	177	0	87	218.0	32,204,268	51.93
11/16/2001	3:00 PM	117	0	87	215.5	31,834,953	33.93
11/21/01 <sup>9</sup>	12:00 PM	85	72	87	117.0	17,283,942	13.38
				2002			
2/15/02 <sup>10</sup>	4:30 PM	49	0	80	0.5	67,920	0.03
2/16/2002	3:45 PM	50	0	80	23.3	3,158,280	1.44
2/21/2002	4:00 PM	37	4	80	120.3	16,334,760	5.51
2/27/2002	10:30 AM	11	0	83	138.5	19,519,359	1.96
3/7/02 11	12:20 PM	10		80	194.0	26,352,960	2.40
6/12/2002 12	4:15 PM	53	2	75	NA	NA	NA
6/17/2002	11:00 AM	28	2	80	120.0	16,306,560	4.16
6/24/2002	11:20 AM	24	3.1	80	168.3	22,866,400	5.00

### Total Mass of Petroleum Hydrocarbons Removed by the Vapor Extraction System & Historical Operational Data 3609 International Boulevard, Oakland, California

		PID (p	opmv)	Flow Rate	Time Elapsed	Air Flow	Mass Removed <sup>1</sup>
Date	Time	Influent	Effluent	(ft^3/min)	(Hours)	(Liters)	(Pounds)
7/5/2002	1:25 PM	20	5	80	266.0	36,133,440	6.58
7/11/2002	3:30 PM	26	8.0	80	146.0	19,832,640	4.70
7/23/2002	10:10 AM	28	7.5	83	282.8	39,849,089	10.16
8/9/2002	12:20 PM	7.5	0	80	410.3	55,728,360	3.81
8/15/2002 11	3:00 PM	7.0	1	80	146.5	19,900,560	1.27
8/23/2002 13	3:20 PM	NC	NC	NC	NC	NC	NC
8/26/2002	11:15 AM	14.0	2.0	80	71.8	9,757,387	1.24
9/11/2002	10:10 AM	34.4	0	80	383.0	52,020,588	16.30
9/19/2002	10:55 AM	8.8	1.1	80	192.8	26,183,160	2.10
9/25/2002	10:30 AM	18.8	1.8	80	143.5	19,493,040	3.34
		-					
10/2/2002	8:10 AM	17.1	2.5	80	165.70	22,508,688	3.51
10/9/2002		PID ma	function	80	NC	NC	NC
10/16/2002	1:45 PM	17.0	4.0	80	341.50	46,389,360	7.18
10/24/2002	10:00 AM	16.5	6.4	80	188.25	25,571,880	3.84
11/1/2002	10:00 AM	21.1	0.0	85	192.00	27,711,360	5.33
11/6/2002	10:12 AM	PID ma	function	87	NC	NC	NC
11/7/2002	11:00 AM	17.5	0.0	85	24.75	3,572,168	0.57
11/13/2002	11:30 AM	15.0	0.0	85	144.50	20,855,685	2.85
11/22/2002	2:30 PM	6.6	0.0	80	219.00	29,748,960	1.79
11/22/2002		syste	em shut-do		y season and lov	v influent readi	ngs
				2003			
5/9/2003	10:30 AM	0.1	0.0	82	0.5	69,618	0.00
5/12/2003	10:30 AM	0.4	0.3	85	72.00	10,391,760	0.04
5/21/2003	11:00 AM	2.2	2.2	83	216.50	30,512,211	0.61
6/4/2003	10:30 AM	2.5	0.1	82	335.50	46,713,678	1.06
6/10/2003	10:30 AM	2.2	0.08	82	144.00	20,049,984	0.40
6/16/2003	12:15 PM	2.1	0.07	82	146.25	20,363,265	0.39
6/24/2003	4:55 PM	2.6	0.08	82	196.75	27,394,683	0.65
6/30/2003	11:30 AM	2.2	0.1	82	138.50	19,284,186	0.39
							r
7/16/2003	12:00 PM	2.2	0.22	82	384.50	53,536,242	1.07
7/21/2003	10:50 AM	2.1	0.21	82	119.00	16,569,084	0.32
7/28/2003	11:15 AM	2.2	0.22	82	168.25	23,426,457	0.47
8/11/2003	12:15 PM	2.1	0.21	82	337.00	46,922,532	0.90
8/19/2003	10:05 AM	2.1	0.22	82	190.00	26,454,840	0.51
8/25/2003	11:30 AM	2.2	0.23	81	169.50	23,312,691	0.47
9/2/2003	10:50 AM	2.1	0.21	80	192.00	26,081,280	0.50
9/8/2003	2:10 PM	9.1	3.19	83	147.30	20,759,578	1.72
9/11/2003	10:00 AM	_	0.0		carbon drums ch	0	0.10
9/22/2003	1:30 PM	7	0.2	88	334.25	49,944,972	3.19

### Total Mass of Petroleum Hydrocarbons Removed by the Vapor Extraction System & Historical Operational Data 3609 International Boulevard, Oakland, California

		PID (p	opmv)	Flow Rate	Time Elapsed	Air Flow	Mass Removed <sup>1</sup>
Date	Time	Influent	Effluent	(ft^3/min)	(Hours)	(Liters)	(Pounds)
10/1/2003	10:30 AM	6.5	0.2	85	213.00	30,742,290	1.82
10/6/2003	11:00 AM	7	0.3	85	120.50	17,391,765	1.11
10/13/2003	11:15 AM	5	0.2	85	168.25	24,283,523	1.11
10/29/2003	10:00 AM	2.4	0	85	382.75	55,242,308	1.21
11/3/2003	11:30 AM	3	0	85	121.50	17,536,095	0.48
11/10/2003	11:10 AM	3.5	0	85	167.67	24,199,330	0.77
11/17/2003	1:50 PM	4.1	0	85	170.70	24,637,131	0.92
11/24/2003	11:00 AM	3.8	0	85	165.20	23,843,316	0.83
11/24/2003		syste	em shut-do	wn due to rain	y season and lov	v influent readi	ngs
				2004	-		
4/5/2004	1:00 PM	5.6	0.11	85	0.5	72165	0.004
4/12/2004	10:30 AM	6.5	0.2	83	165.5	23,324,577	1.38
4/20/2004	12:00 PM	7.1	0.9	84	193.5	27,599,292	1.79
4/23/2004	11:00 AM	7.2	2.3	80	71	9,644,640	0.63
5/3/2004	12:00 PM	7.1	3.4	80	241	32,737,440	2.12
5/5/2004	11:00 PM			All 4 SVE	carbon drums ch	anged-out	•
5/17/2004	12:00 PM	2.7	0.8	82	336	46,783,296	1.15
5/26/2004	11:00 AM	3.8	0.5	82	215	29,935,740	1.04
6/1/2004	1:00 PM	3.6	0.9	82	122	16,986,792	0.56
6/7/2004	11:50 AM	3.2	0	82	142.9	19,896,824	0.58
6/14/2004	11:50 AM	10.9	0	86	168	24,532,704	2.44
6/21/2004	10:50: AM	13.5	0	83	167	23,535,978	2.89
6/28/2004	11:50 AM	10.9	0.5	85	169	24,391,770	2.42
7/2/2004	11:30 AM	8.7	0	85	95.8	13,826,814	1.10
7/13/2004	2:00 PM	9.1	0.22	85	266.5	38,463,945	3.19
7/21/2004	12:00 PM	8.9	0.5	85	190	27,422,700	2.22
7/26/2004	11:50 AM	8.5	0.4	85	119.5	17,247,435	1.34
8/2/2004	11:30 AM	4.9	0.1	85	167.8	24,218,574	1.08
8/9/2004	11:50 AM	5.6	0.2	85	168.3	24,290,739	1.24
8/16/2004	12:00 PM	6	0.4	85	168.1	24,261,873	1.33
8/24/2004	11:50 AM	6.2	1.2	85	191.9	27,696,927	1.56
8/30/2004	11:30 AM	6	0.4	85	143.66	20,734,448	1.13
9/7/2004	1:05 PM	5.5	0.8	85	193.5	27,927,855	1.40
9/13/2004	12:05 PM	5.3	0.9	85	143	20,639,190	1.00
9/20/2004	11:08 AM	7	2.9	85	167	24,103,110	1.54
9/27/2004	2:50 PM	6.5	2.1	85	171.75	24,788,678	1.47

### Total Mass of Petroleum Hydrocarbons Removed by the Vapor Extraction System & Historical Operational Data 3609 International Boulevard, Oakland, California

		PID (p	opmv)	Flow Rate	Time Elapsed	Air Flow	Mass Removed <sup>1</sup>					
Date	Time	Influent	Effluent	(ft^3/min)	(Hours)	(Liters)	(Pounds)					
10/4/2004	11:30 AM	6.9	3	85	164.55	23,749,502	1.49					
10/13/2004	10:30 AM	6.5	2.9	85	215	31,030,950	1.84					
10/18/2004	2:30 PM	6	1.5	85	124	17,896,920	0.98					
10/28/2004	2:00 PM	3.1	0.9	85	239.5	34,567,035	0.98					
	2.00 P IVI											
10/20/2004	10/28/2004         system shut-down due to rainy season and low influent readings           2005											
4/11/2005 system re-started, all four vapor phase carbon drums replaced with new carbon												
4/18/2005	10:50 AM	6.5	0.8	85	167.83	24,223,481	1.43					
4/25/2005	5:30 PM	6	0.7	85	174.33	25,161,626	1.38					
5/4/2005	11:20 AM	0.4	0.7	85	209.83	30,285,341	0.11					
5/9/2005	11:00 AM	1	0.4	85	119.67	17,271,538	0.16					
	10:15 AM	3		85			0.66					
5/16/2005			0		167.25	24,139,193						
5/23/2005	11:05 AM	0.4	0	90	168.83	25,801,110	0.09					
6/3/2005	3:30 PM	0.2	0	90	268.48	41,029,114	0.07					
6/9/2005	3:00 PM	0.2	0	90	143.50	21,929,670	0.04					
6/15/2005	2:15 PM	1	0	85	143.25	20,675,273	0.19					
6/20/2005	12:00 PM	0.6	0	88	117.75	17,594,676	0.10					
6/26/2005	12:00 PM	0.5	0	85	144.00	20,783,520	0.09					
7/7/2005	2:45 PM	0.2	0	90	266.75	40,764,735	0.07					
7/11/2005	3:00 PM	0.3	0	90	96.25	14,708,925	0.04					
7/18/2005	1:00 PM	1	0	85	166.00	23,958,780	0.22					
7/25/2005	12:00 PM	1.5	0	87	167.00	24,670,242	0.34					
8/1/2005	1:30 PM	1	0	85	169.50	24,463,935	0.22					
8/8/2005	11:50 AM	0.7	0	80	166.40	22,603,776	0.14					
8/15/2005	1:30 PM	0.9	0	83	169.60	23,902,406	0.20					
8/24/2005	12:00 PM	0.8	0	85	214.50	30,958,785	0.23					
8/29/2005	11:45 AM	0.7	0	85	119.75	17,283,518	0.11					
9/6/2005	12:15 PM	0.8	0	85	192.50	27,783,525	0.20					
9/12/2005	12:10 PM	1.2	0	85	144.00	20,783,520	0.23					
9/20/2005	11:30 AM	1.1	0 0	84	192.60	27,470,923	0.28					
5, 20, 2000							0.20					
10/6/2005	3:00 PM		all 4 vapo	r phase carbo	n drums replaced	with new carb	on drums					
10/14/2005	3:30 PM	33	5	83	192.5	27,129,795	8.16					
10/17/2005	12:00 PM	33	5	86	648.5	94,699,158	28.47					
11/1/2005	9:40 AM	33	7	86	333.75	48,736,845	14.65					
11/3/2005	3:30 PM	33	7	87	333.75	49,303,553	14.82					
11/9/2005	3:15 PM				n drums replaced							
11/14/2005	11:30 AM	0.3	0	89	260	39,291,720	0.11					
11/22/2005	2:40 PM	0.8	0	88	195	29,137,680	0.21					
	10:00 AM		0				0.21					
1/6/2006	10:00 AM	I		System shut	-down due to rair	iy conditions						
			Total Mas	s of Petroleu	m Hydrocarbon	s Removed =	814.20					
			Ave	erage Daily Re	emoval Rate (po	unds / day)=	0.42					
					u u	.,						

### **Total Mass of Petroleum Hydrocarbons Removed** by the Vapor Extraction System & Historical Operational Data 3609 International Boulevard, Oakland, California

		PID (	opmv)	Flow Rate	Time Elapsed	Air Flow	Mass Removed <sup>1</sup>			
Date	Time	Influent	Effluent	(ft^3/min)	(Hours)	(Liters)	(Pounds)			
Notes:	•						•			
the measured <sup>2</sup> System accid <sup>3</sup> GAC Replace <sup>4</sup> GAC-1 remov <sup>5</sup> SVE System t	d temperature entally shut do ed ved, new GAC turned off for r	of Vapor (2 own from ma installed at ainy season	<sup>c</sup> C) in conve ain box, read effluent en due to low i	erting ppm-v to p lings taken 30 m nfluent concentr	to be 150 gram/mo opm on mass basis inutes after startu ratior	ole and us				
<sup>7</sup> system down	<sup>3</sup> system down, hoses disconnected and GAC moved for replaceme <sup>7</sup> system down for electrical repai									
	Carbon change-out of three drums, moved new effluent drum on 10/25/01 to GAC system shut-down due to high effluent valu									
<sup>10</sup> System re-sta	System re-started (since November 21, 2001), installed new 4-55 gallon vapor phase carbon vessels, repaired blo									

<sup>11</sup> System was shut-down due to low influent readin
 <sup>12</sup> System was restarted on 6/12/0.
 <sup>13</sup> System was re-started but no readings were take

NC: Not Calculated

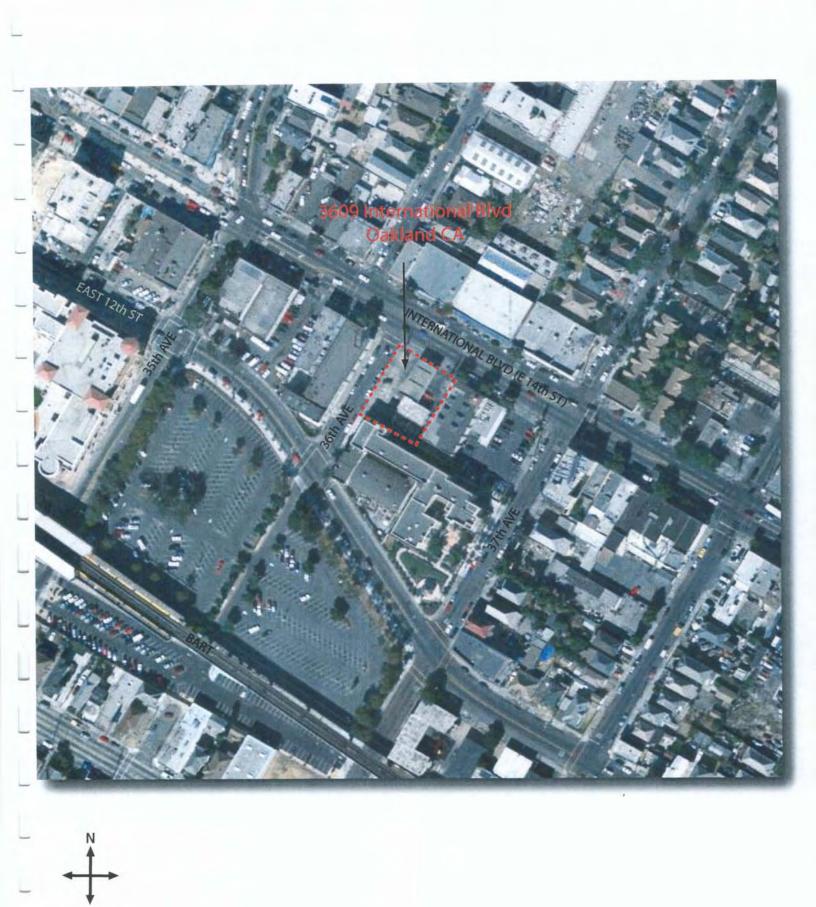
#### Calculations

Airflow: Flowrate (ft^3/min)\* 60 min \* Time Elapsed (hrs)\* 28.3 liters/ft^3

Mass Removed: Time Elapsed (hrs) \* 60 min\* Flowrate (ft^3/min)\* (28.3 m^3/ft^3)\*

(((PID reading \* (102 grams TPH-g /mole)\* (1 mole / 24.4 L))\*(1/1000 m^3)) \* (1 lb/454 grams)

# **FIGURES**



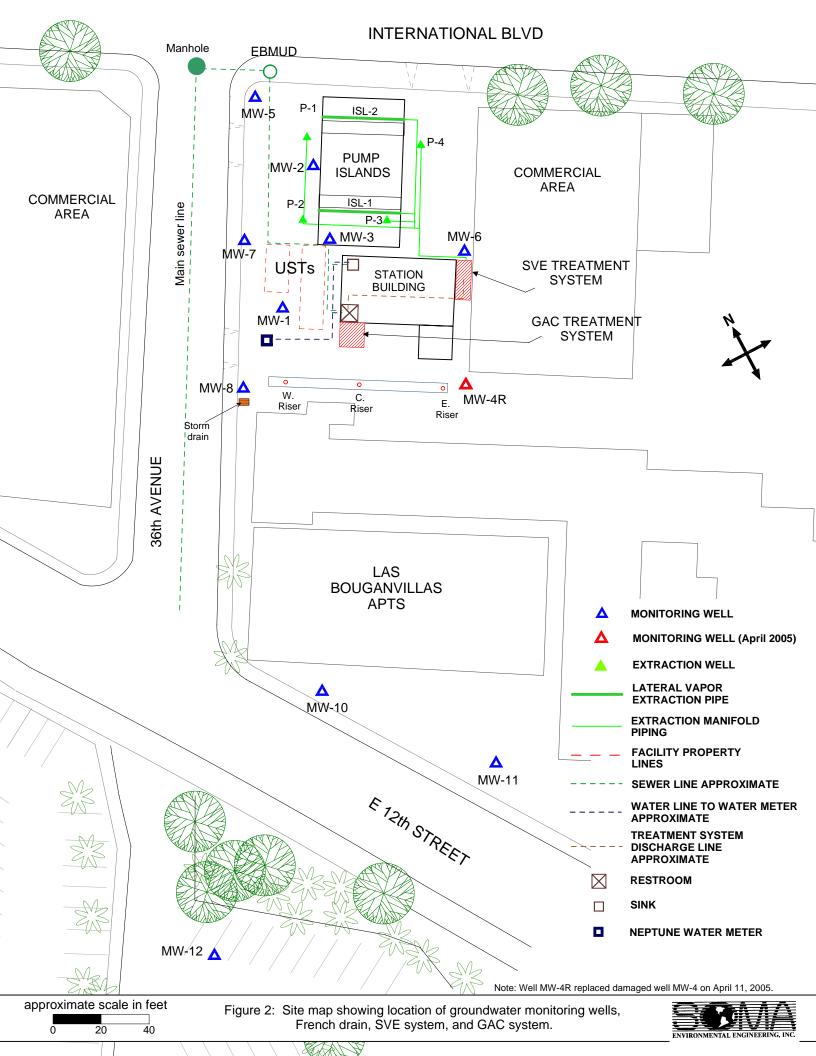
approximate scale in feet 150

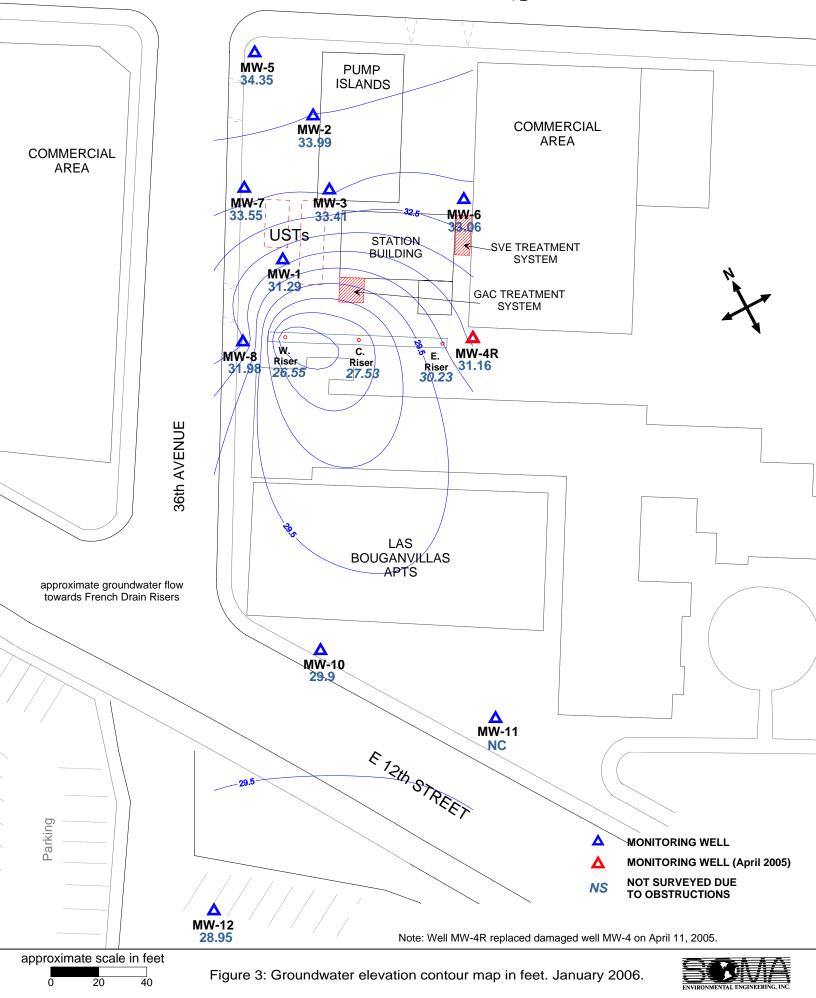
0

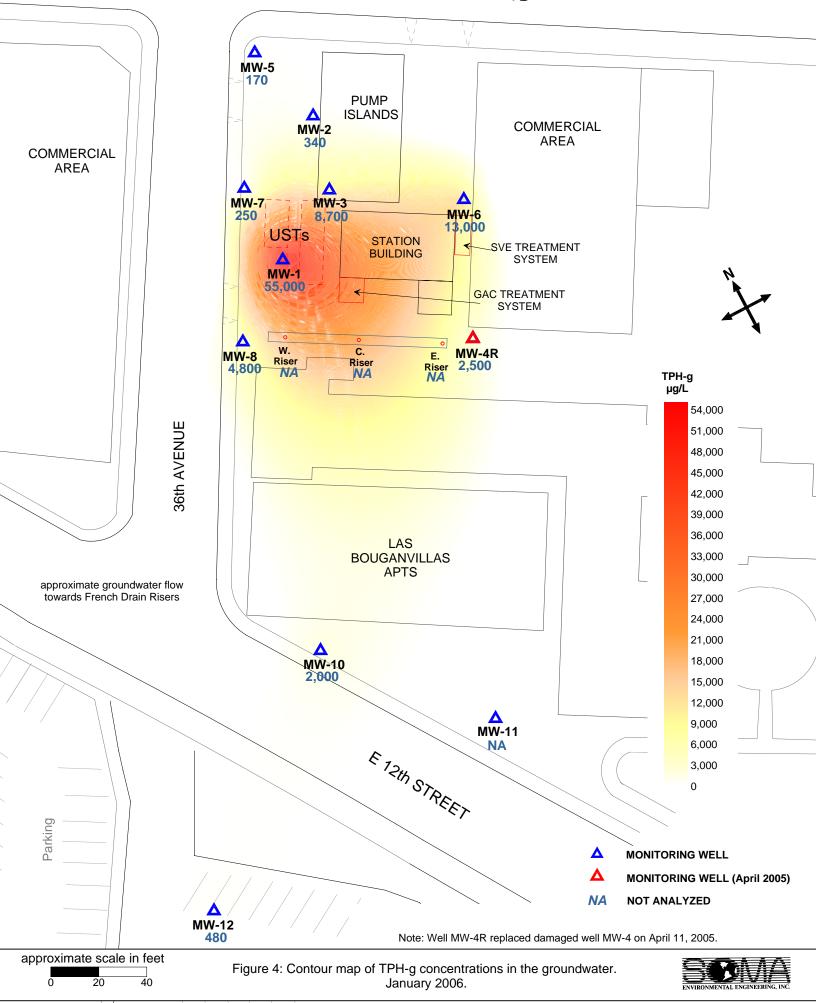
300

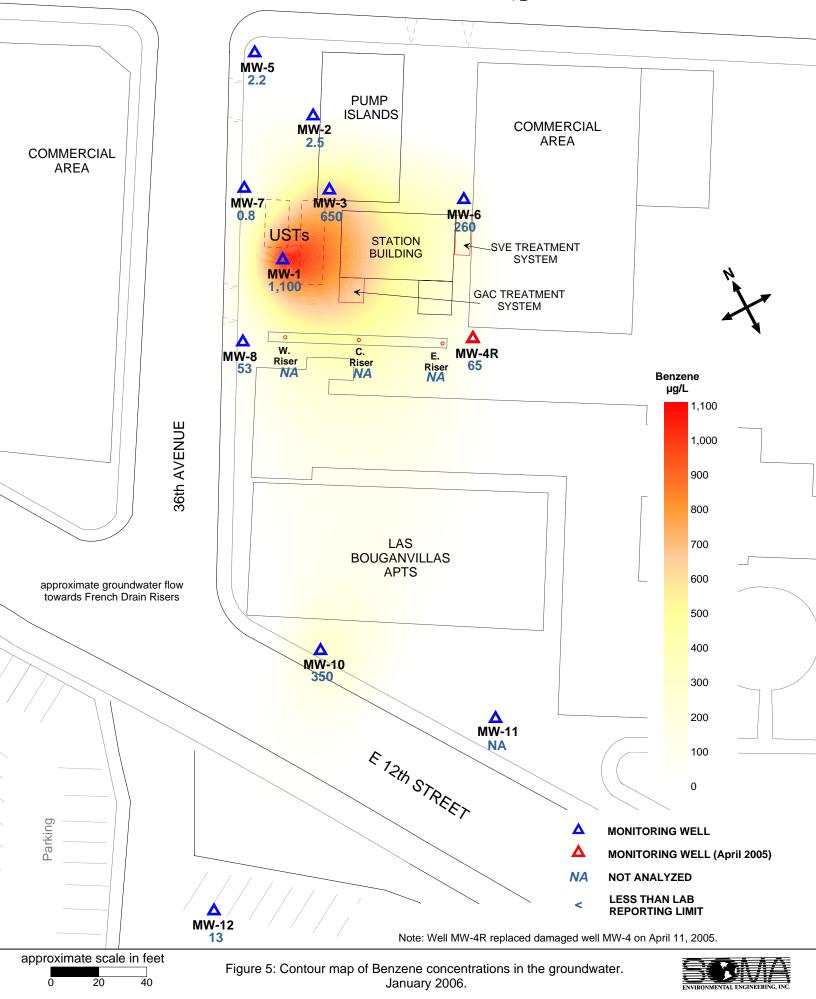
Figure 1: Site vicinity map.

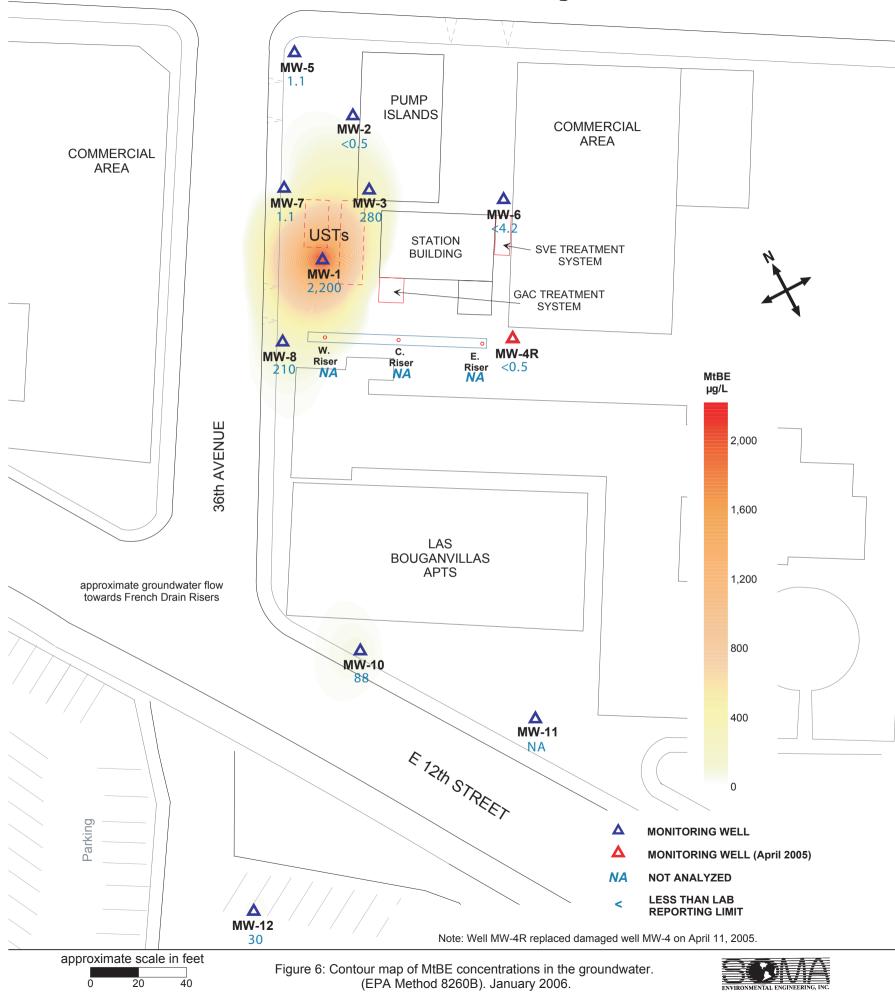


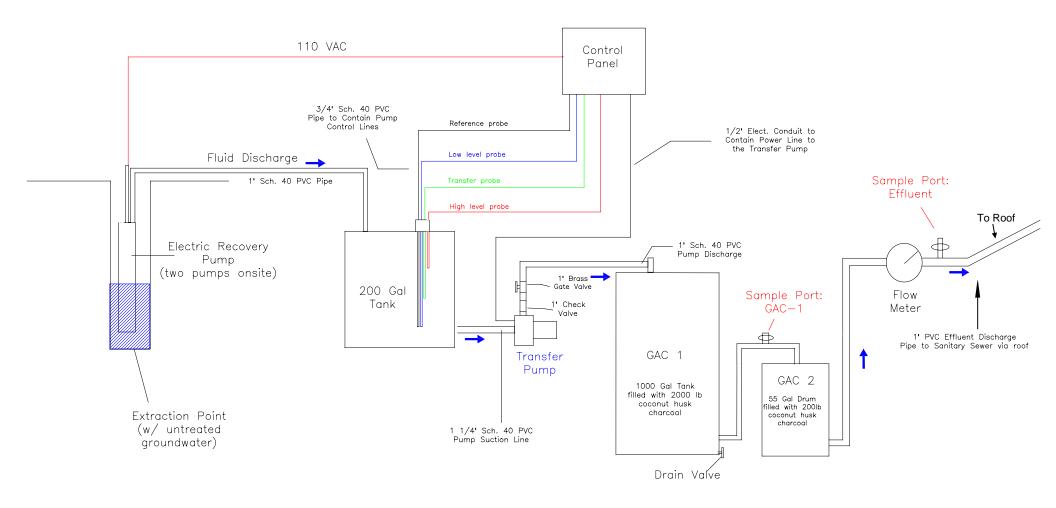








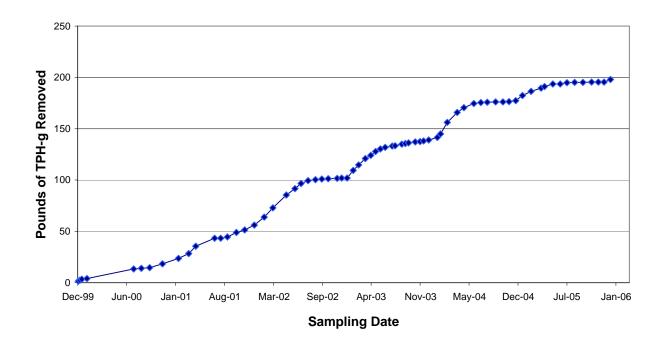




(Discharge permit No: 504-27421) Tony's Express Auto Service. November 14, 2006 permit expires

Figure 7: Schematic of the Groundwater Remediation System. 3609 International Blvd., Oakland, CA





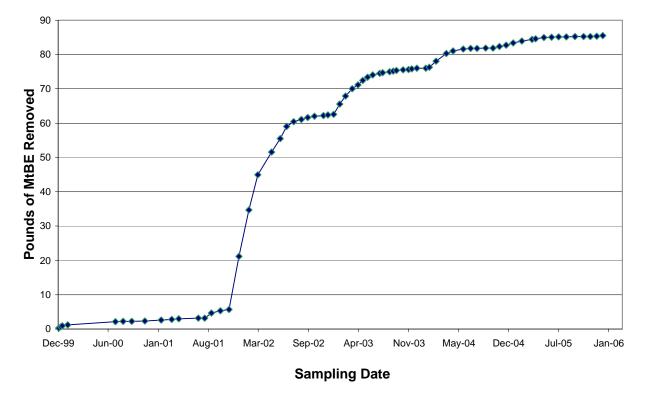


Figure 8. Cumulative mass of TPH-g and MtBE removed from groundwater since the installation of the treatment system.



# **APPENDIX A**

SOMA's Groundwater Monitoring Procedures

### **Field Activities**

On January 3 and 4, 2006, SOMA's field crew conducted a groundwater monitoring event in accordance with the procedures and guidelines of the RWQCB, San Francisco Bay Region. During this groundwater monitoring event a total of eight on-site monitoring wells (MW-1 to MW-8), two off-site monitoring wells (MW-10 and MW-12), and three on-site French drain risers were measured for depth to groundwater. Field measurements and grab groundwater samples were collected from all of these monitoring wells.

The depth to groundwater in each monitoring well and riser was measured from the top of the casing to the nearest 0.01 foot using an electric sounder. The top of the casing elevation data and the depth to groundwater in each monitoring well and riser were used to calculate the groundwater elevation.

Kier and Wright Civil Engineers Surveyors, Inc. surveyed the wells and risers on August 9, 2002. At the time of the survey, monitoring well MW-11 could not be accessed due to obstacles preventing the proper use of surveying equipment; therefore, this well was not surveyed. The top of casing elevations were based on the survey data measured at this time. The elevation data was based on a datum of 14.20 NAVD88. The new survey was conducted to comply with an Electronically Deliverable Format (EDF) request made by the State Water Resources Control Board (SWRCB) Database.

Harrington Surveys, Inc. surveyed the newly installed well MW-4R on April 20, 2005. The elevation data for well MW-4R was referenced from wells MW-5 and MW-7. The survey data measured by Kier and Wright and Harrington Surveys are both presented in Appendix B.

Prior to collecting samples, each well was purged using a battery operated 2-inch diameter pump (Model ES-60 DC). During the purging activities, in order to obtain accurate measurements of groundwater parameters and especially to avoid the intrusion of oxygen from ambient air into the groundwater samples, field measurements were conducted in-situ (i.e., down-hole inside each monitoring well). The groundwater parameters such as DO, pH, temperature, EC, turbidity, and the ORP were measured in-situ using a Horiba, Model U-22 multiparameter instrument. The equipment was calibrated at the Site using standard solutions and procedures provided by the manufacturer.

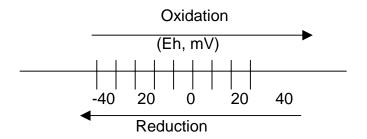
The pH of groundwater has an effect on the activity of microbial populations in the groundwater. The groundwater temperature affects the metabolic activity of bacteria. The groundwater conductivity (EC) is directly related to the concentration of ions in solution.

There is a strong correlation between the turbidity level and the biological oxygen demand of natural water bodies. The main purpose for checking the turbidity

level is to provide a general overview of the extent of the suspended solids in the groundwater.

ORP (oxidation reduction potential) is the measure of the potential for an oxidation or reduction process to occur. In the oxidation process a molecule or ion loses one or several electrons. In the reduction process a molecule or ion gains one or several electrons. The unit of the redox potential is the Volt or m-Volt. The most important redox reaction in petroleum-contaminated groundwater is the oxidation of petroleum hydrocarbons in the presence of bacteria and free molecular oxygen. Because the solubility of  $O_2$  in water is low (9 mg/L at 25 °C and 11 mg/L at 5 °C), and because the rate of  $O_2$  replenishment in subsurface environments is limited, DO can be entirely consumed, when the oxidation of only a small amount of petroleum hydrocarbons occurs.

Oxidation of petroleum hydrocarbons can still occur, when all the dissolved  $O_2$  in the groundwater is consumed, however, the oxidizing agents (i.e., the constituents that undergo reduction) now become NO<sup>-3</sup>, MnO<sub>2</sub>, Fe (OH)<sub>3</sub>, SO<sub>4</sub><sup>2-</sup> and others (Freeze and Cherry, 1979). As these oxidizing agents are consumed, the groundwater environment becomes more and more reduced. If the process proceeds far enough, the environment may become so strongly reduced that the petroleum hydrocarbons may undergo anaerobic degradation, resulting in the production of methane and carbon dioxide. The concept of oxidation and reduction in terms of changes in oxidation states is illustrated below.



The purging of the wells continued until the parameters for DO, pH, temperature, EC, turbidity, and redox stabilized or three casing volumes were purged.

Once stabilization occurred, the groundwater samples were also tested on-site for ferrous iron (Fe<sup>+2</sup>), nitrate (NO<sub>3</sub><sup>-</sup>), and sulfate (SO<sub>4</sub><sup>-2</sup>) concentrations.

 $Fe^{+2}$ ,  $NO_3^{-1}$ , and  $SO_4^{-2}$  were measured colorimetrically using the Hach Colorimeter Model 890. The Hach Model 890 Colorimeter is a microprocessor-controlled photometer suitable for colorimetric testing in the laboratory or the field. The required reagents for each specific test are provided in AccuVac ampuls.

Detailed field measurements are shown in Appendix B.

For sampling purposes, after purging, a disposable polyethylene bailer was used to collect sufficient samples from each monitoring well for laboratory analyses. The groundwater sample was transferred into four 40-mL VOA vials and preserved with hydrochloric acid. The vials were then sealed to prevent development of air bubbles within the headspace. After the groundwater samples were collected, they were placed on ice and maintained at 4°C in a cooler. A chain of custody (COC) form was written and placed along with the samples in the cooler. On January 4, 2006, SOMA's field crew delivered the groundwater samples to Curtis & Tompkins, Ltd in Berkeley, California.

### Laboratory Analysis

Curtis & Tompkins, Ltd, a state certified laboratory, analyzed the groundwater samples for TPH-g, BTEX and MtBE. TPH-g, BTEX, and MtBE was prepared using EPA Method 5030B and measured using EPA Method 8260B. Additional gasoline oxygenate and lead scavenger analysis was also tested during the 8260 analysis.

# **Appendix B**

Table of Elevations & Coordinates on Monitoring Wells Surveyed by Kier Wright Civil Engineers Surveyors, Inc. & Harrington Surveys, Inc., and Field Measurements of Physical, Chemical, and

Biodegradation Parameters of Groundwater

DATE: JOB# 08/27/02 A02576

1

Side Side

1. 1

### TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS

SOMA ENVIRONMENTAL Oakland-E. 14 the St. "International Blvd"

WELL NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
FD-C	2109299.85	6064039.85	39.35 40.25	Notch on north side of PVC Punch north rim of box
FD-E	2109281.13	6064067.87	40.06 40.55	Notch on north side of PVC Punch north rim of box
FD-W	2109314.99	6064017.59	39.16 39.95	Notch on north side of PVC Punch north rim of box
MW-1	2109338.74	6064025.97	40.11 40.76	Notch on north side of PVC Punch north rim of box
MW-2	2109383.20	6064073.06	40.71 41.61	Notch on north side of PVC Punch north rim of box
MW-3	2109351.11	6064064.63	40.91 41.68	Notch on north side of PVC Punch north rim of box
MW-4	2109278.18	6064076.40	40.01 40.67	Notch on north side of PVC Punch north rim of box
MW-5	2109410.84	6064058.46	41.16 41.60	Notch on south side of PVC Punch south rim of box
MW-6	2109320.46	6064105.06	40.92 41.52	Notch on north side of PVC Punch north rim of box
MW-7	2109368.19	6064025.54	39.94 40.54	Notch on north side of PVC Punch north rim of box
MV¥-8	2109321.68	6064000.46	39.38 39.72	Notch on north side of PVC Punch north rim of box

Kier Wright Civil Engineers Surveyors, Inc. 1233 Quarry Lane, Suite 145, Pleasanton, CA 94566 (925) 249-6555 (925) 249-6563

JOB#

A02576

### TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS

SOMA ENVIRONMENTAL Oakland-E. 14 the St. "International Blvd"

WELL NO.	NORTHING	EASTING	ELEVATION	DESCRIPTION
MW-10	2109193.97	6063957.39	36.71 37.70	Notch on north side of PVC Punch north rim of box
MW-11	2109125.26	6064007.52	XXXX	NO ELEVATION, BOAT ON TOP
MW-12	2109121.85	6063865.00	36.84 36.87	Notch on north side of PVC

Bench mark: NGS Bench mark No.M 554. To reach the station from the intersection of Interstate Highway 880 and Hegenberger Rd in South Oakland go northeast on Hegenberger Rd for 0.5 MI to a side road right Baldwin St. Turn right and go south on Baldwin St for 0.35 MI to a T-intersection, 85th Ave. for 0.1 MI to a side road right, Railroad Ave. Turn right and go south on Railroad Ave. for 0.1 MI to the station on the left, east, side of the road in a large concrete headwall for a culvert.

Elevation = 14.20 NAVD88 Datum

Coordinate values are based on the California Coordinate System, Zone III NAD 83 Datum.

Kier Wright Civil Engineers Surveyors, Inc. 1233 Quarry Lane, Suite 145, Pleasanton, CA 94566 (925) 249-6555 (925) 249-6563

### Harrington Surveys Inc.

Land Surveying & Mapping 2278 Larkey Lane, Walnut Creek, Ca. 94597 Phone (925)935-7228 Fax (925)935-5118 CelL (925)788-7359 E-Mail (ben5132@pacbell.net)

SOMA ENVIRONMENTAL ENGINEERING 2680 BISHOP DR. # 203 SAN RAMON, CA. 94583 MAY 20, 2005

ATTN: ELENA

3609 INTERNATIONAL BLVD. OAKLAND CA.

#### SURVEY REPORT

CONTROLING POINTS FRON SURVEY BY KIER & WRIGHT, DATED 08-27-02:

MW-5 NOTCH, CALIFORNIA COORDINATE SYSTEM, ZONE 3. NAD 83. NORTH 2,109,410.84 - EAST 6,064,058.45, LAT. N37°46'17.42024" W122°13'18.51054". ELEVATION 41.06, NAVD 88,

MW-7 NOTCH, CALIFORNIA COORDINATE SYSTEM, ZONE 3, NORTH 2,109,368.19 - EAST 6,064,025.54. LAT N37°46'30.32592", W122°13'18.88771" ELEVATION 39.94 NAVD 88,

INSTRUMENTATION: TRIMBLE GPS, MODEL 5800 AND LEICA TCA 1800, 1" HORZ. & VERT. OBSERVATION: EPOCH = 180.

FIELD SURVEY: APRIL 20, 2005.

BEN HARRINGTON PLS 5132



SURVEY REPORT 3609 INTERNATIONAL BLVD OAKLAND CA.

### HARRINGTON SURVEYS INC. 2278 LARKEY LN. WALNUT CREEK CA. 94597

PT#		NORTH	EAST	ELEV	LATITUDE N.	LONGTIDUDE W.	DESCRIPTION
	13	2109276.287	6054076.999	40.34	37"46"30.41532"	122"13'18.24871"	MW-4R NOTCH TOP 2" PVC
	14	2109276.63	6064076.962	40.70			MW-4R PUNCH N. RIM
	15	2109277.144		40.68			MW-4R PAVINC
			0001010.100	49.00		-	MITTALIAN
	-					-	
	-					-	
-	-			-		-	
	-						
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Well No.: Casing Diameter: Depth of Well: Top of Casing Elevation Depth to Groundwater: Groundwater Elevation: Water Column Height:	5.37 31.29	K feet		Project Address Date: Sample	s:	2331 3609 International Blvd. Oakland, CA January 4, 2005 John Lohman Mehran Nowroozi
Purged Volume:		gallons				
Purging Method:		Bailer		Pump	<b>R</b> i	
Sampling Method:		Bailer		Pump		
Color:	No 🎽	C	Yes 🗆		Describe:	
Sheen:	No 🎽	Ĺ	Yes 🗆		Describe:	
Odor:	No 🗆	1	Yes 🗩		Describe:	gan

Time	Vol	нq	Temp	E.C.	D.O.	Turbidity	ORP	Fe <sup>+2</sup>	NO3 <sup>-1</sup>	SO4 <sup>-2</sup>
	(gallons)	μι	(°C)	(µS/cm)	(mg/L)	(NTU)	(mV)	(mg/L)	(mg/L)	(mg/L)
1010 Am	STAF	2T	Ph	RG	Ē					
10.13AM	46	.95	2008	-55 C	3.50	53.Z	103			
10.16 AM	8 6	.96	20.1	584	309	$\mathcal{O}$	-30			
10:19 AM	126	.83	2022	617	2.85	$\mathcal{O}$	-66			
10:22 AM	166	,79	20.29	655	2.70	0	-76			
10 asAM	206	5.77	20.30	633	2.51	$ \mathcal{O} $	-32			_
10:27 AM	SAM	1PL	ES					1-52	Ø	Ø
		1								



Well No.: Casing Diameter: Depth of Well:	Mu 30	4	inches feet feet		Project I Address Date:		2331 3609 International Blvd. Oakland, CA January <b>1, 2006</b>
Top of Casing Elevation: Depth to Groundwater:	6.7	12	feet		Sampler	:	John Lohman
Groundwater Elevation: Water Column Height: 2 Purged Volume:	33	.99 43 7	feet feet galions				Mehran Nowroozi
Purging Method:			Bailer		Pump	<b>16</b>	
Sampling Method:			Bailer		Pump		
Color:	No	×		Yes 🗆		Describe:	
Sheen:	No	- Grei		Yes 🗆		Describe:	
Odor:	No	Ÿ		Yes 🗆		Describe:	

Time	Vol	рН	Temp	E.C.	D.O.	Turbidity	ORP	Fe <sup>+2</sup>	NO3 <sup>-1</sup>	$SO_4^{-2}$
	(gallons)		(°C)	(µS/cm)	(mg/L)	(NTU)	(mV)	(mg/L)	(mg/L)	(mg/L)
10:48 AM	STAN	RT	PUR	GE						
10:54 Am	8	7.29	20.97	550	9.01	$\bigcirc$	37			
11:00 AM	16	6,87	20:70	554	3.54	0	12			
11:06 AM	24	6.87	20.68	6555	304	0	3			
11:10 AM	SAV	hple	5	-				$\bigcirc$	$\bigcirc$	46
					a da ma da factoria da					



Well No.:	NU	<u></u>	 -		Project		2331
Casing Diameter:		1	inches		Address	5:	3609 International Blvd.
Depth of Well:	29.0	15	feet				Oakland, CA
Top of Casing Elevation:	40.	11	feet		Date:		January 🛠 2005
Depth to Groundwater:	7.5	0	feet		Sampler	r:	John Lohman
Groundwater Elevation:	33.	41	feet				Mehran Nowroozi
Water Column Height:	22.	35	feet				
Purged Volume:	_2	4	gallons				
Purging Method:			Bailer		Pump		
Sampling Method:			Bailer		Pump		
Color:	No			Yes ⊠		Describe:	blackish
Sheen:	No	7		Yes 🗆		Describe:	
Odor:	No	×		Yes 🗆		Describe:	

Time	Vol (galions)	pН	Temp (°C)	E.C. (μS/cm)	D.O. (mg/L)	Turbidity (NTU)	ORP (mV)	Fe <sup>+2</sup> (mg/L)	NO3 <sup>-1</sup> (mg/L)	SO <sub>4</sub> <sup>-2</sup> (mg/L)
12.				(µ3/cm)	(11972)		(1117)	(119/2)	(119/2)	(
12:05 Pm	gtart	-pnr	je-							
1211 pm	46	6:83	20.83	676	6.91	$ \mathcal{O} $	-117			
12:17 Pm	16	6.85	20,54	693	2.21	U	- 29			
12 23pm	24	636	20.56	719	1,91		-134			
12-25 PM	SIM	PLF	5				1	3.30	0	O
	<b>F</b> '									
			-							



Well No.: Casing Diameter: Depth of Well: Top of Casing Elevation: Depth to Groundwater: Groundwater Elevation: Water Column Height: Purged Volume:	Nu 26: 40: 31. 7.	30 34 3 16 12	R inches feet feet feet feet gallons		Project I Address Date: Sampler	:	2331 3609 International Blvd. Oakland, CA January 3 <b>¥</b> 200 <b>€</b> John Lohman Mehran Nowroozi
Purging Method:			Bailer		Pump		
Sampling Method:			Bailer		Pump		
Color:	No			Yes		Describe:	
Sheen:	No	Þ		Yes		Describe:	
Odor:	No	F		Yes		Describe:	

Time	Vol	pН	Temp	E.C.	D.O.	Turbidity	ORP	Fe <sup>+2</sup>	NO3 <sup>-1</sup>	SO4 <sup>-2</sup>
	(galions)	llions)	(°C)	(µS/cm)	(mg/L)	(NTU)	(mV)	(mg/L)	(mg/L)	(mg/L)
1:40 pm	STA	RTPU	RGE	-						
1:43 pm	4	6.94	19.43	546	4.25	121	85			
1:468m	do	6.59	19.50	556	3.44	$\mathcal{O}$	80			
1:50Pm	iz	6.85	19.58	562	3.10	$\bigcirc$	73			
1:53Pm	16	6.82	19.59	563	2.93	0	61	and the second second		
1:57pm	20	6.81	19.60	562	2.77	0	76			
1:59Pm	SAU	1PL-1	E Ĵ					1.40	Ĉ	9
					allani i da de					



Well No.: Casing Diameter: Depth of Well: Top of Casing Elevation: Depth to Groundwater: Groundwater Elevation: Water Column Height: Purged Volume:	() (	inches 3C feet feet feet feet feet gallons		Project I Address Date: Sampler	5:	2331 3609 International Blvd. Oakland, CA January 4, 200 John Lohman Mehran Nowroozi
Purging Method:		Bailer		Pump	Ei	
Sampling Method:		Bailer		Pump		
Color:	No		Yes 🗆		Describe	
Sheen:	No	/ 🗣	Yes □		Describe	
Odor:	No	<b>7</b> °	Yes 🗆		Describe	:

Time	Voi	οIJ	Temp	E.C.	<b>D.</b> O.	Turity	ORP	Fe <sup>+2</sup>	NO3 <sup>-1</sup>	SO4 <sup>-2</sup>
Time	(galions)	рН	(°C)	(µS/cm)	(mg/L)	WTus	(mV)	(mg/L)	(mg/L)	(mg/L)
12:55 pm	STA	RT	PU	RGI						
12:55 pm	4	7.02	21.30	593	3.57	$ \mathcal{O} $	-73			
MAI-DI RM	46	6.94	21,45	597	300	C	-26			
1.04pm	12	6.92	21.52	804	2.61	$O$	- 33			
1.07 pm	16	6.91	21,53	607	2.41	$ \mathcal{D} $	- 345			
1:10pm	SA	mp,	VF -	5				0.4	0	61



Well No.: Casing Diameter: Depth of Well: Top of Casing Elevation: Depth to Groundwater: Groundwater Elevation: Water Column Height: Purged Volume:		92	inches feet feet feet feet gallons		Project I Address Date: Sampler	::	2331 3609 International Blvd. Oakland, CA January <b>34</b> , 200 John Lohman Mehran Nowroozi
Purging Method:			Bailer		Pump		
Sampling Method:			Bailer		Pump		
Color:	No			Yes		Describe:	
Sheen:	No			Yes		Describe:	
Odor:	No			Yes		Describe:	

Time	Vol (galions)	рН	Temp (°C)	E.C. (µS/cm)	D.O. (mg/L)	Turbidity (NTU)	ORP (mV)	Fe <sup>+2</sup> (mg/L)	NO3 <sup>-1</sup> (mg/L)	SO <sub>4</sub> -2 (mg/L)
156pm	STAF	RT	PURC	SE.						
1:59pm	4	6:67	19.99	655	7.62	433	-36			
ZOZAM	5	6.77	19,71	643	3,37	615	-57			
2:06pm	12	6.78	1996	629	2.70	73Z	-67			
2. Upm	16	6.77	19,99	614	742	342	- 7Z-			
2.13PM	SA.	MPL	ES				,	1.99	$\bigcirc$	$\bigcirc$
	line in the second s		and a second							



Well No.: Casing Diameter: Depth of Well: Top of Casing Elevation Depth to Groundwater: Groundwater Elevation: Water Column Height: Purged Volume:	Mb 2-5-1 39.9 6-3 33.9	inches <u>B</u> Geet <b>1 1</b> feet <u>5 7</u> feet		Project Address Date: Samples	5:	2331 3609 International Blvd. Oakland, CA Januaty 3 2006 John Lohman Mehran Nowroozi
Purging Method:		Bailer		Pump	•	
Sampling Method:		Bailer	•	Pump		
Color:	No	¥	Yes 🗆		Describe:	
Sheen:	No	>	Yes 🗆		Describe:	
Odor:	No	, Y	Yes 🗆		Describe:	

Time	Vol		Temp	E.C.	D.O.	Turbidity	ORP	Fe <sup>+2</sup>	NO3 <sup>-1</sup>	SO4 <sup>-2</sup>
Time	(gallons)	рН	(°C)	(µS/cm)	(mg/L)	(NTU)	(mV)	(mg/L)	(mg/L)	(mg/L)
2:12 PM	511	RT	PUR	(B						
2:15pm	4	6.85	20.70	412	5.22	7.6	17			
2:18rm	4	6.44	21.06	414	4,11	6	TO			
2:21 Pm	12	6.55	21.24	440	3.78	C	78			
7:23im	16	6.80	21.77	501	2.68	$\bigcirc$	65			
2:26pm	20	6.81	21.29	509	2.52	$O$	49			
2:28pm	SAV	npl	ES					31	C	5



Well No.: Casing Diameter: Depth of Well: Top of Casing Elevation: Depth to Groundwater: Groundwater Elevation: Water Column Height: Purged Volume:	MW 2 26.50 39.38 7.40 31.18 19.10	feet feet		Project   Address Date: Sampler	5:	2331 3609 International Blvd. Oakland, CA January 3 ≰'200€ John Lohman Mehran Nowroozi
Purging Method: Sampling Method:	<u> </u>	Bailer Bailer		Pump Pump		
Color:	No Ta		Yes 🗆		Describe:	
Sheen:	No Ma		Yes 🌾		Describe: Describe:	slight sheen
Odor:	No 🗆		Yes \$⊄		Describe:	Jar Jar

Time	Vol	pН	Temp	E.C.	D.O.	Turbidity	ORP	Fe <sup>+2</sup>	NO3 <sup>-1</sup>	SO4 <sup>-2</sup>
i ime	(gallons)	рп	(°C)	(µS/cm)	(mg/L)	(NTU)	(mV)	(mg/L)	(mg/L)	(mg/L)
2:39 Fm	STA	RTY	4186	E						
2 411 pm	4	686	19,84	602	2.72	O	-44			
2:44 rm	K	6.94	20.18	565	てい	$\bigcirc$	-76			
2:47pm	12	6.93	20.25	578	1.89	$\bigcirc$	-84			
2:50 pm	16	6.92	2021	552	1.50	0	-91			
2:52 Pm	SAU	NPL	125					2.30	0	0
		red. samelik								



Well No.: Casing Diameter: Depth of Well: Top of Casing Elevation: Depth to Groundwater: Groundwater Elevation: Water Column Height: Purged Volume:	M.J 10 22.50 36.71 6.561 21.90 15.99 16	() _inches _feet _feet _feet _feet _feet _gallons		Project I Address Date: Sampler	:	2331 3609 International Blvd. Oakland, CA January 3 ¥ 2006 John Lohman Mehran Nowroozi
Purging Method: Sampling Method:		Bailer Bailer		Pump Pump		
Color:	No 🕅		Yes 🗆		Describe:	
Sheen:	No 🏸		Yes 🗆		Describe:	
Odor:	No 🛱		Yes 🗆		Describe:	

Time	Vol (galions)	рН	Temp (°C)	E.C. (µS/cm)	D.O. (mg/L)	Turbidity (NTU)	ORP (mV)	Fe <sup>+2</sup> (mg/L)	NO3 <sup>-1</sup> (mg/L)	SO4 <sup>-2</sup> (mg/L)
12:45 pm	STAF	RT PL	IRG	Ē						
12 49 PM	4	7.03	19.77	635	9.07	$\mathcal{O}$	67			
12:53 m	4	6.89	19,58	645	4.2.6	$\mathcal{O}$	45			
12:57pm	12	6.80	19,56	650	3.31	$\mathcal{O}$				
1:010M	16	6.77	19.55	652	2.97	O	78			
1.03Pm	SAN	PLE	5					$\bigcirc$	$\bigcirc$	$\bigcirc$



Well No.: $M W - 1$ Casing Diameter: $4$ Depth of Well: $29,70$ Top of Casing Elevation: $36.84$ Depth to Groundwater: $7.8^{\circ}1$ Groundwater Elevation: $28.95$ Water Column Height: $1.81$ Purged Volume: $24$	Z inches feet feet feet feet gallons	Project No Address: Date: Sampler:	b.: 2331 3609 International Blvd. Oakland, CA January 3
Purging Method:	Bailer 🛛	Pump	
Sampling Method:	Bailer 📕	Pump [	
Color: No 🖄	Yes		Describe:
Sheen: No 🗆	fes		Describe:
Odor: No 🕂	Yes		Describe:

Time	Vol (galions)	рН	Temp (°C)	E.C. (µS/cm)	D.O. (mg/L)	Turbidity (NTU)	ORP (mV)	Fe <sup>+2</sup> (mg/L)	NO3 <sup>-1</sup> (mg/L)	SO <sub>4</sub> -2 (mg/L)
17: ~~~~~	STAL	RT P	URC	DE						
17:041-	4	8.64	20.04	612	4.76	0	113			
12:08 m	8	7.97	20.00	607	4.06	D	65			
121 12 200	12	7.66	19,96	602	3.75	$\bigcirc$	74			
12: 12:00	16	7.36	19.94	596	3.61	$\bigcirc$	57			
12:2210	20	7.18	19.92	594	328	$\circ$	44			
12.26 54	24	7.08	19,92	394	5.12	Ø	29			
12.30 (11	SAN	PPLE	5					<u>*5</u> ;	Ø	Ø

# Appendix C

Chain of Custody Form and Laboratory Report for the First Quarter 2006 Monitoring Event



### ANALYTICAL REPORT

Prepared for:

SOMA Environmental Engineering Inc. 6620 Owens Dr. Suite A Pleasanton, CA 94588

Date: 17-JAN-06 Lab Job Number: 184141 Project ID: 2331 Location: 3609 Int'l Blvd., Oakland

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: Caul Withum fr LJB Project Manager Reviewed by: XZZ SZ

This package may be reproduced only in its entirety.

NELAP # 01107CA



#### CASE NARRATIVE

Laboratory number: Client: Project: Location: Request Date: Samples Received: 184141 SOMA Environmental Engineering Inc. 2331 3609 Int'l Blvd., Oakland 01/04/06 01/04/06

This hardcopy data package contains sample and QC results for ten water samples, requested for the above referenced project on 01/04/06. The samples were received cold and intact.

#### Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

C&T LOGIN # X4/7/ Sampler: Mehran Nowroozi / John Lohman Report To: Tony Perini Company : SOMA Environmental Water 925-244-6601 Water 925-244-6601 Fax: 925-244-6601 Preservative HCL 4 H2SO4 HNO3 ICE TPHg, BTEX, MtBE 8260B

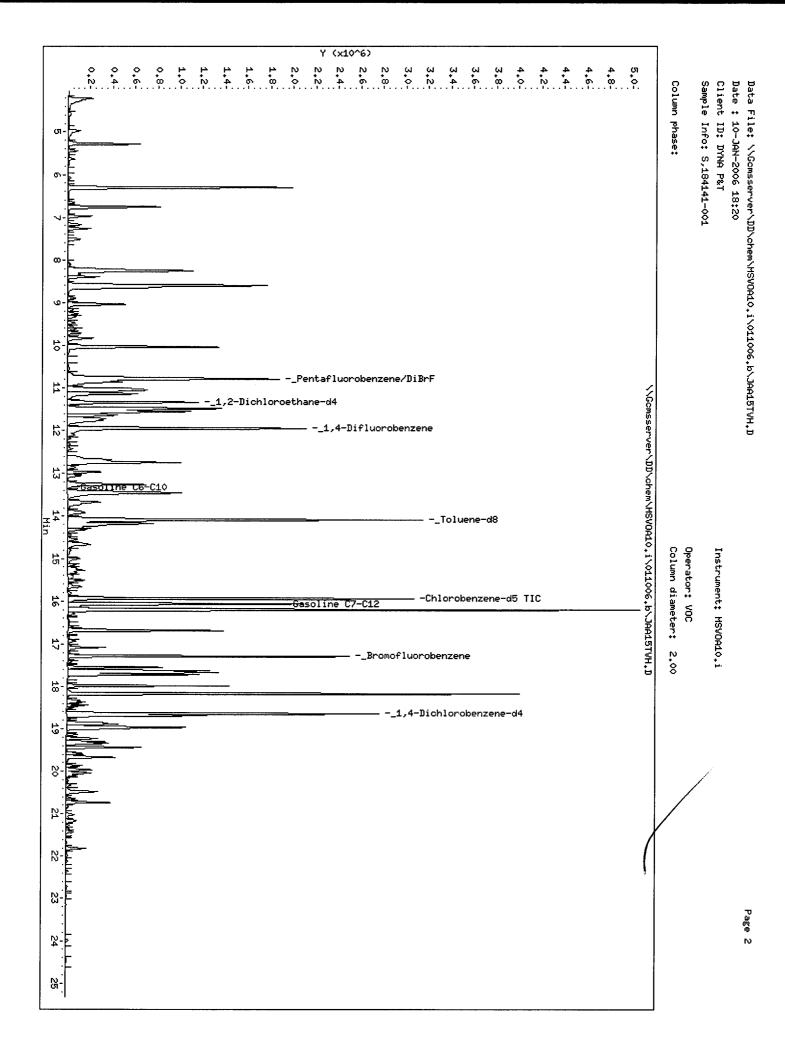
CHAIN OF CUSTODY



		Gasoline	by GC/MS	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Field ID:	MW-1		Batch#:	109369
Lab ID:	184141-001		Sampled:	01/04/06
Matrix:	Water		Received:	01/04/06
Units:	ug/L		Analyzed:	01/10/06
Diln Fac:	25.00			

Analyte	Result	RL
Gasoline C7-C12	55,000	1,300
tert-Butyl Alcohol (TBA)	370	250
Isopropyl Ether (DIPE)	ND	13
Ethyl tert-Butyl Ether (ETBE)	ND	13
Methyl tert-Amyl Ether (TAME)	ND	13
MTBE	2,200	13
1,2-Dichloroethane	ND	13
Benzene	1,100	13
Ethanol	ND	25,000
Toluene	510	13
1,2-Dibromoethane	ND	13
Ethylbenzene	1,100	13
m,p-Xylenes	3,300	13
o-Xylene	770	13

Surrogate	%rec	Limits	
Dibromofluoromethane	103	80-121	
1,2-Dichloroethane-d4	93	80-125	
Toluene-d8	101	80-120	
Bromofluorobenzene	99	80-124	

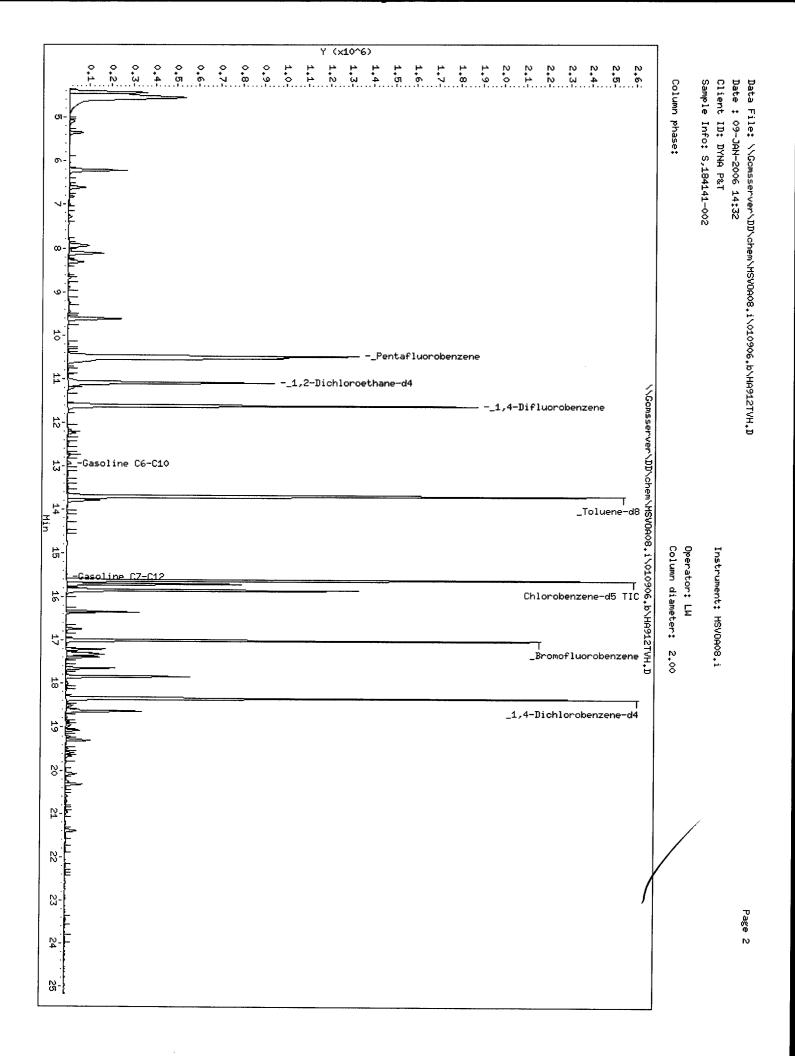




			Gasoli	ne by GC/MS	
Lab #:	18414	41		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA	Environmental	Engineering In	c. Prep:	EPA 5030B
Project#:	2331			Analysis:	EPA 8260B
Field ID:		MW-2		Batch#:	109337
Lab ID:		184141-002		Sampled:	01/04/06
Matrix:		Water		Received:	01/04/06
Units:		ug/L		Analyzed:	01/09/06
Diln Fac:		1.000			

Analyte	Result	RL
Gasoline C7-C12	340	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	2.5	0.50
Ethanol	ND	1,000
Toluene	4.4	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	22	0.50
m,p-Xylenes	42	0.50
o-Xylene	8.2	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	92	80-121
1,2-Dichloroethane-d4	103	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	101	80-124

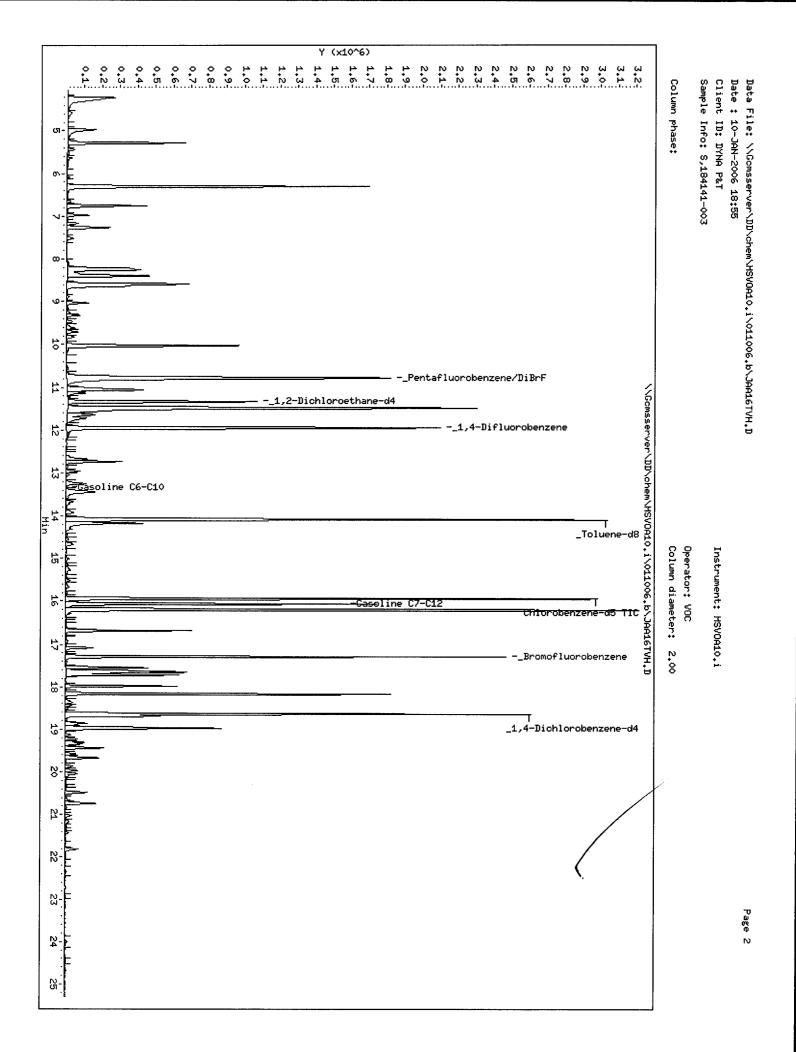




		Gasoline	by GC/MS	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Field ID:	MW - 3		Batch#:	109369
Lab ID:	184141-003		Sampled:	01/04/06
Matrix:	Water		Received:	01/04/06
Units:	ug/L		Analyzed:	01/10/06
Diln Fac:	8.333			

Analyte	Result	RL
Gasoline C7-C12	8,700	420
tert-Butyl Alcohol (TBA)	740	83
Isopropyl Ether (DIPE)	ND	4.2
Ethyl tert-Butyl Ether (ETBE)	ND	4.2
Methyl tert-Amyl Ether (TAME)	ND	4.2
MTBE	280	4.2
1,2-Dichloroethane	ND	4.2
Benzene	650	4.2
Ethanol	ND	8,300
Toluene	98	4.2
1,2-Dibromoethane	ND	4.2
Ethylbenzene	330	4.2
m,p-Xylenes	720	4.2
o-Xylene	140	4.2

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-121
1,2-Dichloroethane-d4	90	80-125
Toluene-d8	103	80-120
Bromofluorobenzene	101	80-124

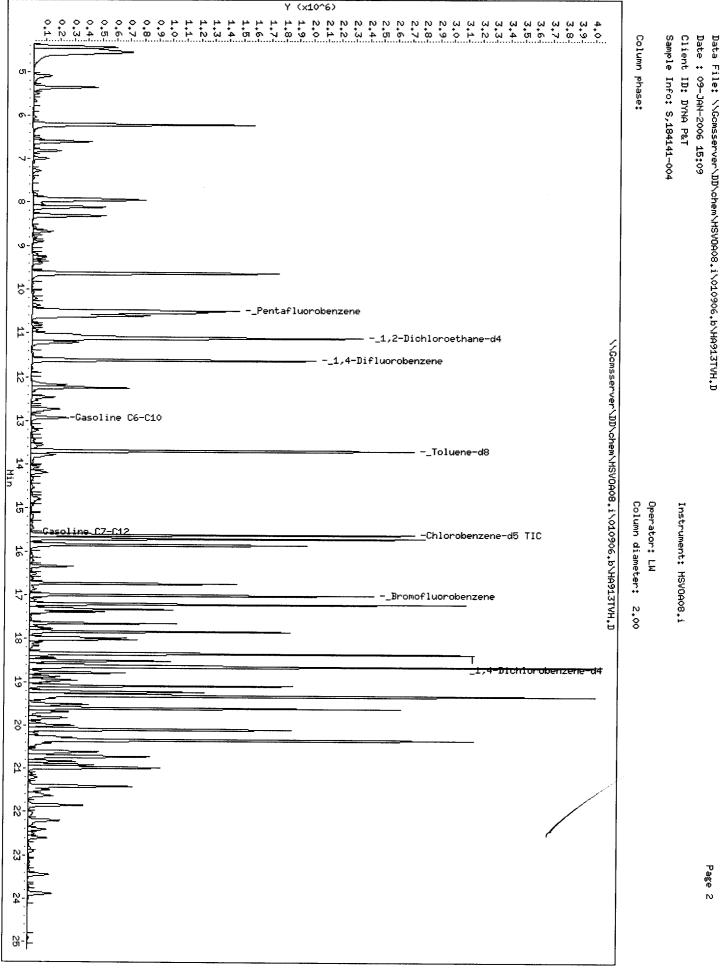




			-, -,	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Field ID:	MW-4R		Batch#:	109337
Lab ID:	184141-004		Sampled:	01/03/06
Matrix:	Water		Received:	01/04/06
Units:	ug/L		Analyzed:	01/09/06
Diln Fac:	1.000			

Analyte	Result	RL
Gasoline C7-C12	2,500	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	65	0.50
Ethanol	ND	1,000
Toluene	3.8	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	70	0.50
m,p-Xylenes	55	0.50
o-Xylene	7.0	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-121
1,2-Dichloroethane-d4	101	80-125
Toluene-d8	96	80-120
Bromofluorobenzene	103	80-124

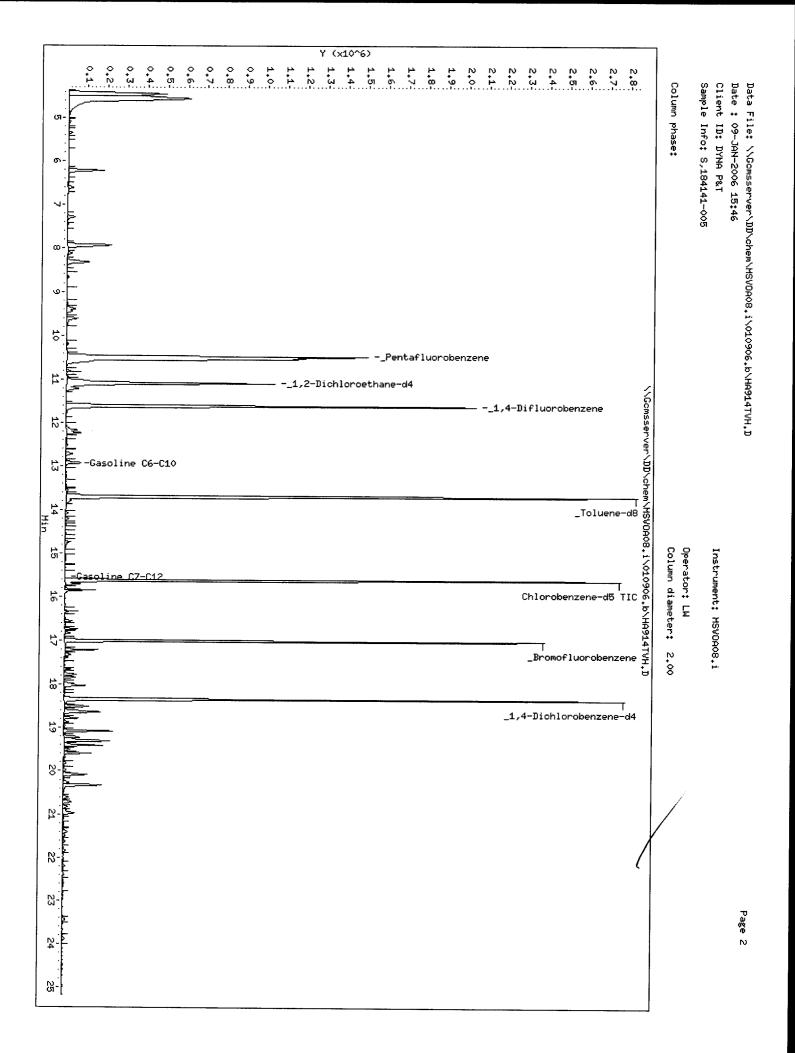




		Gasoline	by GC/MS		
Lab #:	184141		Location:	3609 Int'l Blvd., O	akland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B	
Project#:	2331		Analysis:	EPA 8260B	
Field ID:	MW-5		Batch#:	109337	
Lab ID:	184141-005		Sampled:	01/04/06	
Matrix:	Water		Received:	01/04/06	
Units:	ug/L		Analyzed:	01/09/06	
Diln Fac:	1.000				

Analyte	Result	RL
Gasoline C7-C12	170	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	1.1	0.50
1,2-Dichloroethane	ND	0.50
Benzene	2.2	0.50
Ethanol	ND	1,000
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	1.8	0.50
m,p-Xylenes	3.1	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	88	80-121
1,2-Dichloroethane-d4	100	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	97	80-124

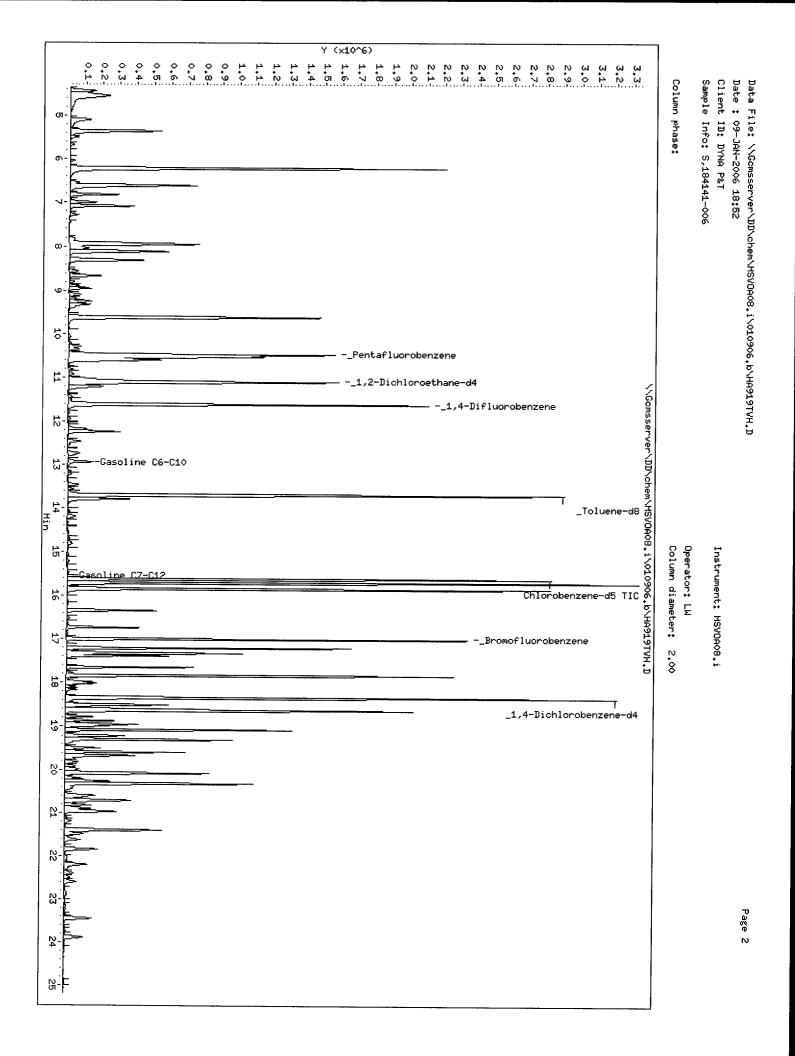


#### Gasoline by GC/MS Lab #: 184141 Location: 3609 Int'l Blvd., Oakland Client: SOMA Environmental Engineering Inc. Prep: EPA 5030B Project#: 2331 Analysis: EPA 8260B Field ID: MW-6 Batch#: 109337 Lab ID: 184141-006 Sampled: 01/04/06 Matrix: Water Received: 01/04/06 Units: ug/L Analyzed: 01/09/06 Diln Fac: 8.333

Analyte	Result	RL
Gasoline C7-C12	13,000	420
tert-Butyl Alcohol (TBA)	ND	83
Isopropyl Ether (DIPE)	ND	4.2
Ethyl tert-Butyl Ether (ETBE)	ND	4.2
Methyl tert-Amyl Ether (TAME)	ND	4.2
MTBE	ND	4.2
1,2-Dichloroethane	ND	4.2
Benzene	260	4.2
Ethanol	ND	8,300
Toluene	79	4.2
1,2-Dibromoethane	ND	4.2
Ethylbenzene	680	4.2
m,p-Xylenes	640	4.2
o-Xylene	110	4.2

Surrogate	%REC	Limits
Dibromofluoromethane	90	80-121
1,2-Dichloroethane-d4	98	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	100	80-124

Curtis & Tompkins, Ltd.



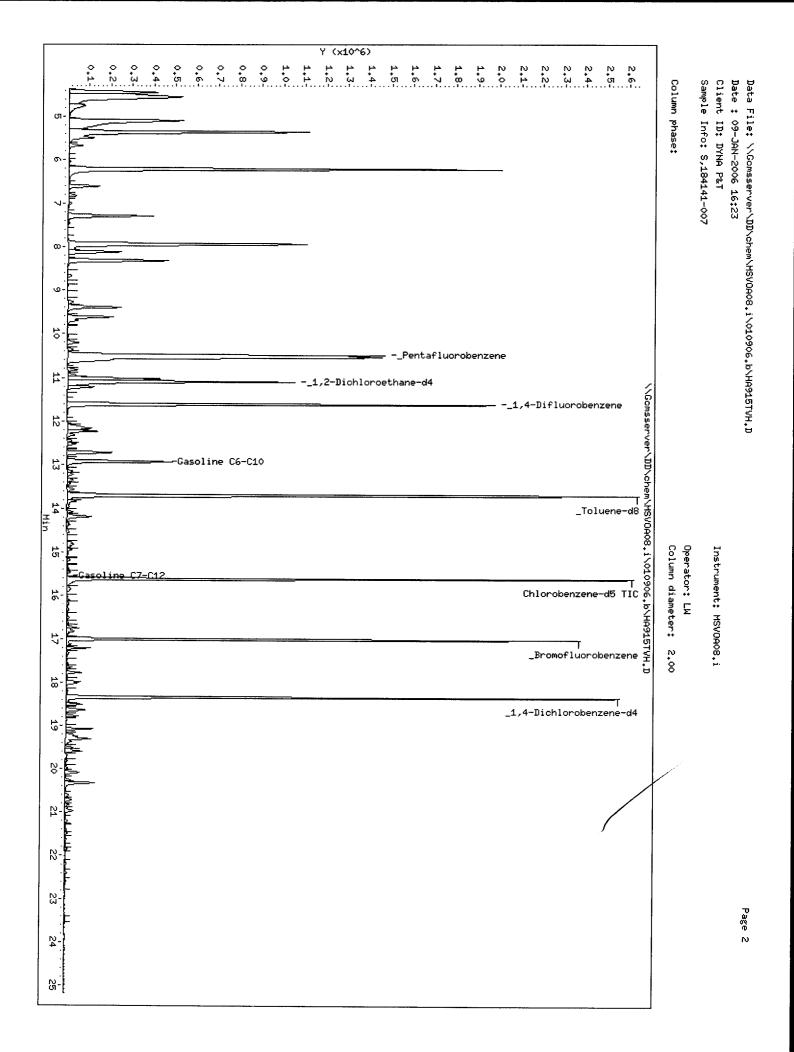


		Gasoline	by GC/MS	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Field ID:	MW - 7		Batch#:	109337
Lab ID:	184141-007		Sampled:	01/03/06
Matrix:	Water		Received:	01/04/06
Units:	ug/L		Analyzed:	01/09/06
Diln Fac:	1.000			

Analyte	Result	RL
Gasoline C7-C12	250 Y	50
tert-Butyl Alcohol (TBA)	11	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	1.1	0.50
1,2-Dichloroethane	ND	0.50
Benzene	0.80	0.50
Ethanol	ND	1,000
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	0.61	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	87	80-121
1,2-Dichloroethane-d4	101	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	98	80-124

Y= Sample exhibits chromatographic pattern which does not resemble standard ND= Not Detected RL= Reporting Limit Page 1 of 1



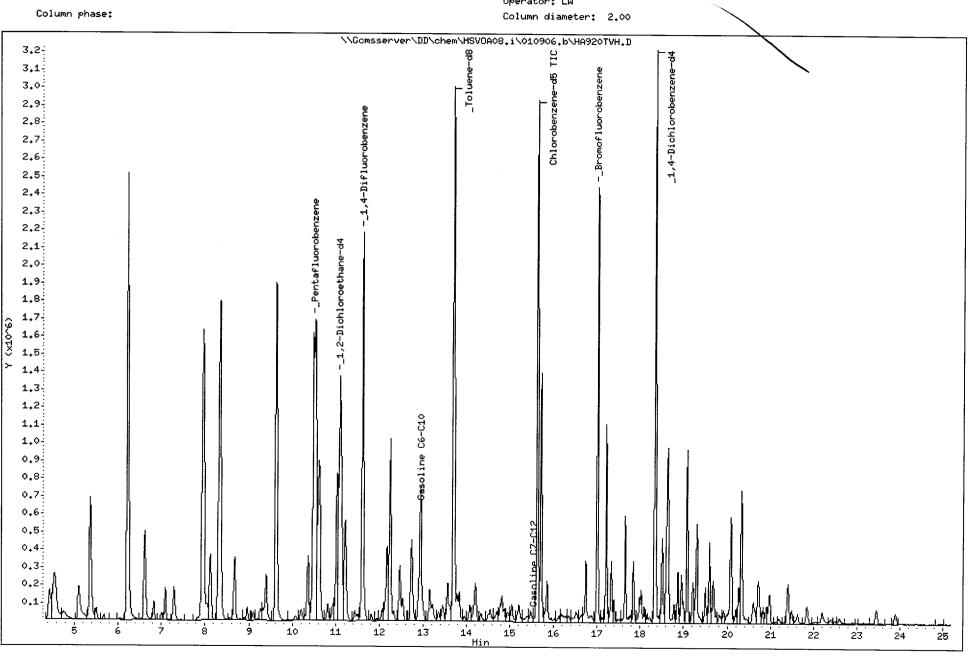


			Gasoline	by GC/MS		
Lab #:	184141			Location:	3609 Int'l Blvd.	, Oakland
Client:	SOMA Envi	ronmental	Engineering Inc.	Prep:	EPA 5030B	
Project#:	2331			Analysis:	EPA 8260B	
Field ID:	MW	-8		Batch#:	109337	
Lab ID:	18	4141-008		Sampled:	01/03/06	
Matrix:	Wa	ter		Received:	01/04/06	
Units:	ug	/L		Analyzed:	01/09/06	
Diln Fac:	4.	000		_		

Analyte	Result	RL
Gasoline C7-C12	4,800	200
tert-Butyl Alcohol (TBA)	43	40
Isopropyl Ether (DIPE)	ND	2.0
Ethyl tert-Butyl Ether (ETBE)	ND	2.0
Methyl tert-Amyl Ether (TAME)	ND	2.0
MTBE	210	2.0
1,2-Dichloroethane	ND	2.0
Benzene	53	2.0
Ethanol	ND	4,000
Toluene	5.2	2.0
1,2-Dibromoethane	ND	2.0
Ethylbenzene	130	2.0
m,p-Xylenes	21	2.0
o-Xylene	ND	2.0

Surrogate	%RE(	2 Limits
Dibromofluoromethane	88	80-121
1,2-Dichloroethane-d4	99	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	98	80-124

Data File: \\Gomsserver\DD\chem\MSVDA08.i\010906.b\HA920TVH.D Date : 09-JAN-2006 19:30 Client ID: DYNA P&T Instrument: MSVDA08.i Sample Info: S,184141-008 Operator: LW

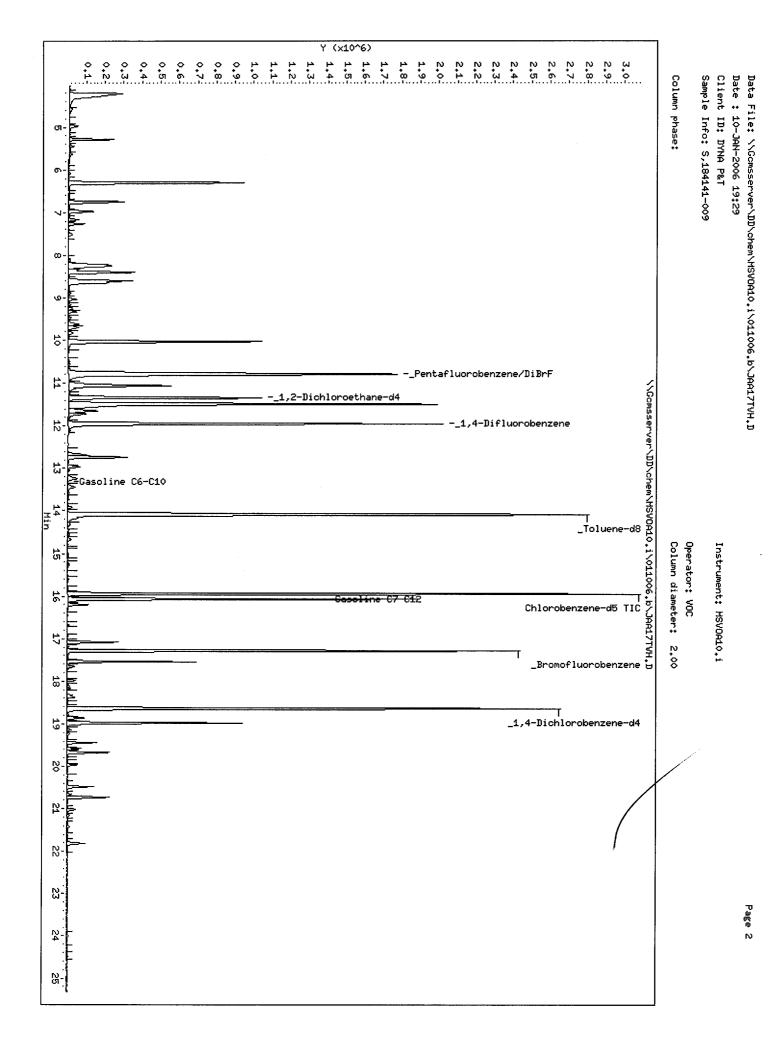




			Gasoline	by GC/MS	
Lab #:	18414	11		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA	Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331			Analysis:	EPA 8260B
Field ID:		MW-10		Batch#:	109369
Lab ID:		184141-009		Sampled:	01/03/06
Matrix:		Water ·		Received:	01/04/06
Units:		ug/L		Analyzed:	01/10/06
Diln Fac:		5.000			

Analyte	Result	RL
Gasoline C7-C12	2,000	250
tert-Butyl Alcohol (TBA)	ND	50
Isopropyl Ether (DIPE)	ND	2.5
Ethyl tert-Butyl Ether (ETBE)	ND	2.5
Methyl tert-Amyl Ether (TAME)	ND	2.5
MTBE	88	2.5
1,2-Dichloroethane	ND	2.5
Benzene	350	2.5
Ethanol	ND	5,000
Toluene	6.0	2.5
1,2-Dibromoethane	ND	2.5
Ethylbenzene	210	2.5
m,p-Xylenes	16	2.5
o-Xylene	ND	2.5

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	90	80-125
Toluene-d8	101	80-120
Bromofluorobenzene	104	80-124

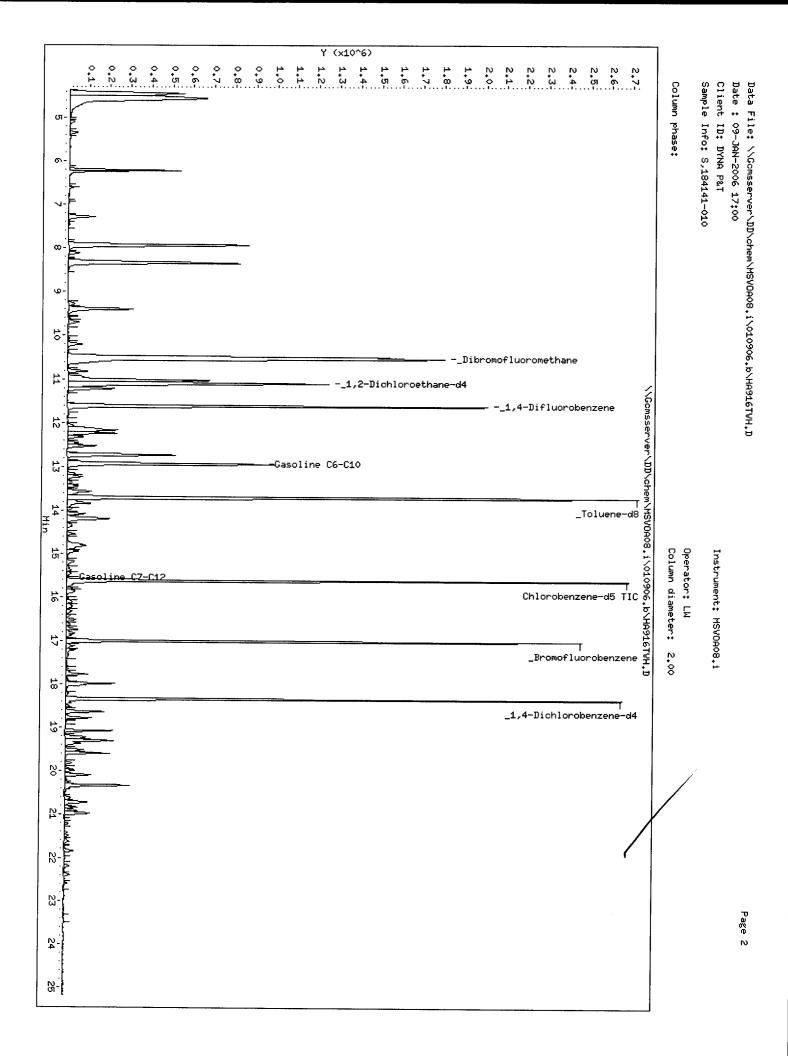


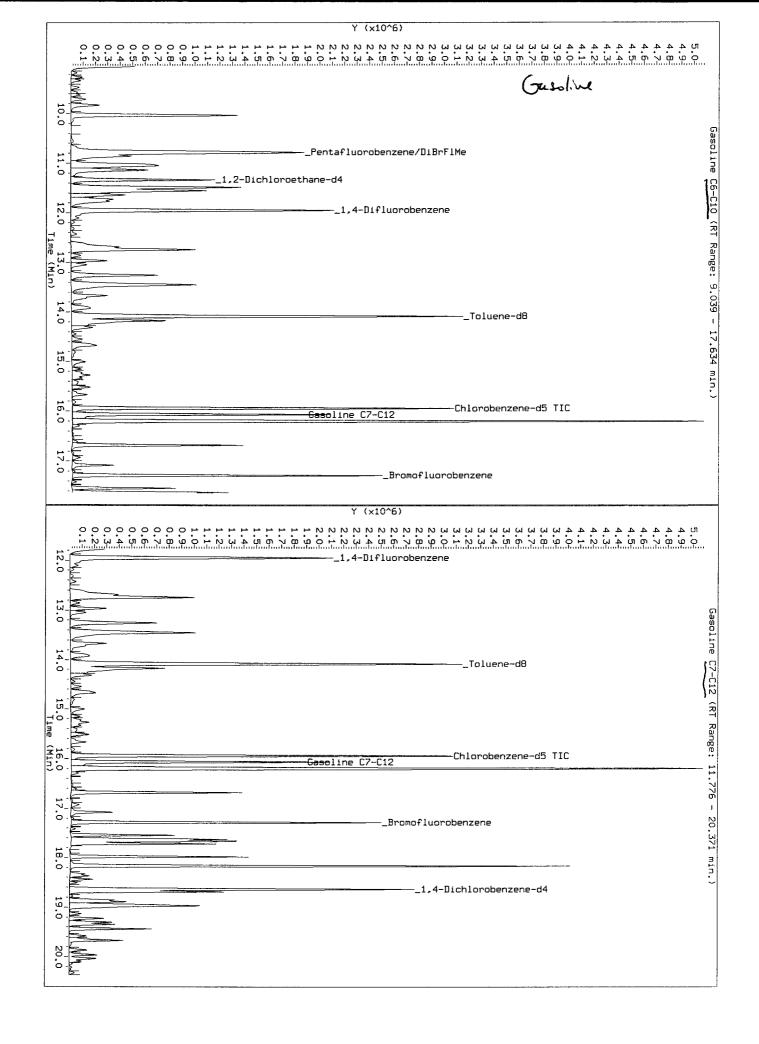


		Gasoline	by GC/MS	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Field ID:	MW-12	,	Batch#:	109337
Lab ID:	184141-010		Sampled:	01/03/06
Matrix:	Water		Received:	01/04/06
Units:	ug/L		Analyzed:	01/09/06
Diln Fac:	1.000			

Analyte	Result	RL
Gasoline C7-C12	480 Y	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	30	0.50
1,2-Dichloroethane	ND	0.50
Benzene	13	0.50
Ethanol	ND	1,000
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	88	80-121
1,2-Dichloroethane-d4	101	80-125
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-124







		Gasoline by GC/MS	
Lab #:	184141	Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental Engin	eering Inc. Prep:	EPA 5030B
Project#:	2331	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC323514	Batch#:	109337
Matrix:	Water	Analyzed:	01/09/06
Units:	ug/L		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Ethanol	ND	1,000
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	89	80-121
1,2-Dichloroethane-d4	101	80-125
Toluene-d8	96	80-120
Bromofluorobenzene	101	80-124

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



	Gasoline	by GC/MS	
Lab #:	184141	Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2331	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC323630	Batch#:	109369
Matrix:	Water	Analyzed:	01/10/06
Units:	ug/L	-	

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Ethanol	ND	1,000
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-121
1,2-Dichloroethane-d4	91	80-125
Toluene-d8	101	80-120
Bromofluorobenzene	110	80-124

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

	Gasolir	ne by GC/MS	
Lab #: Client:	184141 SOMA Environmental Engineering Inc	Location: . Prep:	3609 Int'l Blvd., Oakland EPA 5030B
Project#:	2331	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	109337
Units: Diln Fac:	ug/L 1.000	Analyzed:	01/09/06

Type:

ВS

Lab ID:

QC323510

Analyte		Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)		125.0	135.7	109	66-138
Isopropyl Ether (DIPE)		25.00	20.11	80	74-121
Ethyl tert-Butyl Ether (ETBE)		25.00	23.54	94	77-123
Methyl tert-Amyl Ether (TAME)		25.00	24.04	96	77-120
MTBE		25.00	21.33	85	72-120
1,2-Dichloroethane		25.00	27.18	109	77-120
Benzene		25.00	24.13	97	80-120
Toluene		25.00	25.55	102	80-120
1,2-Dibromoethane		25.00	26.48	106	80-120
Ethylbenzene		25.00	27.59	110	80-120
m,p-Xylenes		50.00	55.04	110	80-121
o-Xylene		25.00	27.73	111	80-120
Surrogate	*REC	Limits			
Dibromofluoromethane	91	80-121			
1,2-Dichloroethane-d4	103	80-125			
Toluene-d8	96	80-120			
Bromofluorobenzene	98	80-124			

Type: BSD			Lab ID:	QC323	511			
Analyte		Spiked		Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)		125.0		133.5	107	66-138	2	25
Isopropyl Ether (DIPE)		25.00		20.22	81	74-121	1	20
Ethyl tert-Butyl Ether (ETBE)		25.00		23.09	92	77-123	2	20
Methyl tert-Amyl Ether (TAME)		25.00		23.66	95	77-120	2	20
MTBE		25.00		21.75	87	72-120	2	20
1,2-Dichloroethane		25.00		24.65	99	77-120	10	20
Benzene		25.00		22.08	88	80-120	9	20
Toluene		25.00		23.73	95	80-120	7	20
1,2-Dibromoethane		25.00		24.79	99	80-120	7	20
Ethylbenzene		25.00		25.20	101	80-120	9	20
m,p-Xylenes		50.00		51.15	102	80-121	7	20
o-Xylene		25.00		25.23	101	80-120	9	20
Surrogate	%REC	Limits						
Dibromofluoromethane	90	80-121					********	25999499993
1,2-Dichloroethane-d4	99	80-125						
Toluene-d8	95	80-120						
Bromofluorobenzene	102	80-124						



Bromofluorobenzene

		Gasoline	by GC/MS	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Matrix:	Water		Batch#:	109337
Units:	ug/L		Analyzed:	01/09/06
Diln Fac:	1.000			

Type: BS		Lab ID	: QC32	23512	
Analyte	S1	piked	Result	%REC	Limits
Gasoline C7-C12	1,	000	1,007	101	70-130
Surrogate		Jimits			
Dibromofluoromethane	e 91 8	30-121			
1,2-Dichloroethane-	d4 104 8	30-125			
Toluene-d8	98 8	80-120			

80-124

98

Type: BSD Lab ID: QC323513 Analyte Spiked Result %REC Limits RPD Lim Gasoline C7-C12 1,000 1,050 105 70-130 20 4 Surrogate %REC Limits Dibromofluoromethane 89 80-121 1,2-Dichloroethane-d4 103 80-125 Toluene-d8 98 80-120 Bromofluorobenzene 99 80-124



		Gasoline	by GC/MS	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Туре:	LCS		Diln Fac:	1.000
Lab ID:	QC323627		Batch#:	109369
Matrix:	Water		Analyzed:	01/10/06
Units:	ug/L		-	

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	111.3	89	66-138
Isopropyl Ether (DIPE)	25.00	24.93	100	74-121
Ethyl tert-Butyl Ether (ETBE)	25.00	27.34	109	77-123
Methyl tert-Amyl Ether (TAME)	25.00	22.62	90	77-120
MTBE	25.00	23.89	96	72-120
1,2-Dichloroethane	25.00	22.08	88	77-120
Benzene	25.00	23.94	96	80-120
Toluene	25.00	23.92	96	80-120
1,2-Dibromoethane	25.00	23.72	95	80-120
Ethylbenzene	25.00	24.12	96	80-120
m,p-Xylenes	50.00	48.23	96	80-121
o-Xylene	25.00	24.24	97	80-120

Dibromofluoromethane	103	80-121	· · · ·
1,2-Dichloroethane-d4	89	80-125	
Toluene-d8	100	80-120	
Bromofluorobenzene	102	80-124	



		Gasoline	by GC/MS	
Lab #:	184141		Location:	3609 Int'l Blvd., Oakland
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:	2331		Analysis:	EPA 8260B
Matrix:	Water		Batch#:	109369
Units:	ug/L		Analyzed:	01/10/06
Diln Fac:	1.000			

Type:	BS			Lab ID:	QC32	23628		
	Analyte		Spiked		Result	%RE	C Limits	
Gasoline (	C7-C12		1,000	·····	943.9	94	70-130	
	Surrogate	%REC	Limits					
Dibromoflu	uoromethane	105	80-121					
1,2-Dichlo	oroethane-d4	93	80-125					
Toluene-d8	8	101	80-120					
Bromofluor	robenzene	103	80-124					

Type: BSD		Lab ID:	QC323629						
Analyte	Spik	ed Resu	1t %	REÇ L	im	it	s	RPD	Lim
Gasoline C7-C12	1,00	0 1,012	2 10	1 7	0 -	130	0	7	20
Surrogate	%RBC Lim	its							
Dibromofluoromethane	100 80-	121						<u></u>	
1,2-Dichloroethane-d4	4 90 80-	125							
Toluene-d8	101 80-	120							



		Gasoline	by GC/MS	
Lab #: 18414			Location:	3609 Int'l Blvd., Oakland
Client: SOMA	Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#: 2331			Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZŻ		Batch#:	109369
MSS Lab ID:	184198-027		Sampled:	01/06/06
Matrix:	Water		Received:	01/06/06
Units:	ug/L		Analyzed:	01/11/06
Diln Fac:	1.000	· · · · · · · · · · · · · · · · · · ·		0 = / 2 = / 0 0

Type:	MS	L.	ab ID:	QC323631		
Anal		MSS Result	Spiked	Result	%REC	Limits
tert-Butyl Alco		<1.348	125.0	115.3	92	70-145
Isopropyl Ether		<0.02749	25.00	24.70	99	78-125
Ethyl_tert-Buty		<0.03408	25.00	27.02	108	78-124
Methyl tert-Amy	l Ether (TAME)	<0.05699	25.00	23.07	92	78-120
MTBE		0.2887	25.00	23.89	94	74-121
1,2-Dichloroetha	ane	<0.05559	25.00	23.21	93	78-121
Benzene		<0.02734	25.00	25.11	100	78-120
Toluene		0.1547	25.00	25.40	101	78-120
1,2-Dibromoetha	ne	<0.06951	25.00	24.67	99	80-120
Ethylbenzene		<0.1099	25.00	24.61	98	77-120
m,p-Xylenes		<0.1956	50.00	49.20	98	74-120
o-Xylene		<0.1276	25.00	25.06	100	74-120
Surro		REC Limits				
Dibromofluoromet	chane 10					
1,2-Dichloroetha						
Toluene-d8	10	1 80-120				
Bromofluorobenze	ene 10	3 80-124				

Type:	MSD			Lab ID:	QC	323632			
	Analyte		Spiked		Result	%REC	Limits	RPD	Lim
tert-Buty			125.0		122.4	98	70-145	6	22
Isopropyl	Ether (DIPE)		25.00		24.78	99	78-125	0	20
Ethyl ter	t-Butyl Ether (ETBE)		25.00		27.40	110	78-124	1	20
	rt-Amyl Ether (TAME)		25.00		23.86	95	78-120	3	20
MTBE			25.00		24.43	97	74-121	2	20
1,2-Dichle	oroethane		25.00		23.64	95	78-121	2	20
Benzene			25.00		25.19	101	78-120	0	20
Toluene			25.00		25.09	100	78-120	1	20
1,2-Dibror	noethane		25.00		25.69	103	80-120	4	20
Ethylbenze			25.00		24.13	97	77-120	2	20
m,p-Xylene	es		50.00		48.08	96	74-120	2	20
o-Xylene			25.00		24.53	98	74-120	2	20
Dibromofli	Surrogate loromethane	*REC	<u>Limits</u>						
1 2-Dichl	proethane-d4	101	80-121						
Toluene-da		93	80-125						
Bromofluor		103	80-120						
	CODCITZENE	103	80-124						

# **Appendix D**

Chain of Custody Forms and Laboratory Reports

for the

Groundwater Extraction Treatment System



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Date: 17-JAN-06 Lab Job Number: 184144 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: Caul Withun G LJB Project Manager Reviewed by: AFE & BEE For JG Operations Manager

This package may be reproduced only in its entirety.

NELAP # 01107CA



#### CASE NARRATIVE

Laboratory number: Client: Project: Location: Request Date: Samples Received: 184144 SOMA Environmental Engineering Inc. 2333 3609 International Blvd 01/04/06 01/04/06

This hardcopy data package contains sample and QC results for three water samples, requested for the above referenced project on 01/04/06. The samples were received cold and intact.

### Volatile Organics by GC/MS (EPA 8260B):

No analytical problems were encountered.

## **CHAIN OF CUSTODY**

Page \_\_\_\_\_of \_\_\_\_

	is & Tompkins, Ltd.						N - (1) - 1 (	11										Α	na	lyse	es					
	tical Laboratory Since 1878 2323 Fifth Street Berkeley, CA 94710 (510)486-0900 Phone		C&T L	OG	in i	#	8414	-																		
	(510)486-0532 Fax		Samp	ler:																						
Projec	t No: 2333		Repor	tΤ	o:		Tony Peri	ni						m												
Projec	t Name:3609 International B	livd., Oakland	Comp	any	y :		SOMA Envir							BTEX, MtBE 8260B												
Turnai	round Time: Standard		Telep	hor	ne:		<b>734</b> . 925-244-660	00						At BE												
			Fax:				925-244-660						i	×. ∠												
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Lab No.	Sample ID.	Sampling Time	Date	Soil	Waste		# of Containers	HCL	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	ШО			<u> </u>												
-1	Influent	1/4/06 2	: 80 M		X		3-VOAs	¥-																		
-2	GAC-1	1/4/04 2	ID PM		X		3-VOAs	X						X									_	_	_	
- 3	PSP#1	1/4/06 2:	<del>o (</del> M		Å_	╋	3-VOAs	$\not\succeq$	-					F				+		-			-+	-		
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### Lisa Brooker

From:	"Tony Perini" <tperini@somaenv.com></tperini@somaenv.com>
To:	<lisa@ctberk.com></lisa@ctberk.com>
Sent:	Thursday, January 12, 2006 2:05 PM
Subject:	RE: 2333 - C&T Reports (184144)

Lisa for this lab report, the samples for PSP#1 and influent have been switched. Please correct the field IDs, label PSP#1 on report as influent, and influent on report as PSP#1. Higher concentrations should be at the influent to the system. Thank you. If there is any further questions please call me at 925-734-6400.

-----Original Message-----From: Joyce Bobek [mailto:jbobek@somaenv.com] Sent: Wednesday, January 11, 2006 10:40 AM To: Tony Perini Subject: FW: 2333 - C&T Reports (184144)

-----Original Message-----From: Lisa Brooker [mailto:lisa@ctberk.com] Sent: Wednesday, January 11, 2006 10:23 AM To: jbobek@somaenv.com Subject: 2333 - C&T Reports (184144)

Attached is a PDF version of the hardcopy reports for C&T job 184144.

Email compiled and sent 01/11/06 10:22 AM.

		Gasoline	by GC/MS	
Lab #:	184144		Location:	3609 International Blvd
	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:			Analysis:	EPA 8260B
Field ID:	 PSP#1		Batch#:	109339
Lab ID:	184144-001		Sampled:	01/04/06
Matrix:	Water		Received:	01/04/06
Units:	ug/L		Analyzed:	01/09/06
Diln Fac:	1.000			

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Ethanol	ND	1,000
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-121
1,2-Dichloroethane-d4	90	80-125
Toluene-d8	99	80-120
Bromofluorobenzene	105	80-124

ND= Not Detected RL= Reporting Limit Page 1 of 1 Curtis & Tompkins, Ltd.



		Gasoline	by GC/MS	
Lab #:	184144		Location:	3609 International Blvd EPA 5030B
Client: Project#:	SOMA Environmental Eng 2333	ineering inc.	Prep: Analysis:	EPA 8260B
Field ID:	GAC-1		Batch#:	109339
Lab ID:	184144-002		Sampled: Received:	01/04/06 01/04/06
Matrix: Units:	Water ug/L		Analyzed:	01/09/06
Diln Fac:	1.000			

Analyte	Result	<b>RL</b> 50	
Gasoline C7-C12		10	
tert-Butyl Alcohol (TBA)	ND		
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Ethanol	ND	1,000	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surroyare	BICE -	
Dibromofluoromethane	101	80-121
1,2-Dichloroethane-d4	90	80-125
Toluene-d8	99	80-120
Bromofluorobenzene	103	80-124

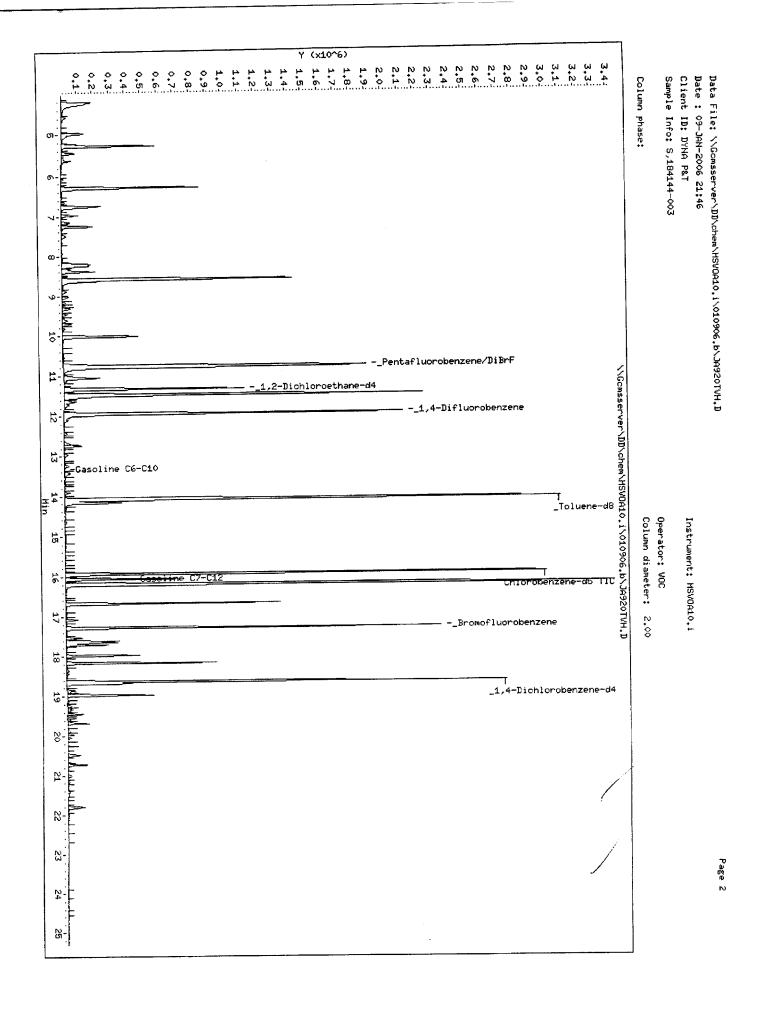
ND= Not Detected RL= Reporting Limit Page 1 of 1

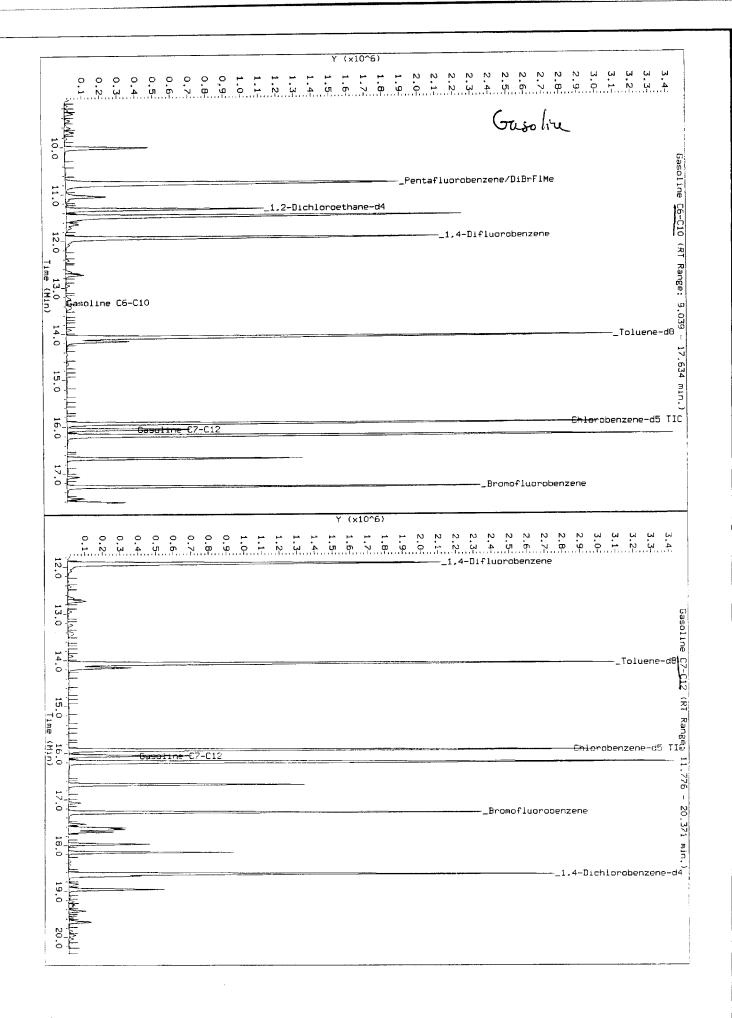


		Gasoline	by GC/MS	
Lab #:	184144		Location:	3609 International Blvd
Client:	SOMA Environmental	Engineering Inc.	Prep:	EPA 5030B
Project#:			Analysis:	EPA 8260B
Field ID:	 INFLUENT		Batch#:	109339
	184144-003		Sampled:	01/04/06
Lab ID:			Received:	01/04/06
Matrix:	Water		Analyzed:	01/09/06
Units:	ug/L		Anaryzeu.	
Diln Fac:	10.00			

Result	RL
6,700	500
390	100
ND	5.0
ND	5.0
ND	5.0
740	5.0
ND	5.0
750	5.0
ND	10,000
94	5.0
ND	5.0
	5.0
	5.0
310	5.0
	6,700 390 ND ND ND 740 ND 750 ND 94 ND 160 900

Surrogate	* <b>ke</b> l	
Dibromofluoromethane	102	80-121
1,2-Dichloroethane-d4	91	80-125
Toluene-d8	100	80-120
Bromofluorobenzene	100	80-124
Diemolidoidonicente		





## Batch QC Report

	Gasolin	e by GC/MS	and a second
Lab #:	184144	Location:	3609 International Blvd
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2333	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC323524	Batch#:	109339
Matrix:	Water	Analyzed:	01/09/06
Units:	ug/L		

ct

Curtis & Tompkins, Ltd.

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	ND	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
MTBE	ND	0.50
1,2-Dichloroethane	ND	0.50
Benzene	ND	0.50
Ethanol	ND	1,000
Toluene	ND	0.50
1,2-Dibromoethane	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	0.50
o-Xylene	ND	0.50
Surrorata	Spec limite	

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-121
1,2-Dichloroethane-d4	90	80-125
Toluene-d8	100	80-120
Bromofluorobenzene	110	80-124

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



Curtis & Tompkins, Ltd.

Batch QC Report

	Gasoline	e by GC/MS	
Lab #: 184144 Client: SOMA Environ	mental Engineering Inc.	Location: Prep:	3609 International Blvd EPA 5030B EPA 8260B
Project#: 2333 Matrix: Water Units: ug/L Diln Fac: 1.000		Analysis: Batch#: Analyzed:	109339 01/09/06

Type: BS		Lab	ID: QC323	520	
Analyte		Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TE	A)	125.0	115.2	92	66-138
Isopropyl Ether (DIPE)		25.00	23.06	92	74-121
Ethyl tert-Butyl Ether	(ETBE)	25.00	26.16	105	77-123
Methyl tert-Amyl Ether		25.00	22.29	89	77-120
MTBE	,,	25.00	22.92	92	72-120
1,2-Dichloroethane		25.00	21.57	86	77-120
Benzene		25.00	23.10	92	80-120
Toluene		25.00	24.27	97	80-120
1,2-Dibromoethane		25.00	23.78	95	80-120
Ethylbenzene		25.00	23.11	92	80-120
m,p-Xylenes		50.00	47.55	95	80-121
o-Xylene		25.00	23.59	94	80-120
Surrogate	%RE(	Limita			
Dibromofluoromethane	100	80-121			
1,2-Dichloroethane-d4	89	80-125			
Toluene-d8	99	80-120			
Bromofluorobenzene	104	80-124			

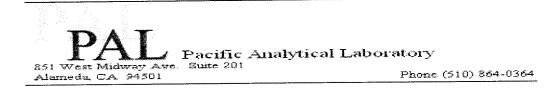
Type:	BSD			Lab ID:	QC323	521			
	Analyte		Spiked		Result	%REC	Limits	RPD	
tert-Buty	l Alcohol (TBA)	*****	125.0		108.2	87	66-138	6	25
Isopropyl	Ether (DIPE)		25.00		25.38	102	74-121	10	20
Ethyl ter	t-Butyl Ether (ETBE)		25.00		28.08	112	77-123	7	20
Methyl te	rt-Amyl Ether (TAME)		25.00		23.34	93	77-120	5	20
MTBE	-		25.00		24.26	97	72-120	6	20
1,2-Dichl	oroethane		25.00		22.90	92	77-120	6	20
Benzene			25.00		25.10	100	80-120	8	20
Toluene			25.00		26.12	104	80-120	7	20
1,2-Dibro	moethane		25.00		24.52	98	80-120	3	20
Ethylbenz	ene		25.00		25.38	102	80-120	9	20
m,p-Xylen	es		50.00		51.70	103	80-121	8	20
o-Xylene			25.00		26.04	104	80-120	10	20
	Surrogate	%REC	Limits						
Dipromofl	uoromethane	100	80-121						, <u></u>
1,2-Dichl	oroethane-d4	87	80-125						i
Toluene-d		99	80-120						
Bromofluo	robenzene	102	80-124						1



Batch QC Report

			Gasoline	by GC/MS	l			
	104144			Location:		3609 Interna	tional Bl	vd
Lab #:	184144					EPA 5030B	TCIONAL DI	va
Client:	SOMA Environmental	Enginee	ring inc.	Prep:		EPA 8260B		
Project#:				Analysis:				
Matrix:	Water			Batch#:		109339		
Units:	ug/L			Analyzed:		01/09/06		
Diln Fac:	: 1.000							
Type :	BS			Lab ID:		QC323522		
	Analyte		Spiked		Result	%RB(	: Limits	
Gasoline	C7-C12		1,000		1,008	101	70-130	·····
	Surrogate	%REC						
	luoromethane	100	80-121					
	loroethane-d4	89	80-125					
Toluene-o		100	80-120					
Bromoflue	orobenzene	101	80-124					
_	2.22			T I TD		000000000		
Type :	BSD			Lab ID:		QC323523		
	Analyte		Spiked		Result	%RE(	C Limits	RPD Lim
								1 20
Gasoline			1,000		1,019	102	70-130	1 20
Gasoline		%rec			1,019	102	70-130	1 20
	C7-C12	<b>%RBC</b> 99			1,019		·····	1_20
Dibromof	C7-C12 Surrogate		Limits		1,019		·····	1 20
Dibromof	C7-C12 Surrogate luoromethane loroethane-d4	99	Limits 80-121		1,019		·····	1 20

RPD= Relative Percent Difference Page 1 of 1



20 December 2005

Mansour Sepehr SOMA Environmental Engineering Inc. 6620 Owens Drive, Suite A Pleasanton, CA 94588

RE: 3609 International Blvd, Oakland

Work Order Number: 5120007

This Laboratory report has been reviewed for technical correctness and completeness. This entire report was reviewed and approved by the Laboratory Director or the Director's designee, as verified by the following signature.

Sincerely,

pet of a fill filler

Maiid Akhavan Laboratory Director



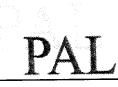
	ANALYTICAL DEPOPT FOR SAMPLES	
Pleasanton CA, 94588	Project Manager: Mansour Sepehr	20-Dec-05 11:33
6620 Owens Drive, Suite A	Project Number: 2333	Reported:
SOMA Environmental Engineering Inc.	Project: 3609 International Blvd, C	Dakland

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Influent	5120007-01	Water	09-Dec-05 10:10	09-Dec-05 11:13
GAC-1	5120007-02	Water	09-Dec-05 10:05	09-Dec-05 11:13
PSP-1	5120007-03	Water	09-Dec-05 10:00	09-Dec-05 11:13

Pacific Analytical Laboratory

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



SOMA Environmental Engineering Inc.Project:3609 International Blvd, Oakland6620 Owens Drive. Suite AProject Number:2333Reported:Pleasanton CA, 94588Project Manager:Mansour Sepehr20-Dec-05 11:33

## Volatile Organic Compounds by EPA Method 8260B Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Influent (5120007-01RE1) Water Sampled	: 09-Dec-05 10:10	Received: 09-	Dec-05 11	13					
Gasoline (C6-C12)	1220	215	ug/l	4.3	BL51501	09-Dec-05	14-Dec-05	EPA 8260B	
Benzene	253	2.15	n	"	**	**	••	"	
Ethylbenzene	8.40	2.15	"	н		ii.	"	17	
m&p-Xylene	98.0	4.30	*	"		"		"	
o-xylene	52.7	2.15	9	"		"	"		
Toluene	ND	8.60	*	ч	"	**	"		
MTBE	518	2.15	н	"	"	"			
Surrogate: 4-Bromofluorobenzene		87.6 %	70	130	"	"	"	17	
Surrogate: Dibromofluoromethane		108 %	70	130	"	"	"	"	
Surrogate: Perdeuterotoluene		90.8 %	70	130	"	"	"	0	
GAC-1 (5120007-02) Water Sampled: 09-1	Dec-05 10:05 Rece	eived: 09-Dec-(	05 11:13						
Gasoline (C6-C12)	ND	50.0	ug/l	1	BL51501	09-Dec-05	13-Dec-05	EPA 8260B	
Benzene	ND	0.500	п	"	"		11	"	
Ethylbenzene	ND	0.500	"	0				n	
m&p-Xylenc	ND	1.00		"		**		**	
o-xylene	ND	0.500	"		"	н	"		
Toluene	ND	2.00		*	47	**		n	
MTBE	ND	0.500	"	н	•		"		
Surrogate: 4-Bromofluorobenzene		80.0 %	70-	130	"			"	
Surrogate: Dibromofluoromethane		112 %	70-	130	•	**			
Surrogate: Perdeuterotoluene		90.2 %	70-	130	"	"	12		
PSP-1 (5120007-03) Water Sampled: 09-E	)ec-05 10:00 Recei	ived: 09-Dec-0	5 11:13						
Gasoline (Co-Cl2)	ND	50.0	ug/l	1	BL51501	09-Dec-05	13-Dec-05	EPA 8260B	
Benzene	ND	0.500	0		"	n		e.	
Ethylbenzene	ND	0.500		н. 1		P	"	1-	
m&p-Xylenc	ND	1.00			"	<b>n</b> '	P.	P.	
o-xvlene	ND	0.500		"	**	**			
Toluene	ND	2.00			*		"	j.	
MTBE	ND	0.500	"		"		р		
Surrogate: 4-Bromofluorobenzene		77.6 %	70-	130	"		0		
Surrogate: Dibromofluoromethane		116 %	70-	130		"	"	<i>v</i> .	
Surrogate: Perdeuterotoluenc		92.8 %	70-	130		**	*		

Pacific Analytical Laboratory

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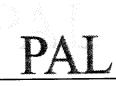
		PAL
SOMA Environmental Engineering Inc.	Project: 3609 International Blvd, Oakland	
6620 Owens Drive, Suite A	Project Number: 2333	Reported:
Pleasanton CA, 94588	Project Manager: Mansour Sepehr	20-Dec-05 11:33
Va	latile Organic Compounds by EPA Method 8260B	
	Pacific Analytical Laboratory	

	Reporting							
Analyte Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Pacific Analytical Laboratory

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A T



ſ	SOMA Environmental Engineering Inc.	Project: 3609 International Blvd, Oakland	
	6620 Owens Drive, Suite A	Project Number: 2333	Reported:
	Pleasanton CA, 94588	Project Manager: Mansour Sepehr	20-Dec-05 11:33

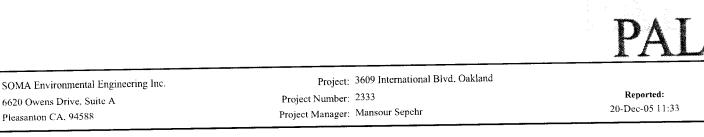
## Volatile Organic Compounds by EPA Method 8260B - Quality Control

## Pacific Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch BL51501 - EPA 5030 Water MS										
Blank (BL51501-BLK1)				Prepared &	c Analyzed:	15-Dec-05				
Surrogate: 4-Bromofluorohenzene	40.6		ug/l	50.0		81.2	70-130			
Surrogate: Dibromofluoromethane	54.9		"	50.0		110	70-130			
Surrogate: Perdeuterotoluene	46.2		"	50.0		92.4	70-130			
Gasoline (C6-C12)	ND	50.0	"							
Benzene	ND	0.500	л							
Ethylbenzene	ND	0.500	"							
m&p-Xylene	ND	1.00	"							
5-xylene	ND	0.500	н							
Tolucne	ND	2.00	**							
MTBE	ND	0.500	"							
LCS (BL51501-BS1)				Prepared &	& Analyzed	: 15-Dec-05				
Surrogate: 4-Bromofluorobenzene	47.9		ug/l	50.0		95.8	70-130			
Surrogate: Dibromofluoromethane	51.2		"	50.0		102	70-130			
Surrogate: Perdeuterotoluene	47.3		"	50.0		94.6	70-130			
Gasoline (C6-C12)	1560	50.0	**	2000		78.0	70-130			
Benzene	109	0.500		100		109	70-130			
Toluene	108	2.00	"	100		108	70-130			
MTBE	101	0,500	0	100		101	70-130			
LCS Dup (BL51501-BSD1)		Prepared & Analyzed: 15-Dec-05								
Surrogate: 4-Bromofiuorobenzenc	46.5		ид/Т	50.0		93.0	70-130			
Surrogate: Dibromofluoromethane	52.4		"	50.0		105	70-130			
Surrogate: Perdeuterotoiuene	46.8		11	50.0		93.6	70-130			
Gasoline (C6-C12)	1620	50.0		2000		81.0	70-130	3.77	20	
Benzene	106	0,500		100		106	70-130	2.74	20	
Toluenc	107	2.00		100		107	70-130	0,930	20	
MTBF.	106	0,500		100		106	70-130	4.83	20	

Pacific Analytical Laboratory

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### Notes and Definitions

Analyte DETECTED DET Analyte NOT DETECTED at or above the reporting limit ND Not Reported NR Sample results reported on a dry weight basis dry

Relative Percent Difference RPD

Pleasanton CA, 94588

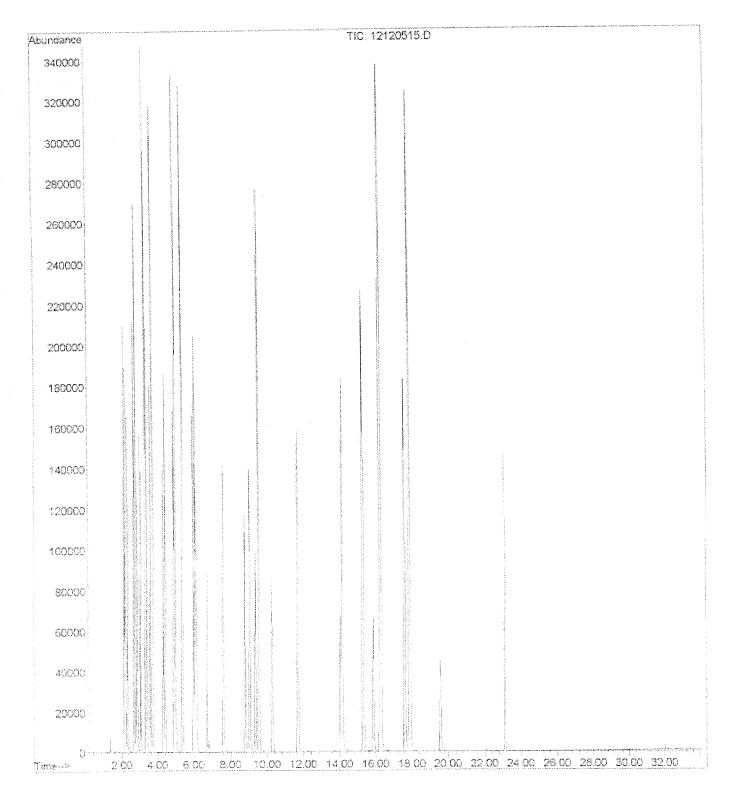
Pacific Analytical Laboratory

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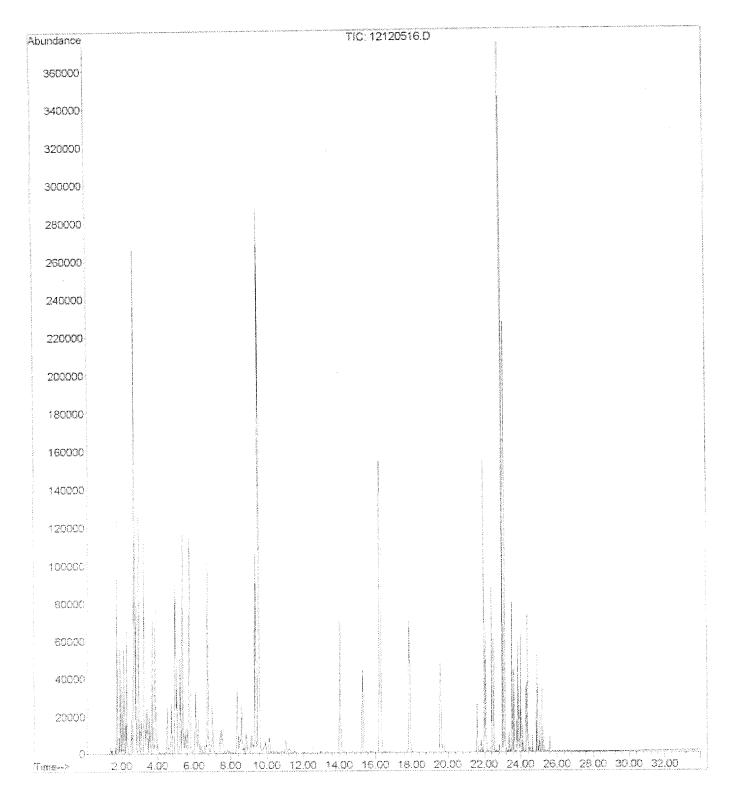
File :C:\MSDChem\1\DATA\2005-Dec-12-1721.b\12120517.D Operator : Acquired : 13 Dec 2005 1:29 pm using AcqMethod VOCOXY.M Instrument : PAL GCMS Sample Name: BL51501-BLK1 Misc Info : Vial Number: 17

undance		TIC: 12120517.D
115000		
110000	)	
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100000	<b>)</b>	
95000	ס	
90000	ĵ	
85000	D	
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6500	0	
6000	0	
5500	0	
5000	C	
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4000	0	
3500	0	
3000	0	
2500		
2000	0	
1500	0	
1000	0	
500	0	
	o	

File :C:\MSDChem\1\DATA\2005-Dec-12-1721.b\12120515.D Operator : Acquired : 13 Dec 2005 11:42 am using AcqMethod VOCOXY.M Instrument : PAL GCMS Sample Name: BL51501-BS1@voc Misc Info : Vial Number: 15



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File :C:\MSDChem\1\DATA\2005-Dec-12-1721.b\12120516.D
Operator :
Acquired : 13 Dec 2005 12:45 pm using AcqMethod VOCOXY.M
Instrument : PAL GCMS
Sample Name: BL51501-BSI@gas
Misc Info :
Vial Number: 16
```



# CHAIN OF CUSTODY FORM

Page / of /

PAL Pacific Analytical Laboratory 851 West Midway Ave., Suite 201B Alameda, CA 94501 510-864-0364 Telephone 510-864-0365 Fax

Sampler: Brim. Tim's / Mehran Downer: Analyses/Method Project No: 2333 HOW HOW Report To: Tony Perini Project Name: 3609 International Blvd. Oakland Company: SOMA Environmental Engineering, Inc. STEX. Tel: 925-734-6400 Turnaround Time: Standard Fax: 925-734-6401 TPHG, 8260B it al Preservatives Summing the Charles Fine Alaters Containers Water N 0946 19 H. 44 100.1 Simple 11 1.516 Disto 1 14330 974 19. 32.3 1997 1997 1997 Field Notes Nec. Grab Sample 3-VOAs Influent 12/1/05 10:19 44 aanaa A GAC+1 3-VOAs 6.00000 N Grab Sample 105 in anna M nnorra Ży Grab Sample 11/05 3-VOAs 专 10 100 AM Received by: Date/Time: Date/Time: Sampler Remarks: **Relinquished by:** 11 124.11 **EDF** Output Required 1:10100 12/1/15 Sucher Germany

PAL Login#S\200007