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Fourth Quarter 2004
Groundwater Monitoring Report
Castro Valley Gasoline Service Station
3519 Castro Valley Boulevard
Castro Valley, California

November 10, 2004

Project 2761

Prepared for

Mr. Mirazim Shakoori

3519 Castro Valley Boulevard

Castro Valley, California 94546

Prepared by

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Certification

This report has been prepared by SOMA Environmental Engineering, Inc. on behalf of Mr. Mirazim Shakoori, the property owner of 3519 Castro Valley Boulevard, Castro Valley, California to comply with the Alameda County Health Care Services' requirements for the Fourth Quarter 2004 groundwater monitoring event.

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1.0 Introduction

This report has been prepared by SOMA Environmental Engineering, Inc. (SOMA) on behalf of Mr. Mirazim Shakoori, the property owner of the former BP gasoline station located at 3519 Castro Valley Boulevard, Castro Valley, California (the "Site"), as shown in Figure 1.

The Site is located on the southeast corner of Castro Valley Boulevard and Redwood Road, in a commercial and residential area. The Site is elevated 178 feet above mean sea level (msl).

This report summarizes the results of the groundwater monitoring event conducted at the Site on October 19, 2004. It includes the physical and chemical properties measured in the field for each groundwater sample. The physical and chemical properties consisted of measurements of pH, temperature, and electrical conductivity (EC). Also included in this report are the results of the laboratory analyses for each groundwater sample, which was analyzed for:

- Total petroleum hydrocarbons as gasoline (TPH-g),
- Benzene, toluene, ethylbenzene, total xylenes (collectively referred to as BTEX),
- Methyl tertiary Butyl Ether (MtBE),
- Gasoline oxygenates, which included tertiary butyl alcohol (TBA), isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE) and methyl tertiary amyl ether (TAME), Ethanol, and
- Lead scavengers, which included 1,2-Dichloroethane (1,2-DCA) and 1,2-Dibromoethane (EDB).

These activities were performed in accordance with the general guidelines of the Alameda County Health Care Services (ACHCS). Appendix A details the groundwater monitoring procedures used during the Fourth Quarter 2004 monitoring event.

1.1 Previous Activities

In 1984, three single-walled fiberglass underground storage tanks (USTs) with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons were installed in the southeastern portion of the Site. A former dispenser island reportedly existed on the west side of the Site; however, there was no available information on the date of the dispenser removal.

In 1988, a 1,000-gallon double-walled fiberglass waste oil tank (WOT) was installed to replace the previous 380 gallon WOT. In September 1988, Kaprealian Engineering, Inc. (KEI) removed the original 380-gallon WOT and

observed holes in this UST. Confirmation soil samples were from the bottom of the excavation due to holes observed in former WOT, benzene and toluene were detected at 6.8 ug/Kg and 9.5 ug/Kg, respectively. Total petroleum hydrocarbons (TPH) and total oil and grease (TOG) constituents were not detected.

In September and October 1992, Environmental Science & Engineering, Inc. (ESE) drilled five soil boreholes and converted them into monitoring wells (ESE-1 through ESE-5). Soil and groundwater samples were collected during well installation. In the soil samples, the maximum level of soil contamination was detected in monitoring well borehole ESE-5 at 220,000 ug/Kg TPH-g, 1,400 ug/Kg benzene, 8,200 ug/Kg toluene, 3,300 ug/Kg ethylbenzene, and 18,000 ug/Kg xylenes. In the groundwater samples, at ESE-1, the maximum concentrations were TPH-g 2,300 ug/L, benzene 370 ug/L, toluene 160 ug/L, ethylbenzene 17 ug/L, and xylenes 110 ug/L. Figure 2 shows the location of wells ESE-1 to ESE-5.

In July 1995, three additional monitoring wells were installed two on-site wells, MW-6 and MW-8, and one off-site well, MW-7. In April 1996, well MW-8 was decommissioned on the western margin of the Site to accommodate the road-widening project along Redwood Boulevard. Figure 2 shows the location of wells MW-6 to MW-8.

On August 20, 2003, prior to UST removal activities, SOMA oversaw the drilling of two boreholes by Vironex. The two boreholes were drilled in order to characterize the soil for landfill acceptance criteria. The borehole location is shown in Figure 2. In September 2003, three single-walled fiberglass USTs, with capacities of 6,000 gallons, 8,000 gallons, and 10,000 gallons were removed and replaced with new double-walled fuel tanks. The new USTs consisted of double-walled fiberglass tanks with capacities of 12,000 gallons and 20,000 gallons. In addition to the removal and replacement of the USTs, the dispensers, product lines, and vent lines were also removed and replaced. During the Third Quarter 2003, two monitoring wells, ESE-3 and ESE-4, were decommissioned due to the construction activities.

In December 2003, SOMA oversaw the drilling of off-site temporary well boreholes. The boreholes were drilled to determine the horizontal extent of the petroleum hydrocarbon contamination in the off-site areas. The locations of the temporary boreholes are displayed in Figure 2.

On June 10, 2004, SOMA installed on and off-site monitoring wells at the Site. SOMA-1 was installed in the southeastern section of the Site. SOMA-2 to SOMA-4 were installed south and southeast of the Site. Figure 2 shows the location of the newly installed wells. All site wells, which included newly installed wells SOMA-1 to SOMA-4, were surveyed by Kier and Wright Engineers

Surveyors, of Pleasanton, California, on June 21, 2004. Appendix B shows the elevations and coordinates of the surveyed wells.

2.0 Results

The following sections provide the results of the field measurements and laboratory analyses for the October 19, 2004 groundwater monitoring event.

2.1 Field Measurements

Table 1 presents the calculated groundwater elevations in each monitoring well. The groundwater elevations ranged from 167.03 feet in monitoring well SOMA-4 to 171.89 feet in monitoring well MW-6. Table 1 also presents the historical groundwater elevations in different groundwater monitoring wells.

As previously stated, the wells were surveyed on June 21, 2004. Since the Third Quarter 2004, groundwater elevations increased in all of the wells, with the exception of slight decreases in wells SOMA-2 and SOMA-4. Local recharge rates, as well as seasonal fluctuations greatly affect groundwater elevations. During a rainy season, the groundwater ascends causing an increase in the groundwater elevation.

The groundwater elevation contour map is displayed in Figure 3. The groundwater flow direction is south to slightly southeasterly across the Site. The groundwater gradient is approximately 0.015 feet/feet. The groundwater flow direction is consistent with the previous monitoring event (Third Quarter 2004), however, the groundwater gradient increased slightly.

2.2 Laboratory Analyses

Table 1 also presents the results of the TPH-g, BTEX, and MtBE laboratory analyses on the groundwater samples. As shown in Table 1, TPH-g was below the laboratory reporting limit for monitoring wells ESE-2, MW-6, MW-7, SOMA-2, and SOMA-3. The highest TPH-g concentration was detected at 1,600 µg/L in well ESE-1. Figure 4 displays the contour map of the TPH-g concentrations in the groundwater on October 19, 2004.

As shown in Table 1, in general, all BTEX analytes were either at low concentration levels or below the laboratory reporting limit throughout the Site. The highest BTEX concentrations were detected in well ESE-1, at 490 ug/L, 13 ug/L, 12 ug/L, and 25.3 ug/L, respectively. Figure 5 displays the contour map of benzene concentrations in the groundwater on October 19, 2004.

As shown in Table 1, MtBE was below the laboratory reporting limit in both wells

MW-6 and SOMA-3. The highest MtBE concentration was detected in well SOMA-1 at 1,600 µg/L. Figure 6 displays the contour map of MtBE concentrations in the groundwater on October 19, 2004.

The high MtBE concentrations in the southeastern section of the Site, especially in well SOMA-1, can be attributed to a possible earlier release in the vicinity of the former UST cavity. The migration of the MtBE plume can be attributed to the south/southeasterly groundwater flow direction and the high solubility of MtBE in the groundwater. MtBE has migrated off-site as far as SOMA-4; however, MtBE was only detected at a trace concentration in this southernmost off-site region.

As shown in Table 2, in general, based on the results from this monitoring event, TBA was below the laboratory reporting limit in all off-site wells, and both on-site wells MW-6 and ESE-5. Figure 7 displays the contour map of TBA concentrations in the groundwater on October 19, 2004. As displayed in Figure 7, the most impacted TBA region was in the southeastern section of the Site, in wells SOMA-1 and ESE-2.

Gasoline oxygenates DIPE, ETBE, and ethanol, and lead scavenger EDB were below the laboratory reporting limit in all of the groundwater samples collected during the Fourth Quarter 2004. Lead scavenger 1,2-DCA was only detected in well ESE-1. In well ESE-1, 1,2-DCA was detected at 9.9 ug/L.

TAME, generally, was below the laboratory reporting limit throughout the Site, with the exception of wells ESE-1, ESE-2, SOMA-1, and off-site well MW-7. Figure 8 displays the map of TAME concentrations in the groundwater on October 19, 2004.

The following concentration trends were observed since the previous monitoring event, for the more impacted wells, in the southeastern section of the Site.

- In well ESE-1, all TPH-g, BTEX, TBA, TAME, and 1,2-DCA constituents slightly increased.
- In well ESE-2, MtBE, TBA, and TAME all decreased.
- In well ESE-5, TPH-g decreased and MtBE slightly increased.
- In well MW-7, both MtBE and TAME decreased.

For off-site wells SOMA-2 to SOMA-4 the results were as follows.

- All TPH-g and BTEX constituents remained below the laboratory reporting limit in wells SOMA-2 and SOMA-3.
- All gasoline oxygenate constituents, except MtBE, remained below the laboratory reporting limit in wells SOMA-2 to SOMA-4. MtBE decreased in both SOMA-1 and SOMA-4 and remained below the laboratory reporting limit in SOMA-3.

Tables 1 and 2 show more detailed concentration trends.

Appendix C displays the laboratory analytical results for each groundwater sample collected during the Fourth Quarter 2004 monitoring event.

3.0 Conclusions & Recommendations

The findings of the Fourth Quarter 2004 groundwater monitoring event can be summarized as follows:

- The groundwater flow direction has remained south to southeasterly across the Site. Due to the high mobility rate of MtBE, this constituent has migrated off-site and was detected at a trace concentration in the southernmost well, SOMA-4.
- The most impacted region still appears to be in the southeastern section of the Site. This can be attributed to a possible previous release in the western section of the Site and the south to southeasterly groundwater flow direction across the Site.
- The highest TPH-g and BTEX constituents were detected in well ESE-1. The highest gasoline constituents, MtBE, TBA, and TAME were detected in well SOMA-1.
- Based on the results from this monitoring event, all gasoline oxygenate constituents, with the exception of trace MtBE concentrations in wells SOMA-2 and SOMA-4, do not appear to have migrated to downgradient wells SOMA-2 to SOMA-4.

Tables

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-1	Oct-92	177.69	11.22	166.47	2100	370	150	17	110	NA
	Oct-92	177.69	NM	NM	2300	370	160	16	110	NA
	Apr-93	177.69	8.79	168.90	5900	1500	410	110	390	NA
	Jun-93	177.69	10.34	167.35	7600	2900	390	130	460	NA
	Sep-93	177.69	10.91	166.78	2000	490	40	20	56	600
	Sep-93	177.69	NM	NM	1500	420	39	19	56	550
	Dec-93	177.69	9.93	167.76	1800	480	42	19	66	921
	Dec-93	177.69	NM	NM	1500	380	38	17	55	770
	Feb-94	177.69	9.64	168.05	1900	380	48	24	80	585
	Feb-94	177.69	NM	NM	2200	430	42	19	65	491
	Aug-94	177.69	11.72	165.97	2100	450	46	16	50	760
	Oct-94	177.69	10.48	167.21	760	240	16	51	39	230
	Jan-95	177.69	7.77	169.92	840	600	120	22	58	NA
	May-95	177.69	8.69	169.00	2000	640	67	24	98	NA
	Jul-95	177.69	10.12	167.57	190	<0.50	<0.50	<0.50	<1.0	NA
	Nov-95	177.69	10.57	167.12	200	3.4	<1.0	1	<2.0	600
	Feb-96	177.69	7.41	170.28	750	370	23	21	64	680
	Apr-96	177.69	9.12	168.57	310	100	<1.0	<1.0	<1.0	1500
	Jul-96	177.69	10.12	167.57	730	230	74	13	63	750
	Oct-96	177.69	10.80	166.89	420	26	1.6	7.3	12	430
	Jan-97	177.69	10.52	167.17	660	290	4.2	13	36	450
	Apr-97	177.69	9.77	167.92	410	<0.5	<1.0	<1.0	<1.0	580
	Jul-97	177.69	10.55	167.14	420	<0.5	<1.0	<1.0	<1.0	370
	Oct-97	177.69	10.36	167.33	300	56	<1.0	6.5	<1.0	220
	Jan-98	177.69	7.52	170.17	4200	440	9	15	17.7	1300
	Apr-98	177.69	8.80	168.89	15000	3400	190	910	900	4900
	Apr-98	177.69	NM	NM	15000	2800	140	730	730	4400
	Jul-98	177.69	9.73	167.96	NA	NA	NA	NA	NA	NA
	Jul-98	177.69	NM	NM	15000	<2.5	<5.0	<5.0	<5.0	15000
	Dec-98	177.69	9.51	168.18	2400	73	1	2.8	4.6	2000
	Mar-99	177.69	8.65	169.04	4700	58	<1.0	<1.0	<1.0	4700
	Jun-99	177.69	10.51	167.18	600	170	<1.0	7.2	5	3900
	Sep-99	177.69	10.32	167.37	920	200	<25	<25	<25	4900
	Dec-99	177.69	10.24	167.45	460	130	1.2	5.2	1.5	5100
	Mar-00	177.69	7.72	169.97	3000	1300	120	80	140	7300
	Jun-00	177.69	9.40	168.29	2900	540	9.7	20	17	5200
	Sep-00	177.69	10.05	167.64	890	3.4	<0.5	1.4	<0.5	2800
	Dec-00	177.69	8.20	169.49	1600	11.1	<0.5	<0.5	<0.5	2730
	Mar-01	177.69	9.75	167.94	5700	2.28	<0.5	0.51	<1.5	6810
	Jun-01	177.69	10.21	167.48	2000	152	0.669	3.62	2.34	1980
	Sep-01	177.69	10.30	167.39	2500	57.1	<5.0	6.25	<15	2090
	Dec-01	177.69	9.82	167.87	2800	208	6.05	8.54	9.66	2030
	Mar-02	177.69	9.10	168.59	1800	140	6.31	4.5	9.41	1970
	Jun-02	177.69	9.92	167.77	1100	220	2.02	4.23	3.8	1280
	Sep-02	177.69	10.21	167.48	490	39	2.9	<2.0	4.9	670
	Dec-02	177.69	8.56	169.13	730	140	6	3.2	9.1	670
	Mar-03	177.69	9.40	168.29	1700	490	21	22	41	530
	Jun-03	177.69	9.86	167.83	1300	140	<10	<10	<10	480
	Dec-03	177.69	9.32	168.37	1400	390	12	14	26.1	260
	Feb-04	177.69	7.71	169.98	3200	880	50	44	89	200
	May-04	177.69	10.19	167.50	1500	370	10	14	25.2	140
	Aug-04	180.24	10.41	169.83	460	390	7	8.1	15.4	110
	Oct-04	**180.24**	**10.40**	**169.84**	**1600**	**490**	**13**	**12**	**25.3**	**110**

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-2	Oct-92	178.23	11.68	166.55	300	5.4	16	3.9	45	NA
	Apr-93	178.23	9.17	169.06	240	27	<0.5	17	2.6	123
	Jun-93	178.23	10.88	167.35	1700	260	24	110	23	NA
	Jun-93	178.23	NM	NM	1300	240	17	110	25	NA
	Sep-93	178.23	11.56	166.67	240	3.1	0.5	0.6	2.5	643
	Dec-93	178.23	10.48	167.75	250	2.4	2.4	1.5	11	940
	Feb-94	178.23	10.06	168.17	900	<0.5	<0.5	<0.5	<0.5	930
	Aug-94	178.23	11.11	167.12	750	<0.5	<0.5	<0.5	<0.5	1400
	Oct-94	178.23	11.31	166.92	1700	<0.5	<0.5	<0.5	<0.5	3000
	Jan-95	178.23	8.25	169.98	300	2	0.9	0.7	1	NA
	May-95	178.23	9.21	169.02	1200	4	<2.5	<2.5	<5	NA
	Jul-95	178.23	10.64	167.59	2000	<2.5	<2.5	<2.5	<5	NA
	Nov-95	178.23	11.13	167.10	3600	<25	<25	<25	<50	12000
	Nov-95	178.23	NM	NM	3400	<25	<25	<25	<50	12000
	Feb-96	178.23	7.94	170.29	450	<0.5	<1	<1	<1	2300
	Apr-96	178.23	9.73	168.50	260	0.9	<1	<1	<1	8600
	Jul-96	178.23	10.70	167.53	780	<2.5	<5	<5	<5	13393
	Oct-96	178.23	11.39	166.84	2900	<0.5	<1	<1	<1	12000
	Jan-97	178.23	9.04	169.19	<250	<2.5	<5	<5	<5	13000
	Apr-97	178.23	10.31	167.92	2700	<0.5	<1	<1	<1	15000
	Jul-97	178.23	11.02	167.21	11000	<5	<10	<10	<10	11000
	Oct-97	178.23	10.93	167.30	6100	<2.5	<5.0	<5.0	<5.0	7100
	Oct-97	178.23	NM	NM	6600	<2.5	<5.0	<5.0	<5.0	7400
	Jan-98	178.23	7.93	170.30	13000	<0.5	<1	<1	<1	10000
	Jan-98	178.23	NM	NM	13000	<0.5	<1	<1	<1	10000
	Apr-98	178.23	9.34	168.89	19000	<5	<10	<10	<10	36000
	Jul-98	178.23	10.29	167.94	NA	NA	NA	NA	NA	NA
	Jul-98	178.23	NM	NM	19000	<5	<10	<10	<10	36000
	Dec-98	178.23	10.20	168.03	12000	<5	<5	<5	<5	13000
	Mar-99	178.23	9.02	169.21	18000	160	<1	<1	<1	18000
	Jun-99	178.23	9.99	168.24	280	<1	<1	<1	<1	16000
	Sep-99	178.23	10.69	167.54	<500	<25	<25	<25	<25	12000
	Dec-99	178.23	11.26	166.97	<50	<0.3	<0.3	<0.3	<0.6	12000
	Mar-00	178.23	7.95	170.28	<50	1.6	<0.5	<0.5	<0.5	7900
	Jun-00	178.23	9.66	168.57	1600	<0.5	0.73	<0.5	2.2	9400
	Dec-00	178.23	11.15	167.08	6000	0.75	<0.5	<0.5	<0.5	11200
	Mar-01	178.23	10.35	167.88	6900	786	45.7	37.7	71.5	3790
	Jun-01	178.23	11.24	166.99	6400	<2.5	<2.5	<2.5	<7.5	9320
	Sep-01	178.23	11.35	166.88	4800	<12.5	<12.5	<12.5	<37.5	6960
	Dec-01	178.23	10.97	167.26	59000	0.592	<0.5	<0.5	<1	5940
	Mar-02	178.23	10.13	168.10	4500	76	<0.5	<0.5	<1	6660
	Jun-02	178.23	10.91	167.32	250	<12.5	<12.5	<12.5	<25	4900
	Sep-02	178.23	10.82	167.41	1500	<5	<5	<5	6.3	3100
	Dec-02	178.23	7.87	170.36	1400	<5	<5	<5	<5	2400
	Mar-03	178.23	10.24	167.99	2800	<10	<10	<10	<10	4800
	Jun-03	178.23	10.19	168.04	10000	<100	<100	<100	<100	4400
	Dec-03	178.23	9.97	168.26	<50	<0.5	<0.5	<0.5	<0.5	3400
	Feb-04	178.23	7.89	170.34	<50	<0.5	<0.5	<0.5	<0.5	3000
	May-04	178.23	10.70	167.53	<50	<0.5	<0.5	<0.5	<0.5	1100
	Aug-04	180.79	10.99	169.80	<50	<0.5	<0.5	<0.5	<0.5	550
	Oct-04	**180.79**	**10.46**	**170.33**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**410**

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TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-3	Oct-92	178.20	10.58	167.62	430	57	31	3.6	34	NA
	Apr-93	178.20	8.14	170.06	2400	460	220	74	210	NA
	Jun-93	178.20	9.72	168.48	280	56	14	15	13	NA
	Sep-93	178.20	10.46	167.74	72	13	3.5	1.7	4.1	NA
	Dec-93	178.20	9.30	168.90	270	71	32	6.1	33	NA
	Feb-94	178.20	8.97	169.23	520	140	10	20	33	5.74
	Aug-94	178.20	10.02	168.18	<50	8.8	1.6	1.6	2.3	<5.0
	Oct-94	178.20	10.32	167.88	470	190	6.4	15	18	<5.0
	Jan-95	178.20	7.40	170.80	330	260	27	21	20	NA
	May-95	178.20	8.26	169.94	530	180	30	23	44	NA
	Jul-95	178.20	9.54	168.66	<50	<0.50	<0.50	<0.50	<1	NA
	Nov-95	178.20	10.04	168.16	<50	1.7	<0.50	<0.50	<1	<5.0
	Feb-96	178.20	7.08	171.12	<50	8.6	<1	<1	<1	<10
	Apr-96	178.20	8.79	169.41	<50	7.6	<1	<1	<1	65
	Jul-96	178.20	10.09	168.11	<50	12	2.6	2	3.9	26
	Oct-96	178.20	10.48	167.72	NA	NA	NA	NA	NA	NA
	Oct-96	178.20	NM	NM	260	140	<1	<1	2.6	<10
	Jan-97	178.20	8.65	169.55	<50	1.5	1.7	<1	<1	14
	Apr-97	178.20	10.02	168.18	<50	<0.5	<1	<1	<1	14
	Jul-97	178.20	10.66	167.54	10000	1400	1400	300	1280	<250
	Oct-97	178.20	9.83	168.37	<250	<2.5	<5.0	<5.0	36	<50
	Jan-98	178.20	7.06	171.14	130	<0.5	<1.0	<1.0	<1.0	120
	Apr-98	178.20	8.44	169.76	4800	560	<10	15	<10	4000
	Jul-98	178.20	9.27	168.93	NA	NA	NA	NA	NA	NA
	Jul-98	178.20	NM	NM	1800	6.2	<5.0	<5.0	<5.0	1700
	Dec-98	178.20	9.15	169.05	600	54	<1.0	2.1	4.9	340/480
	Mar-99	178.20	8.14	170.06	2000	260	4.4	13	28	870
	Jun-99	178.20	9.44	168.76	290	91	<1.0	8.3	16	240
	Sep-99	178.20	9.69	168.51	130	35	<1.0	2.7	3.8	100
	Dec-99	178.20	10.99	167.21	380	84	1.7	8.7	6.3	160
	Mar-00	178.20	7.12	171.08	950	190	4.6	39	62	350
	Jun-00	178.20	10.92	167.28	300	37	<0.5	2.3	1.3	400
	Sep-00	178.20	11.12	167.08	920	140	1.3	15	4.8	170
	Dec-00	178.20	9.70	168.50	320	64	<0.5	6.24	1.76	201
	Mar-01	178.20	10.07	168.13	680	80.5	0.546	21.1	18.2	398
	Jun-01	178.20	11.42	166.78	380	47	<0.5	3.11	<1.5	242
	Sep-01	178.20	11.55	166.65	340	54.8	<0.5	4.36	<1.5	79.7
	Dec-01	178.20	10.12	168.08	270	31.4	<0.5	1.31	2.24	129
	Mar-02	178.20	9.84	168.36	670	89.8	0.769	23.4	30.4	413
	Jun-02	178.20	10.57	167.63	130	18.6	<0.5	<0.5	<1	166
	Sep-02	178.20	9.90	168.30	88	12	<0.5	<0.5	<0.5	93
	Dec-02	178.20	9.23	168.97	290	55	17	3.7	14	78
	Mar-03	178.20	9.05	169.15	100	3.4	<0.5	0.54	<0.50	140
	Jun-03	178.20	9.30	168.90	520	17	<5	5.3	<5	130

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-4	Oct-92	177.73	10.33	167.40	98	7.2	1.3	1.1	6.1	NA
	Apr-93	177.73	7.88	169.85	550	93	20	23	33	NA
	Jun-93	177.66	8.33	169.33	150	23	0.6	5.4	0.5	54
	Sep-93	177.66	10.05	167.61	110	14	1.7	3.2	4.6	NA
	Dec-93	177.66	8.95	168.71	110	21	7.2	4.2	10	28.75
	Feb-94	177.66	8.65	169.01	210	26	1.2	4.7	11	113
	Aug-94	177.66	9.76	167.90	76	9.6	<0.5	2	<0.5	62
	Oct-94	177.66	9.62	168.04	<50	<0.5	<0.5	<0.5	<0.5	44
	Jan-95	177.66	6.97	170.69	140	56	14	24	23	NA
	May-95	177.66	7.85	169.81	130	21	2.8	8.6	8.2	NA
	Jul-95	177.66	9.20	168.46	<50	<0.5	<0.5	<0.5	<1	NA
	Nov-95	177.66	9.68	167.98	<50	<0.5	0.6	<0.5	<1	18
	Feb-96	177.66	6.59	171.07	100	2.6	<1	1.6	4.1	42
	Apr-96	177.66	8.30	169.36	160	37	15	16	31	43
	Jul-96	177.66	9.21	168.45	60	17	1.5	6.8	11.6	27
	Oct-96	177.66	9.97	167.69	NA	NA	NA	NA	NA	NA
	Oct-96	177.66	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	18
	Jan-97	177.66	7.68	169.98	<50	<0.5	<1.0	<1.0	<1.0	130
	Apr-97	177.66	9.15	168.51	<250	<2.5	<5.0	<5.0	<5.0	<50
	Jul-97	177.66	9.71	167.95	<50	15	<10	<10	<10	<100
	Oct-97	177.66	9.38	168.28	<250	<2.5	<5.0	<5.0	<5.0	<50
	Jan-98	177.66	6.59	171.07	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-98	177.66	7.90	169.76	<250	<2.5	<5.0	<5.0	<5.0	<50
	Jul-98	177.66	8.96	168.70	NA	NA	NA	NA	NA	NA
	Jul-98	177.66	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Dec-98	177.66	8.32	169.34	NA	NA	NA	NA	NA	NA
	Mar-99	177.66	7.71	169.95	NA	NA	NA	NA	NA	NA
	Jun-99	177.66	8.78	168.88	NA	NA	NA	NA	NA	NA
	Sep-99	177.66	9.27	168.39	NA	NA	NA	NA	NA	NA
	Dec-99	177.66	9.21	168.45	NA	NA	NA	NA	NA	NA
	Mar-00	177.66	6.82	170.84	NA	NA	NA	NA	NA	NA
	Jun-00	177.66	8.72	168.94	NA	NA	NA	NA	NA	NA
	Sep-00	177.66	8.72	168.94	NA	NA	NA	NA	NA	NA
	Dec-00	177.66	8.61	169.05	NA	NA	NA	NA	NA	NA
	Mar-01	177.66	8.61	169.05	NA	NA	NA	NA	NA	NA
	Jun-01	177.66	9.24	168.42	NA	NA	NA	NA	NA	NA
	Sep-01	177.66	9.35	168.31	NA	NA	NA	NA	NA	NA
	Dec-01	177.66	8.53	169.13	NA	NA	NA	NA	NA	NA
	Mar-02	177.66	8.44	169.22	NA	NA	NA	NA	NA	NA
	Jun-02	177.66	10.97	166.69	NA	NA	NA	NA	NA	NA
	Sep-02	177.66	9.27	168.39	NA	NA	NA	NA	NA	NA
	Dec-02	177.66	6.90	170.76	NA	NA	NA	NA	NA	NA
	Mar-03	177.66	8.83	168.83	NA	NA	NA	NA	NA	NA
	Jun-03	177.66	8.84	168.82	NA	NA	NA	NA	NA	NA

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
ESE-5	Oct-92	176.08	9.22	166.86	1300	200	3.8	1.2	18	NA
	Apr-93	176.08	7.02	169.06	13000	2200	26	730	1000	NA
	Apr-93	176.08	NM	NM	13000	2500	25	740	1100	NA
	Jun-93	176.08	10.21	165.87	7600	1500	9.3	170	100	NA
	Sep-93	176.08	10.64	165.44	560	19	1.2	0.9	1.8	NA
	Dec-93	176.08	9.42	166.66	1700	300	3	76	110	14.07
	Feb-94	176.08	9.35	166.73	3500	640	7.8	90	130	45.13
	Aug-94	176.08	8.76	167.32	2600	210	4.6	9.4	4.4	33
	Aug-94	176.08	NM	NM	2500	230	4.6	13	4.8	32
	Oct-94	176.08	8.95	167.13	5600	560	9.5	75	21	79.2
	Oct-94	176.08	NM	NM	6000	550	10	78	22	77
	Jan-95	176.08	5.40	170.68	1900	620	<5	95	15	NA
	Jan-95	176.08	NM	NM	1600	620	<5	93	17	NA
	May-95	176.08	6.48	169.60	5700	1100	<10	180	58	NA
	May-95	176.08	NM	NM	5300	1100	<10	180	58	NA
	Jul-95	176.08	7.97	168.11	520	15	<0.50	1.7	1.3	NA
	Jul-95	176.08	NM	NM	460	7.2	<0.50	1.9	1.5	NA
	Nov-95	176.08	8.39	167.69	850	39	1.8	7.6	2.7	24
	Feb-96	176.08	4.71	171.37	4100	670	6	190	140	<50
	Apr-96	176.08	7.35	168.73	3000	570	<5	79	100	84
	Jul-96	176.08	9.40	166.68	620	150	1.7	9.3	6.4	25
	Oct-96	176.08	9.04	167.04	1100	29	<5	<5	<5	<50
	Oct-96	176.08	NM	NM	1100	31	<5	<5	<5	<50
	Jan-97	176.08	5.82	170.26	2100	980	<25	280	80	<250
	Jan-97	176.08	NM	NM	2700	910	8.8	280	84	180
	Apr-97	176.08	7.24	168.84	NA	NA	NA	NA	NA	NA
	Apr-97	176.08	NM	NM	<250	7.9	<5.0	<5.0	<5.0	<50
	Jul-97	176.08	7.86	168.22	1200	<5	<10	<10	<10	<100
	Jul-97	176.08	NM	NM	630	31	<5.0	<5.0	<5.0	130
	Oct-97	176.08	7.91	168.17	<250	5.4	<5.0	<5.0	<5.0	<50
	Jan-98	176.08	4.64	171.44	170	7.7	<1.0	<1.0	<1.0	130
	Apr-98	176.08	6.31	169.77	720	79	<5.0	9	<5.0	180
	Jul-98	176.08	7.43	168.65	NA	NA	NA	NA	NA	NA
	Jul-98	176.08	NM	NM	840	9.8	<1.0	4	<1.0	710
	Dec-98	176.08	7.05	169.03	NA	NA	NA	NA	NA	NA
	Mar-99	176.08	5.00	171.08	<250	<5.0	<5.0	<5.0	<5.0	<5.0
	Jun-99	176.08	7.77	168.31	NA	NA	NA	NA	NA	NA
	Sep-99	176.08	8.11	167.97	450	10	<5.0	6.3	<5.0	220
	Dec-99	176.08	7.66	168.42	NM	NA	NA	NA	NA	NA
	Mar-00	176.08	5.08	171.00	1700	170	2.5	45	6.4	140
	Jun-00	176.08	7.36	168.72	NM	NA	NA	NA	NA	NA
	Sep-00	176.08	7.71	168.37	130	0.65	<0.50	0.71	<0.50	51
	Dec-00	176.08	2.36	173.72	NM	NA	NA	NA	NA	NA
	Mar-01	176.08	7.42	168.66	1000	10.3	<2.5	11	<7.5	70.8
	Jun-01	176.08	7.92	168.16	NM	NA	NA	NA	NA	NA
	Sep-01	176.26	8.23	168.03	200	0.868	<0.50	0.55	<1.5	57.5
	Dec-01	176.26	7.80	168.46	NM	NA	NA	NA	NA	NA
	Mar-02	176.26	6.55	169.71	1300	17.1	1.35	15.4	1.42	37.4
	Jun-02	176.26	7.83	168.43	NM	NA	NA	NA	NA	NA
	Sep-02	176.26	8.22	168.04	680	9.9	<5.0	<5.0	<5.0	44
	Dec-02	176.26	6.58	169.68	NM	NA	NA	NA	NA	NA
	Mar-03	176.26	6.77	169.49	2100	14	<2.5	15	3	80
	Jun-03	176.26	6.75	169.51	NM	NA	NA	NA	NA	NA
	Sep-03	176.26	8.48	167.78	970	10 C	<0.5	<0.5	5.3	34
	Dec-03	176.26	7.32	168.94	700	6.5	<0.5	3.1	2.7 C	34
	Feb-04	176.26	5.21	171.05	2400 H	41	2.8 C	18	2.4 C	29
	May-04	176.26	7.50	168.76	1500	2.6 C	<0.5	2.1 C	2.1 C	25
	Aug-04	178.80	8.28	170.52	680	<0.5	<0.5	<0.5	<0.5	33
	Oct-04	**178.80**	**8.26**	**170.54**	**380**	**<0.5**	**<0.5**	**<0.5**	**1.4**	**39**

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-6	Jul-95	179.24	10.00	169.24	<50	<0.50	<0.50	<0.50	<1.0	NA
	Nov-95	179.24	10.44	168.80	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	Feb-96	179.24	7.68	171.56	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-96	179.24	9.33	169.91	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-96	179.24	10.10	169.14	<50	<0.5	<1.0	<1.0	<1.0	<10
	Oct-96	179.24	11.00	168.24	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jan-97	179.24	8.70	170.54	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-97	179.24	10.16	169.08	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-97	179.24	10.66	168.58	<50	<0.5	<1.0	<1.0	<1.0	<10
	Oct-97	179.24	10.25	168.99	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jan-98	179.24	7.76	171.48	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-98	179.24	9.10	170.14	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-98	179.24	10.40	168.84	NA	NA	NA	NA	NA	NA
	Jul-98	179.24	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Dec-98	179.24	9.40	169.84	NA	NA	NA	NA	NA	NA
	Mar-99	179.24	9.10	170.14	NA	NA	NA	NA	NA	NA
	Jun-99	179.24	9.79	169.45	NA	NA	NA	NA	NA	NA
	Sep-99	179.24	10.10	169.14	NA	NA	NA	NA	NA	NA
	Dec-99	179.24	9.97	169.27	NA	NA	NA	NA	NA	NA
	Mar-00	179.24	8.56	170.68	NA	NA	NA	NA	NA	NA
	Jun-00	179.24	9.11	170.13	NA	NA	NA	NA	NA	NA
	Sep-00	179.24	9.77	169.47	NA	NA	NA	NA	NA	NA
	Dec-00	179.24	9.17	170.07	NA	NA	NA	NA	NA	NA
	Mar-01	179.24	9.82	169.42	NA	NA	NA	NA	NA	NA
	Jun-01	179.24	10.19	169.05	NA	NA	NA	NA	NA	NA
	Sep-01	179.24	10.25	168.99	NA	NA	NA	NA	NA	NA
	Dec-01	179.24	9.75	169.49	NA	NA	NA	NA	NA	NA
	Mar-02	179.24	9.53	169.71	NA	NA	NA	NA	NA	NA
	Jun-02	179.24	9.87	169.37	NA	NA	NA	NA	NA	NA
	Sep-02	179.24	9.49	169.75	NA	NA	NA	NA	NA	NA
	Dec-02	179.24	8.39	170.85	NA	NA	NA	NA	NA	NA
	Mar-03	179.24	9.40	169.84	NA	NA	NA	NA	NA	NA
	Jun-03	179.24	9.71	169.53	NA	NA	NA	NA	NA	NA
	Sep-03	179.24	10.21	169.03	<50	<0.5	<0.5	<0.5	<0.5	<2.0
	Dec-03	179.24	9.66	169.58	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Feb-04	179.24	7.83	171.41	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	May-04	179.24	9.75	169.49	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Aug-04	181.80	10.28	171.52	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Oct-04	**181.80**	**9.91**	**171.89**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-7	Jul-95	176.55	9.25	167.30	<50	0.54	0.54	<0.50	<1.0	NA
	Nov-95	176.55	9.73	166.82	1100	<10	<10	<10	<20	4000
	Feb-96	176.55	6.48	170.07	610	<0.50	<1.0	<1.0	<1.0	2500
	Feb-96	176.55	NM	NM	280	<0.50	<1.0	<1.0	<1.0	2600
	Apr-96	176.55	8.37	168.18	110	<0.50	<1.0	<1.0	<1.0	3500
	Apr-96	176.55	NM	NM	230	<0.50	<1.0	<1.0	<1.0	3500
	Jul-96	176.55	9.24	167.31	230	<0.50	<1.0	<1.0	<1.0	4296
	Jul-96	176.55	NM	NM	220	<0.50	<1.0	<1.0	<1.0	4400
	Oct-96	176.55	10.05	166.50	NA	NA	NA	NA	NA	NA
	Oct-96	176.55	NM	NM	1600	<0.50	<1.0	<1.0	<1.0	3000
	Jan-97	176.55	7.51	169.04	<50	0.63	<1.0	<1.0	<1.0	2600
	Apr-97	176.55	8.79	167.76	NA	NA	NA	NA	NA	NA
	Apr-97	176.55	NM	NM	1500	<0.50	<1.0	<1.0	<1.0	3600
	Apr-97	176.55	NM	NM	7700	3500	<25	74	37	<250
	Jul-97	176.55	9.50	167.05	1400	<0.50	<1.0	<1.0	<1.0	2600
	Oct-97	176.55	9.19	167.36	420	<0.50	<1.0	<1.0	<1.0	560
	Jan-98	176.55	6.45	170.10	3100	<0.50	<1.0	<1.0	1.4	2300
	Apr-98	176.55	8.02	168.53	3800	<0.50	<1.0	<1.0	<1.0	3800
	Jul-98	176.55	8.88	167.67	NA	NA	NA	NA	NA	NA
	Jul-98	176.55	NM	NM	500	<2.5	<5.0	<5.0	<5.0	<50
	Jul-98	176.55	NM	NM	4700	<12	<25	<25	<25	4700
	Dec-98	176.55	8.62	167.93	NA	NA	NA	NA	NA	NA
	Mar-99	176.55	7.52	169.03	3800	<1.0	<1.0	<1.0	<1.0	3800
	Jun-99	176.55	9.63	166.92	NA	NA	NA	NA	NA	NA
	Sep-99	176.55	9.39	167.16	140	<10	<10	<10	<10	3800
	Dec-99	176.55	9.94	166.61	NA	NA	NA	NA	NA	NA
	Mar-00	176.55	6.72	169.83	<50	<0.50	<0.50	<0.50	<0.50	1400
	Jun-00	176.55	7.38	169.17	NA	NA	NA	NA	NA	NA
	Sep-00	176.55	9.18	167.37	190	<0.50	<0.50	<0.50	<0.50	580
	Dec-00	176.55	8.13	168.42	NA	NA	NA	NA	NA	NA
	Mar-01	176.55	8.98	167.57	1300	<0.50	<0.50	<0.50	<1.5	1460
	Jun-01	176.55	9.68	166.87	NA	NA	NA	NA	NA	NA
	Sep-01	176.55	9.80	166.75	<0.50	<0.50	<0.50	<0.50	<1.5	94.9
	Dec-01	176.55	9.26	167.29	NA	NA	NA	NA	NA	NA
	Mar-02	176.55	8.69	167.86	800	<0.50	<0.50	<0.50	<1.0	952
	Jun-02	176.55	9.06	167.49	NA	NA	NA	NA	NA	NA
	Sep-02	176.55	9.23	167.32	260	<2.0	<2.0	<2.0	<2.0	580
	Dec-02	176.55	7.77	168.78	NA	NA	NA	NA	NA	NA
	Mar-03	176.55	8.30	168.25	620	<2.5	<2.5	<2.5	<2.5	1100
	Jun-03	176.55	9.51	167.04	NA	NA	NA	NA	NA	NA
	Sep-03	176.55	9.52	167.03	<50	<0.5	<0.5	<0.5	<0.5	460
	Dec-03	176.55	8.99	167.56	<50	<0.5	<0.5	<0.5	<0.5	420
	Feb-04	176.55	6.55	170.00	<50	<0.5	<0.5	<0.5	<0.5	330
	May-04	176.55	8.90	167.65	<50	<0.5	<0.5	<0.5	<0.5	630
	Aug-04	179.11	9.58	169.53	<50	<0.5	<0.5	<0.5	<0.5	750
	Oct-04	**179.11**	**9.20**	**169.91**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**550**

Table 1
Historical Groundwater Elevations & Analytical Data
TPH-g, BTEX, MtBE
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	Top of casing elevation [1] (feet)	Depth to Groundwater (feet)	Groundwater Elevation (feet)	TPH-g (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl benzene (µg/L)	Total Xylenes (µg/L)	MtBE (µg/L) 8260B
MW-8	Jul-95	176.34	7.80	168.54	1,100	<2.5	<2.5	<2.5	<5.0	NA
	Nov-95	176.34	8.29	168.05	8,300	75	5.3	670	240	140
	Feb-96	176.34	4.99	171.35	2,300	33	<10	190	216	<100
	Apr-96	176.34	6.09	170.25	2,000	390	<10	150	26	<250
QC-2	Apr-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Jun-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Sep-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Dec-93	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	<5.0
	Feb-94	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Aug-94	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Oct-94	NM	NM	NM	<50	<0.5	<0.5	<0.5	<0.5	NA
	Jan-95	NM	NM	NM	<50	<0.5	<0.5	<0.5	<1.0	NA
	May-95	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	NA
	Jul-95	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	NA
	Nov-95	NM	NM	NM	<50	<0.50	<0.50	<0.50	<1.0	<5.0
	Feb-96	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Apr-96	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
	Jul-96	NM	NM	NM	<50	<0.5	<1.0	<1.0	<1.0	<10
SOMA-1	Aug-04	180.95	11.53	169.42	84	<0.5	<0.5	1.5 C	2.2	2100
	Oct-04	**180.95**	**10.41**	**170.54**	**56**	**<0.5**	**<0.5**	**1.3 C**	**1.4 C**	**1600**
SOMA-2	Aug-04	178.99	10.69	168.30	<50	<0.5	<0.5	<0.5	<0.5	0.8
	Oct-04	**178.99**	**10.75**	**168.24**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**2.4**
SOMA-3	Aug-04	176.81	9.97	166.84	<50	<0.5	<0.5	<0.5	<0.5	<0.5
	Oct-04	**176.81**	**9.59**	**167.22**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
SOMA-4	Aug-04	176.94	9.44	167.50	140	0.98	<0.5	7.8	<0.5	11
	Oct-04	**176.94**	**9.91**	**167.03**	**150**	**<0.5**	**<0.5**	**10**	**<0.5**	**8.8**

Notes:
< : Not detected above laboratory reporting limit.
C: Presence confirmed, but RPD between columns exceeds 40%.
NA: Not Analyzed. Due to construction activities in the Third Quarter 2003, which consisted of the replacement of the USTs and dispensers, wells ESE-1 & ESE-2 were inaccessible.
The Third Quarter 2003 was the first time that SOMA analyzed groundwater samples at the site.
The Third Quarter 2004 was the first time that SOMA analyzed groundwater samples at wells SOMA-1 to SOMA-4.
1 Top of Casing Elevations were resurveyed by Kier & Wright Engineers Surveyors of Pleasanton, CA on June 21, 2004.

Table 2
Historical Groundwater Analytical Data
Gasoline Oxygenates & Lead Scavengers
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
ESE-1	Jun-03	<400	<10	<10	18	NA	NA	NA
	Sep-03	NA	NA	NA	NA	NA	NA	NA
	Dec-03	290	<1.0	<1.0	9.5	<2,000	<1.0	<1.0
	Feb-04	410	<0.5	<0.5	9.7	<1000	<0.5	<0.5
	May-04	190	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Aug-04	180	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	**270**	**<0.7**	**<0.7**	**4.4**	**<1400**	**9.9**	**<0.7**
ESE-2	Jun-03	<4000	<100	<100	<100	NA	NA	NA
	Sep-03	NA	NA	NA	NA	NA	NA	NA
	Dec-03	500	<13	<13	77	<25,000	<13	<13
	Feb-04	1200	<0.5	<0.5	92	<1000	<0.5	<0.5
	May-04	2400	<10	<10	25	<20,000	<10	<10
	Aug-04	2300	<2.5	<2.5	12	<5000	<2.5	<2.5
	Oct-04	**1800**	**<3.6**	**<3.6**	**8.6**	**<7100**	**<3.6**	**<3.6**
ESE-3	Jun-03	<200	<5.0	<5.0	<5.0	NA	NA	NA
ESE-5	Sep-03	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Dec-03	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Feb-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	May-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Aug-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Oct-04	**<10**	**<0.5**	**<0.5**	**<0.5**	**<1000**	**<0.5**	**<0.5**
MW-6	Sep-03	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Dec-03	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Feb-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	May-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Aug-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Oct-04	**<10**	**<0.5**	**<0.5**	**<0.5**	**<1000**	**<0.5**	**<0.5**
MW-7	Sep-03	<10	<0.5	<0.5	9.8	<1000	<0.5	<0.5
	Dec-03	<25	<1.3	<1.3	8.1	<2500	<1.3	<1.3
	Feb-04	<10	<0.5	<0.5	9.9	<1000	<0.5	<0.5
	May-04	<10	<0.5	<0.5	<0.5	<1,000	<0.5	<0.5
	Aug-04	<25	<1.3	<1.3	19	<2500	<1.3	<1.3
	Oct-04	**<100**	**<5.0**	**<5.0**	**11**	**<10,000**	**<5.0**	**<5.0**

Table 2
Historical Groundwater Analytical Data
Gasoline Oxygenates & Lead Scavengers
3519 Castro Valley Blvd, Castro Valley, CA

Monitoring Well	Date	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	ETHANOL (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
SOMA-1	Aug-04	2300	<6.3	<6.3	53	<13000	<6.3	<6.3
	Oct-04	**2400**	**<13**	**<13**	**36**	**<25,000**	**<13**	**<13**
SOMA-2	Aug-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	**<10**	**<0.5**	**<0.5**	**<0.5**	**<1000**	**<0.5**	**<0.5**
SOMA-3	Aug-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	**<10**	**<0.5**	**<0.5**	**<0.5**	**<1,000**	**<0.5**	**<0.5**
SOMA-4	Aug-04	<10	<0.5	<0.5	<0.5	<1000	<0.5	<0.5
	Oct-04	**<10**	**<0.5**	**<0.5**	**<0.5**	**<1,000**	**<0.5**	**<0.5**

Notes:
< : Not detected above laboratory reporting limit.
NA: Not Analyzed. Due to construction activities in the Third Quarter 2003, which consisted of the replacement of the USTs and dispensers, wells ESE-1 & ESE-2 were inaccessible.
The Third Quarter 2003 was the first time that SOMA analyzed groundwater samples at the Site.
The Third Quarter 2004 was the first time that SOMA analyzed groundwater samples at wells SOMA-1 to SOMA-4.

Gasoline Oxygenates:
TBA: tertiary butyl alcohol
DIPE: isopropyl ether
ETBE: ethyl tertiary butyl ether
TAME: methyl tertiary amyl ether
Ethanol

Lead Scavengers:
1,2-DCA: 1,2-Dichloroethane
EDB: 1,2-Dibromoethane

Figures

N

approximate scale in feet

0 60 120

Figure 1: Site vicinity map.

SOMA ENVIRONMENTAL ENGINEERING, INC.

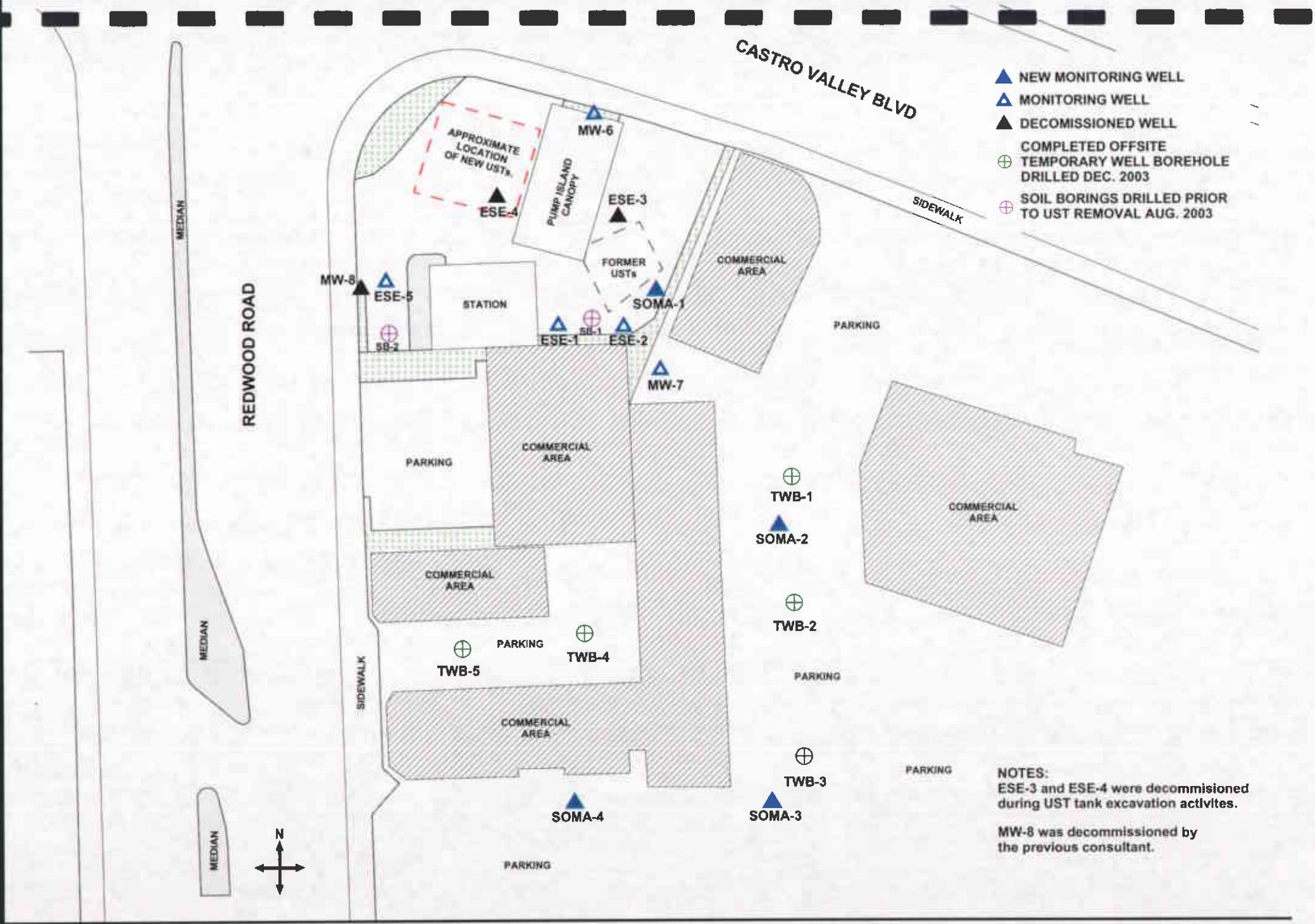
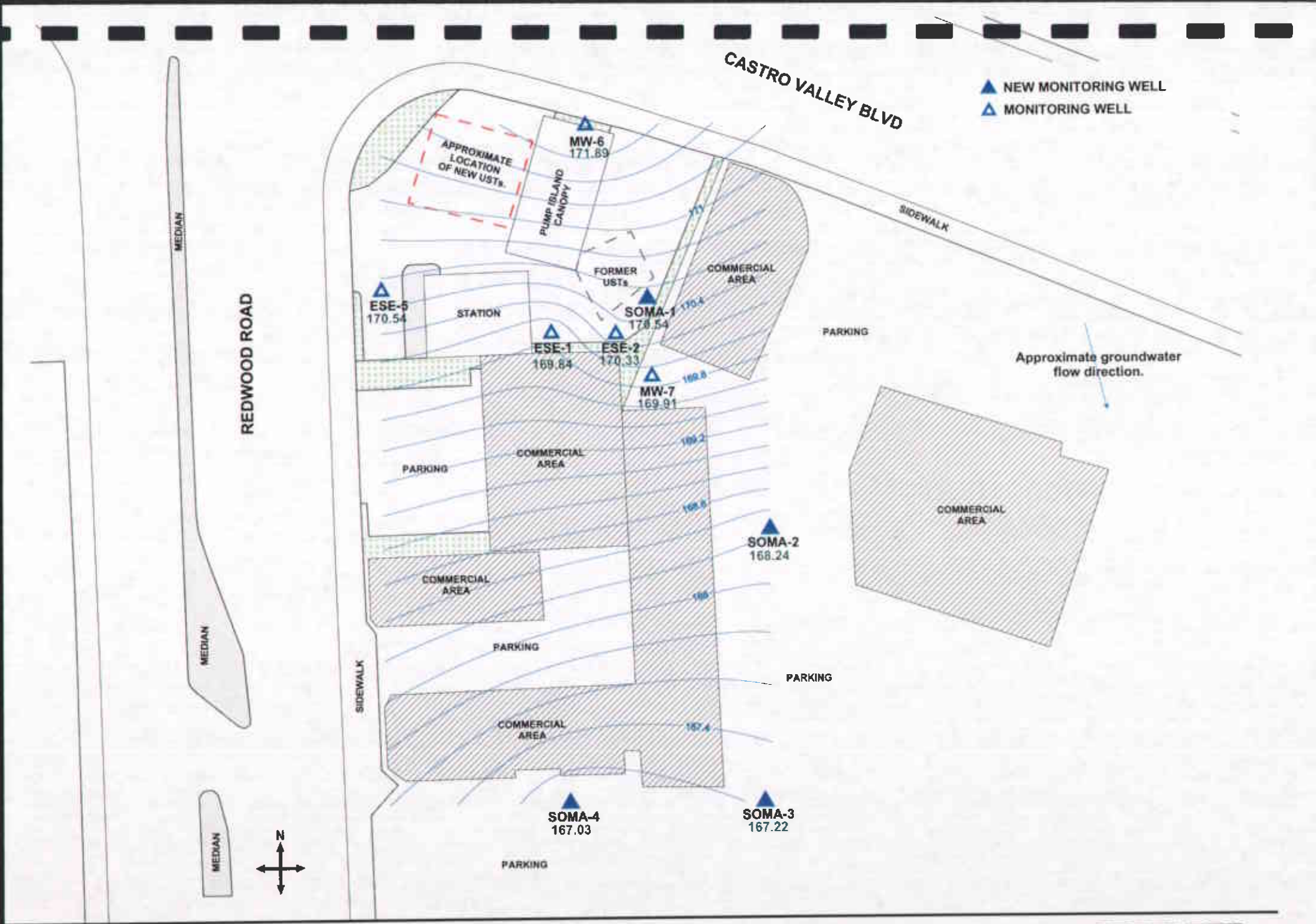


Figure 2: Site map showing locations of existing monitoring wells, decommissioned wells, offsite temporary well boreholes, and monitoring wells installed by SOMA.

SOMA ENVIRONMENTAL ENGINEERING, INC.



approximate scale in feet

0 40 80

Figure 3: Groundwater elevation contour map in feet. October 2004.

SOMA ENVIRONMENTAL ENGINEERING, INC.

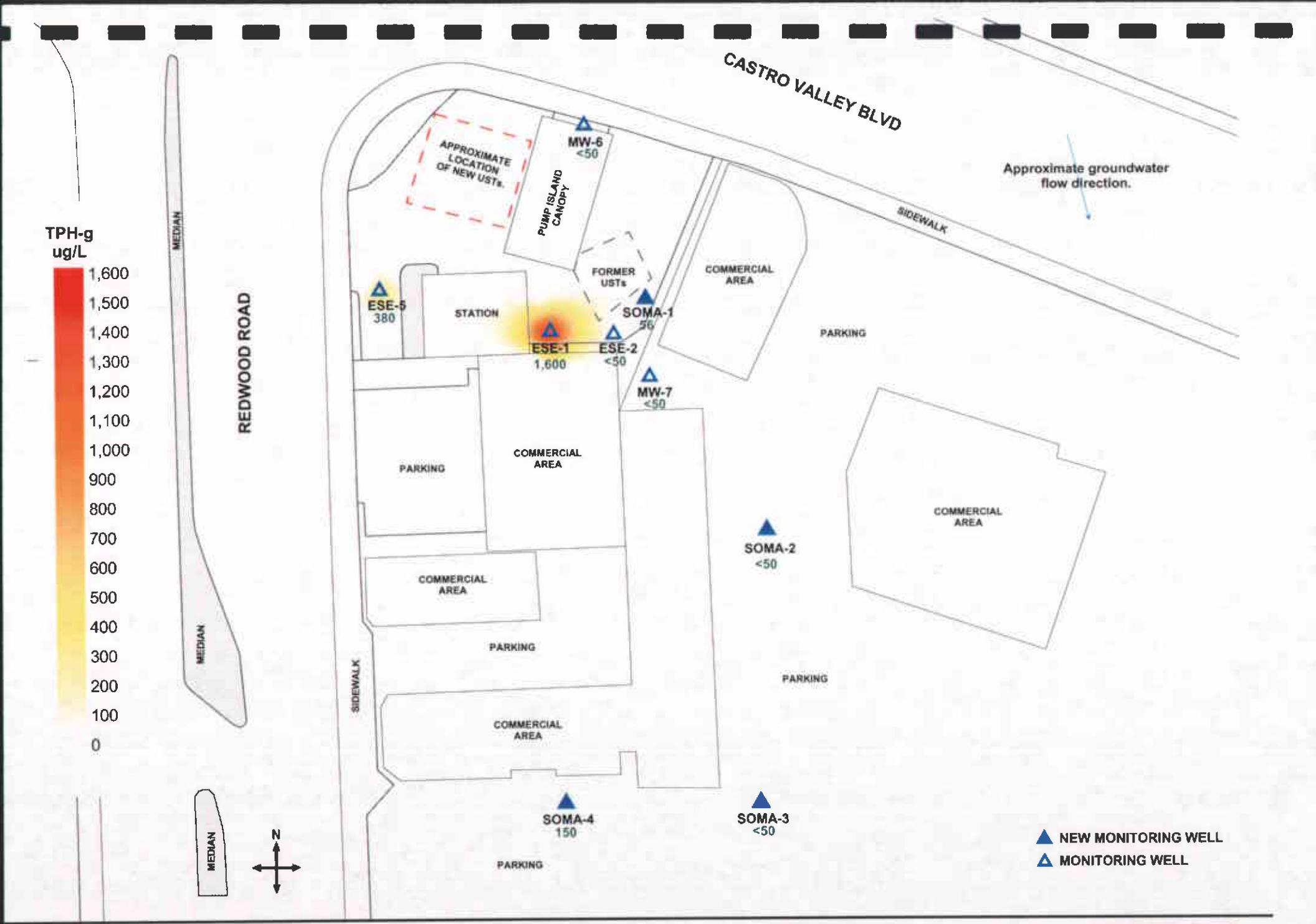


Figure 4: Contour map of TPH-g concentrations in groundwater. October 2004.

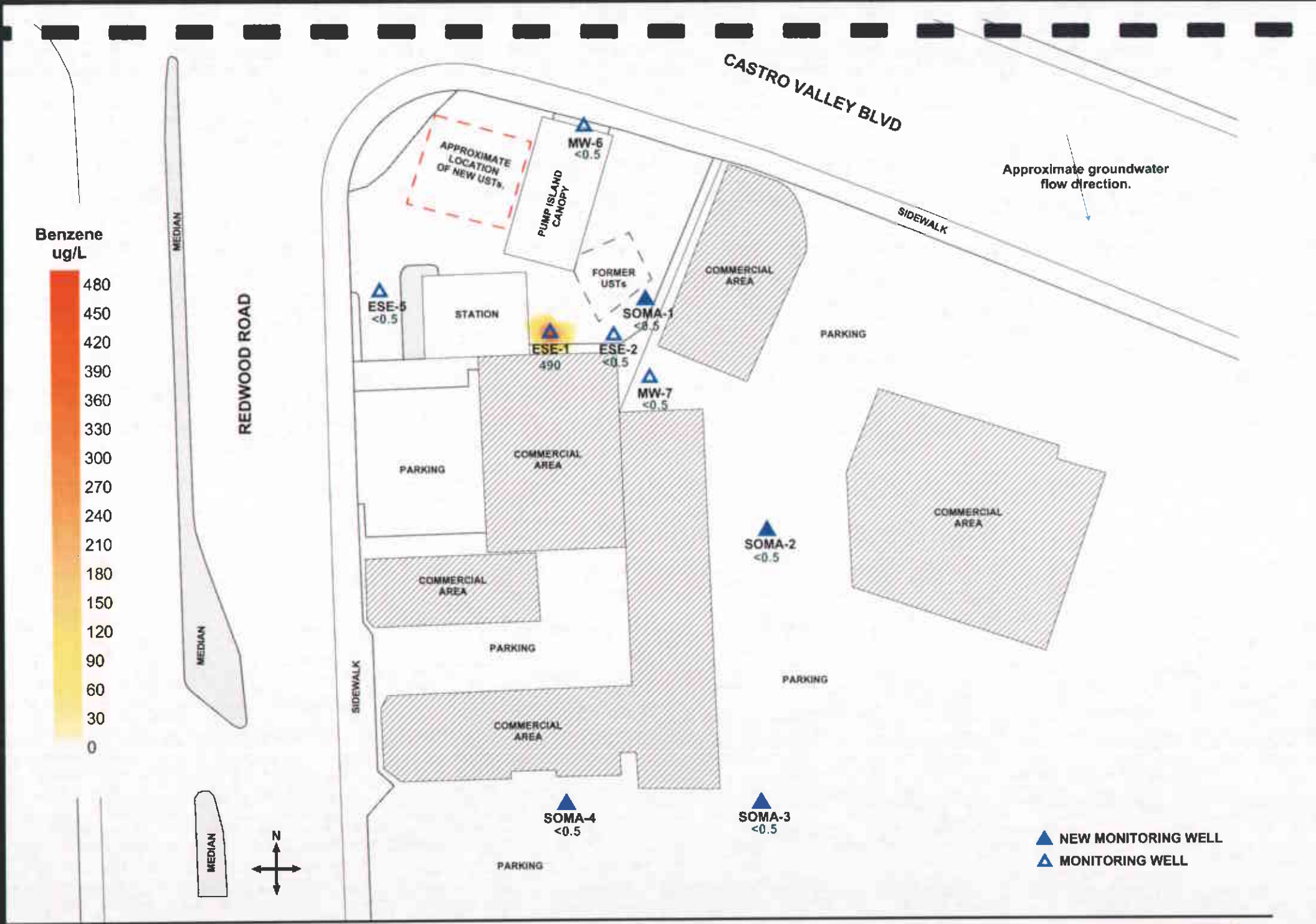


Figure 5: Contour map of Benzene concentrations in groundwater. October 2004.

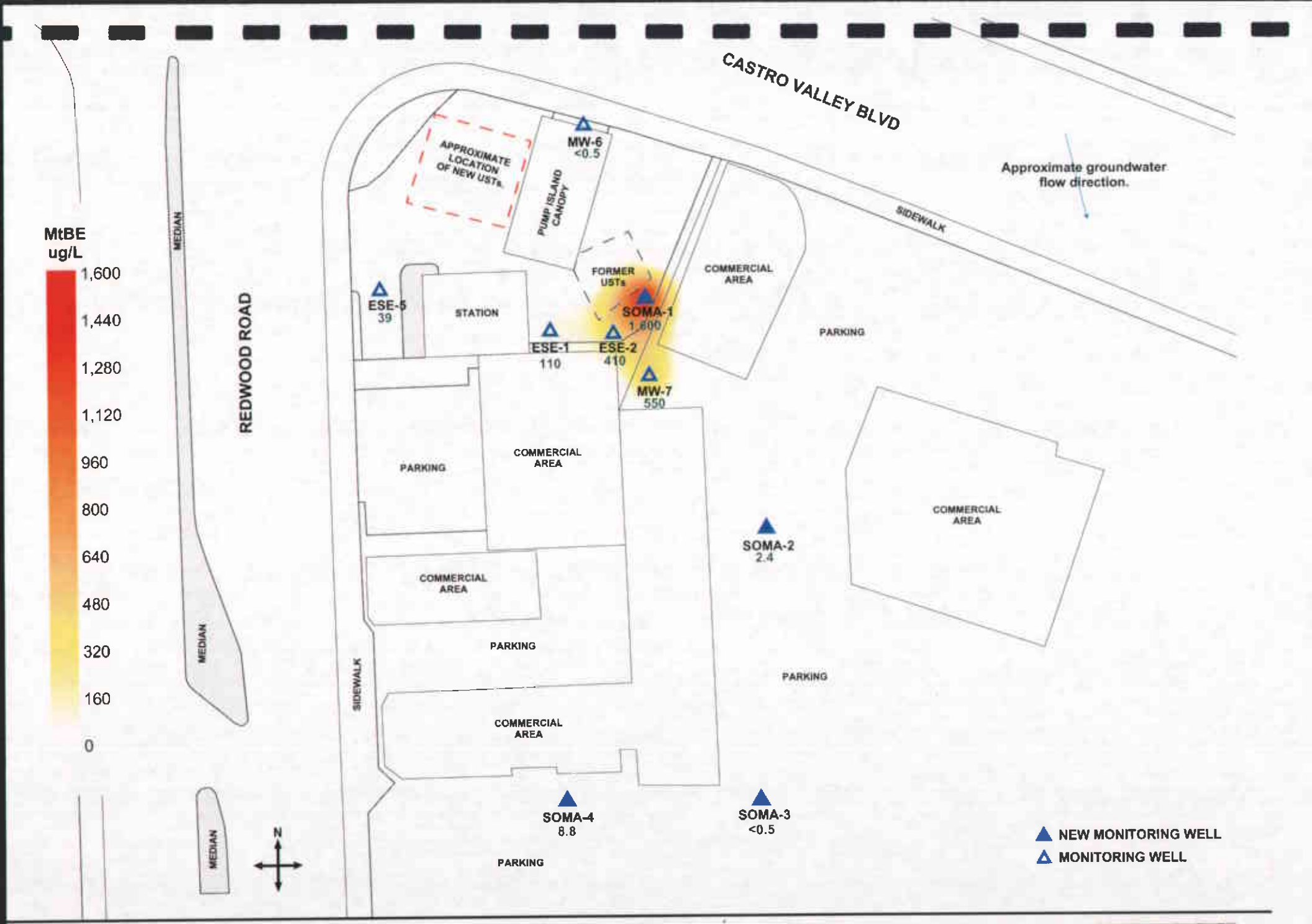


Figure 6: Contour map of MtBE concentrations in groundwater (EPA Method 8260B). October 2004.

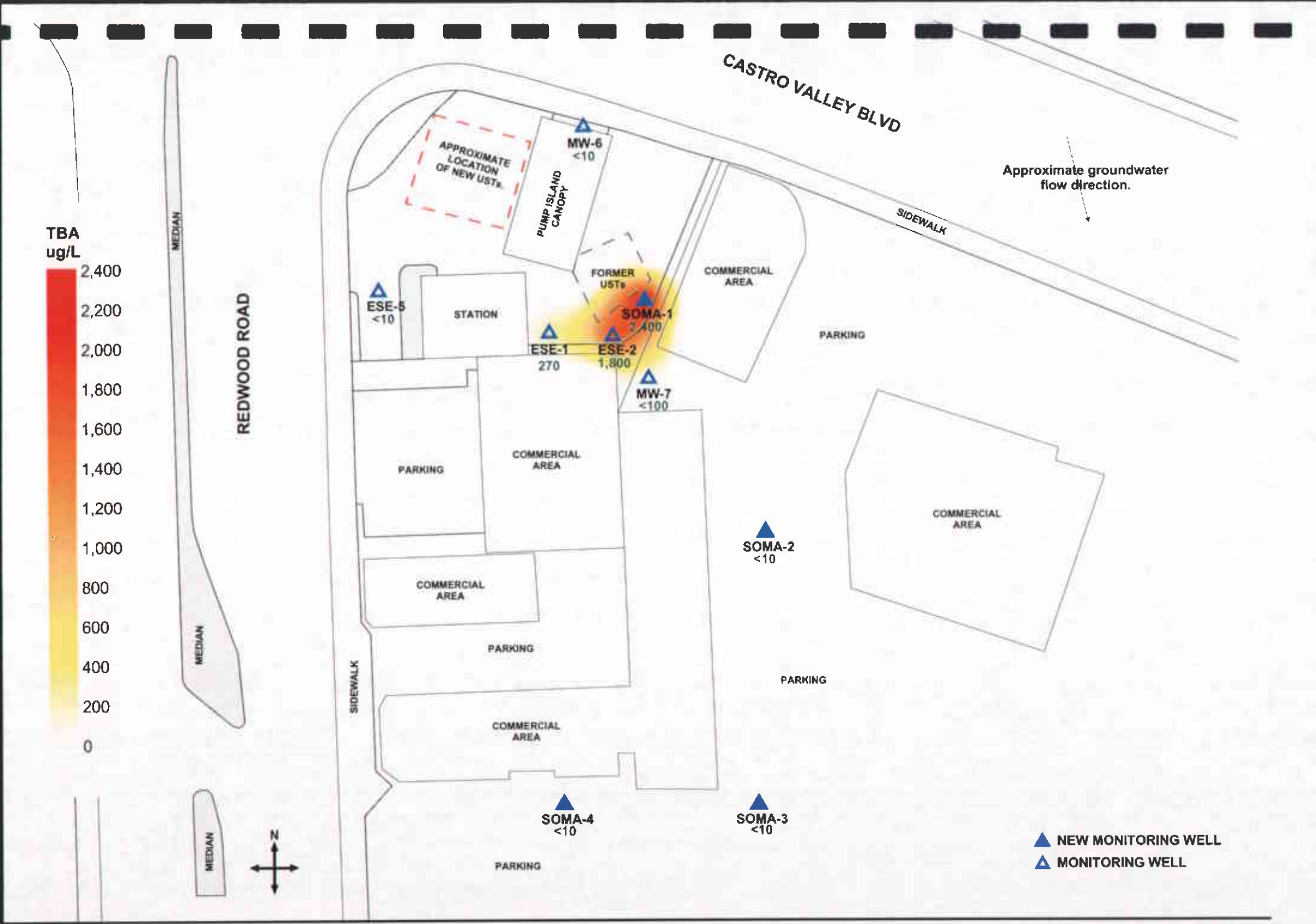


Figure 7: Contour map of TBA concentrations in groundwater. October 2004.

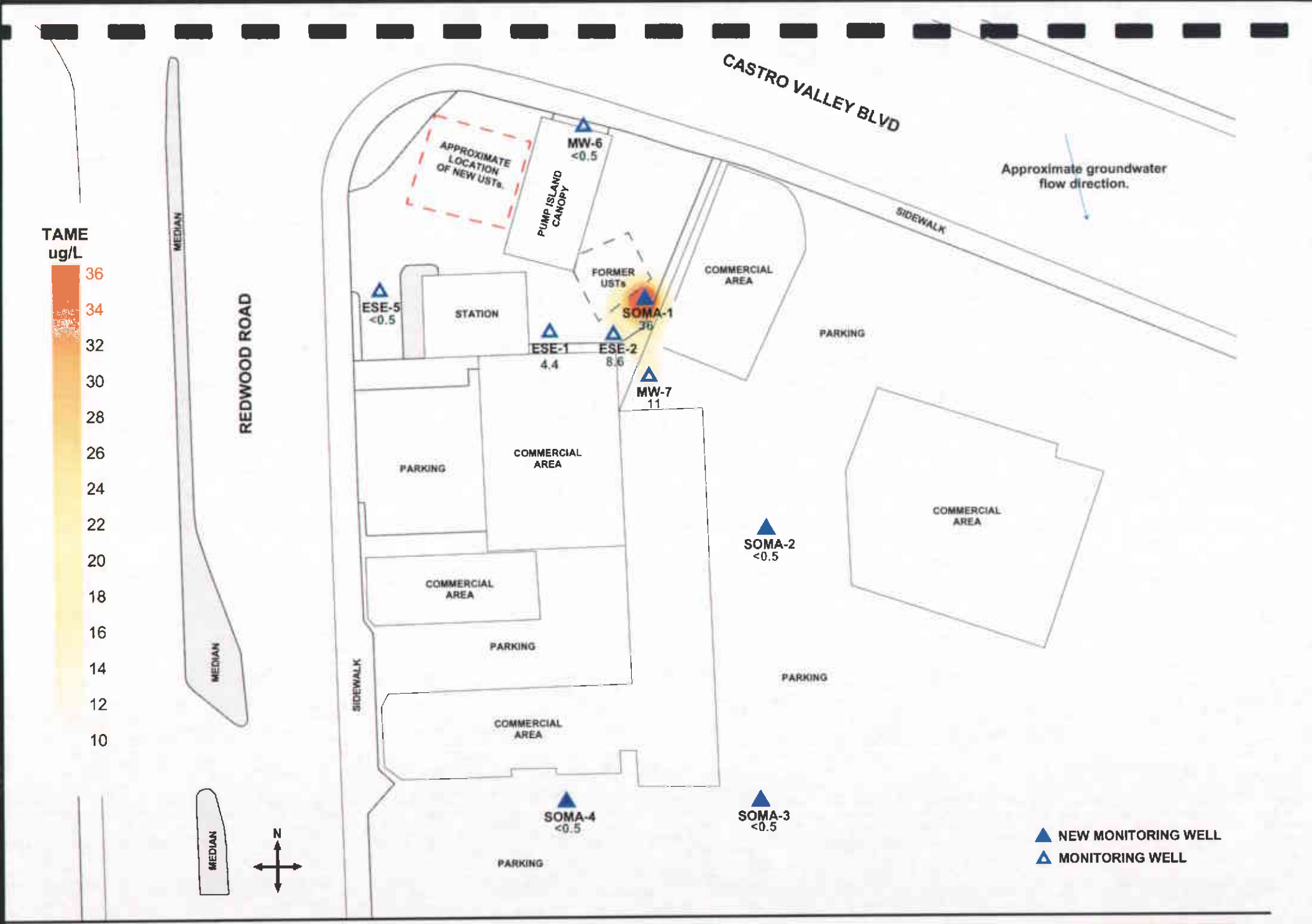


Figure 8: Contour map of TAME concentrations in groundwater. October 2004.

APPENDIX A

SOMA's groundwater monitoring procedures

Field Activities

On October 19, 2004, SOMA's field crew conducted a groundwater monitoring event in accordance with the procedures and guidelines of the ACHCS. During this groundwater monitoring event, five on-site monitoring wells (ESE-1, ESE-2, ESE-5, MW-6, and SOMA-1) and four off-site monitoring wells (MW-7, SOMA-2 to SOMA-4) were monitored. Figure 2 illustrates the locations of the wells.

The depth to groundwater in each monitoring well 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 were used to calculate the groundwater elevation.

Prior to the collection of samples, each well was purged using a battery operated 2-inch diameter pump (Model ES-60 DC). In order to ensure that the final samples were in equilibrium with (and representative of) the surrounding groundwater, during purging several samples were taken for field measurements of pH, temperature and EC. The field parameters were measured using a Hanna pH, conductivity, and temperature meter. The equipment was calibrated at the Site using standard solutions and procedures provided by the manufacturer.

Appendix B details the field measurements taken during the monitoring event.

The purging of the wells continued until the parameters for pH, temperature and EC stabilized or three casing volumes were purged. Once the purging at each location was complete, a groundwater sample was collected. The groundwater samples were transferred into four 40-mL VOA vials and preserved with hydrochloric acid. The vials were then sealed to prevent the development of air bubbles within the headspace. After the groundwater samples were collected, they were placed into an ice-filled cooler. A chain of custody (COC) form was written for all of the samples and was submitted to the laboratory along with the groundwater samples. On October 19, 2004, SOMA's field crew delivered the groundwater samples to Curtis & Tompkins Laboratory, in Berkeley, California.

Laboratory Analysis

Curtis & Tompkins, Ltd., a state certified laboratory, analyzed the groundwater samples for TPH-g, BTEX, MtBE, gasoline oxygenates, and lead scavengers. Samples for TPH-g measurement were prepared using EPA Method 5030B and analyzed using Method EPA 8015B. Samples for BTEX measurements were prepared using EPA Method 5030B and analyzed using EPA Method 8021B. Samples for MtBE, gasoline oxygenates, and lead scavengers were prepared using EPA Method 5030B and analyzed using EPA Method 8260B.

Appendix B

Table of elevations & coordinates on monitoring wells measured by Kier Wright Civil Engineers Surveyors, Inc.

&

Field measurements of physical and chemical properties of groundwater samples collected during the Fourth Quarter 2004

DATE: 6/21/04
JOB# A0459

TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS

SOMA ENVIRONMENTAL
3519 CASTRO VALLEY BLVD., CASTRO VALLEY

WELL ID #	NORTHING (FT.) / LATITUDE (D.M.S.)	EASTING (FT.) / LONGITUDE (D.M.S.)	ELEVATION (FT.)	DESCRIPTION
ESE-1	2079361.15	6106465.13	180.24	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.07112"	W 122° 04' 24.07899"	180.71	SET PUNCH NORTH SIDE RIM
			180.69	PAVEMENT NORTH SIDE
ESE-2	2079361.30	6106501.97	180.79	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.07873"	W 122° 04' 23.62071"	181.16	SET PUNCH NORTH SIDE RIM
			181.14	CONC. NORTH SIDE
ESE-5	2079381.46	6106387.63	178.80	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.25902"	W 122° 04' 25.04739"	179.07	FELT X ON NORTH SIDE RIM
			179.10	CONC. NORTH SIDE
MW-6	2079451.94	6106492.77	181.80	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.97323"	W 122° 04' 23.75412"	181.97	SET PUNCH NORTH SIDE RIM
			181.88	GROUND NORTH SIDE
MW-7	2079337.18	6106516.12	179.11	2" PVC, NOTVH N. SIDE
	N 37° 41' 41.84264"	W 122° 04' 23.43963"	179.55	SET PUNCH NORTH SIDE RIM
			179.49	CONC. NORTH SIDE
SOMA-1	2079370.39	6106506.79	180.95	2" PVC, NOTVH N. SIDE
	N 37° 41' 42.16939"	W 122° 04' 23.56265"	181.25	SET PUNCH NORTH SIDE RIM
			181.22	CONC. NORTH SIDE
SOMA-2	2079297.44	6106567.02	178.99	2" PVC, NOTVH N. SIDE
	N 37° 41' 41.45825"	W 122° 04' 22.79809"	179.29	SET PUNCH NORTH SIDE RIM
			179.28	CONC. NORTH SIDE
SOMA-3	2079130.83	6106567.48	176.81	2" PVC, NOTVH N. SIDE
	N 37° 41' 39.81129"	W 122° 04' 22.75752"	177.18	SET PUNCH NORTH SIDE RIM
			177.12	PAVEMENT NORTH SIDE
SOMA-4	2079141.57	6106464.22	176.94	2" PVC, NOTVH N. SIDE
	N 37° 41' 39.9003"	W 122° 04' 24.04438"	177.43	SET PUNCH NORTH SIDE RIM
			177.44	PAVEMENT NORTH SIDE

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

7/7/2004
9:01 AM
A04594-WELLS

DATE: 6/21/04
JOB# A0459

TABLE OF ELEVATIONS & COORDINATES ON MONITORING WELLS

SOMA ENVIRONMENTAL
3519 CASTRO VALLEY BLVD., CASTRO VALLEY

ADDITIONAL POINTS

PT#	NORTHING (FT.)	EASTING (FT.)	ELEVATION (FT.)	DESCRIPTION
320	2079386.87	6106408.85	N/A	BL. INTX
321	2079387.18	6106455.22	N/A	BL. INTX
331	2079351.06	6106409.27	N/A	BL<
318	2079384.55	6106369.10	N/A	DWY
329	2079106.74	6106368.58	N/A	DWY
330	2079148.74	6106368.66	N/A	DWY
317	2079424.72	6106369.39	N/A	DWY E-C
315	2079481.34	6106432.38	N/A	DWY PCC
310	2079415.57	6106624.48	N/A	DWY POC
311	2079423.23	6106606.56	N/A	DWY POC
312	2079447.91	6106542.76	N/A	DWY POC
313	2079461.36	6106504.01	N/A	DWY POC
314	2079472.67	6106468.07	N/A	DWY POC
316	2079466.76	6106389.18	N/A	HCRMP POC
319	2079237.38	6106368.78	N/A	TC

BENCH MARK: NGS Bench mark No.PID# HT0223

THE STATION IS LOCATED IN THE CITY OF HAYWARD AT THE RAILROAD CROSSING OF THE SOUTHERN PACIFIC RAIL-ROAD AND BLOSSOM WAY, IN THE TOP OF THE NORTHWEST CURB OF BLOSSOM WAY.

TO REACH THE STATION FROM THE JUNCTION OF U S HIGHWAY 880 ON WEST A STREET, GO SOUTHEAST ON WEST A STREET FOR 0.2 MILES TO A CROSSROAD, HATHAWAY AVE ON THE LEFT, SANTA CLARA STREET ON THE RIGHT. TURN LEFT, NORTH, ON HATHAWAY AVENUE AND CONTINUE FOR 0.7 MILES TO WEST BLOSSOM WAY. TURN RIGHT, NORTH, ON WEST BLOSSSOM WAY AND CONTINUE FOR 0.25 MILES TO THE STATION ON THE LEFT, JUST PAST THE RAIL-ROAD TRACKS.

THE STATION IS 48.95 M (160.6 FT) NORTHEAST OF THE NORTHEAST RAIL, 7.01 M NORTHWEST OF THE CENTER OF BLOSSOM WAY, 0.24 M (0.8 FT) NORTH OF THE NORTH CORNER OF A STEEL GRATE IN THE STREET, 5.6 M (18.5 FT) SOUTHWEST OF A POWER POLE AND 0.12 M (0.4 FT) HIGHER THAN THE STREET.

Elevation =56.33 FEET NAVD88 Datum ADJUSTED

HORIZONTAL CONTROL:

PID - HT0223
NORTHING =2,072,670.26 , EASTING = 6,095,650.79 FEET; EPOCH DATE = 1998.50

PID - HT 2583
NORTHING =2,082,510.30 , EASTING = 6,116,892.13 FEET; EPOCH DATE = 1991.35

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

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

ENVIRONMENTAL ENGINEERING, INC

Well No.:	ESE 1	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	27.94 feet		Castro Valley, CA
Top of Casing Elevation:	180.24 feet	**Date:**	October 19, 2004
Depth to Groundwater:	10.40 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	169.84 feet		John Lohman
Water Column Height:	17.54 feet		
Purged Volume:	12 gallons		

Purging Method: Bailer ☐ Pump ☒

Sampling Method: Bailer ☒ Pump ☐

Color: No ☒ Yes ☐ Describe: _____

Sheen: No ☒ Yes ☐ Describe: _____

Odor: No ☒ Yes ☐ Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
3:18 PM	Start Purging			
3:22	6	6.79	19.6	918
3:25	9	6.70	19.9	955
3:27	12	6.70	20.1	970
3:30	Samples			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	ESE 2	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	26.45 feet		Castro Valley, CA
Top of Casing Elevation:	180.79 feet	**Date:**	October 19, 2004
Depth to Groundwater:	10.96 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	170.33 feet		John Lohman
Water Column Height:	15.99 feet		
Purged Volume:	9 gallons		

Purging Method: Bailer ☐ Pump ☒

Sampling Method: Bailer ☒ Pump ☐

Color: No ☒ Yes ☐ **Describe:** _____

Sheen: No ☒ Yes ☐ **Describe:** _____

Odor: No ☒ Yes ☐ **Describe:** _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
3:00 PM	Start purge			
3:04 PM	5.0	6.77	21.5	964
3:07 PM	9.0	6.77	20.8	926
3:10 PM	Samples			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	ESE 5	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	23.80 feet		Castro Valley, CA
Top of Casing Elevation:	178.80 feet	**Date:**	October 19, 2004
Depth to Groundwater:	8.26 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	170.54 feet		John Lohman
Water Column Height:	15.54 feet		
Purged Volume:	11 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☒			
Sampling Method:	**Bailer** ☒	**Pump** ☐			
Color:	**No** ☒	**Yes** ☐	**Describe:**		
Sheen:	**No** ☒	**Yes** ☐	**Describe:**		
Odor:	**No** ☒	**Yes** ☐	**Describe:**		

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
1:41 PM	Start purge			
1:52	4	6.78	22.7	991
1:54	8	7.04	21.6	1117
1:57	11	7.04	21.2	1118
2:00	samples			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	MW6	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	29.30 feet		Castro Valley, CA
Top of Casing Elevation:	181.80 feet	**Date:**	October 19, 2004
Depth to Groundwater:	9.91 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	171.89 feet		John Lohman
Water Column Height:	19.39 feet		
Purged Volume:	15 gallons		

Purging Method: Bailer ☐ Pump ☒

Sampling Method: Bailer ☒ Pump ☐

Color: No ☒ Yes ☐ Describe: _____

Sheen: No ☒ Yes ☐ Describe: _____

Odor: No ☒ Yes ☐ Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
2:11	started purge			
2:14	6	7.08	20.06	786
2:20	12	6.85	20.5	778
2:25	15	6.78	20.4	781
2:28	samples			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	MW-7	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	29.00 feet		Castro Valley, CA
Top of Casing Elevation:	179.11 feet	**Date:**	October 19, 2004
Depth to Groundwater:	9.20 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	169.91 feet		John Lohman
Water Column Height:	19.8 feet		
Purged Volume:	13 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☒		
Sampling Method:	**Bailer** ☒	**Pump** ☐		
Color:	**No** ☒	**Yes** ☐	**Describe:**	
Sheen:	**No** ☒	**Yes** ☐	**Describe:**	
Odor:	**No** ☒	**Yes** ☐	**Describe:**	

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:19	Started purge			
12:21	4	7.10	19.6	796
12:24	8	6.78	19.7	818
12:27	12	6.80	19.6	827
12:34	Samples			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	SOMW1	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	30.0 feet		Castro Valley, CA
Top of Casing Elevation:	180.95 feet	**Date:**	October 19, 2004
Depth to Groundwater:	10.41 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	170.54 feet		John Lohman
Water Column Height:	19.59 feet		
Purged Volume:	12 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☒		
Sampling Method:	**Bailer** ☒	**Pump** ☐		
Color:	**No** ☒	**Yes** ☐	**Describe:**	
Sheen:	**No** ☒	**Yes** ☐	**Describe:**	
Odor:	**No** ☒	**Yes** ☐	**Describe:**	

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
2:36	start purge			
2:40	6	7.04	19.6	917
2:44	12	7.04	20.3	936
2:48	SAMPLES			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	Soma 2	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	15.00 feet		Castro Valley, CA
Top of Casing Elevation:	178.99 feet	**Date:**	October 19, 2004
Depth to Groundwater:	10.75 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	168.24 feet		John Lohman
Water Column Height:	4.25 feet		
Purged Volume:	2.5 gallons DQ4		

Purging Method: Bailer ☐ Pump ☒

Sampling Method: Bailer ☒ Pump ☐

Color: No ☑ Yes ☐ **Describe:** _____

Sheen: No ☑ Yes ☐ **Describe:** _____

Odor: No ☑ Yes ☐ **Describe:** _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
12:03 PM	started purging well			
12:05 PM	1	7.04	20.6	806
12:08 PM	SAMPLES			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	SMW3	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	15.00 feet		Castro Valley, CA
Top of Casing Elevation:	176.61 feet	**Date:**	October 19, 2004
Depth to Groundwater:	9.59 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	167.22 feet		John Lohman
Water Column Height:	5.41 feet		
Purged Volume:	6 gallons		

Purging Method:	**Bailer** ☐	**Pump** ☒			
Sampling Method:	**Bailer** ☒	**Pump** ☐			
Color:	**No** ☐	**Yes** ☑	**Describe:**	Orange	
Sheen:	**No** ☑	**Yes** ☐	**Describe:**		
Odor:	**No** ☑	**Yes** ☐	**Describe:**		

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
11:46	Started purging			
11:47	1.5	7.01	21.7	930
11:49	5	7.01	21.6	944
11:53	Sampling			

ENVIRONMENTAL ENGINEERING, INC

Well No.:	Soma 4	**Project No.:**	2761
Casing Diameter:	2 inches	**Address:**	3519 Castro Valley Blvd
Depth of Well:	24.50 feet		Castro Valley, CA
Top of Casing Elevation:	176.94 feet	**Date:**	October 19, 2004
Depth to Groundwater:	9.91 feet	**Sampler:**	Tony Perini
Groundwater Elevation:	167.03 feet		John Lohman
Water Column Height:	14.59 feet		
Purged Volume:	12 gallons		

Purging Method: Bailer ☐ Pump ☒

Sampling Method: Bailer ☒ Pump ☐

Color: No ☑ Yes ☐ Describe: _____

Sheen: No ☑ Yes ☐ Describe: _____

Odor: No ☑ Yes ☐ Describe: _____

Field Measurements:

Time	Vol (gallons)	pH	Temp (°C)	E.C. (µs/cm)
11:20AM	Started	Monitoring well		
11:27AM	2.5	6.85	21.2	939
11:25	7.5	6.65	22.1	~~950~~ 934
11:28	~~10~~	7.03	21.8	954
11:30	12	7.04	22.2	960
11:35	Sampling			

Appendix C

Chain of Custody form and laboratory report
for the Fourth Quarter 2004 monitoring event

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

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

Prepared for:

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

Date: 29-OCT-04
Lab Job Number: 175404
Project ID: 2761
Location: 3519 Castro Valley Blvd.

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

Reviewed by: _____
Project Manager

Reviewed by: _____
Operations Manager

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	175404
Client:	SOMA Environmental Engineering Inc.
Project:	2761
Location:	3519 Castro Valley Blvd.
Request Date:	10/19/04
Samples Received:	10/19/04

This hardcopy data package contains sample and QC results for nine water samples, requested for the above referenced project on 10/19/04. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B and EPA 8021B):
No analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
No analytical problems were encountered.

CHAIN OF CUSTODY

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

C&T LOGIN # 175404

Sampler: Tony Perini / John Lohman

Project No: 2761

Report To: Tony Perini

Project Name: 3519 Castro Valley Blvd., Castro Valley

Company : SOMA Environmental

Turnaround Time: Standard

Telephone: 925-244-6600

Fax: 925-244-6601

Lab No.	Sample ID.	Sampling Date	Time	Matrix: Soil	Matrix: Water	Matrix: Waste	# of Containers	Preservative: HCL	Preservative: H_2SO_4	Preservative: HNO_3	Preservative: ICE	Analyses: TPHg 8015	Analyses: BTEX 8021 GC	Analyses: Gasoline Oxygenates & Lead Scavengers	Analyses: Ethanol
-1	ESE-1	10/19/04	3:30 PM		✓		4-VOAs	✓			✓	✓	✓	✓	✓
-2	ESE-2		3:10 PM												
-3	ESE-5		2 PM												
-4	MW-6		2:28 PM												
-5	MW-7		1234 PM												
-6	SOMA-1		248 PM												
-7	SOMA-2		1208 PM												
-8	SOMA-3		1153 AM												
-9	SOMA-4	↓	1135 AM												

Notes: **EDF OUTPUT REQUIRED**
GASOLINE OXYGENATES: TBA, DIPE, ETBE, TAME and MtBE
LEAD SCAVENGERS: 1,2-DCA, EDB

RELINQUISHED BY:	RECEIVED BY:
Tony Perini 10/19/04	Lavanna Curtis 10/19/04 4:30
Tony Perini 4:30PM DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME
DATE/TIME	DATE/TIME

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761		
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID: ESE-1 Lab ID: 175404-001
Type: SAMPLE

Analyte	Result	RL	Diln Fac	Batch#	Analyzed	Analysis
Gasoline C7-C12	1,600	50	1.000	95619	10/21/04	EPA 8015B
Benzene	490	1.0	2.000	95714	10/22/04	EPA 8021B
Toluene	13	0.50	1.000	95619	10/21/04	EPA 8021B
Ethylbenzene	12	0.50	1.000	95619	10/21/04	EPA 8021B
m,p-Xylenes	18	0.50	1.000	95619	10/21/04	EPA 8021B
o-Xylene	7.3	0.50	1.000	95619	10/21/04	EPA 8021B

Surrogate	%REC	Limits	Diln Fac	Batch#	Analyzed	Analysis
Trifluorotoluene (FID)	104	70-141	1.000	95619	10/21/04	EPA 8015B
Bromofluorobenzene (FID)	94	80-143	1.000	95619	10/21/04	EPA 8015B
Trifluorotoluene (PID)	92	59-133	1.000	95619	10/21/04	EPA 8021B
Bromofluorobenzene (PID)	95	76-128	1.000	95619	10/21/04	EPA 8021B

Field ID: ESE-2 Diln Fac: 1.000
Type: SAMPLE Batch#: 95619
Lab ID: 175404-002 Analyzed: 10/21/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	87	70-141	EPA 8015B
Bromofluorobenzene (FID)	94	80-143	EPA 8015B
Trifluorotoluene (PID)	87	59-133	EPA 8021B
Bromofluorobenzene (PID)	94	76-128	EPA 8021B

Field ID: ESE-5 Diln Fac: 1.000
Type: SAMPLE Batch#: 95619
Lab ID: 175404-003 Analyzed: 10/21/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	380	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	1.4	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	100	70-141	EPA 8015B
Bromofluorobenzene (FID)	97	80-143	EPA 8015B
Trifluorotoluene (PID)	96	59-133	EPA 8021B
Bromofluorobenzene (PID)	96	76-128	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761		
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	MW-6	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95619
Lab ID:	175404-004	Analyzed:	10/21/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	83	70-141	EPA 8015B
Bromofluorobenzene (FID)	96	80-143	EPA 8015B
Trifluorotoluene (PID)	86	59-133	EPA 8021B
Bromofluorobenzene (PID)	94	76-128	EPA 8021B

Field ID:	MW-7	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95619
Lab ID:	175404-005	Analyzed:	10/21/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	84	70-141	EPA 8015B
Bromofluorobenzene (FID)	94	80-143	EPA 8015B
Trifluorotoluene (PID)	87	59-133	EPA 8021B
Bromofluorobenzene (PID)	93	76-128	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761		
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	SOMA-1	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95619
Lab ID:	175404-006	Analyzed:	10/21/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	56	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	1.3 C	0.50	EPA 8021B
m,p-Xylenes	1.4 C	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	84	70-141	EPA 8015B
Bromofluorobenzene (FID)	93	80-143	EPA 8015B
Trifluorotoluene (PID)	86	59-133	EPA 8021B
Bromofluorobenzene (PID)	95	76-128	EPA 8021B

Field ID:	SOMA-2	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95619
Lab ID:	175404-007	Analyzed:	10/20/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	86	70-141	EPA 8015B
Bromofluorobenzene (FID)	93	80-143	EPA 8015B
Trifluorotoluene (PID)	86	59-133	EPA 8021B
Bromofluorobenzene (PID)	93	76-128	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761		
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	SOMA-3	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95619
Lab ID:	175404-008	Analyzed:	10/21/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	83	70-141	EPA 8015B
Bromofluorobenzene (FID)	91	80-143	EPA 8015B
Trifluorotoluene (PID)	82	59-133	EPA 8021B
Bromofluorobenzene (PID)	89	76-128	EPA 8021B

Field ID:	SOMA-4	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95619
Lab ID:	175404-009	Analyzed:	10/21/04

Analyte	Result	RL	Analysis
Gasoline C7-C12	150	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	10	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	89	70-141	EPA 8015B
Bromofluorobenzene (FID)	90	80-143	EPA 8015B
Trifluorotoluene (PID)	87	59-133	EPA 8021B
Bromofluorobenzene (PID)	91	76-128	EPA 8021B

C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761		
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Type:	BLANK	Batch#:	95619
Lab ID:	QC268749	Analyzed:	10/20/04
Diln Fac:	1.000		

Analyte	Result	RL	Analysis
Gasoline C7-C12	ND	50	EPA 8015B
Benzene	ND	0.50	EPA 8021B
Toluene	ND	0.50	EPA 8021B
Ethylbenzene	ND	0.50	EPA 8021B
m,p-Xylenes	ND	0.50	EPA 8021B
o-Xylene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	86	70-141	EPA 8015B
Bromofluorobenzene (FID)	92	80-143	EPA 8015B
Trifluorotoluene (PID)	86	59-133	EPA 8021B
Bromofluorobenzene (PID)	90	76-128	EPA 8021B

Type:	BLANK	Batch#:	95714
Lab ID:	QC269167	Analyzed:	10/22/04
Diln Fac:	1.000		

Analyte	Result	RL	Analysis
Benzene	ND	0.50	EPA 8021B

Surrogate	%REC	Limits	Analysis
Trifluorotoluene (FID)	89	70-141	EPA 8015B
Bromofluorobenzene (FID)	95	80-143	EPA 8015B
Trifluorotoluene (PID)	104	59-133	EPA 8021B
Bromofluorobenzene (PID)	105	76-128	EPA 8021B

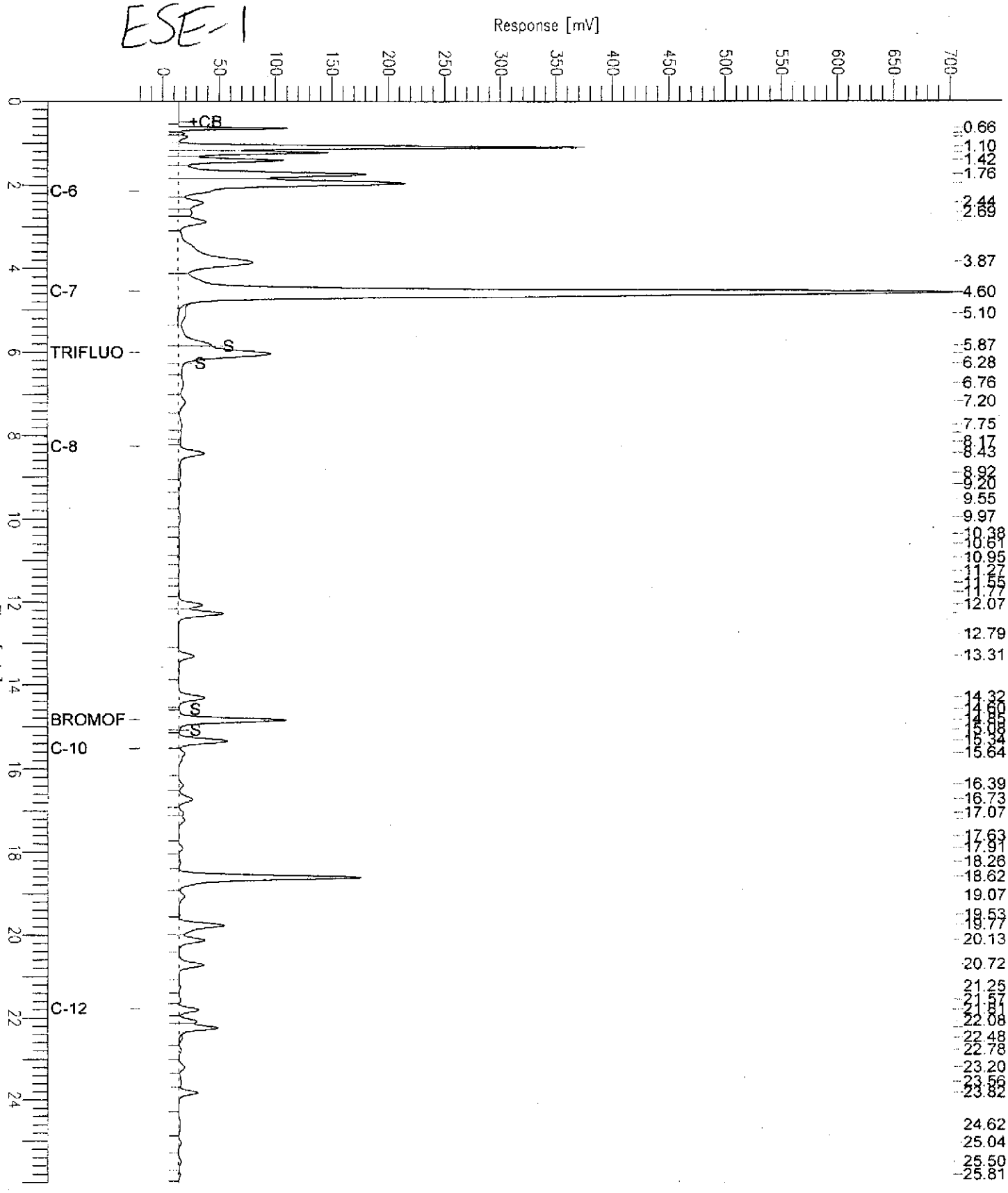
C= Presence confirmed, but RPD between columns exceeds 40%
ND= Not Detected
RL= Reporting Limit

GC07 TVH 'A' Data File RTX 502

Sample Name : 175404-001,95619
FileName : G:\GC07\DATA\294A031.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -20 mV

Sample #: a1.0 Page 1 of 1
Date : 10/21/04 04:02 PM
Time of Injection: 10/21/04 02:04 PM
Low Point : -20.47 mV High Point : 702.83 mV
Plot Scale: 723.3 mV

ESE-1

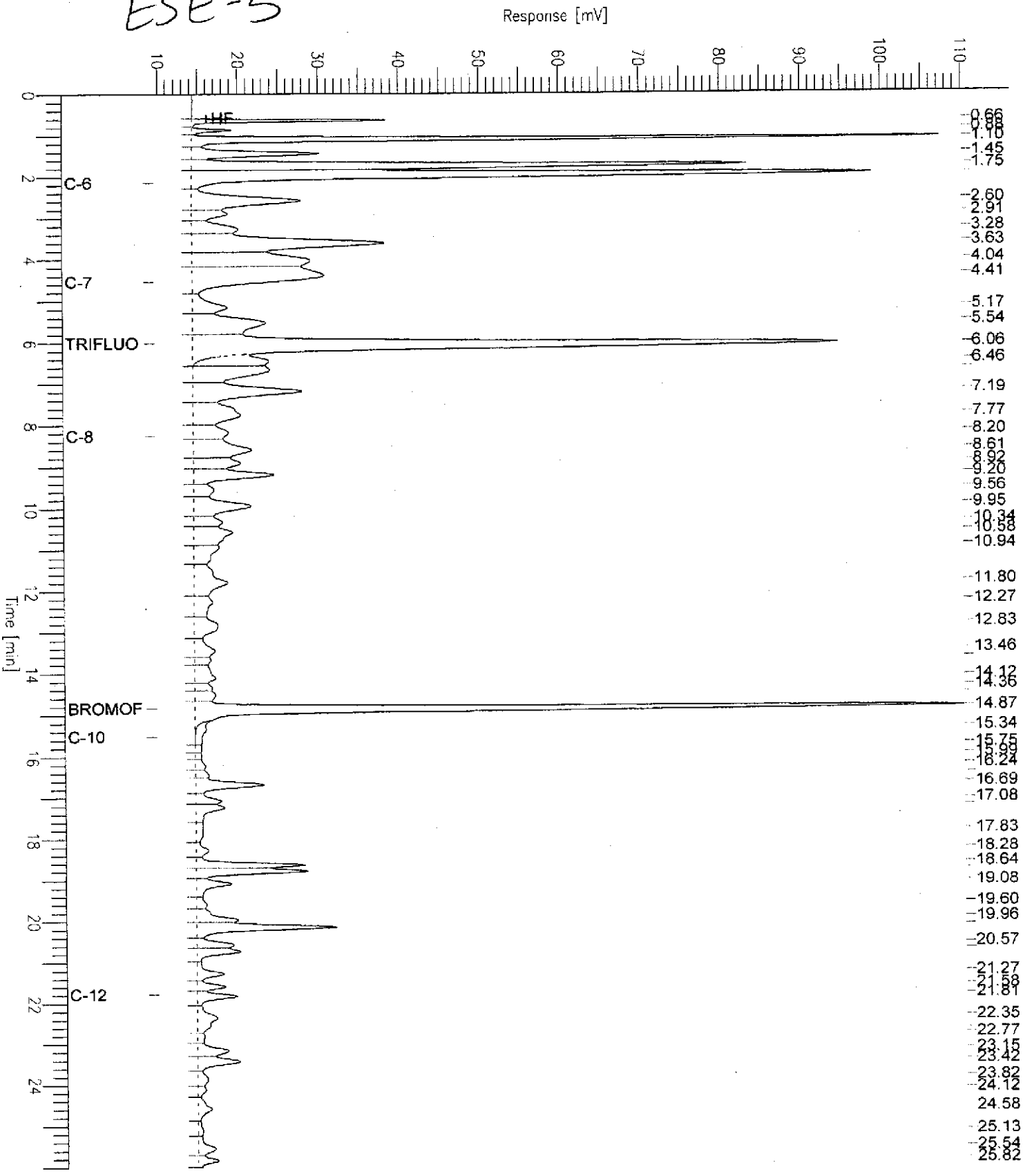


GC07 TVH 'A' Data File RTX 502

Sample Name : 175404-003,95619
FileName : G:\GC07\DATA\294A027.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 10 mV

Sample #: a1.0 Page 1 of 1
Date : 10/21/04 12:57 PM
Time of Injection: 10/21/04 11:43 AM
Low Point : 9.54 mV High Point : 110.11 mV
Plot Scale: 100.6 mV

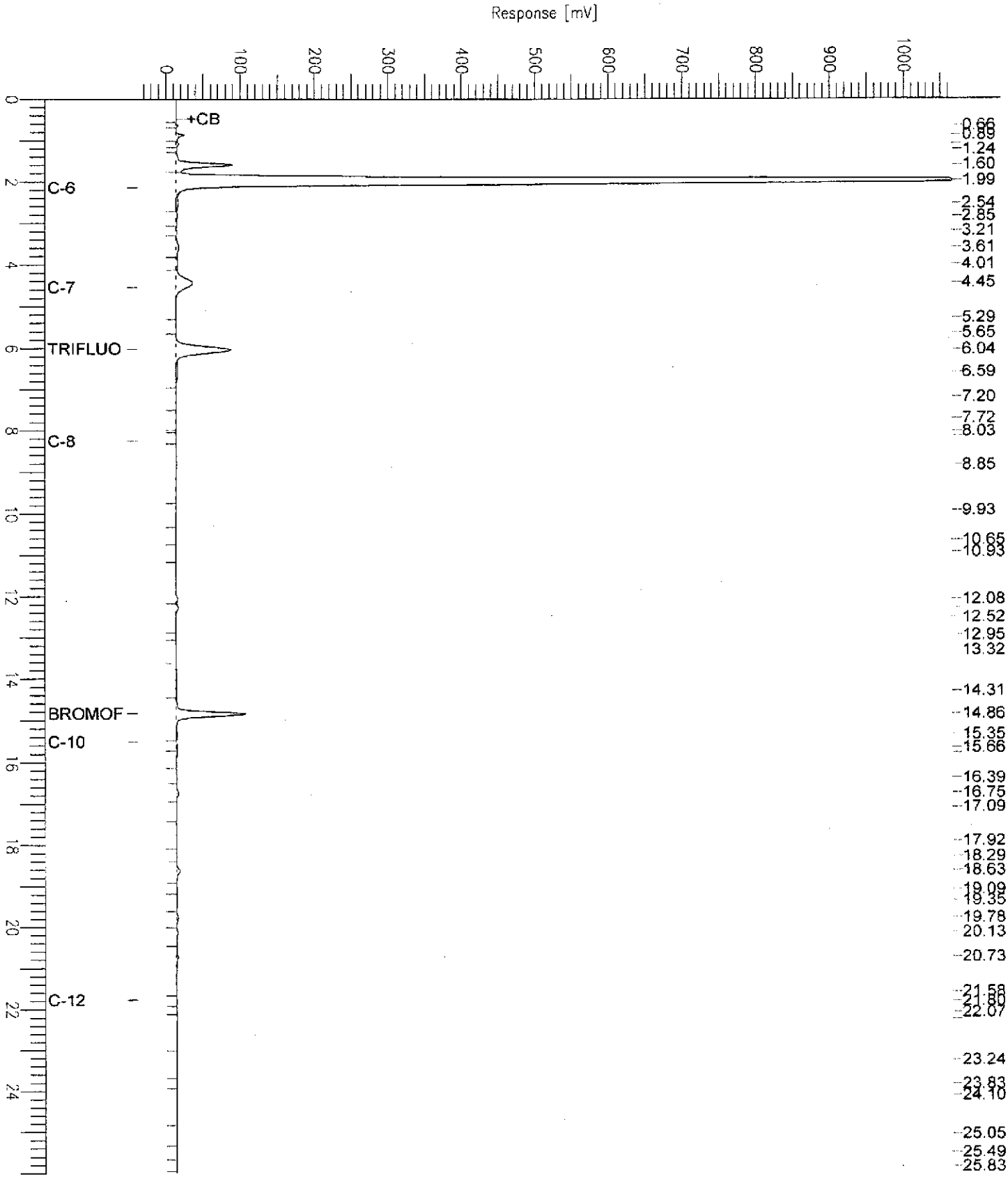
ESE-5



GC07 TVH 'A' Data File RTX 502

Sample Name : 175404-006,95619
FileName : G:\GC07\DATA\294A030.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: -39 mV

Sample #: a1.0 Page 1 of 1
Date : 10/21/04 01:55 PM
Time of Injection: 10/21/04 01:29 PM
Low Point : -38.57 mV High Point : 1066.07 mV
Plot Scale: 1104.6 mV

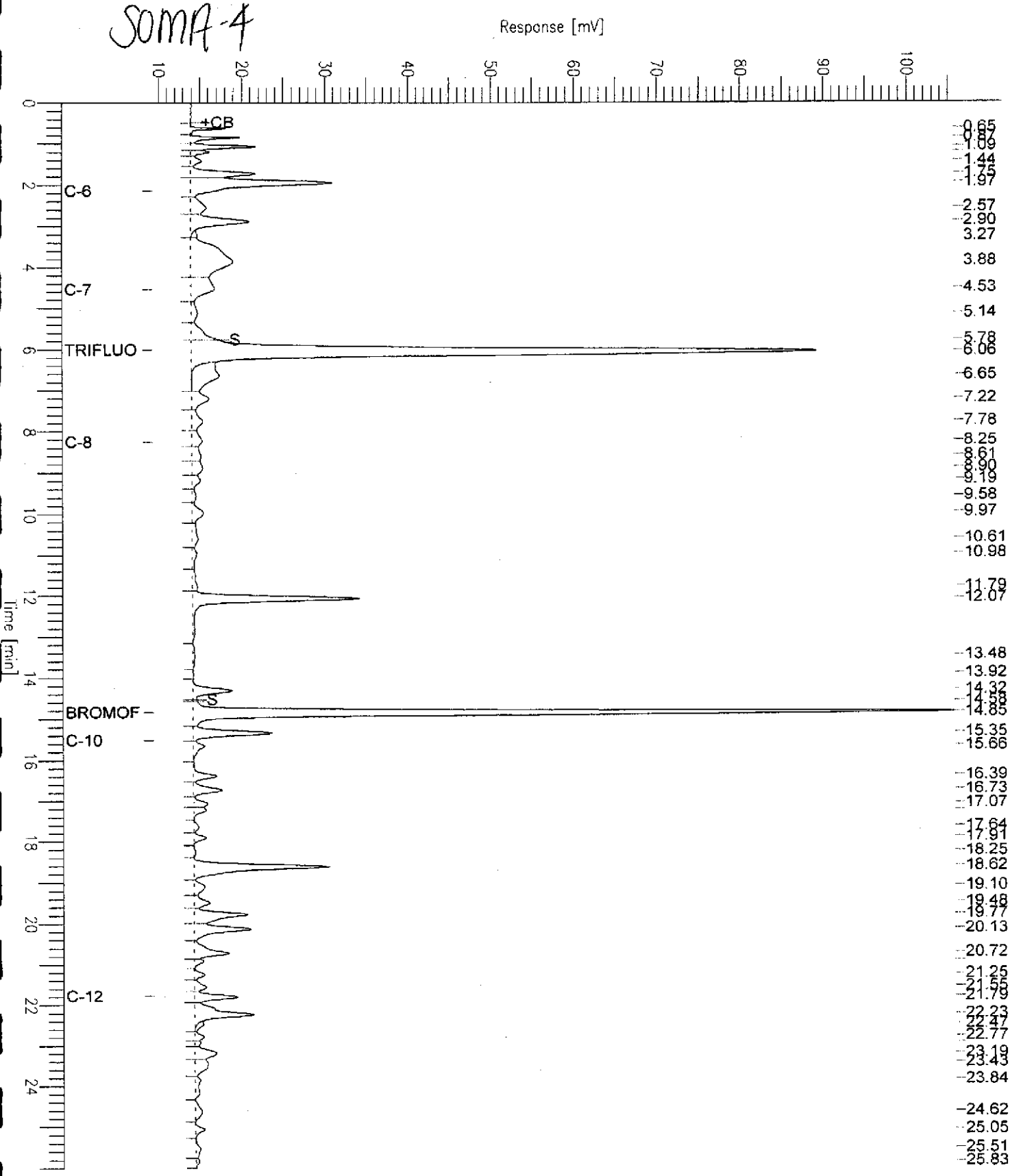


GC07 TVH 'A' Data File RTX 502

Sample Name : 175404-009,95619
FileName : G:\GC07\DATA\294A040.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 9 mV

Sample #: a1.0 Page 1 of 1
Date : 10/22/04 10:48 AM
Time of Injection: 10/21/04 07:19 PM
Low Point : 9.32 mV High Point : 105.70 mV
Plot Scale: 96.4 mV

SOMA-4

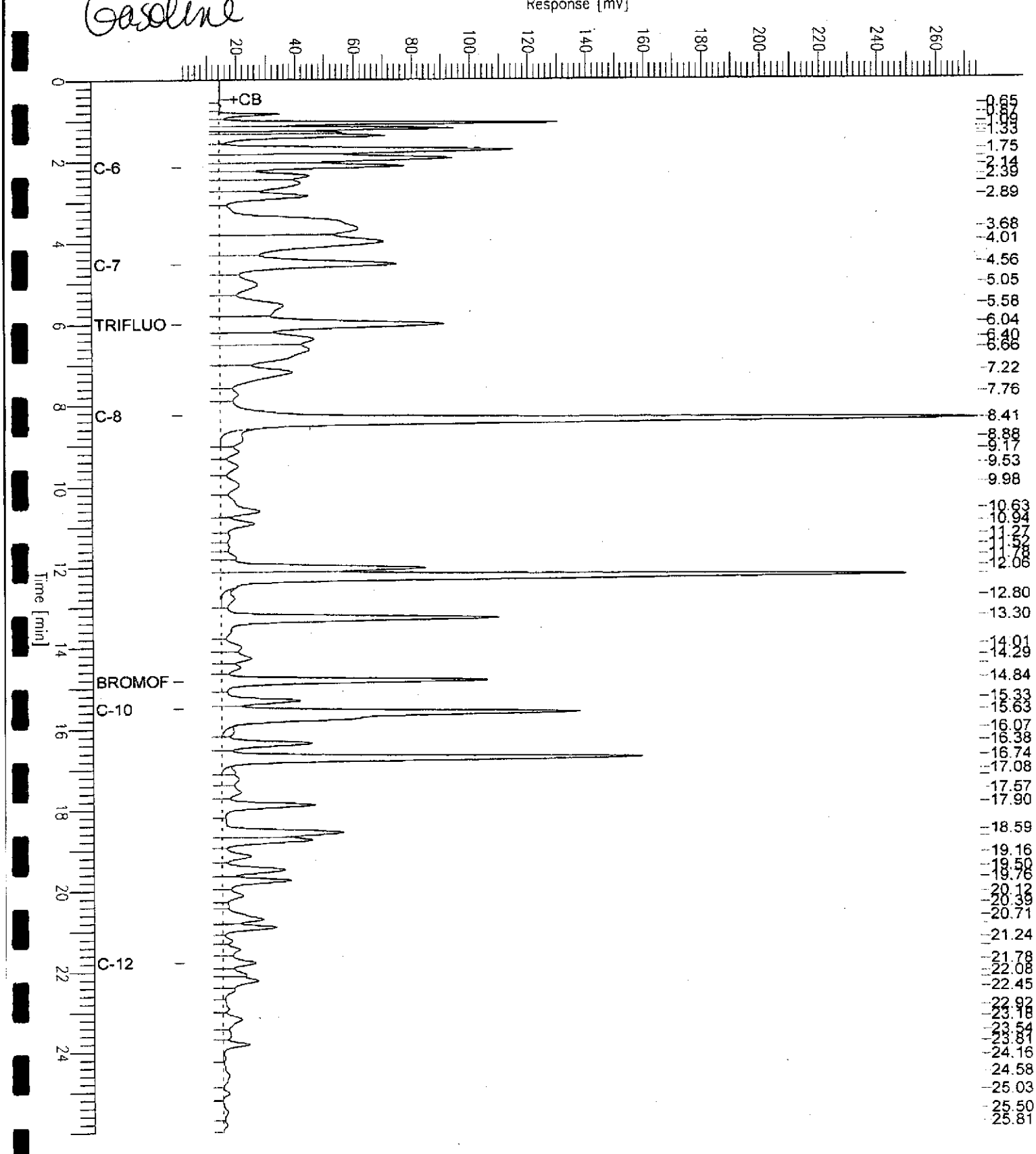


GC07 TVH 'A' Data File RTX 502

Sample Name : ccv/lcs,qc268751,95619,04ws1816,5/5000
FileName : G:\GC07\DATA\294A003.raw
Method : TVHBTXE
Start Time : 0.00 min End Time : 26.00 min
Scale Factor: 1.0 Plot Offset: 1 mV

Sample #: Page 1 of 1
Date : 10/20/04 10:49 AM
Time of Injection: 10/20/04 10:23 AM
Low Point : 1.30 mV High Point : 274.01 mV
Plot Scale: 272.7 mV

Gasoline



Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8021B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC268750	Batch#:	95619
Matrix:	Water	Analyzed:	10/20/04
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	20.00	20.74	104	80-120
Toluene	20.00	21.38	107	80-120
Ethylbenzene	20.00	20.37	102	80-120
m,p-Xylenes	20.00	19.32	97	80-120
o-Xylene	20.00	21.70	108	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	85	59-133
Bromofluorobenzene (PID)	89	76-128

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC268751	Batch#:	95619
Matrix:	Water	Analyzed:	10/20/04
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	2,000	2,012	101	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	98	70-141
Bromofluorobenzene (FID)	92	80-143

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8021B
Type:	BS	Diln Fac:	1.000
Lab ID:	QC269168	Batch#:	95714
Matrix:	Water	Analyzed:	10/22/04
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits
Benzene	10.00	9.958	100	80-120

Surrogate	%REC	Limits
Trifluorotoluene (PID)	106	59-133
Bromofluorobenzene (PID)	113	76-128

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8021B
Type:	BSD	Diln Fac:	1.000
Lab ID:	QC269242	Batch#:	95714
Matrix:	Water	Analyzed:	10/22/04
Units:	ug/L		

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Benzene	20.00	19.57	98	80-120	2	20

Surrogate	%REC	Limits
Trifluorotoluene (PID)	105	59-133
Bromofluorobenzene (PID)	107	76-128

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Curtis & Tompkins Laboratories Analytical Report

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8015B
Field ID:	SOMA-2	Batch#:	95619
MSS Lab ID:	175404-007	Sampled:	10/19/04
Matrix:	Water	Received:	10/19/04
Units:	ug/L	Analyzed:	10/21/04
Diln Fac:	1.000		

Type: MS Lab ID: QC268850

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	15.56	2,000	1,879	93	80-120

Surrogate	%REC	Limits
Trifluorotoluene (FID)	105	70-141
Bromofluorobenzene (FID)	94	80-143

Type: MSD Lab ID: QC268851

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	2,000	1,895	94	80-120	1	20

Surrogate	%REC	Limits
Trifluorotoluene (FID)	104	70-141
Bromofluorobenzene (FID)	95	80-143

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	BSE-1	Diln Fac:	1.429
Type:	SAMPLE	Batch#:	95681
Lab ID:	175404-001	Analyzed:	10/21/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	270	14
MTBE	110	0.7
Isopropyl Ether (DIPE)	ND	0.7
Ethyl tert-Butyl Ether (ETBE)	ND	0.7
Methyl tert-Amyl Ether (TAME)	4.4	0.7
1,2-Dichloroethane	9.9	0.7
1,2-Dibromoethane	ND	0.7
Ethanol	ND	1,400

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	94	80-120
Bromofluorobenzene	91	80-122

Field ID:	BSE-2	Diln Fac:	7.143
Type:	SAMPLE	Batch#:	95681
Lab ID:	175404-002	Analyzed:	10/21/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	1,800	71
MTBE	410	3.6
Isopropyl Ether (DIPE)	ND	3.6
Ethyl tert-Butyl Ether (ETBE)	ND	3.6
Methyl tert-Amyl Ether (TAME)	8.6	3.6
1,2-Dichloroethane	ND	3.6
1,2-Dibromoethane	ND	3.6
Ethanol	ND	7,100

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	98	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	ESE-5	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95681
Lab ID:	175404-003	Analyzed:	10/21/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	39	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-120
1,2-Dichloroethane-d4	103	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	92	80-122

Field ID:	MW-6	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95681
Lab ID:	175404-004	Analyzed:	10/21/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-120
1,2-Dichloroethane-d4	106	80-120
Toluene-d8	102	80-120
Bromofluorobenzene	93	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	MW-7	Diln Fac:	10.00
Type:	SAMPLE	Batch#:	95681
Lab ID:	175404-005	Analyzed:	10/21/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	100
MTBE	550	5.0
Isopropyl Ether (DIPE)	ND	5.0
Ethyl tert-Butyl Ether (ETBE)	ND	5.0
Methyl tert-Amyl Ether (TAME)	11	5.0
1,2-Dichloroethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Ethanol	ND	10,000

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	102	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	98	80-122

Field ID:	SOMA-1	Diln Fac:	25.00
Type:	SAMPLE	Batch#:	95681
Lab ID:	175404-006	Analyzed:	10/21/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	2,400	250
MTBE	1,600	13
Isopropyl Ether (DIPE)	ND	13
Ethyl tert-Butyl Ether (ETBE)	ND	13
Methyl tert-Amyl Ether (TAME)	36	13
1,2-Dichloroethane	ND	13
1,2-Dibromoethane	ND	13
Ethanol	ND	25,000

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	105	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	SOMA-2	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95681
Lab ID:	175404-007	Analyzed:	10/21/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	2.4	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	107	80-120
1,2-Dichloroethane-d4	104	80-120
Toluene-d8	96	80-120
Bromofluorobenzene	98	80-122

Field ID:	SOMA-3	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95719
Lab ID:	175404-008	Analyzed:	10/22/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	104	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Field ID:	SOMA-4	Diln Fac:	1.000
Type:	SAMPLE	Batch#:	95719
Lab ID:	175404-009	Analyzed:	10/22/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	8.8	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	100	80-122

Type:	BLANK	Batch#:	95681
Lab ID:	QC269016	Analyzed:	10/21/04
Diln Fac:	1.000		

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-120
1,2-Dichloroethane-d4	98	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	94	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Sampled:	10/19/04
Units:	ug/L	Received:	10/19/04

Type: BLANK
Lab ID: QC269193
Diln Fac: 1.000

Batch#: 95719
Analyzed: 10/22/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	100	80-120
Bromofluorobenzene	108	80-122

Type: BLANK
Lab ID: QC269194
Diln Fac: 1.000

Batch#: 95719
Analyzed: 10/22/04

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	10
MTBE	ND	0.5
Isopropyl Ether (DIPE)	ND	0.5
Ethyl tert-Butyl Ether (ETBE)	ND	0.5
Methyl tert-Amyl Ether (TAME)	ND	0.5
1,2-Dichloroethane	ND	0.5
1,2-Dibromoethane	ND	0.5
Ethanol	ND	1,000

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	99	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	105	80-122

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	95681
Units:	ug/L	Analyzed:	10/21/04
Diln Fac:	1.000		

Type: BS Lab ID: QC269014

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	250.0	226.4	91	74-135
MTBE	50.00	44.98	90	74-128
Isopropyl Ether (DIPE)	50.00	41.47	83	80-120
Ethyl tert-Butyl Ether (ETBE)	50.00	45.09	90	80-120
Methyl tert-Amyl Ether (TAME)	50.00	44.54	89	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	95	80-120
Toluene-d8	98	80-120
Bromofluorobenzene	90	80-122

Type: BSD Lab ID: QC269015

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	250.0	236.9	95	74-135	5	25
MTBE	50.00	45.71	91	74-128	2	20
Isopropyl Ether (DIPE)	50.00	43.25	86	80-120	4	20
Ethyl tert-Butyl Ether (ETBE)	50.00	46.48	93	80-120	3	20
Methyl tert-Amyl Ether (TAME)	50.00	46.16	92	80-120	4	20

Surrogate	%REC	Limits
Dibromofluoromethane	103	80-120
1,2-Dichloroethane-d4	96	80-120
Toluene-d8	95	80-120
Bromofluorobenzene	91	80-122

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Gasoline Oxygenates by GC/MS

Lab #:	175404	Location:	3519 Castro Valley Blvd.
Client:	SOMA Environmental Engineering Inc.	Prep:	EPA 5030B
Project#:	2761	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	95719
Units:	ug/L	Analyzed:	10/22/04
Diln Fac:	1.000		

Type: BS Lab ID: QC269191

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	120.4	96	74-135
MTBE	25.00	22.54	90	74-128
Isopropyl Ether (DIPE)	25.00	23.90	96	80-120
Ethyl tert-Butyl Ether (ETBE)	25.00	24.10	96	80-120
Methyl tert-Amyl Ether (TAME)	25.00	23.36	93	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-120
1,2-Dichloroethane-d4	100	80-120
Toluene-d8	101	80-120
Bromofluorobenzene	102	80-122

Type: BSD Lab ID: QC269192

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	119.7	96	74-135	1	25
MTBE	25.00	22.92	92	74-128	2	20
Isopropyl Ether (DIPE)	25.00	24.66	99	80-120	3	20
Ethyl tert-Butyl Ether (ETBE)	25.00	24.69	99	80-120	2	20
Methyl tert-Amyl Ether (TAME)	25.00	23.59	94	80-120	1	20

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-120
1,2-Dichloroethane-d4	101	80-120
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-122

RPD= Relative Percent Difference