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GROUND WATER MONITORING REPORT
FOURTH QUARTER 1994

MALIBU GRAND PRIX
8000 South Coliseum Way
Oakland, California

Report prepared for:

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March 28, 1995
Smith Environmental Technologies Corp. Report 8594

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GROUNDWATER MONITORING REPORT
FOURTH QUARTER 1994

MALIBU GRAND PRIX
8000 South Coliseum Way
Oakland, California

For Malibu Grand Prix

1.0 INTRODUCTION

Smith Environmental Technologies Corporation (formerly RESNA Industries) has performed the Fourth Quarter, 1994, monitoring of the groundwater at the former Malibu Grand Prix Race Track and Castle areas, 8000 South Coliseum Way, Oakland, California (Plate 1). The quarterly monitoring of the groundwater, originally scheduled for December 1994, was delayed until mid-February 1995. This was due to demolition work at the site and the persistent heavy rains in January. This report reviews the past history of the site, gives the results of the analysis of ground water samples, and recommends further action. Groundwater monitoring wells at the site were sounded for depth to water and sampled on February 17, 1995. All of the monitoring wells suffered some damage during the demolition of the site. Eight of the wells could not be sampled. Recommendations are made to abandon ten wells and construct three new wells.

2.0 BACKGROUND

Malibu Grand Prix (MGP) operated two adjacent amusement park facilities, a Racetrack for midget cars and a Fun Center with miniature golf and batting cages on leased property at 8000 South Coliseum Way, Oakland (Plates 1 & 2). Prior to 1989 the MGP facility maintained two 6,000 gallon underground storage tanks containing marine mix gasoline. The tanks were located in the parking lots adjacent to the MGP Castle and Race Track. The tanks were removed on March 29, 1989 and February 1, 1990 respectively. Closure reports were submitted to the Alameda County Department of Environmental Health with all relevant waste manifests and analysis results. On June 29, 1989 a letter from Alameda County was sent to Malibu Grand Prix Corp. requiring an initial site investigation to determine the extent of soil and groundwater contamination present at the MGP Castle while a verbal request was issued for an assessment at the Race Track at the time of the removal. The site assessment at the Castle began on September 21, 1989 and a report was issued on November 15, 1989 recommending further assessment work. The assessment work at the Race Track, and the continued assessment at the Castle began on June 12, 1990. Monitoring Wells 1 through 10 were sampled July 17, 1991. Four additional monitoring wells (MWs) at the Castle and four additional MWs at the Race Track were constructed on August 27-30, 1991. All monitoring wells, MW-1 through -18, were

sampled October 9, 10, 11, 1991, for water analyses and pump tests and slug tests were performed on selected wells. Ground water table measurement-data are interpreted to reflect tidal effects and inhomogeneity of the backfill material underlying this site. The analyses of water and sludge samples collected December 2, 1992, from the drainage ditches on the north and west sides of the site indicate that the ditches are not impacted adversely by effluent ground water from the MGP site. A total of twenty borings were made February 9, 10, 11, and August 19, 20, 1993, in the areas of the former USTs to further define the extent of soil impaction and facilitate remediation plans for the soil. A Soil Remediation Work Plan was prepared in May 1994. The work plan was subsequently approved by the Alameda County Health Care Services Agency. The Malibu Grand Prix Facility was demolished during the months of December 1994 and January 1995 and is no longer in operation.

3.0 GROUND WATER MONITORING PROCEDURES

The stabilized water depth was measured in each well with an electrical measuring tape and the depths were recorded on site prior to sampling. During sampling, which followed depth measurement, the wells were purged of three well volumes of water, or until dry, with a bailer and submergible electric pump. A split sample (two simultaneous samples) was taken with a disposable bailer following purging of each well. Samples were labeled and chilled for transporting to a State certified laboratory under chain of custody. Purged water was transported to Gibson Environmental for disposal. Well purge data and the purge water disposal documents are presented in Appendix B. Sampling procedures are described in Appendix C.

4.0 FINDINGS

During the demolition of the subject site, all of the monitoring wells suffered some damage. Some of the wells were either completely destroyed or rendered unusable. All wells not completely destroyed were purged and sampled.

4.1 Water Table Elevation Measurements

Depth to water measurements were collected in the majority of monitoring wells that were not completely destroyed. A groundwater contour map could not be developed, however, since nearly all of the wells suffered damage to the top of the casing. The previous surveyed well head elevations would not, therefore, provide an accurate representation of the groundwater elevation. Over the last four years, however, the groundwater gradient and slope has not changed appreciably. Therefore it can be assumed that the groundwater at the site has maintained a westerly groundwater flow direction, as observed during the past four years.

4.2 Water Samples Analyses

Water samples collected from the ground water monitoring wells were analyzed for benzene, toluene, ethylbenzene and xylenes plus total petroleum hydrocarbons as gasoline (BTEX-TPHg). Analyses were performed by Sequoia Analytical of Redwood City, California. Due to damage incurred from the demolition of the site, eight of the wells could not be sampled. Benzene and TPHg results for each well is shown on Plate 3. Past results of groundwater analysis is tabulated on Table 1. A copy of the most recent analytical report is presented in Appendix A. Of the wells sampled, only three had detectable hydrocarbon concentrations. The highest TPHg concentration was reported in MW-4 with 880 ppb. MW-8 was reported to have 100 ppb and MW-10 had 62 ppb. The only benzene detected was in MW-8 at 6.7 ppb.

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TABLE 1

MALIBU GRAND PRIX – OAKLAND, CALIFORNIA
WATER SAMPLE ANALYSIS RESULTS, ppb

Well #	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg
MW-1	09/22/89	410	1800	1100	7100	35000
	06/14/90	.66	<.05	1.3	2.3	210
	07/17/91	<.05	.06	<.05	<.05	270
	10/09/91	<.05	<.05	<.05	<.05	370
	08/05/92	<0.5	<0.5	<0.5	<0.5	600
	12/02/92	<0.5	<0.5	<0.5	<0.5	190
	02/11/93	<0.5	<0.5	<0.5	<0.5	75
	05/26/93	<0.5	<0.5	<0.5	<1.0	110
	08/20/93	<0.5	<0.5	<0.5	<1.0	70
	12/09/93	<0.5	<0.5	<0.5	<0.5	310
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	NA	NA	NA	NA	NA
	02/17/95	NA	NA	NA	NA	NA
MW-2	09/22/89	<.05	<.05	<.05	<.05	<50
	06/14/90	<.05	<.05	<.05	<.05	<50
	07/17/91	<.05	<.05	<.05	<.05	<50
	10/09/91	<.05	<.05	<.05	<.05	<50
	08/05/92	<0.5	<0.5	<0.5	<0.5	<50
	12/01/92	<0.5	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	0.8	<0.5	0.6	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	<50
	08/20/93	<0.5	<0.5	1.5	<1.0	<50
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	NA	NA	NA	NA	NA
MW-3	09/22/89	1.2	<.05	<.05	<.05	<50
	06/14/90	0.90	4	<.05	<.05	<50
	07/17/91	3.8	<.05	<.05	<.05	<50
	10/10/91	<.05	<.05	<.05	<.05	<50
	08/05/92	9.7	1.4	1.0	0.9	110
	12/02/92	1.3	ND	ND	0.84	<50
	02/11/93	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	2.6	<0.5	<0.5	<1.0	<50
	08/20/93	0.7	0.5	<0.5	1.6	<50
	12/09/93	0.87	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	0.94	<0.5	<0.5	<0.5	<50
	02/17/95	0.78	<0.5	<0.5	<0.5	<50

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TABLE 1
(Continued)
MALIBU GRAND PRIX – OAKLAND, CALIFORNIA
WATER SAMPLE ANALYSIS RESULTS, ppb

Well #	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg
MW-4	09/22/89	410	430	78	324	4000
	06/14/90	200	3.7	1.2	9.5	660
	07/17/91	49	4.3	1.5	38	1100
duplicate	07/17/91	45	2.7	1.0	33	1000
	10/09/91	0.8	<.05	<.05	<.05	88
	08/05/92	11	8.9	2.4	4.7	5800
	12/02/92	6.5	4.3	0.6	1.4	1500
	02/11/93	6.6	1.1	0.8	2.4	2000
	05/26/93	<0.5	<0.5	13	49	1500
	08/20/93	1.8	<0.5	<0.5	1.4	1100
	12/09/93	<0.5	<0.5	0.61	<0.5	1400
	03/25/94	100	<0.5	42	64	3100
	09/28/94	<0.5	<0.5	<0.5	<0.5	700
	02/17/95	<0.5	<0.5	<0.5	3.7	880
MW-5	06/14/90	<.05	<.05	<.05	<.05	<50
	07/17/91	<.05	<.05	<.05	<.05	<50
	10/09/91	<.05	<.05	<.05	<.05	110
	08/05/92	<0.5	<0.5	2.0	0.9	210
	12/02/92	<0.5	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	72
	08/20/93	<0.5	<0.5	<0.5	1.0	61
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	<0.5	<0.5	<0.5	<0.5	<50
MW-6	06/14/90	73	<.05	17	29.7	1800
	07/17/91	7.4	<.05	<.05	5.6	1200
	10/09/91	<.05	<.05	<.05	<.05	<50
	08/05/92	1.4	<0.5	12	4.1	1900
	12/01/92	<0.5	<0.5	2.5	1.3	140
	02/11/93	1.1	<0.5	<0.5	1.9	970
	05/26/93	0.6	<0.5	1.9	10.0	230
	08/20/93	<0.5	<0.5	0.91	4.9	140
	12/09/93	4.7	<0.5	<0.5	<0.5	270
	03/25/94	1.2	<0.5	<0.5	1.9	230
	09/28/94	<0.5	<0.5	<0.5	<0.5	230
	02/17/95	NA	NA	NA	NA	NA

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TABLE 1
(Continued)
MALIBU GRAND PRIX – OAKLAND, CALIFORNIA
WATER SAMPLE ANALYSIS RESULTS, ppb

Well #	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg
MW-7	06/14/90	0.84	<.05	1.2	1.8	58
	07/17/91	12	1.7	4.7	3.8	120
	10/09/91	<.05	<.05	<.05	<.05	<50
	08/05/92	<0.5	<0.5	0.6	<0.5	<50
	12/01/92	0.9	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	<0.5	3.6	<0.5	200
	05/26/93	<0.5	0.7	<0.5	3.5	78
	08/20/93	7.2	1.2	<0.5	2.1	63
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	4.1	<0.5	<0.5	3.2	53
	02/17/95	NA	NA	NA	NA	NA
MW-8	06/14/90	680	36	150	1060	13000
	07/17/91	330	1.8	1.7	3.6	1300
	10/10/91	3.1	0.6	0.7	<.05	76
duplicate	10/10/91	3.2	0.6	0.7	<.05	72
	08/05/92	35	1.2	0.6	2.4	1700
	12/02/92	5.5	0.9	<0.5	1.8	450
	02/11/93	77	<0.5	11	11	2000
	05/26/93	130	4.8	1.9	<1.0	670
	08/20/93	0.71	<0.5	<0.5	<0.5	230
	12/09/93	<0.5	<0.5	<0.5	0.55	210
	03/25/94	4.0	<0.5	<0.5	0.69	320
	09/28/94	3.5	<0.5	<0.5	6.0	480
	02/17/95	6.7	<0.5	<0.5	<0.5	100
MW-9	06/14/90	12	0.78	4.5	2.54	3200
	07/17/91	3.4	<.05	<.05	<.05	87
	10/10/91	1.8	<.05	<.05	<.05	100
	08/05/92	1.7	<0.5	<0.5	1.3	150
	12/02/92	1.3	<0.5	<0.5	<0.5	62
	02/11/93	0.7	ND	ND	ND	55
	05/26/93	0.6	<0.5	<0.5	<1.0	<50
	08/20/93	<0.5	<0.5	<0.5	<1.0	<50
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	NA	NA	NA	NA	NA

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TABLE 1
(Continued)
MALIBU GRAND PRIX – OAKLAND, CALIFORNIA
WATER SAMPLE ANALYSIS RESULTS, ppb

Well #	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg
MW-10	06/14/90	20	.69	4.3	7.7	400
	07/17/91	4.2	<.05	<.05	<.05	290
	10/10/91	<.05	<.05	<.05	<.05	90
	08/05/92	<0.5	<0.5	<0.5	<0.5	790
	12/02/92	<0.5	<0.5	<0.5	<0.5	85
	02/11/93	23	ND	14	11	1000
	05/26/93	<0.5	<0.5	<0.5	<1.0	130
	08/20/93	<0.5	0.5	<0.5	<1.0	180
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	0.68	<0.5	<0.5	<0.5	130
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	<0.5	<0.5	<0.5	<0.5	62
MW-11	10/09/91	<.05	1.2	1.0	6.4	430
	08/05/92	<0.5	<0.5	3.2	3.2	580
	12/01/92	<0.5	<0.5	2.2	1.5	140
	02/11/93	1.2	<0.5	3.0	1.8	340
	05/26/93	<0.5	<0.5	<0.5	<1.0	<50
	08/20/93	<0.5	<0.5	<0.5	<1.0	<50
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	<0.5	<0.5	<0.5	<0.5	<50
MW-12	10/09/91	<.05	2.6	0.8	5.1	1500
	08/05/92	<0.5	<0.5	9.1	1.1	53
	12/01/92	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	210
	08/20/93	<0.5	<0.5	<0.5	1.7	540
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	<0.5	<0.5	<0.5	<0.5	<50
MW-13	10/09/91	<.05	0.9	0.6	3.0	720
	08/05/92	<0.5	2.7	<0.5	0.69	1400
duplicate	08/05/92	<0.5	3.0	<0.5	0.7	1100
	12/01/92	<0.5	2.9	<0.5	0.9	670
	02/11/93	4.1	0.9	<0.5	<0.5	600
	05/26/93	<0.5	<0.5	<0.5	<1.0	220
	08/20/93	0.6	0.5	<0.5	<1.0	230
	12/09/93	<0.5	<0.5	<0.5	<0.5	160

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TABLE 1
(Continued)
MALIBU GRAND PRIX – OAKLAND, CALIFORNIA
WATER SAMPLE ANALYSIS RESULTS, ppb

Well #	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg
MW-13	03/25/94	<0.5	<0.5	<0.5	<0.5	110
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	<0.5	<0.5	<0.5	<0.5	<50
MW-14	08/27/91	<.05	<.05	<.05	<.05	<50
	10/09/91	<.05	<.05	<.05	0.9	<50
	08/05/92	<0.5	<0.5	<0.5	<0.5	<50
	12/01/92	<0.5	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	<50
	08/20/93	<0.5	0.5	<0.5	<1.0	<50
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	<0.5	<0.5	<0.5	<0.5	<50
MW-15	10/10/91	<.05	<.05	<.05	<.05	<50
	08/05/92	0.8	<0.5	<0.5	<0.5	<50
	12/02/92	<0.5	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	77
	08/20/93	<0.5	<0.5	<0.5	<1.0	56
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	NA	NA	NA	NA	NA
MW-16	10/09/91	<.05	<.05	<.05	<.05	78
	08/05/92	<0.5	<0.5	<0.5	<0.5	<50
	12/02/92	<0.5	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	<50
	08/20/93	<0.5	<0.5	<0.5	<1.0	<50
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	0.65	<0.5	<0.5	<50
	02/17/95	NA	NA	NA	NA	NA
MW-17	10/09/91	<.05	<.05	<.05	<.05	<50
	08/05/92	<0.5	<0.5	<0.5	<0.5	<50
	12/02/92	<0.5	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	<50

TABLE 1
(Continued)
MALIBU GRAND PRIX – OAKLAND, CALIFORNIA
WATER SAMPLE ANALYSIS RESULTS, ppb

Well #	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPHg
MW-17	08/20/93	<0.5	<0.5	<0.5	<1.0	<50
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	NA	NA	NA	NA	NA
MW-18	10/09/91	<.05	<.05	<.05	<.05	<50
	08/05/92	<0.5	<0.5	<0.5	<0.5	<50
	12/02/92	<0.5	<0.5	<0.5	<0.5	<50
	02/11/93	<0.5	<0.5	<0.5	<0.5	<50
	05/26/93	<0.5	<0.5	<0.5	<1.0	<50
	08/20/93	<0.5	<0.5	<0.5	<1.0	<50
	12/09/93	<0.5	<0.5	<0.5	<0.5	<50
	03/25/94	<0.5	<0.5	<0.5	<0.5	<50
	09/28/94	<0.5	<0.5	<0.5	<0.5	<50
	02/17/95	<0.5	<0.5	<0.5	<0.5	<50

Notes:

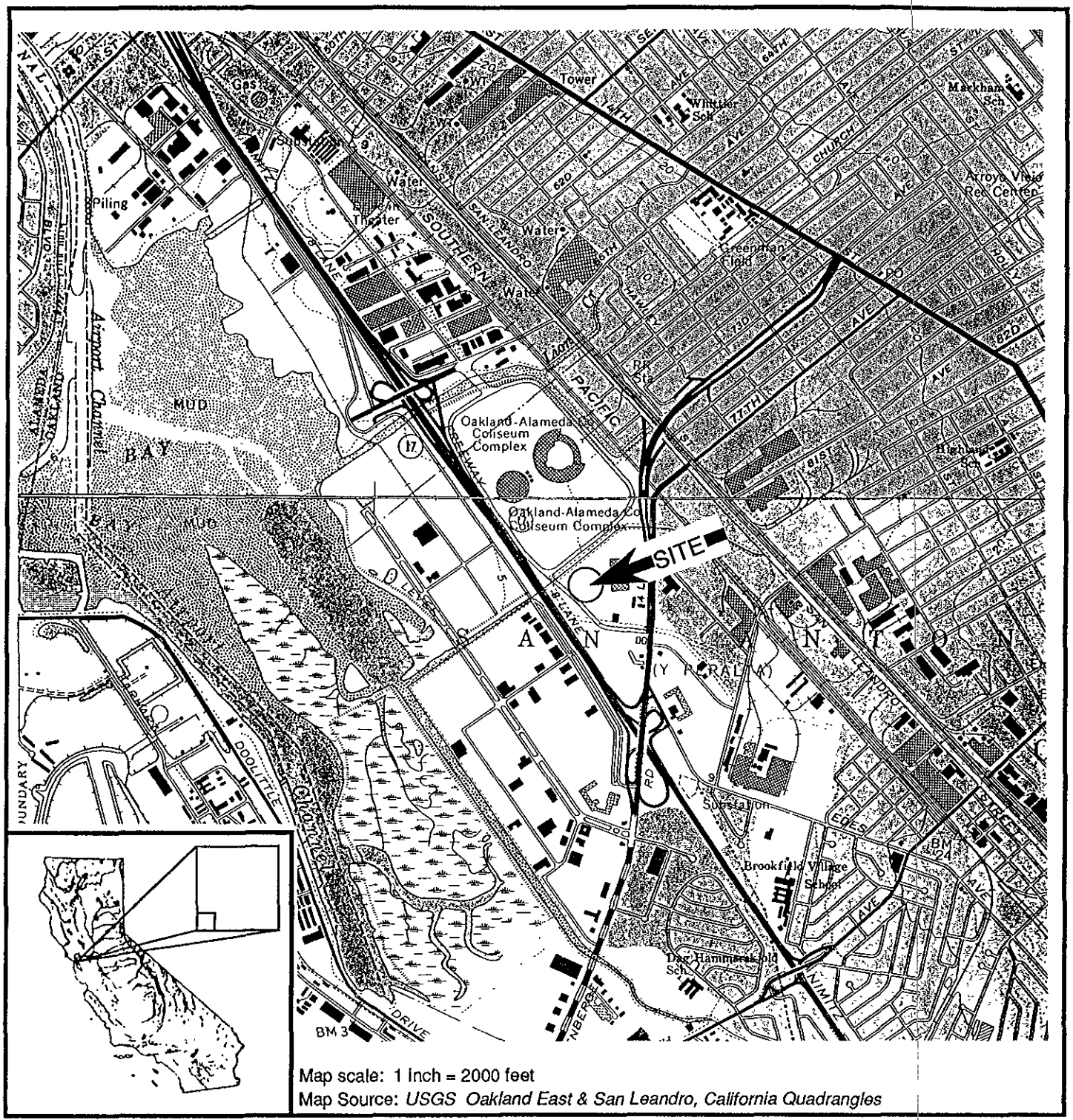
ND = Analytes were not present above the stated limit of detection
NA = Not Analyzed

5.0 RECOMMENDATIONS

Since most of the monitoring wells will not be needed to monitor down gradient of the hydrocarbon plume, all unusable wells will be abandoned in a manner approved by the Alameda County Flood Control District. As shown on Plate 2, ten wells are recommended for abandonment. Of these wells, MW-1, MW-4 and MW-8 were scheduled to be destroyed during the excavation of the soil plume. MW-6, MW-7, MW-9, MW-16 and MW-17 were damaged beyond repair and must be abandoned. MW-2 and MW-12 can be repaired, however, data points from those locations is not considered necessary and abandonment is recommended. MW-6 and MW-15 are both unrepairable and should be abandoned, however, a data point is considered necessary at their location. It is recommended, therefore, that two new wells, designated MW-6B and MW-15B, should be drilled at the locations shown on Plate 2. It is also recommended that an additional well, designated MW-19, should be constructed between MW-11 and MW-3 to monitor groundwater conditions in that area.

All new wells should be constructed with four inch schedule 40 PVC casing with approximately ten feet of perforated casing below the water table and five feet above. A diagram of the proposed well construction is presented on Plate 4. Upon completion of the new wells and repair of the existing wells, the top of each casing should be re-surveyed and an elevation relative to mean sea level should be determined.

The abandonment and drilling of the monitoring wells will be scheduled to coincide with the planned soil excavation at the site. All work is tentatively scheduled for April 1995. The Alameda County Health Care Services Agency will be notified one week before work begins.



Map scale: 1 Inch = 2000 feet

Map Source: *USGS Oakland East & San Leandro, California Quadrangles*

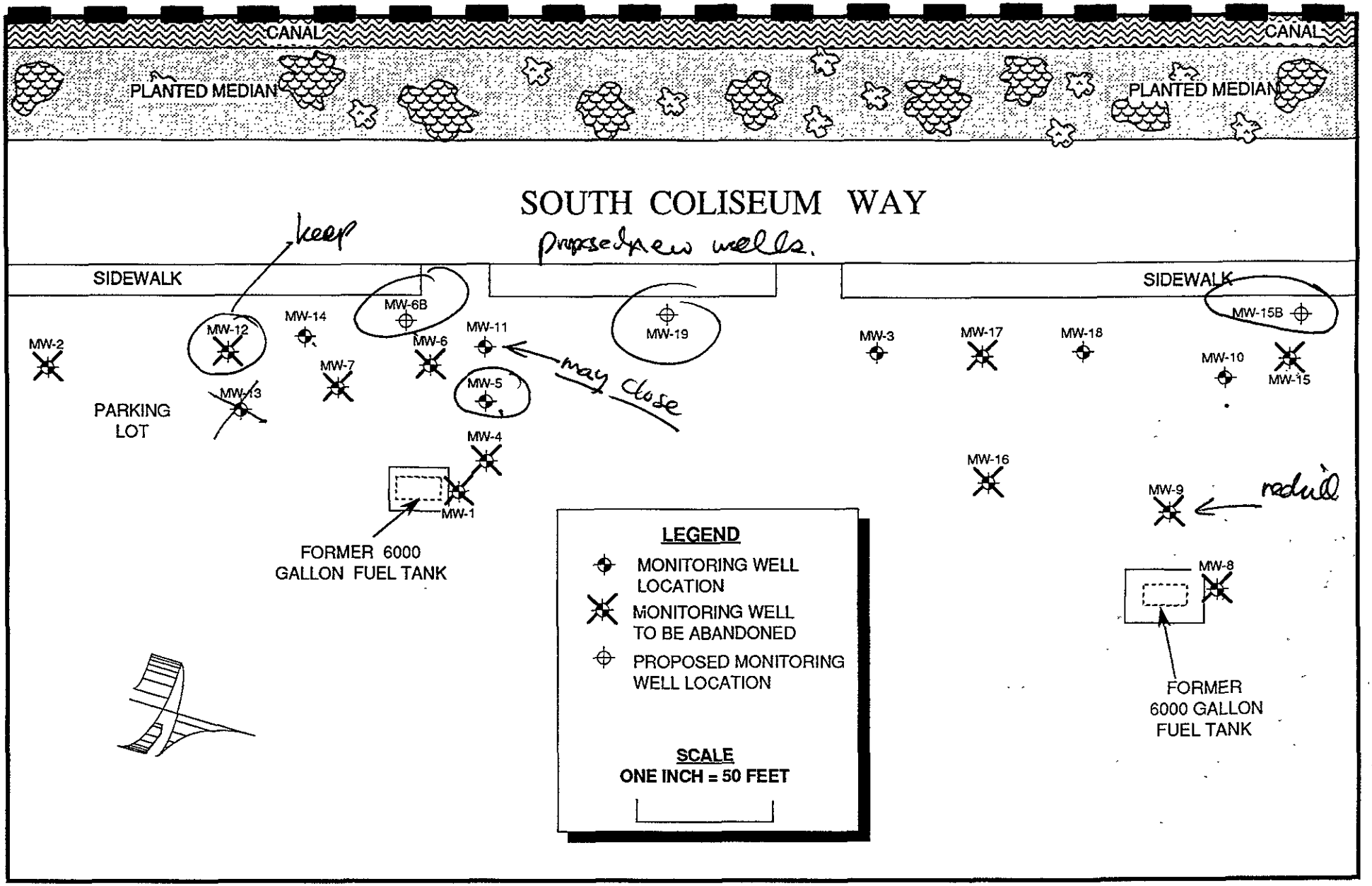
SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

PROJECT NUMBER: 8594

MALIBU GRAND PRIX
8000 SOUTH COLISEUM WAY
OAKLAND, CALIFORNIA

LOCATION MAP

PLATE
1



SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

PROJECT NUMBER: 8594

MALIBU GRAND PRIX

8000 SOUTH COLISEUM WAY
OAKLAND, CALIFORNIA

SITE PLAN

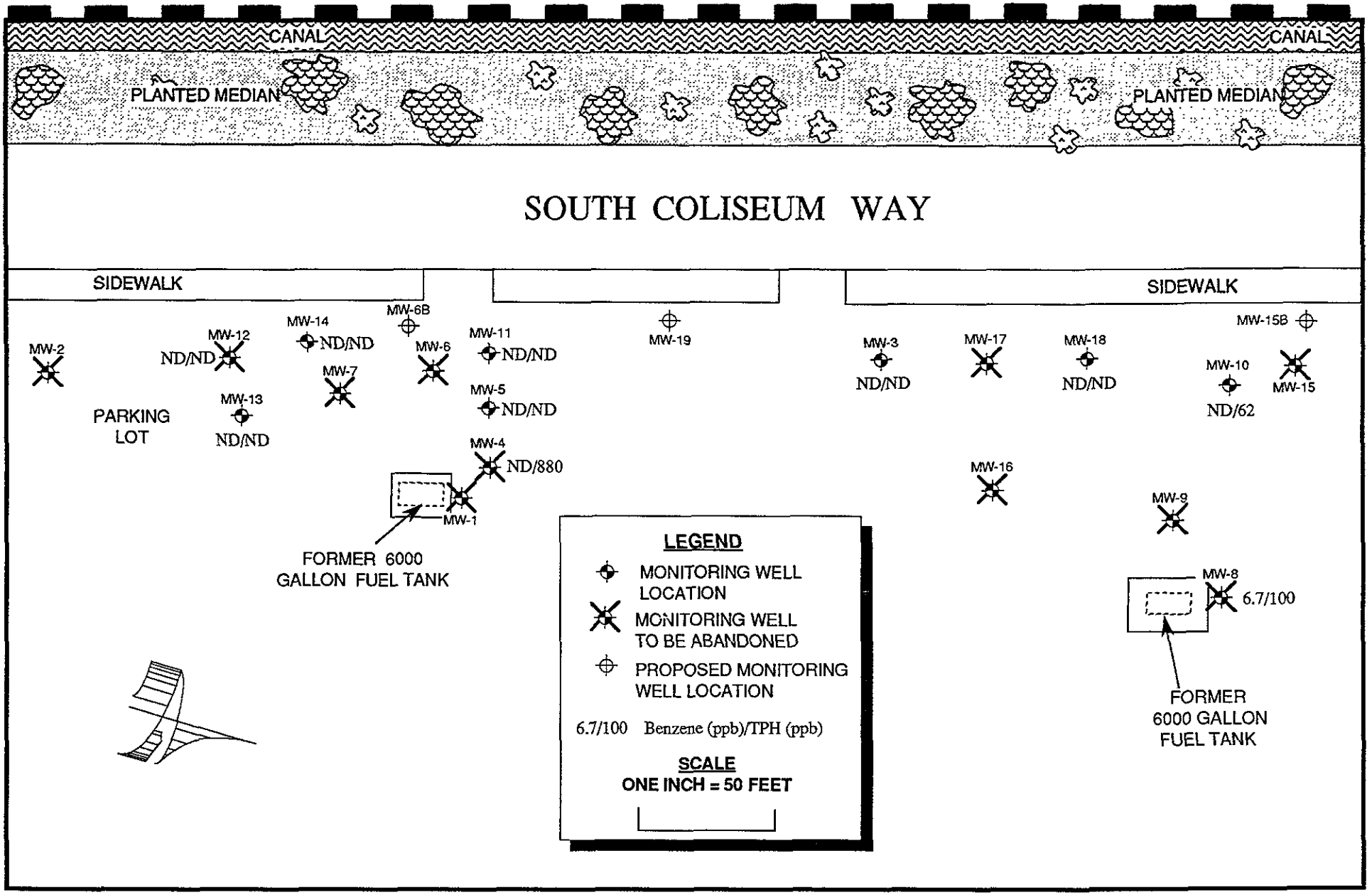
PLATE
2

Comments:

(1) Need to resurvey all + repair existing wells (permanent).

(2) May need to have MW w/i 10' of former tank locations & w/i 10' of excavation after they're through

(3) When is excavation scheduled?



SMTH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

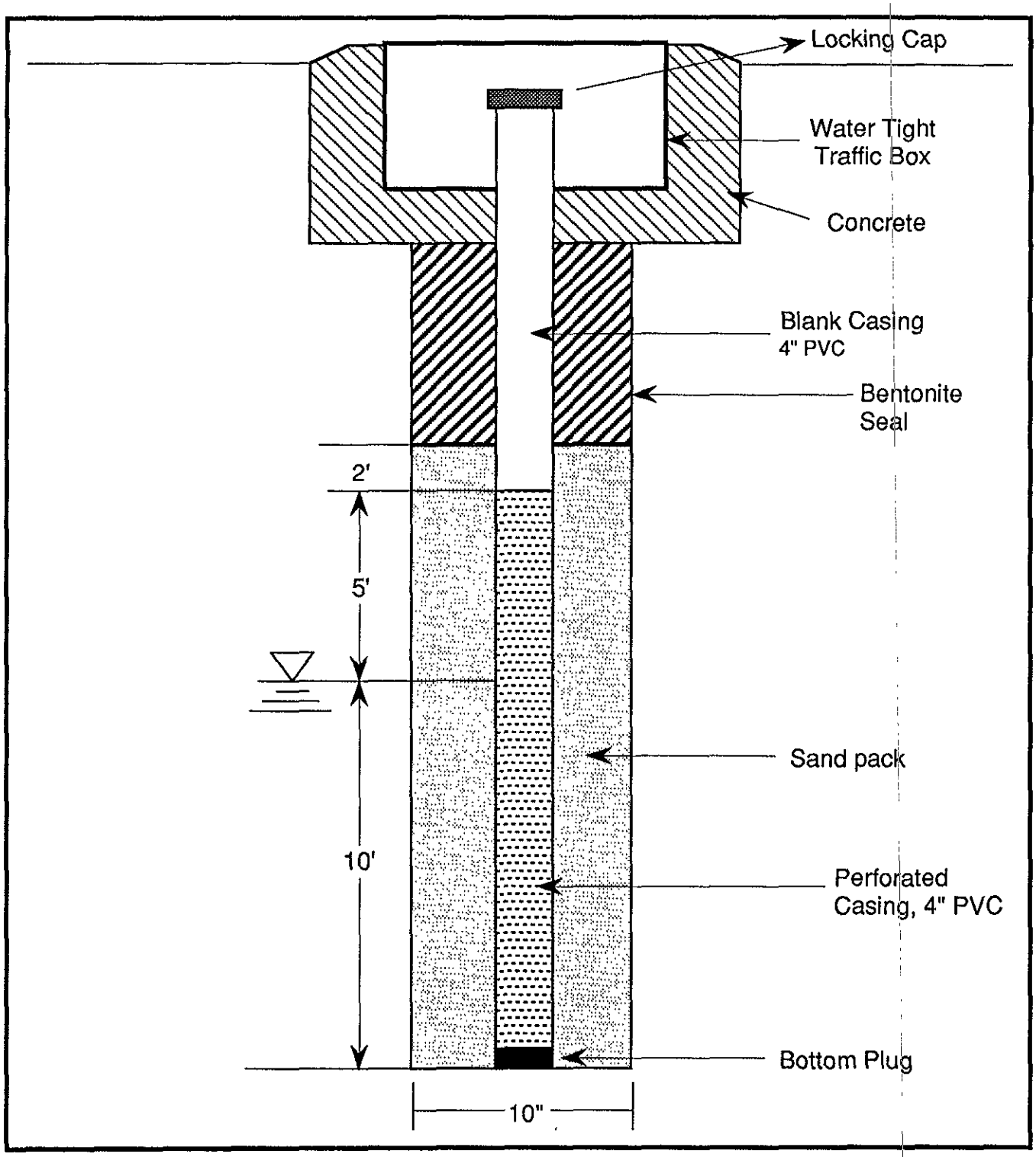
PROJECT NUMBER: 8594

MALIBU GRAND PRIX

8000 SOUTH COLISEUM WAY
OAKLAND, CALIFORNIA

SITE PLAN
SHOWING HYDROCARBON CONCENTRATIONS

PLATE
3



SMITH
ENVIRONMENTAL TECHNOLOGIES CORPORATION

Project Number: 8594

MALIBU GRAND PRIX
8000 SOUTH COLISEUM WAY
OAKLAND, CALIFORNIA

MONITORING WELL CONSTRUCTION DIAGRAM

PLATE
4

SMITH

APPENDIX A

ANALYTICAL REPORTS

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-3
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-01

Sampled: 02/17/95
Received: 02/21/95

Analyzed: 03/02/95
Reported: 03/06/95

QC Batch Number: GC030195BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	**0.50**	**0.78**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	86

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-4
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-02

Sampled: 02/20/95
Received: 02/21/95

Analyzed: 02/28/95
Reported: 03/06/95

QC Batch Number: GC022895BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**880**
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	**0.50**	**3.7**
Chromatogram Pattern:		**Gas**

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	99

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-5
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-03

Sampled: 02/17/95
Received: 02/21/95

Analyzed: 02/28/95
Reported: 03/06/95

QC Batch Number: GC022895BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	101

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

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REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-8
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-10

Sampled: 02/20/95
Received: 02/21/95

Analyzed: 03/01/95
Reported: 03/06/95

QC Batch Number: GC022895BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	**100**
Benzene	**0.50**	**6.7**
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	115

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-10
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-08

Sampled: 02/20/95
Received: 02/21/95

Analyzed: 03/03/95
Reported: 03/06/95

QC Batch Number: GC030295BTEX02A
Instrument ID: GCHP02

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	**50**	62
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	81

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

VMTClark

Vickie Tague Clark
Project Manager

Sequoia Analytical

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REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-11
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-09

Sampled: 02/17/95
Received: 02/21/95

Analyzed: 03/01/95
Reported: 03/06/95

QC Batch Number: GC022895BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

VMT Clark

Vickie Tague Clark
Project Manager

Sequoia Analytical

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REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-12
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-05

Sampled: 02/17/95
Received: 02/21/95

Analyzed: 02/28/95
Reported: 03/06/95

QC Batch Number: GC022895BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	105

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-13
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-07

Sampled: 02/20/95
Received: 02/21/95

Analyzed: 03/02/95
Reported: 03/06/95

QC Batch Number: GC030195BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	95

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

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REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-14
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-06

Sampled: 02/17/95
Received: 02/21/95

Analyzed: 03/01/95
Reported: 03/06/95

QC Batch Number: GC022895BTEX03A
Instrument ID: GCHP03

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	102

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: MW-18
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-04

Sampled: 02/17/95
Received: 02/21/95

Analyzed: 03/02/95
Reported: 03/06/95

QC Batch Number: GC030195BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	0.50	N.D.
Ethyl Benzene	0.50	N.D.
Xylenes (Total)	0.50	N.D.
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	98

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

REIDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307

Attention: Tim Reed

Client Proj. ID: 8594, Malibu Grand Prix
Sample Descript: BB-1
Matrix: LIQUID
Analysis Method: 8015Mod/8020
Lab Number: 9502E90-11

Sampled: 02/17/95
Received: 02/21/95

Analyzed: 03/01/95
Reported: 03/06/95

QC Batch Number: GC022895BTEX17A
Instrument ID: GCHP17

Total Purgeable Petroleum Hydrocarbons (TPPH) with BTEX

Analyte	Detection Limit ug/L	Sample Results ug/L
TPPH as Gas	50	N.D.
Benzene	0.50	N.D.
Toluene	**0.50**	**1.2**
Ethyl Benzene	0.50	N D.
Xylenes (Total)	**0.50**	**0.97**
Chromatogram Pattern:		

Surrogates	Control Limits %		% Recovery
Trifluorotoluene	70	130	100

Analytes reported as N.D. were not present above the stated limit of detection.

SEQUOIA ANALYTICAL - ELAP #1210

Vickie Tague Clark
Project Manager

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
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RIEDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307
Attention: Tim Reed

Client Project ID: 8594, Malibu Grand Prix
Matrix: Liquid
Work Order #: 9502E90 -01, 04, 07

Reported: Mar 10, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC030195BTEX17A	GC030195BTEX17A	GC030195BTEX17A	GC030195BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9502D6102	9502D6102	9502D6102	9502D6102
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/1/95	3/1/95	3/1/95	3/1/95
Analyzed Date:	3/1/95	3/1/95	3/1/95	3/1/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	9.8	30
MS % Recovery:	100	100	98	100
Dup. Result:	9.7	9.5	9.5	28
MSD % Recov.:	97	95	95	93
RPD:	3.0	5.1	3.1	6.9
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

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RIEDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307
Attention: Tim Reed

Client Project ID: 8594, Malibu Grand Prix
Matrix: Liquid
Work Order #: 9502E90-02-03, 05-06, 09-10

Reported: Mar 10, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022895BTEX03A	GC022895BTEX03A	GC022895BTEX03A	GC022895BTEX03A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9502D6104	9502D6104	9502D6104	9502D6104
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/28/95	2/28/95	2/28/95	2/28/95
Analyzed Date:	2/28/95	2/28/95	2/28/95	2/28/95
Instrument I.D.#:	GCHP3	GCHP3	GCHP3	GCHP3
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	12	12	35
MS % Recovery:	110	120	120	117
Dup. Result:	11	12	11	34
MSD % Recov.:	110	120	110	113
RPD:	0.0	0.0	8.7	2.9
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

FOR

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

RIEDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307
Attention: Tim Reed

Client Project ID: 8594, Malibu Grand Prix
Matrix: Liquid
Work Order #: 9502E90-08

Reported: Mar 10, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC030295BTEX02A	GC030295BTEX02A	GC030295BTEX02A	GC030295BTEX02A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9502G2001	9502G2001	9502G2001	9502G2001
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	3/2/95	3/2/95	3/2/95	3/2/95
Analyzed Date:	3/2/95	3/2/95	3/2/95	3/2/95
Instrument I.D.#:	GCHP2	GCHP2	GCHP2	GCHP2
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	10	10	10	31
MS % Recovery:	100	100	100	103
Dup. Result:	10	11	11	34
MSD % Recov.:	100	110	110	113
RPD:	0.0	9.5	9.5	9.2
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

FOR

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS=Matrix Spike, MSD=MS Duplicate, RPD=Relative % Difference

Sequoia Analytical

680 Chesapeake Drive, Redwood City, CA 94063, (415) 364-9600, FAX (415) 364-9233
1900 Bates Avenue, Suite L, Concord, CA 94520, (510) 686-9600, FAX (510) 686-9689
819 Striker Avenue, Suite 8, Sacramento, CA 95834, (916) 921-9600, FAX (916) 921-0100

RIEDEL Environmental
1500 South Union Avenue
Bakersfield, CA 93307
Attention: Tim Reed

Client Project ID: 8594, Malibu Grand Prix
Matrix: Liquid
Work Order #: 9502E90-11

Reported: Mar 10, 1995

QUALITY CONTROL DATA REPORT

Analyte:	Benzene	Toluene	Ethyl Benzene	Xylenes
QC Batch#:	GC022895BTEX17A	GC022895BTEX17A	GC022895BTEX17A	GC022895BTEX17A
Analy. Method:	EPA 8020	EPA 8020	EPA 8020	EPA 8020
Prep. Method:	EPA 5030	EPA 5030	EPA 5030	EPA 5030
Analyst:	J. Minkel	J. Minkel	J. Minkel	J. Minkel
MS/MSD #:	9502D6102	9502D6102	9502D6102	9502D6102
Sample Conc.:	N.D.	N.D.	N.D.	N.D.
Prepared Date:	2/28/95	2/28/95	2/28/95	2/28/95
Analyzed Date:	2/28/95	2/28/95	2/28/95	2/28/95
Instrument I.D.#:	GCHP17	GCHP17	GCHP17	GCHP17
Conc. Spiked:	10 µg/L	10 µg/L	10 µg/L	30 µg/L
Result:	11	11	11	33
MS % Recovery:	110	110	110	110
Dup. Result:	11	11	11	32
MSD % Recov.:	110	110	110	107
RPD:	0.0	0.0	0.0	3.1
RPD Limit:	0-50	0-50	0-50	0-50
LCS #:	-	-	-	-
Prepared Date:	-	-	-	-
Analyzed Date:	-	-	-	-
Instrument I.D.#:	-	-	-	-
Conc. Spiked:	-	-	-	-
LCS Result:	-	-	-	-
LCS % Recov.:	-	-	-	-
MS/MSD LCS Control Limits	71-133	72-128	72-130	71-120

SEQUOIA ANALYTICAL

Vickie Tague Clark
Project Manager

Please Note:
The LCS is a control sample of known, interferent-free matrix that is analyzed using the same reagents, preparation, and analytical methods employed for the samples. The matrix spike is an aliquot of sample fortified with known quantities of specific compounds and subjected to the entire analytical procedure. If the recovery of analytes from the matrix spike does not fall within specified control limits due to matrix interference, the LCS recovery is to be used to validate the batch.

** MS = Matrix Spike, MSD = MS Duplicate, RPD = Relative % Difference

CANONIE ENVIRONMENTAL CHAIN-OF-CUSTODY RECORD

(See Reverse for Instructions) RIEDEL P.O. # 33978 LAB PR(NO.

PROJECT NAME MALIBU GRAND PRIX SAMPLERS JEFFREY D. SAL

PROJECT NUMBER (RIEDEL) 9594 (PRINT) Jeffrey D. Sale

RECORDER Jeffrey D. Sale (SIGN) (SIGN)

SAMPLE CONTAINER DESCRIPTION CODES
A. 40-ml VOA Vial
B. Glass Liter E. Brass Tube
C. Plastic 500-ml F. Other
D. Plastic Liter

SAMPLE DESCRIPTION CODES
A. Ground Water F. Oil
B. Surface Water G. Waste
C. Leachate H. Blank/Spike
D. Rinseate I. Other
E. Soil/Sediment

TAT CODES
1. Standard
2. 48 Hour
3. 24 Hour
4. Other

DATE	TIME	SAMPLE ID	Sample Container (enter code)	Sample Description (enter code)	NUMBER OF CONTAINERS AND PRESERVATION: Unpreserved	HNO_3	HCL	Field Filtered (Check)	ANALYSIS REQUESTED: TPHG	BTEX	TAT Requested (enter code)	Maximum Holding Time for Method Requested	Sample Stored at 4°C (Check)	No VOA Headspace (Check)	NOTES	LABORATORY USE ONLY: ASSIGNED BOTTLE NUMBERS	SAMPLE CONDITION UPON RECEIPT	NOTES
2/17/95	4:00	MW-3	A	A			3		X	X	1			✓				
2/17/95	4:10	MW-18	A	A			3		X	X	1			✓				
2/17/95	4:25	MW-12	A	A			3		X	X	1			✓				
2/17/95	4:35	MW-14	A	A			3		X	X	1			✓				
2/17/95	4:40	MW-11	A	A			3		X	X	1			✓				
2/17/95	4:50	MW-5	A	A			3		X	X	1			✓				
2/20/95	1:10	MW-13	A	A			3		X	X	1			✓				
2/20/95	1:20	MW-10	A	A			3		X	X	1			✓				
2/20/95	1:30	MW-8	A	A			3		X	X	1			✓				
2/20/95	1:40	MW-4	A	A			3		X	X	1			✓				
2/17/95	3:55	BB-1	A	D			3		X	X	1			✓				

NOTES / MISCELLANEOUS
BAKERSFIELD RIEDEL OFFICE

Relinquished By: (Signature) Jeffrey D. Sale	Received By: (Signature)	Date / Time
Relinquished By: (Signature)	Received By: (Signature)	Date / Time
Relinquished By: (Signature)	Received By: (Signature)	Date / Time

Method of Shipment	Description of Transport Container	Other Chains-Of-Custody Transported with this Chain (by Serial No.)	Dispatched By: (Signature)	Date	Time	Received for lab By: (Signature)	Date	Time
	Cooler					L. Bang	2-21-95	1432

Send Lab Results to (Name): TIM REED check NOTES (Check Office Below) Verbals Requested: Yes ☐ No ☐

☐ DALLAS TEL (214) 770-1800 FAX (214) 770-0249	☐ DENVER TEL (303) 790-1747 FAX (303) 799-0186	☐ IRVINE TEL (714) 757-1755 FAX (714) 757-0960	☐ MT. VIEW TEL (415) 960-1640 FAX (415) 960-0739	☐ PORTER TEL (219) 926-8651 FAX (219) 926-7169	☐ OTHER TEL FAX
☐ BOZEMAN TEL (406) 586-9496 FAX (406) 586-9724	☐ HOUSTON TEL (713) 589-8686 FAX (713) 531-8886	☐ KING OF PRUSSIA TEL (215) 337-2551 FAX (215) 337-0560	☒ PLEASANTON TEL (510) 463-9117 FAX (510) 463-2981	☐ PORTLAND TEL (503) 241-0282 FAX (503) 241-0486	☐ OTHER TEL FAX

SERIAL NO. 21239 WHITE: Field Copy YELLOW: Project Copy PINK: Laboratory Copy REV 11/93

SMITH

APPENDIX B

WELL PURGE DATA

Well	Well Depth	Well Diam.	Depth to Water	Hight of Water in Casing	Vol. (gal)	Vol. Purged	pH			Temperature			Conductivity			Comments
							Purge		Sample	Purge		Sample	Purge		Sample	
MW-1	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	Filled with gravel & DIRT approximately 1' below top of casing
MW-2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	Pip stuck in well
MW-3	14.10	2	8.91	5.19	.88	3.0	6.46	7.22	6.95	63.5	61.8	62.3	5318	5285	5520	12:34 Sulfer smell
MW-4	14.27	4	9.88	4.39	2.89	4	7.70	7.59	—	65.2	64.4	—	2258	2270	—	12:06 No sheen 4 gals Dry Slight odor
MW-5	15.77	4	8.63	7.14	4.71	18.00	7.94	7.43	8.21	69.4	65.8	65.3	6740	9180	9350	3:04
MW-6	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	Filled with DIRT TO TOP
MW-7	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	Broken up to reach to get in to
MW-8	12.00	4	5.65	6.35	4.19	8.5	8.28	7.75	—	66.2	67.3	—	1980	188	—	11:20 Very Slight odor DRY after 8.5 gal
MW-9	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	Well look like broken or bent at 45° angle
MW-10	18.55	4	7.93	10.62	7.00	22.00	7.54	7.39	7.18	61.9	62.9	63.2	3250	3290	3360	11:10
MW-11	18.60	4	9.65	8.85	5.84	18.00	7.00	7.13	7.06	62.2	62.6	63.5	13530	7060	8232	2:30 Sulfer Smell
MW-12	20.60	4	10.34	10.26	6.71	22.00	7.52	7.15	7.13	63.9	63.3	63.3	17400	10120	19260	1:20
MW-13	15.18	4	9.21	5.97	3.94	12.00	5.38	6.65	6.86	62.9	62.6	62.2	1930	2020	2630	10:49 Sulfer Smell
MW-14	20.35	4	9.97	10.38	6.85	24.00	7.14	7.00	7.12	60.1	61.4	61.1	2550	7010	6530	2:11
MW-15	18.20	4	8.50	9.7	6.4	—	—	—	—	—	—	—	—	—	—	Crack about 3 feet Down cannot get Bailer in well
MW-16	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	Well NOT Found
MW-17	15.19	4	8.39	6.8	4.48	—	—	—	—	—	—	—	—	—	—	Could Not get Bailer in well
MW-18	12.90	4	5.65	7.25	4.78	9.5	7.50	6.97		57.9	58.3		3960	4450		12:00 Sulfer smell Pry after 9.5gal Approximate 8' of Dirt in well

WELL SAMPLING DATA

PROJECT NUMBER: OB2481.41

Malibu Grand Prix - Oakland

DATE:

RESNA
Working to Restore Nature

PO 33979

001

Gibson Environmental

Non-Hazardous Waste Data Form

TO BE COMPLETED BY THE GENERATOR

EPA ID No. ☐☐☐☐☐☐☐☐☐☐☐☐

Name MALIBU GRAND PRIX Phone 818 887-6900

Mailing Address 7301 TOPANGA CANYON BLVD #300 Canoga Park, CA

Generating Site 9000 South COLISEUM WAY OAKLAND, CA 94603

Waste: ☑ Liquid ☐ Soil

Estimated Volume 235 BBLS/GALS _____ TONS/YDS

Waste Description:

Components of the Waste	PPM	%	Components of the Waste	PPM	%
WATER		95%			
SOLIDS		1%			
PETROLEUM HYDROCARBONS		1%			

Special Handling Instructions ☑ Gloves ☐ Goggles ☐ Other _____

Generator certifies that the waste as described is 100% non-hazardous.

Signature of Authorized Agent _____ Date 2/20/95

TRANSPORTER

Name Connie Environmental EPA ID No. ☐☐☐☐☐☐☐☐☐☐☐☐

Address 7601 STONERIDGE DR Phone 510 463-9117

SUITE #100 Truck Unit ID 1124

PLEASANTON, CA 94588 Pick Up Date _____

Order No. _____

Signature _____ Date 2/21/95

GIBSON FACILITY

Facility GOR # 6316

☐ CAD980883177
Gibson Environmental
End of Commercial Dr.
Bakersfield, CA 93308
(805) 327-0413

☐ CAD981458466
Gibson Environmental
401 Canal Avenue
Wilmington, CA 90748
(310) 549-9117

☒ CADO43260702
Gibson Environmental
475 Seaport Blvd.
Redwood City, CA 94063
(415) 368-5511

Disposal Method: ~~Recycle~~ Release # 17254 Actual Tons/Gals 235

Signature _____ Date 2-21-95

Gibson Environmental

475 SEAPORT BOULEVARD
REDWOOD CITY, CA 94063
(415) 368-5511

ORIGIN: MALIBU

DESTINATION: GIBSON ENVIRONMENTAL
475 SEAPORT BOULEVARD
REDWOOD CITY, CA 94063

WEIGHT TAG NUMBER

DATE: 2-21-95

MANIFEST#: 001

INVOICE TO:

PRICE:

CARRIER #	CARRIER	RELEASE#	COMMODITY	TDS	PH	GRAV.	NET GALLONS /BBLS
1124 / T-1	CONOVIE	17254	PURGE	71990	7.7	10	235 / 5.59

ARRIVED TO UNLOAD	START TO UNLOAD	FINISH UNLOADING	SOLIDS %	.5 %
1345 AM (PM)	1355 AM (PM)	1410 AM (PM)	WASHOUT GALLONS	

LOADED FROM	UNLOADED TO	DEDUCT B S & W %	99 %
T / T	30719		
LOADER'S SIGNATURE	DRIVER'S SIGNATURE	NET BARRELS	
	Jeffrey D. Sala		

REMARKS

RECEIPT TICKET

R 6316

SMITH

APPENDIX C

QUALITY ASSURANCE AND QUALITY CONTROL PROGRAM
SAMPLING PROTOCOL

Smith Environmental Technologies Corporation (Smith) has adopted the following Site Investigation Quality Assurance/Quality Control (QA/QC) program intended to facilitate the acquisition of accurate and reliable data. Environmental data gathered during the investigation shall be collected and analyzed following procedures prescribed in the Quality Control Program. A Quality Assurance Program has been established to assure that the Quality Control Program is effective. Both programs are necessary to provide accurate data and documentation for investigations and laboratory analyses. The following field and laboratory procedures shall be implemented to ensure that QA/QC objectives are met.

1.0 RECORDING OF FIELD DATA

All information pertinent to the field investigation shall be kept in a field log book. In addition, boring log and chain-of-custody comprise the field documents in which all of the pertinent information about bore hole soil samples are recorded. Information to be documented includes at least the following:

- Sample number.
- Locations of sample collection.
- Soil boring or well numbers, as applicable.
- Depths at which samples were obtained.
- Names of collectors.
- Dates and times of collection.
- Purpose of sample.
- Sample distribution (e.g., laboratory, archive, etc.).
- Field observations.
- Field measurements (e.g., PID readings, pH, conductivity, water levels).
- Other data records (e.g., development log, soil sampling report, well log, etc.).

2.0 SAMPLE CONTAINERS

Groundwater samples shall be placed in containers supplied by Smith or an analytical laboratory. Table 1 summarizes the required sample containers.

Soil samples shall be collected in either 8-once widemouth glass jars with screw-on caps lined with teflon or in brass or stainless steel tubes (Table 1). Screw-on caps for the tubes shall be fitted with teflon liners. Tubes shall be tightly capped and sealed with integrity tape.

3.0 QUALITY CONTROL OF WATER SAMPLES

A QC program independent from the laboratory's program shall be maintained. The program entails submittals of travel blanks, duplicates, and field blanks to a certified laboratory. No spiked samples shall be supplied from the field; the laboratory in-house QC program shall include analysis of spiked samples. Field blanks shall be assigned independent sample numbers and made indistinguishable from non quality control samples.

3.1 Travel Blanks

When sampling groundwater, travel blanks shall be used to detect the introduction of contaminants during transportation from the field to the laboratory. The travel blanks shall be provided by Smith or the analytical laboratory. They shall be taken to the field and accompany the collected groundwater samples to the laboratory for analysis. The blanks shall consist of deionized water or analytically confirmed organic-free water. The blank is numbered, packaged, and sealed in the same manner as the other samples.

3.2 Duplicates

Five percent (1 in 20) or one (1) per sampling set, whichever is more, shall be submitted to the laboratory for analysis as duplicates. Therefore, if a job site has one (1) and up to twenty (20) wells to be sampled, one (1) duplicate shall be analyzed. If twenty-one (21) wells are to be sampled then two (2) duplicates shall be analyzed. The duplicate is acquired by filling two sample bottles from the same well bailer. If more than one bailer volume is required, each bailer volume shall be split between containers. The duplicates shall be labeled as duplicate without identifying the actual well location either on the chain-of-custody or on the actual sample. The actual well location of the duplicate shall be noted in the field log book.

3.3 Field Blanks

Field blanks shall be prepared and submitted to the analytical laboratory for analysis on the same frequency stated for duplicates. A field blank shall be acquired by sampling the deionized water used to rinse the sampling bailer in between sample points.

3.4 Sample Preservation

Sample containers shall be pre-cooled and transported to the site in coolers. All samples shall be preserved as indicated on Table 1 and placed in coolers immediately after collection. Sealed chemical ice shall be used in the coolers to maintain samples at a temperature of 4 degrees celsius. A high level recording thermometer shall accompany the samples during transport conditions.

4.0 GROUNDWATER SAMPLING PROTOCOL

Immediately prior to sampling, the depth to water (DTW) in the well shall be recorded. If there is free product in the well, the thickness of product on top of the groundwater shall be measured using an interface probe.

If free product is detected, analysis of groundwater at the interface for dissolved product shall not be conducted. A product sample shall be collected for source identification. If all free product cannot be removed, an interval-specific sampling device may be utilized to collect a sample from below the zone of free product. The well shall be purged until indicator parameters (temperature, conductivity and pH) are stabilized. This shall entail the removal of at least four well-casing volumes by bailing or pumping. The criteria for determining well-casing volumes and temporary storage of purged water is outlined in Section 9.0, (Well Development Protocol). The indicator parameter measurements shall be taken both before and after purging of each well-casing volume. Once the well is purged and indicator parameters have stabilized, a sample may be collected after the water level has reached 80 percent of its initial elevation. Where water level recovery is slow, the sample may be collected after stabilization is achieved and enough water is present to fill sample containers.

Cross contamination from transferring pumps (or bailers) from well to well shall be avoided by utilizing dedicated equipment. Where this is not feasible, thorough cleaning of equipment shall be performed between sampling rounds. Sampling shall proceed from the least contaminated to the most contaminated well, if that information is available before sample collection, or if it is indicated by field evidence. Where several types of analysis shall be performed for a given well, individual samples shall be collected in the following order:

1. Volatile organics
2. Purgeable organics
3. Purgeable organic halogens
4. Total organics
5. Total organic halogens
6. Extractable organics
7. Total metals
8. Dissolved metals
9. Phenols
10. Cyanide

The specific analytical methods to be utilized for the common volatile/semi-volatile analyses are shown on Table 2.

Duplicate samples shall be transferred to vials or containers that meet Regional Board specifications (Table 1). Groundwater from the bailer shall be transferred to the sample container by allowing the fluid to flow slowly along the sides of the vessel. All containers shall be filled above the top of the opening to form a positive meniscus. No head space should be present in the sample container once it is sealed. After the vial is capped it should be inverted to check for air bubbles. If bubbles are present the sample should be discarded and replaced. If it is not possible to collect a sample without air bubbles, the problem shall be noted in the field log book.

5.0 CHAIN-OF-CUSTODY PROCEDURES

5.1 Sample Labels

Each sample container shall be labeled prior to filling to prevent misidentification. The label shall contain at least the following information:

- Sample number which uniquely identifies the sample
- Project title or number
- Location of sample collection
- Soil boring or well number, as applicable
- Name of collector
- Date and time of collection

5.2 Chain-of-Custody Record and Sample Analysis Request Form

A chain-of-custody record for each container or sample shall be used to track possession of the samples from the time they were collected in the field until the time they are analyzed in the laboratory.

The chain-of-custody record shall contain the following information:

1. Site name or project number
2. Signature of collector
3. Date and time of collection
4. Sample identification number(s)
5. Number of containers in sample set
6. Description of sample and container(s)
7. Name and signature of persons, and the companies or agencies they represent, who are involved in the chain-of-custody
8. Inclusive dates and times of possession
9. Type of analysis requested

5.3 Delivery of Samples to Laboratory

Samples shall be delivered to the laboratory on a daily basis. Samples shall be maintained at approximately 4 degrees celsius for shipping. Shipping containers shall be sealed with security tape to assure sample integrity during shipping. Delivered samples shall be accompanied by a chain-of-custody record. The laboratory shall note on the chain-of-custody that samples were properly preserved and security tape was intact upon arrival.

6.0 SAMPLING AND DRILLING EQUIPMENT DECONTAMINATION

Prior to arriving at the sampling site, all sampling equipment shall be cleaned with laboratory grade detergent (Alconox or equivalent) and rinsed twice with tap water. This procedure shall also be carried out on-site before sampling of any additional monitoring wells.

All decontamination shall be conducted on an impermeable surface and all decontamination effluent shall be contained. All surfaces of the equipment shall be thoroughly decontaminated using a steam cleaner. The equipment shall be placed on a drying rack for air drying. The water used for decontamination shall be stored in containers certified for hazardous materials storage and disposed of in an approved manner.

7.0 FIELD EQUIPMENT CALIBRATION AND MAINTENANCE

The following measuring equipment may be used during the Site Investigation and/or sample collection. Calibration procedures and frequency are listed for each piece.

Soil Borings and Well Dimensions - Steel and coated cloth tape. Calibration: none.

Water Level Measurements in Wells - Water Sensing tape. Calibration: Manufacturer supplied temperature correction shall be applied as applicable for field conditions. Electrical well sounders.

Total Organic Vapors - Foxboro OVA, flame ionization detector (FID). Calibration: Daily field calibration using manufacturer recommended procedures.

Organic Vapors - Photovac, photoionization detector (PID). Calibration: Daily field calibration using an isobutylene standard as per manufacturer instructions.

Groundwater pH Measurement - Digital pH meter. Calibration: Standard pH solutions of 4, 7, and 10 shall be utilized for daily field calibration according to manufacturer instructions.

Electrical Conductivity - Electrical conductivity meter. Calibration: Factory-calibrated annually and periodically calibrated against laboratory prepared standard calibration solution.

Water Temperature - Alcohol or digital thermometers. Calibration: Factory-calibrated once.

Combustible Gas/Oxygen - Gastech LEL, combustible gas/oxygen meter calibration: Factory calibrated, field calibrated monthly, zeroed daily according to manufacturer's instructions.

Miscellaneous Measuring Devices - Calibration procedures for any other measuring device used shall be documented at the request of the regulatory authority.

All equipment shall be checked before use and replaced as necessary. Instrument manuals and an instrument log book shall accompany equipment into the field. Any calibrations, repairs or related information shall be recorded in the log book.

8.0 GROUNDWATER MONITORING PROTOCOL

Monitoring of depth to water and free product thickness within wells at the site shall be conducted using an interface probe or conductivity meter. For consistency, all measurements shall be taken from the north side of the wellhead at the survey mark. To assess potential infiltration of fine-grained sediments, total well depth shall also be sounded.

Newly installed wells shall be allowed to stabilize for 24 hours after development prior to free product inspection. A clean bailer or sampler shall be used for visual inspection of the groundwater in order to note sheens (difficult to detect with the interface probe), odors, microbial action and sediments.

To reduce the potential for cross contamination between wells, the monitoring shall take place in order from the least to the most contaminated, if known. Wells containing free product shall be monitored last. Between each well monitoring, the equipment shall be decontaminated.

Water level data collected from the wells shall be used to develop a groundwater contour map for the project site. Groundwater flow shall be estimated to be perpendicular to equipotential lines drawn on the map.

9.0 WELL DEVELOPMENT PROTOCOL

Groundwater monitoring wells shall be surged and developed prior to setting the surface seal. Approximately 3 to 5 times the volume of water in the casing shall be withdrawn if possible. Casing volumes shall be calculated in the following manner:

Volume of Schedule 40 PVC Pipe

Diameter (inches)	I.D. (inches)	Volume (gal/linear ft.)
2	2.067	0.17
4	4.026	0.66

If the aquifer is slow to recharge, development shall continue until recharge is too slow to practically continue. The volume of water produced, versus time, shall be recorded.

All withdrawn groundwater shall be stored on-site in 55-gallon waste drums unless permission is granted by the appropriate regulatory agency to discharge the water to the ground surface or sanitary sewer. Drummed water shall be labeled with the source of the water to help ensure appropriate disposal based on contamination levels.

10.0 QUALITY CONTROL OF SOIL SAMPLES

10.1 Travel Blanks

Travel blanks shall not be used for soil sample transportation due to problems associated with obtaining a blank material.

10.2 Duplicates

The effort to collect duplicate soil samples from a bore hole may be compromised by variations of soil texture. This shall be minimized by selecting a duplicate sample location as near as possible to the actual sample. In a split-spoon sampler the lowest tube shall be a duplicate when needed. The middle tube shall be the actual sample. All soil sample tubes shall be marked to show from which end the tube is to be sampled. The ends, where the two sample tubes joined shall be marked. The laboratory shall be instructed to sample the marked end. The upper tube shall be used for soil characterization.

The frequency with which soil duplicates are taken shall be at a minimum five (5) percent (1 in 20). In bore-holes the samples are best collected below the five foot depth in zones of either low or no transition.

When sampling soil piles or tank pits the top inch or two shall be remove before sampling. Efforts shall be made to avoid areas where soil texture changes. Fill the sample jar completely full avoiding any unnecessary head space in the sample jar.

Duplicate soil samples shall be labeled as duplicate without any other identification. A record of its actual sampling point shall be kept in the field log book.

10.3 Field Blanks

A soil field-blank from a bore hole would be best sampled from the top of the bore hole i.e. the first sample depth (not to be greater than five feet) and only if there is no indication of contaminates. The blank should be labeled as to the boring number, depth, and B for blank. For example, a blank obtained from soil boring number two (2), at a depth of five feet would be labeled as SB2-5B. The frequency of blanks may different than that of duplicates, but when possible they shall be of the same frequency, five (5) percent (1 in 20).

A blank from a soil pile or tank pit shall be taken from the surface material only. It shall be taken in a zone where no contamination is indicated.

11.0 SOIL SAMPLING PROTOCOL

11.1 Sample Collection During Drilling Activities

A proposal shall be submitted to the lead Regulatory Authority with proposed boring/sampling locations. The exact location and number of borings at each site shall be determined in the field by the Project Geologist/Engineer.

Prior to arriving at the sample site, the drill rig/augers shall be steam cleaned and all sample equipment shall be cleaned. Cleaning between samples shall be conducted on-site on all sampling equipment.

Soil samples shall be obtained using a California modified split-spoon sampler containing three, six inch long, two inch diameter brass tubes. The sampler shall be driven 18 inches ahead of the hollow stem auger by a 140-pound hammer with a 30-inch drop in accordance with American Society for Testing and Materials (ASTM Method D 1586-84) for split-barrel sampling of soil and (ASTM Method D 1587-83) for thin-walled tube sampling of soils. The blows required to drive the sampler each six-inch interval shall be recorded on the boring log. The sampler shall be removed from the boring and opened to reveal the brass tubes. The middle tube shall be covered with teflon and plastic end caps, taped, labeled, and placed into a cooler containing frozen chemical. A high level temperature recording thermometer shall accompany sample shipments to ensure proper temperature maintenance. The samples shall be delivered to a state certified laboratory, with a chain-of-custody, following all protocols, within 48 hours of sampling.

Soil in the uppermost brass tube shall be described according to ASTM standard practice for physical description and identification of soils (ASTM Method D 2488-84). Stratigraphic, genetic and other data/interpretations shall also be recorded on a log prepared for each boring/well. The second sample tube may be used with the lowermost tube for preparation of duplicates.

Soil samples shall be collected at five foot intervals, at significant changes in lithology and intervals of obvious contamination in order to develop a complete profile of soil contamination.

11.2 Sample Collection During Tank Removal

Soil samples shall be collected as soon as possible after removal of the tank. Where feasible, all preparations for soil sampling shall be made prior to tank removal. Soil samples collected from a backhoe bucket or directly from the excavation floor shall be collected in glass sampling jar with a Teflon lined screw cap. When sampling, the jar should be filled with soil as completely as possible.

11.3 Sampling from Soil Piles or Shallow Soil Pits

Soil samples shall be collected and transported from excavated material in the manner described in the previous section, however, a backhoe shall not be utilized. If composite samples are collected, four sample jars shall be collected for every 50 cubic yards of material to be sampled unless otherwise specified by the lead regulatory agency. The samples shall be composited by the state certified analytical laboratory personnel prior to testing.