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January 8, 1996 LF-3018.95-20

Ms. Madhulla Logan
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94501

Subject: Quarterly Ground-Water Monitoring Report for the Period from July 1 - September 30, 1995, 5050 Coliseum Way and 750-50th Avenue, Oakland, California

Dear Ms. Logan:

This quarterly report is submitted by Levine•Fricke on behalf of Volvo GM Heavy Truck Corporation for the subject site. During this quarterly round, depth-to-water measurements were collected in all 22 monitoring wells and ground-water samples were collected from 21 wells.

If you have any questions regarding this report, please call me (510-652-4500) or Mr. Robert Whelen of Volvo GM (910-279-2544).

Sincerely,

Kathleen A. Isaacson, R.G.
Principal Hydrogeologist

Enclosure

cc: Sum Arigala, Regional Water Quality Control Board
Bob Whelen, Volvo GM Heavy Truck Corp.
Martha Boyd, Volvo GM Heavy Truck Corp.

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Quarterly Ground-Water Monitoring Report for the Period from July 1 to September 30, 1995
5050 Coliseum Way and 750-50th Avenue
Oakland, California
January 8, 1996
3018.95-20

Prepared for
Volvo GM Heavy Truck Corporation
7900 National Service Road
P.O. Box 26115
Greensboro, North Carolina 27402-6115

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ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

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CERTIFICATION

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by a Levine·Fricke California Registered Geologist.

K A Isaacson 1/5/96

Kathleen A. Isaacson
Principal Hydrogeologist
California Registered Geologist (5106)

Date

1.0 INTRODUCTION

This report presents results of quarterly ground-water monitoring activities conducted during the period from July 1 through September 30, 1995, for the properties located at 5050 Coliseum Way and 750-50th Avenue, Oakland, California (collectively referenced as "the Site"; Figure 1). This report was prepared on behalf of Volvo GM Heavy Truck Corporation ("Volvo GM") in accordance with our work plan dated January 6, 1993, and submitted to the Alameda County Health Care Services Agency (ACHCSA). This report includes graphic illustrations of potentiometric head (water-level) data and presents historical summaries of ground-water elevation and ground-water quality data collected at the Site.

2.0 WATER-LEVEL MEASUREMENTS AND GROUND-WATER FLOW DIRECTION

The top of each well casing at the Site has been surveyed relative to mean sea level by a state-licensed land surveyor. Water-level measurements were collected from all wells at the Site on September 5, 1995. A historical summary of depth-to-water measurements and ground-water elevations for the Site is presented in Table 1.

Ground-water elevations calculated from depth-to-water measurements collected in September 1995 were higher than historical ground-water elevations for the Site. Generally, ground-water elevation decreased relative to June 1995 and ranged from 0.05 foot in well LF-12 to 1.65 feet in well MW-1.

Ground-water elevation contours for September 5, 1995 are presented in Figure 2. Ground-water elevation data indicate that the ground-water flow direction was generally toward the west and northwest, which is consistent with historical ground-water data. Ground-water flow data indicate a lateral hydraulic gradient that ranged from approximately 0.0003 foot per foot (ft/ft; as calculated between wells LF-1 and LF-7) to 0.0016 ft/ft (as calculated between wells LF-1 and LF-5).

Approximately 0.10 foot of free product was measured in well LF-13 using a product-thickness bailer (see Table 1, Footnote 2).

3.0 GROUND-WATER QUALITY

Ground-water samples were collected from 21 monitoring wells (LF-1 through LF-12, LF-14 through LF-17, LF-F1, and MW-1 through MW-4) on September 5, 6, 7, and 8, 1995. Well LF-13 contained free product, and therefore was not sampled.

Ground-water samples collected from all wells were submitted to the laboratory for metals analysis using EPA Method 200 series. Samples collected from wells LF-3,

LF-8, and LF-14 were also submitted for analysis of total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 3550, and as diesel (TPHd) and oil (TPHo) by EPA Method 3510, and benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8020. A ground-water sample collected from well LF-8 was also analyzed for semivolatile organic compounds (SVOCs) by EPA Method 8270.

Analytical results for ground-water samples collected during the recent round of sampling were generally consistent with results reported previously for the Site. Analytical results for metals analysis are presented in Table 2 and Figure 3. Analytical results for TPHg and BTEX are presented on Table 3, and results for TPHd and TPHo are presented on Table 4. Laboratory certificates are presented in Appendix A.

3.1 Sampling Procedures

Before ground-water samples were collected, approximately 3 to 5 well casing volumes of water was removed from each well using a Teflon bailer. Specific conductance, pH, and temperature of the purged water were measured during this purging process to aid in evaluating overall ground-water quality. These parameters were recorded in the field on water-quality sampling forms. Copies of these forms are included in Appendix B. Ground-water samples were collected after these parameters stabilized to within 15 percent of the previous measurement.

Ground-water samples were collected using the same Teflon bailer used to purge the well. Ground-water samples for metals analysis were filtered in the field and preserved with nitric acid. Samples were placed in an ice-chilled cooler immediately after collection for transportation to the analytical laboratory.

Samples were submitted to American Environmental Network, Inc. (formerly Quanteq Laboratories) of Pleasant Hill, California, a state-certified laboratory. The pH values for ground-water samples collected from each monitoring well were measured and recorded in the field during sampling activities.

For quality assurance/quality control measures, a duplicate sample was collected for well LF-2 (LF-122) and a bailer blank sample was collected from well LF-15 (LF-15-BB). Both samples were submitted for metals analysis.

3.2 Ground-Water Quality Results

3.2.1 Metals

Analytical results for Title 22 metals in ground-water samples collected during the recent round of sampling were generally consistent with results reported previously for those wells.

Chromium was detected in well LF-3 and LF-6 at a concentration of 0.004 parts per million (ppm) in each, in LF-5 at a concentration of 0.006 ppm, and in MW-1 at a concentration of 0.002 ppm. Silver, barium, beryllium, molybdenum, antimony,

selenium, and vanadium were generally reported below detection limits, or at concentrations below 0.2 ppm. The maximum concentration of thallium was detected in LF-15 at 0.9 ppm.

Zinc was detected in all wells except for LF-17, at concentrations ranging from 0.001 ppm in well LF-7 to 37,000 ppm in well LF-11. The highest concentration of lead (0.67 ppm) was detected in the sample from well LF-1. Downgradient and crossgradient from LF-1, lead was below detection limits in wells MW-3 and LF-5, and at a concentration of 0.01 ppm in well LF-12.

The highest concentration of cadmium (120 ppm) was detected in the sample collected from LF-11 and the highest concentration of copper (18 ppm) was detected in the sample collected from well LF-16. The highest concentrations of cobalt (14 ppm) and nickel (37 ppm) were detected in the sample collected from LF-15. Of the downgradient wells that were sampled, well LF-12 contained the highest concentrations of those metals (cadmium, 3.2 ppm; cobalt, 2.2 ppm; copper, 1.3 ppm; nickel, 6.4 ppm).

Arsenic was detected in samples collected from 10 of the wells, with the highest concentration of 3.0 ppm reported for well LF-3. Arsenic was not detected above laboratory detection limits in downgradient wells LF-5 and LF-12, or crossgradient well MW-3.

3.2.2 Petroleum Hydrocarbons

Samples collected from wells LF-3, LF-8, and LF-14 were analyzed for TPHg, BTEX, TPHd, and TPHo (Tables 3 and 4). TPHg was not detected in the sample collected from well LF-3, but was reported at concentrations of 0.4 ppm and 1.4 ppm in wells LF-8 and LF-14, respectively.

BTEX were not detected in well LF-3, and were reported at concentrations near or below detection limits in well LF-14. BTEX were detected in well LF-8 at concentrations of 0.003 ppm or less. TPHd was detected in well LF-3 at 0.62 ppm and in well LF-8 at 4.7 ppm. No TPHd was detected in well LF-14 this quarter (<0.05). TPHo was only detected in samples from wells LF-3 (0.4 ppm) and LF-8 (0.3 ppm).

3.2.3 Volatile Organic Compounds

No samples were analyzed for VOCs this quarter.

3.2.4 Semivolatile Organic Compounds

Results of SVOC analysis for the sample collected from well LF-8 were similar to those previously reported. Compounds detected included acenaphthene (0.690 ppm), acenaphthalene (0.015 ppm), anthracene (0.041 ppm), dibenzofuran (0.200 ppm), fluoranthene (0.032 ppm), fluorene (0.170 ppm), naphthalene (0.013 ppm), and pyrene (0.019 ppm).

3.2.5 Measurements of pH

Measurements of ground-water pH were generally consistent with values previously reported for the Site (Figure 3). Recent monitoring indicates that pH values for shallow ground water beneath the Site are variable. The lowest pH (3.76) was measured in the sample from well LF-11. A pH value above 6.5 was measured for samples from 6 of the 21 wells sampled.

3.2.6 Quality Assurance/Quality Control

Analytical results for the duplicate sample collected from well LF-2 (LF-122) generally showed similar metals concentrations when compared to the primary sample collected from that well (LF-2).

A bailer blank of distilled water was collected before well LF-15 was sampled, and was submitted to the laboratory for metals analysis (sample LF-15-BB). Antimony (0.005 ppm) and zinc (0.02 ppm) were detected in the bailer blank sample.

Zinc has historically been detected in the bailer blank samples. However, the concentration of zinc detected in the sample from LF-15 (570 ppm) was much higher than the trace concentration of zinc (0.02 ppm) detected in the bailer blank.

Although a trace concentration of antimony was detected on the bailer blank for well LF-15, antimony was not reported for the sample collected from LF-15. This is likely because of the raised detection limit for antimony (0.02 ppm) reported by the laboratory for sample LF-15.

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
LF-1	7.56	07-Nov-91	6.79			0.77
		26-Oct-92	4.69			2.87
		04-Mar-93	3.94			3.62
		14-Apr-93	3.41			4.15
		24-May-93	3.07			4.49
		14-Jun-93	3.41			4.15
		30-Jul-93	3.46			4.10
		31-Aug-93	3.67			3.89
		27-Sep-93	3.76			3.80
		25-Oct-93	3.74			3.82
		02-Nov-93	4.26			3.30
		08-Dec-93	4.42			3.14
		28-Jan-94	4.06			3.50
		15-Feb-94	3.94			3.62
		24-May-94	3.81			3.75
		21-Sep-94	3.75			3.81
		19-Dec-94	3.51			4.05
		13-Mar-95	2.33			5.23
		07-Jun-95	2.49			5.07
		05-Sep-95	2.78			4.78
LF-2	9.84	07-Nov-91	7.26			2.58
		26-Oct-92	6.28			3.56
		04-Mar-93	5.14			4.70
		14-Apr-93	4.95			4.89
		24-May-93	5.09			4.75
		14-Jun-93	5.21			4.63
		30-Jul-93	5.38			4.46
		31-Aug-93	5.57			4.27
		27-Sep-93	5.70			4.14
		25-Oct-93	5.80			4.04
		02-Nov-93	5.86			3.98
		08-Dec-93	6.21			3.63
		28-Jan-94	6.12			3.72
		15-Feb-94	6.07			3.77
		24-May-94	5.65			4.19
		21-Sep-94	6.00			3.84
		19-Dec-94	5.91			3.93
		13-Mar-95	4.30			5.54
		07-Jun-95	4.36			5.48
		05-Sep-95	5.12			4.72
LF-3	10.98	07-Nov-91	7.55			3.43
		26-Oct-92	7.05			3.93
		04-Mar-93	5.83			5.15
		14-Apr-93	5.48			5.50
		24-May-93	5.61			5.37
		14-Jun-93	5.75			5.23
		30-Jul-93	5.96			5.02
		31-Aug-93	6.18			4.80

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
		27-Sep-93	6.33			4.65
		25-Oct-93	6.46			4.52
		02-Nov-93	6.62			4.36
		08-Dec-93	6.71			4.27
		28-Jan-94	6.72			4.26
		15-Feb-94	6.50			4.48
		24-May-94	6.15			4.83
		21-Sep-94	6.56			4.42
		19-Dec-94	6.06			4.92
		13-Mar-95	4.85			6.13
		07-Jun-95	4.58			6.40
		05-Sep-95	5.38			5.60
LF-4	10.36	07-Nov-91	11.63			-1.27
		26-Oct-92	7.31			3.05
		04-Mar-93	5.58			4.78
		14-Apr-93	5.21			5.15
		24-May-93	5.48			4.88
		14-Jun-93	5.63			4.73
		30-Jul-93	5.92			4.44
		31-Aug-93	6.16			4.20
		27-Sep-93	6.36			4.00
		25-Oct-93	6.54			3.82
		02-Nov-93	7.00			3.36
		08-Dec-93	6.96			3.40
		28-Jan-94	7.04			3.32
		15-Feb-94	6.84			3.52
		24-May-94	5.99			4.37
		21-Sep-94	6.62			3.74
		19-Dec-94	6.75			3.61
		13-Mar-95	5.67			4.69
		07-Jun-95	4.48			5.88
		05-Sep-95	5.38			4.98
LF-5	8.03	07-Nov-91	7.34			0.69
		26-Oct-92	7.05			0.98
		04-Mar-93	6.05			1.98
		14-Apr-93	6.25			1.78
		24-May-93	6.61			1.42
		14-Jun-93	6.97			1.06
		30-Jul-93	6.72			1.31
		31-Aug-93	6.84			1.19
		27-Sep-93	7.10			0.93
		25-Oct-93	7.11			0.92
		02-Nov-93	7.04			0.99
		08-Dec-93	7.27			0.76
		28-Jan-94	6.82			1.21
		15-Feb-94	6.85			1.18
		24-May-94	6.76			1.27
		21-Sep-94	7.05			0.98

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
		19-Dec-94	6.48			1.55
		13-Mar-95	5.25			2.78
		07-Jun-95	5.98			2.05
		05-Sep-95	6.42			1.61
LF-6	11.59	07-Nov-91	8.59			3.00
		26-Oct-92	8.82			2.77
		04-Mar-93	5.79			5.80
		14-Apr-93	5.41			6.18
		24-May-93	6.05			5.54
		14-Jun-93	6.29			5.30
		30-Jul-93	6.83			4.76
		31-Aug-93	7.27			4.32
		27-Sep-93	7.61			3.98
		25-Oct-93	7.79			3.80
		02-Nov-93	8.07			3.52
		08-Dec-93	7.34			4.25
		28-Jan-94	6.37			5.22
		15-Feb-94	5.98			5.61
		24-May-94	6.14			5.45
		21-Sep-94	7.39			4.20
		19-Dec-94	6.12			5.47
		13-Mar-95	4.98			6.61
		07-Jun-95	5.03			6.56
		05-Sep-95	6.23			5.36
LF-7	10.65	07-Nov-91	8.54			2.11
		26-Oct-92	7.98			2.67
		04-Mar-93	4.92			5.73
		14-Apr-93	4.80			5.85
		24-May-93	5.03			5.62
		14-Jun-93	5.18			5.47
		30-Jul-93	5.51			5.14
		31-Aug-93	5.82			4.83
		27-Sep-93	6.14			4.51
		25-Oct-93	6.39			4.26
		02-Nov-93	6.60			4.05
		08-Dec-93	6.74			3.91
		28-Jan-94	6.03			4.62
		15-Feb-94	5.59			5.06
		24-May-94	5.46			5.19
		21-Sep-94	6.40			4.25
		19-Dec-94	5.59			5.06
		13-Mar-95	4.16			6.49
		07-Jun-95	4.07			6.58
		05-Sep-95	4.81			5.84
LF-8	10.91	02-Nov-93	6.18			4.73
		08-Dec-93	6.29			4.62
		28-Jan-94	6.38			4.53

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
		15-Feb-94	6.37			4.54
		24-May-94	6.15			4.76
		21-Sep-94	6.33			4.58
		19-Dec-94	6.31			4.60
		13-Mar-95	4.48			6.43
		07-Jun-95	4.46			6.45
		05-Sep-95	5.08			5.83
LF-9	11.70	02-Nov-93	6.76			4.94
		08-Dec-93	6.91			4.79
		28-Jan-94	6.88			4.82
		15-Feb-94	6.80			4.90
		24-May-94	6.80			4.90
		21-Sep-94	6.98			4.72
		19-Dec-94	6.34			5.36
		13-Mar-95	5.12			6.58
		07-Jun-95	5.31			6.39
		05-Sep-95	5.90			5.80
LF-10	9.43	02-Nov-93	8.14			1.29
		08-Dec-93	7.82			1.61
		28-Jan-94	NM			NM
		15-Feb-94	7.47			1.96
		24-May-94	7.11			2.32
		21-Sep-94	7.90			1.53
		19-Dec-94	7.21			2.22
		13-Mar-95	5.68			3.75
		07-Jun-95	5.92			3.51
		05-Sep-95	6.61			2.82
LF-11	9.07	02-Nov-93	11.68			-2.61
		08-Dec-93	5.35			3.72
		28-Jan-94	5.27			3.80
		15-Feb-94	5.04			4.03
		24-May-94	4.20			4.87
		21-Sep-94	4.70			4.37
		19-Dec-94	4.72			4.35
		13-Mar-95	3.27			5.80
		07-Jun-95	3.75			5.32
		05-Sep-95	3.70			5.37
LF-12	8.70	02-Nov-93	7.87			0.83
		08-Dec-93	7.90			0.80
		28-Jan-94	7.46			1.24
		15-Feb-94	7.66			1.04
		21-Sep-94	7.80			0.90
		19-Dec-94	7.32			1.38
		13-Mar-95	6.00			2.70
		07-Jun-95	7.40			1.30
		05-Sep-95	7.45			1.25

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Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)		Ground-Water Elevation (feet msl)	
LF-13	9.75	08-Dec-93	5.94				3.81	(1)
		28-Jan-94	4.94				4.81	(1)
		15-Feb-94	4.84	4.83	0.01		4.92	(1)
		24-May-94	4.81	4.75	0.06		4.99	(1)
		21-Sep-94	6.32	5.17	1.15	(2)	4.41	(1)
		19-Dec-94	4.67	4.57	0.10		5.17	(1)
		13-Mar-95	3.22	3.12	0.10		6.62	(1)
		07-Jun-95	3.32	3.22	0.10		6.52	(1)
		05-Sep-95	3.90	3.8	0.10		5.94	(1)
LF-14	11.72	08-Dec-93	7.96				3.76	
		28-Jan-94	8.02				3.70	
		15-Feb-94	7.85				3.87	
		24-May-94	7.68				4.04	
		21-Sep-94	7.69				4.03	
		19-Dec-94	7.71				4.01	
		13-Mar-95	6.68				5.04	
		07-Jun-95	6.03				5.69	
		05-Sep-95	6.51				5.21	
LF-15	11.62	08-Dec-93	7.91				3.71	
		28-Jan-94	7.74				3.88	
		15-Feb-94	7.58				4.04	
		24-May-94	8.07				3.55	
		21-Sep-94	8.58				3.04	
		19-Dec-94	NM				NM	
		13-Mar-95	6.32				5.30	
		07-Jun-95	6.44				5.18	
		05-Sep-95	6.08				5.54	
LF-16	11.56	08-Dec-93	8.35				3.21	
		28-Jan-94	8.40				3.16	
		15-Feb-94	8.21				3.35	
		24-May-94	8.01				3.55	
		21-Sep-94	7.64				3.92	
		19-Dec-94	8.60				2.96	
		13-Mar-95	6.22				5.34	
		07-Jun-95	6.88				4.68	
		05-Sep-95	7.37				4.19	
LF-17	9.71	08-Dec-93	6.72				2.99	
		28-Jan-94	5.86				3.85	
		15-Feb-94	5.87				3.84	
		24-May-94	6.00				3.71	
		21-Sep-94	6.88				2.83	
		19-Dec-94	5.45				4.26	
		13-Mar-95	4.68				5.03	
		07-Jun-95	6.52				3.19	
		05-Sep-95	7.02				2.69	

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Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
LF-F1	8.82	08-Dec-93	4.08			4.74
		28-Jan-94	4.03			4.79
		15-Feb-94	3.90			4.92
		24-May-94	3.60			5.22
		21-Sep-94	4.05			4.77
		19-Dec-94	3.45			5.37
		13-Mar-95	2.22			6.60
		07-Jun-95	2.28			6.54
		05-Sep-95	2.92			5.90
MW-1	10.21	07-Nov-91	6.29			4.24
		26-Oct-92	6.38			2.63
		04-Mar-93	3.57			6.64
		14-Apr-93	3.57			6.64
		24-May-93	4.59			5.62
		14-Jun-93	4.86			5.35
		30-Jul-93	5.72			4.49
		31-Aug-93	6.38			3.83
		27-Sep-93	6.85			3.36
		25-Oct-93	7.03			3.18
		02-Nov-93	7.30			2.91
		08-Dec-93	6.51			3.70
		28-Jan-94	5.00			5.21
		15-Feb-94	4.46			5.75
		24-May-94	4.65			5.56
		21-Sep-94	6.35			3.86
		19-Dec-94	3.70			6.51
		13-Mar-95	2.71			7.50
		07-Jun-95	4.02			6.19
		05-Sep-95	5.67			4.54
MW-2	8.86	07-Nov-91	5.93			2.93
		26-Oct-92	5.41			3.45
		04-Mar-93	4.26			4.60
		14-Apr-93	3.83			5.03
		24-May-93	3.78			5.08
		14-Jun-93	3.89			4.97
		30-Jul-93	4.10			4.76
		31-Aug-93	4.37			4.49
		27-Sep-93	4.72			4.14
		25-Oct-93	4.81			4.05
		02-Nov-93	4.96			3.90
		08-Dec-93	5.13			3.73
		28-Jan-94	5.18			3.68
		15-Feb-94	5.02			3.84
		24-May-94	4.43			4.43
		21-Sep-94	5.82			3.04
		12-Dec-94	4.75			4.11
		13-Mar-95	3.28			5.58

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)
		07-Jun-95	3.12			5.74
		05-Sep-95	3.90			4.96
MW-3	9.01	07-Nov-91	6.94			2.07
		26-Oct-92	7.29			1.72
		04-Mar-93	5.07			3.94
		14-Apr-93	5.21			3.80
		24-May-93	5.95			3.06
		14-Jun-93	6.23			2.78
		27-Sep-93	6.46			2.55
		25-Oct-93	6.47			2.54
		02-Nov-93	6.62			2.39
		08-Dec-93	6.23			2.78
		28-Jan-94	5.58			3.43
		15-Feb-94	5.70			3.31
		24-May-94	5.59			3.42
		21-Sep-94	6.46			2.55
		19-Dec-94	5.46			3.55
		13-Mar-95	4.37			4.64
		07-Jun-95	5.61			3.40
		05-Sep-95	6.38			2.63
MW-4	10.75	07-Nov-91	10.26			0.49
		26-Oct-92	9.04			1.71
		04-Mar-93	5.77			4.98
		14-Apr-93	4.71			6.04
		24-May-93	5.60			5.15
		14-Jun-93	5.94			4.81
		30-Jul-93	6.72			4.03
		31-Aug-93	7.25			3.50
		27-Sep-93	7.66			3.09
		25-Oct-93	7.79			2.96
		02-Nov-93	7.97			2.78
		08-Dec-93	7.18			3.57
		28-Jan-94	5.50			5.25
		15-Feb-94	5.17			5.58
		24-May-94	5.46			5.29
		21-Sep-94	7.52			3.23
		19-Dec-94	4.42			6.33
		13-Mar-95	3.48			7.27
		07-Jun-95	4.93			5.82
		05-Sep-95	6.34			4.41

Data entered by PCA 14-Nov-95. Data proofed by JXM

NOTES

All elevations are measured relative to the mean-sea-level (msl) datum.

The top of casing elevations were measured from the north side of each PVC casing.

(1) Ground-water elevation for well LF-13 is corrected for the presence of free product as indicated below. Product thickness measurement is approximate due to the viscous nature of the product. Ground-water elevation corrected for the presence of free product using the following equation: G = W + [(PT*D) - DW] where G is the ground-water elevation, W is the well elevation, PT is the

Table 1
Historical Summary of Ground-Water Elevation Data
5050 Coliseum Way and 750 50th Avenue
Oakland, California

Well Number	Top of PVC Casing Elevation (feet msl)	Date Measured	Depth to Water (feet msl)	Depth to Product (feet msl)	Product Thickness (ft)	Ground-Water Elevation (feet msl)

using the following equation: G = W + [(PT*D) - DW] where G is the ground-water elevation, W is the well elevation, PT is the product thickness, D is the product density (g/ml), and DW is the depth to water. For purposes of this calculation, D = 0.85 will be used.

(2) In general, product thickness measurements for well LF-13 are approximate due to the viscous nature of the product. Specifically, the measurement reported for September 21, 1994 was measured using an electronic oil/water interface probe only, which likely resulted in an incorrect measurement.

Table 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(Concentrations reported in parts per million (ppm))

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-1	4-Nov-91	0.054	0.004	0.046	0.11	130	5.7	<0.01	1.9	<0.0003	0.11	20	0.5	<0.2	<0.004	<1	<0.005	40000
LF-1	27-Oct-92	<0.5	0.007	<0.5	<0.2	57	4.1	<1	1	<0.0003	<1	19	<4	<2	0.027	<10	<0.5	16000
LF-1	5-Mar-93	<0.5	0.22	<0.05	<0.2	43	3.6	<1	0.47	<0.0003	<1	11	<4	<2	<0.01	<10	<0.5	14000
Duplicate	5-Mar-93	<0.5	0.26	<0.05	<0.2	44	3.9	<1	0.5	<0.0003	<1	11	<4	<2	<0.01	<10	<0.5	14000
LF-1	25-May-93	<0.5	0.12	<0.05	<0.2	40	4.7	<1	1	<0.0003	<1	16	<0.4	<2	<0.004	<10	<0.5	19000
Duplicate	25-May-93	<0.03	0.36	<0.05	0.02	9.6	0.81	<0.05	0.15	<0.0003	<0.05	3	0.3	<0.1	<0.004	<0.5	<0.03	4700
LF-1	31-Aug-93	<0.5	0.072	<0.05	<0.2	32	2.3	<1	<1	<0.0003	<1	9	<4	<2	<0.004	<10	<0.5	13000
Duplicate	31-Aug-93	<0.5	0.66	<0.05	<0.2	13	1	<1	<1	<0.0003	<1	5	<4	<2	<0.004	<10	<0.5	7200
LF-1	26-Oct-93	<0.05	0.4	<0.5	0.02	15	1.3	0.6	0.9	<0.0003	<0.1	4.9	0.4	<0.2	<0.04	<1	<0.05	7100
LF-101 dup	26-Oct-93	<0.1	1.3	<1	<0.04	12	1	<0.2	0.3	<0.0003	<0.2	3.7	<0.8	<0.4	<0.08	<2	<0.1	5900
LF-1	18-Feb-94	<0.05	0.57	<0.5	<0.02	2.6	0.33	<0.1	<0.1	<0.0002	<0.1	1.4	0.8	<0.2	<0.004	<1	<0.05	2600
LF-1	25-May-94	<0.05	0.49	<0.05	<0.2	7.9	0.9	<1	<1	<0.0002	<1	3	0.79	<3	<0.004	<10	<0.5	5000
LF-1	22-Sep-94	<0.05	0.77	<0.05	<0.02	6.1	0.67	<0.1	<0.1	<0.0002	<0.1	2.5	0.91	<0.2	<0.02	<1	<0.05	4100
LF-1	20-Dec-94	<0.05	0.65	<0.5	<0.02	4.2	0.45	<0.1	<0.1	<0.0002	<0.1	1.7	0.6	<0.2	<0.04	<1	<0.05	3700
LF-1	15-Mar-95	<0.05	0.39	<0.1	<0.02	8.5	0.81	<0.1	0.2	<0.0002	<0.1	3.4	0.41	<0.2	<0.004	<0.5	<0.05	4700
LF-1	8-Jun-95	<0.5	0.33	<1	<0.2	11	0.9	<1	<1	<0.0002	<1	4	1.5	<2	<0.02	<5	<0.5	6500
LF-101 dup	8-Jun-95	<0.5	0.41	<1	<0.2	23	1.8	<1	<1	<0.0002	<1	7	0.76	<2	<0.02	<5	<0.5	10000
LF-1	7-Sep-95	<0.05	0.30	<0.1	0.03	23	2.0	<0.1	0.5	<0.0002	<0.1	7.3	0.67	<0.2	<0.1	0.6	<0.05	10000
LF-2	4-Nov-91	<0.002	0.028	0.026	<0.001	0.009	0.18	<0.01	0.008	<0.0003	<0.01	0.52	<0.005	<0.02	<0.004	<0.1	<0.005	4.2
LF-2	27-Oct-92	0.006	0.007	<0.05	<0.002	0.006	0.12	<0.01	0.02	<0.0003	<0.01	0.22	<0.04	<0.02	0.005	<0.1	<0.005	3.3
LF-2	4-Mar-93	<0.005	0.003	<0.05	<0.002	<0.005	0.1	<0.01	<0.01	<0.0003	<0.01	0.12	<0.04	<0.02	<0.004	<0.1	<0.005	1.9
LF-2	24-May-93	<0.005	0.005	<0.05	<0.002	<0.005	0.061	<0.01	<0.01	<0.0003	<0.01	0.08	<0.04	<0.02	<0.004	<0.1	<0.005	1.4
LF-2	31-Aug-93	<0.005	5	<0.05	0.003	0.021	0.016	<0.01	<0.01	<0.0003	0.14	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	8.6
LF-2	25-Oct-93	<0.005	0.004	<0.05	<0.002	0.009	0.055	<0.01	0.02	<0.0003	<0.01	0.11	<0.04	<0.02	<0.004	<0.1	<0.005	1.9
LF-2	16-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.1	<0.01	<0.0002	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	<0.005	0.41
LF-2	24-May-94	<0.001	<0.002	0.02	<0.0005	<0.001	0.037	<0.002	0.003	<0.0002	<0.002	0.024	<0.003	<0.005	<0.004	<0.02	<0.001	0.3
LF-2	22-Sep-94	<0.001	<0.002	0.02	<0.0005	<0.001	0.038	<0.002	0.006	<0.0002	<0.002	0.038	<0.005	0.007	<0.004	<0.02	0.001	0.59
LF-2	20-Dec-94	0.001	<0.002	0.02	<0.0005	<0.001	0.04	<0.002	0.006	<0.0002	<0.002	0.03	<0.002	<0.005	<0.004	<0.02	<0.001	0.39
LF-2	15-Mar-95	<0.001	<0.002	0.017	<0.0005	<0.001	0.033	<0.002	0.004	<0.0002	<0.002	0.031	<0.002	<0.004	<0.004	<0.01	0.002	0.49
LF-102 dup	16-Mar-95	<0.001	<0.002	0.017	<0.0005	<0.001	0.036	<0.002	0.005	<0.0002	<0.002	0.024	<0.002	<0.004	<0.004	<0.01	0.001	0.37
LF-2	7-Jun-95	<0.001	<0.002	0.017	<0.0005	<0.001	0.037	<0.002	0.006	<0.0002	<0.002	0.04	<0.002	<0.004	<0.004	<0.01	0.002	0.62
LF-2	7-Sep-95	<0.001	<0.002	0.019	<0.0005	0.001	0.040	<0.002	0.004	<0.0002	<0.002	0.032	<0.002	<0.004	<0.004	<0.01	<0.001	0.50
LF-122 dup	7-Sep-95	<0.001	<0.002	0.020	<0.0005	<0.001	0.042	<0.002	0.005	<0.0002	<0.002	0.027	<0.002	<0.004	<0.004	<0.01	<0.001	0.50
LF-3	4-Nov-91	<0.002	3.1	0.077	0.001	<0.005	0.016	<0.01	<0.004	<0.0003	0.16	0.012	<0.005	<0.02	<0.004	<0.1	0.006	3.1
LF-3	27-Oct-92	<0.005	3.6	0.11	0.004	0.013	0.029	<0.01	<0.01	<0.0003	0.22	0.02	<0.04	<0.02	0.018	<0.1	<0.005	12
LF-3	4-Mar-93	<0.005	4.9	0.07	0.003	0.012	0.023	<0.01	<0.01	<0.0003	0.18	0.04	<0.04	<0.02	<0.02	<0.1	<0.005	15
LF-3	25-May-93	<0.005	3.4	0.11	<0.002	0.04	0.01	<0.01	<0.01	<0.0003	0.13	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	5.8
LF-3	31-Aug-93	<0.005	4.9	<0.05	0.003	0.023	0.019	<0.01	<0.01	<0.0003	0.15	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	8.6
LF-3	25-Oct-93	<0.005	7.3	0.08	<0.002	0.005	0.013	<0.01	<0.01	<0.0003	0.13	0.02	<0.04	<0.02	<0.02	<0.1	<0.005	6.2
LF-3	16-Feb-94	<0.005	3.4	0.1	<0.002	<0.005	0.012	<0.01	<0.01	<0.0002	0.11	0.01	<0.04	<0.02	<0.01	<0.1	<0.005	5
LF-3	25-May-94	<0.001	2.4	0.08	0.0009	<0.001	0.009	0.002	<0.002	<0.0002	0.091	0.006	<0.003	<0.005	<0.02	<0.02	<0.001	4.1
LF-103 dup	25-May-94	0.001	2.8	0.08	0.0013	<0.001	0.011	<0.002	<0.002	<0.0002	0.11	0.008	<0.003	<0.005	<0.02	<0.02	<0.001	5.2
LF-3	23-Sep-94	<0.001	2.2	0.05	0.0014	<0.001	0.011	0.002	<0.002	<0.0002	0.11	0.008	<0.005	<0.005	<0.2	<0.02	0.004	5.5
LF-103 dup	23-Sep-94	<0.001	2.3	0.06	0.001	<0.001	0.009	0.004	0.007	<0.0002	0.095	0.007	<0.005	<0.005	<0.2	<0.02	0.003	4.1
LF-3	20-Dec-94	<0.001	3.6	0.09	0.0013	<0.001	0.012	0.005	0.026	<0.0002	0.11	0.011	<0.002	<0.005	<0.04	<0.02	0.012	6.2
LF-103 dup	20-Dec-94	<0.001	4.5	0.04	0.0017	<0.001	0.014	0.003	0.003	<0.0002	0.13	0.011	<0.002	<0.005	<0.04	0.02	0.01	8.5
LF-3	15-Mar-95	<0.001	2.8	0.15	0.001	<0.001	0.008	0.004	0.003	<0.0002	0.086	0.007	<0.002	<0.004	<0.04	<0.01	0.011	4.3

Table 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(Concentrations reported in parts per million [ppm])

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-3	7-Jun-95	<0.001	5.6	0.057	0.0018	<0.001	0.014	0.003	0.003	<0.0002	0.13	0.012	<0.002	<0.004	<0.04	<0.01	0.013	9.9
LF-3	7-Sep-95	<0.001	3.0	0.13	0.0017	<0.001	0.011	0.004	<0.002	<0.0002	0.12	0.008	<0.002	<0.004	<0.2	0.02	0.013	5.4
LF-4	4-Nov-91	<0.002	0.026	0.082	<0.001	<0.005	<0.005	<0.01	<0.004	<0.0003	<0.01	0.013	<0.005	0.03	<0.004	<0.1	0.01	0.034
LF-4	27-Oct-92	<0.005	0.034	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	<0.005	0.012
LF-4	4-Mar-93	<0.005	0.017	0.11	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.05	<0.04	0.02	<0.004	<0.1	0.008	0.04
LF-4	24-May-93	<0.005	0.013	0.22	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	<0.005	0.035
LF-4	31-Aug-93	<0.005	0.052	0.08	<0.002	<0.005	0.006	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.009	0.038
LF-4	25-Oct-93	<0.005	0.014	0.12	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.015	0.068
LF-4	16-Feb-94	<0.005	0.008	0.29	<0.002	<0.005	0.006	<0.01	<0.01	<0.0002	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	<0.005	0.05
LF-4	22-Sep-94	<0.001	0.005	0.19	<0.0005	0.001	0.003	<0.002	0.003	<0.0002	<0.002	0.037	<0.005	0.007	<0.004	<0.02	0.007	0.067
LF-4	15-Mar-95	<0.001	0.008	0.34	<0.0005	0.001	0.005	<0.002	<0.002	<0.0002	<0.002	0.037	<0.002	<0.004	<0.004	<0.01	0.002	0.064
LF-4	7-Sep-95	<0.001	0.012	0.15	<0.0005	0.001	0.004	<0.002	<0.002	<0.0002	<0.002	0.048	<0.002	<0.004	<0.004	<0.01	0.002	0.24
LF-5	4-Nov-91	0.004	<0.002	0.018	<0.001	0.049	0.03	<0.01	<0.005	0.0004	<0.01	0.23	<0.005	<0.02	<0.004	<0.1	<0.005	11
LF-5	27-Oct-92	0.022	0.005	<0.05	<0.002	0.24	1.4	<0.01	<0.01	<0.0003	<0.01	5.4	<0.04	<0.02	0.017	<0.1	<0.005	35
LF-5	4-Mar-93	0.021	<0.005	<0.05	<0.002	0.21	1.1	<0.01	<0.01	<0.0003	<0.01	5	<0.04	<0.02	<0.01	<0.1	<0.005	36
LF-5	25-May-93	0.01	<0.002	<0.05	<0.002	0.17	0.84	<0.01	<0.01	<0.0003	<0.01	3.2	<0.04	<0.02	<0.004	0.2	<0.005	23
LF-5	31-Aug-93	0.013	0.02	<0.05	<0.002	0.25	1.3	<0.01	<0.01	<0.0003	<0.01	4.6	<0.04	<0.02	<0.02	0.2	<0.005	38
LF-5	26-Oct-93	0.011	0.052	<0.05	<0.002	0.28	1.4	<0.01	0.01	<0.0003	<0.01	5.3	0.07	<0.02	<0.04	0.3	0.01	51
LF-5	16-Feb-94	0.009	<0.02	<0.05	<0.002	0.16	0.95	<0.01	<0.01	<0.0002	<0.01	3.3	<0.04	<0.02	<0.04	0.1	<0.005	28
LF-5	24-May-94	0.008	<0.005	0.01	<0.0005	0.14	0.71	<0.002	<0.002	<0.0002	<0.002	2.4	<0.01	<0.005	<0.01	0.09	0.002	23
LF-5	21-Sep-94	0.006	<0.01	0.01	<0.0005	0.17	0.81	0.003	0.003	<0.0002	<0.002	2.5	<0.01	<0.005	<0.02	0.03	<0.001	25
LF-5	19-Dec-94	0.007	<0.01	0.01	<0.0005	0.25	1.2	0.003	0.004	<0.0002	<0.002	3.8	<0.008	<0.005	0.02	0.08	<0.001	58
LF-5	14-Mar-95	0.004	<0.02	0.013	<0.0005	0.11	0.61	0.004	0.003	<0.0002	<0.002	2.6	<0.01	<0.004	<0.04	0.06	0.003	25
LF-5	7-Jun-95	0.006	<0.01	0.015	<0.0005	0.31	1.5	0.006	0.005	<0.0002	<0.002	5	<0.02	<0.004	<0.02	0.05	0.001	76
LF-5	7-Sep-95	0.004	<0.005	0.014	<0.0005	0.31	1.5	0.006	0.005	<0.0002	<0.002	4.8	<0.01	<0.004	<0.004	0.04	<0.001	38
LF-6	5-Nov-91	0.011	0.008	0.019	<0.001	0.079	0.58	<0.01	<0.005	0.0009	<0.01	2.1	0.009	<0.02	<0.004	<0.1	<0.005	8.1
LF-6	27-Oct-92	0.02	0.022	<0.05	<0.002	0.17	1.6	<0.01	<0.01	<0.0003	<0.01	5.5	<0.04	<0.02	0.012	<0.1	<0.005	23
LF-6	4-Mar-93	0.013	0.007	<0.05	0.003	0.13	1.2	<0.01	<0.01	<0.0003	<0.01	4.2	<0.04	<0.02	<0.004	<0.1	<0.005	17
LF-6	24-May-93	0.008	<0.002	<0.05	<0.002	0.13	0.97	<0.01	0.01	<0.0003	<0.01	3.4	<0.04	<0.02	<0.004	0.1	<0.005	13
LF-6	31-Aug-93	0.009	0.014	<0.05	0.003	0.13	1	<0.01	0.01	<0.0003	<0.01	3.7	<0.04	<0.02	<0.004	0.1	<0.005	14
LF-6	26-Oct-93	0.005	<0.002	<0.05	0.003	0.15	1	<0.01	0.02	<0.0003	<0.01	3.7	<0.04	<0.02	<0.004	0.1	<0.005	17
LF-6	16-Feb-94	0.007	0.016	<0.05	0.003	0.11	0.97	<0.01	<0.01	<0.0002	<0.01	3.4	<0.04	<0.02	<0.004	0.1	<0.005	13
LF-6	21-Sep-94	0.004	<0.002	0.01	0.0023	0.099	0.84	<0.002	0.011	<0.0002	<0.002	2.8	<0.005	<0.005	<0.004	0.02	<0.001	11
LF-6	16-Mar-95	0.003	<0.002	0.01	0.0023	0.091	0.74	0.002	0.01	<0.0002	<0.002	2.6	<0.005	<0.004	<0.004	0.06	0.001	10
LF-6	6-Sep-95	0.002	<0.002	0.011	0.0022	0.094	0.79	0.004	0.009	<0.0002	<0.002	2.8	<0.005	<0.004	<0.004	0.07	<0.001	10
LF-7	5-Nov-91	<0.002	0.004	0.13	<0.001	<0.005	<0.005	<0.01	0.006	0.0011	<0.01	0.01	<0.005	<0.02	<0.004	<0.1	0.006	<0.005
LF-7	27-Oct-92	<0.005	0.03	0.11	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	0.01	0.01	<0.04	<0.02	<0.004	<0.1	0.008	0.021
LF-7	4-Mar-93	<0.005	0.025	0.08	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	0.01	0.01	<0.04	<0.02	<0.01	<0.1	0.009	0.01
LF-7	24-May-93	<0.005	0.003	0.08	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.007
LF-7	31-Aug-93	<0.005	0.013	0.08	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.021
LF-7	25-Oct-93	<0.005	<0.002	0.09	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.011
LF-7	16-Feb-94	<0.005	0.014	0.12	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.005	0.01
LF-7	21-Sep-94	<0.001	<0.002	0.1	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.006	0.01	<0.005	0.005	<0.004	<0.02	0.006	0.012
LF-7	15-Mar-95	<0.001	0.004	0.24	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.005	0.011	<0.005	<0.004	<0.004	<0.01	0.006	0.053
LF-7	6-Sep-95	<0.001	0.017	0.18	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.006	0.012	<0.005	<0.004	<0.004	<0.01	0.007	0.001

Table 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(Concentrations reported in parts per million [ppm])

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-8	27-Oct-93	<0.005	2.6	0.16	<0.002	<0.005	0.005	<0.01	<0.01	<0.0003	<0.01	0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.022
LF-8	16-Feb-94	<0.005	2.3	0.33	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	<0.01
LF-8	24-May-94	<0.001	2.5	0.2	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.004	<0.003	<0.003	<0.005	<0.02	<0.02	0.004	0.015
LF-8	23-Sep-94	<0.001	3.4	0.32	<0.0005	0.002	<0.001	<0.002	<0.002	<0.0002	<0.002	0.003	<0.005	0.005	<0.004	<0.02	0.005	0.024
LF-8	20-Dec-94	<0.001	2	0.39	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.004	<0.002	<0.005	<0.04	<0.02	0.004	0.015
LF-8	15-Mar-95	<0.001	2	0.072	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	0.002	0.003	<0.002	<0.004	<0.04	<0.01	0.002	0.017
LF-8	9-Jun-95	<0.001	3.2	0.093	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.003	<0.002	<0.004	<0.04	<0.01	0.003	0.052
LF-8	7-Sep-95	<0.001	2.4	0.092	<0.0005	<0.001	0.001	<0.002	<0.002	<0.0002	<0.002	<0.002	<0.002	<0.004	<0.2	<0.01	0.003	0.02
LF-9	1-Nov-93	<0.005	0.009	<0.05	<0.002	0.041	0.56	<0.01	0.02	<0.0003	<0.01	0.86	<0.04	<0.02	<0.02	<0.1	<0.005	14
LF-109 dup	1-Nov-93	<0.005	0.015	<0.05	<0.002	0.034	0.46	<0.01	<0.01	<0.0003	<0.01	0.71	<0.04	<0.02	<0.02	<0.1	<0.005	14
LF-9	17-Feb-94	<0.005	0.064	<0.05	<0.002	0.12	0.016	<0.01	<0.01	<0.0002	<0.01	0.1	<0.04	<0.02	<0.004	<0.1	<0.005	31
LF-9	21-Sep-94	<0.001	0.18	0.02	<0.0005	0.008	0.023	<0.002	<0.002	<0.0002	0.004	0.072	<0.005	0.006	<0.01	<0.02	0.002	20
LF-9	13-Mar-95	<0.001	0.15	0.021	<0.0005	0.01	0.028	<0.002	0.004	<0.0002	0.003	0.085	<0.005	<0.004	<0.004	<0.01	0.003	26
LF-9	8-Sep-95	<0.001	0.19	0.014	<0.0005	0.020	0.026	<0.002	<0.002	<0.0002	0.005	0.087	<0.005	<0.004	<0.02	<0.01	0.003	25
LF-10	28-Oct-93	<0.005	0.04	0.77	<0.002	0.02	0.019	0.07	0.04	<0.0003	<0.01	0.17	<0.04	<0.02	<0.04	<0.1	0.048	2
LF-10	16-Feb-94	<0.005	<0.005	<0.05	<0.002	0.005	0.018	<0.01	<0.01	<0.0002	<0.01	0.12	<0.04	<0.02	<0.01	<0.1	0.008	0.21
LF-10	22-Sep-94	0.001	<0.005	0.02	<0.0005	0.002	0.008	<0.002	0.005	<0.0002	<0.002	0.083	<0.01	<0.005	<0.01	<0.02	0.006	0.075
LF-10	15-Mar-95	<0.001	<0.02	0.018	<0.0005	0.001	0.018	<0.002	0.006	<0.0002	<0.002	0.13	<0.01	0.004	<0.04	0.02	0.004	0.13
LF-10	7-Sep-95	<0.001	<0.005	0.016	<0.0005	0.002	0.007	<0.002	0.007	<0.0002	<0.002	0.083	<0.01	<0.004	<0.01	<0.01	0.005	0.29
LF-11	28-Oct-93	<0.005	0.07	0.1	<0.002	120	5.9	<0.01	3	<0.0003	<0.01	28	6	<0.02	<0.04	<0.1	2	47000
LF-11	18-Feb-94	<0.5	<0.02	<5	<0.2	140	8.4	<1	4	<0.0002	<1	37	<4	<2	<0.02	<10	<0.5	44000
LF-111 dup	18-Feb-94	<0.5	<0.02	<5	<0.2	140	9.4	<1	4	<0.0002	<1	40	<4	<2	<0.02	<10	<0.5	46000
LF-11	23-Sep-94	0.5	<0.02	<0.01	0.2	130	7.1	<1	5	<0.0002	<1	32	0.41	<2	<0.04	<10	<0.5	33000
LF-11	15-Mar-95	<0.5	<0.01	<1	<0.2	91	4.9	<1	3	<0.0002	<1	22	0.08	<2	<0.02	<5	<0.5	37000
LF-11	8-Jun-95	<5	<0.02	<1	<3	99	<5	<10	<10	<0.0002	<10	21	0.09	<20	<0.04	<50	<5	37000
LF-11	7-Sep-95	<0.5	<0.01	<1	<0.2	120	6.5	<1	5	<0.0002	<1	26	0.04	<2	<0.02	<5	<0.5	37000
LF-12	1-Nov-93	<0.05	0.022	<0.5	<0.02	3.7	2.7	<0.1	0.9	<0.0003	<0.1	8.1	<0.4	<0.2	0.014	<1	<0.05	3400
LF-12	17-Feb-94	<0.05	0.004	<0.5	<0.02	2.9	1.9	<0.1	0.7	<0.0002	<0.1	5.9	<0.4	<0.2	0.014	<1	<0.05	2700
LF-12	24-May-94	<0.05	0.008	<0.05	<0.02	3.6	2.4	<0.1	1	<0.0002	<0.1	7.1	0.049	<0.3	0.017	<1	<0.05	3100
LF-12	22-Sep-94	<0.05	<0.005	<0.05	0.02	3.4	2.2	<0.1	1.1	<0.0002	<0.1	6.7	0.02	<0.2	0.02	<1	<0.05	3100
LF-12	19-Dec-94	<0.05	<0.005	<0.5	0.02	3.5	2.3	<0.1	1.1	<0.0002	<0.1	6.9	0.01	<0.2	0.03	<1	<0.05	3200
LF-12	15-Mar-95	<0.05	<0.002	<0.1	0.02	3	2	<0.1	1	<0.0002	<0.1	6.7	<0.005	<0.2	0.019	<0.5	<0.05	2600
LF-12	7-Jun-95	<0.05	<0.005	<0.1	0.03	3.3	2.1	<0.1	1.2	<0.0002	<0.1	6.6	<0.005	<0.2	0.04	<0.5	<0.05	2900
LF-12	6-Sep-95	<0.05	<0.005	<0.1	0.02	3.2	2.2	<0.1	1.3	<0.0002	<0.1	6.4	0.01	<0.2	<0.01	<0.5	<0.05	2900
LF-13	6-Dec-93	<0.005	3.3	0.24	<0.002	<0.005	0.007	<0.01	<0.01	<0.0003	0.04	0.03	<0.04	<0.02	<0.2	<0.1	0.061	0.03
LF-14	8-Dec-93	<0.005	0.005	<0.05	<0.002	0.12	0.67	<0.01	0.68	0.0016	<0.01	1.6	<0.04	<0.02	<0.02	<0.1	<0.005	230
LF-14	17-Feb-94	<0.005	<0.002	<0.05	0.002	0.16	0.96	<0.01	2.1	<0.0002	<0.01	2.4	<0.04	<0.02	<0.004	<0.1	<0.005	300
LF-14	25-May-94	<0.005	0.004	<0.05	0.002	0.14	1	<0.01	3.5	<0.0002	<0.01	2.4	0.027	<0.03	<0.004	0.1	<0.005	340
LF-14	21-Sep-94	<0.005	<0.002	<0.05	<0.002	0.065	0.59	<0.01	1.1	<0.0002	<0.01	1.4	0.022	<0.02	<0.004	<0.1	<0.005	240
LF-14	19-Dec-94	<0.005	0.004	<0.05	0.004	0.12	0.96	<0.01	2.9	<0.0002	<0.01	2.3	0.03	<0.02	<0.004	<0.1	0.042	370
LF-14	15-Mar-95	<0.005	<0.002	0.01	0.004	0.12	0.86	<0.01	3.4	<0.0002	<0.01	2.3	0.017	<0.02	<0.004	<0.05	<0.005	340
LF-14	8-Jun-95	<0.005	0.005	0.01	0.002	0.14	0.95	<0.01	1.7	<0.0002	<0.01	2.4	0.037	<0.02	<0.004	0.07	0.008	290

Table 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA
(Concentrations reported in parts per million [ppm])

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
LF-14	8-Sep-95	<0.005	<0.002	0.01	0.002	0.086	0.78	<0.01	2.8	<0.0002	<0.01	1.9	0.017	<0.02	<0.004	0.10	0.015	310
LF-15	6-Dec-93	0.032	<0.05	0.28	0.017	1.7	8.1	<0.01	0.14	<0.0003	<0.01	23	1.1	<0.02	<0.1	0.9	<0.005	640
LF-15	18-Feb-94	<0.05	0.006	<0.5	<0.02	1.7	7.4	<0.1	<0.1	<0.0002	<0.1	20	0.6	<0.2	<0.04	<1	<0.05	660
LF-15	21-Sep-94	0.02	<0.01	<0.05	0.027	2	11	<0.01	<0.01	<0.0002	<0.01	29	0.21	<0.02	<0.02	1.1	<0.005	620
LF-15	13-Mar-95	<0.005	<0.002	0.01	0.019	1.5	8.8	<0.01	<0.01	<0.0002	<0.01	24	0.33	<0.02	<0.02	0.66	<0.005	550
LF-15	8-Sep-95	<0.05	<0.01	<0.1	<0.02	2.1	14	<0.1	<0.1	<0.0002	<0.1	37	0.07	<0.2	<0.02	0.9	<0.05	570
LF-16	7-Dec-93	<0.05	<0.05	<0.5	<0.02	10	5.9	<0.1	0.4	<0.003	<0.1	16	<0.4	<0.2	<0.1	<1	<0.05	3400
LF-16	17-Feb-94	<0.05	<0.002	<0.5	0.04	15	8.3	<0.1	21	<0.0002	<0.1	24	<0.4	<0.2	<0.04	<1	<0.05	5200
LF-16	25-May-94	<0.05	<0.002	<0.5	0.02	12	7	<0.1	25	<0.0002	<0.1	20	<0.01	<0.3	<0.004	<1	<0.05	4100
LF-16	21-Sep-94	<0.05	<0.005	<0.05	0.03	11	6.2	<0.1	22	<0.0002	<0.1	17	<0.05	<0.2	<0.01	<1	<0.05	3700
LF-16	19-Dec-94	<0.05	<0.005	<0.5	0.03	10	6	<0.1	22	<0.0002	<0.1	17	<0.2	<0.2	<0.01	<1	0.08	3300
LF-16	15-Mar-95	<0.05	<0.02	<0.1	0.03	8.2	4.9	<0.1	21	<0.0002	<0.1	16	<0.05	<0.2	<0.04	<0.5	<0.05	3300
LF-16	8-Jun-95	<0.05	0.015	<0.1	0.03	8.2	5.1	<0.1	19	<0.0002	<0.1	15	<0.05	<0.2	<0.01	<0.5	0.06	2900
LF-16	8-Sep-95	<0.05	0.006	0.3	0.02	8.4	5.6	<0.1	18	<0.0002	<0.1	15	<0.02	<0.2	<0.01	0.7	<0.05	2800
LF-17	8-Dec-93	<0.005	0.004	0.11	<0.002	<0.005	0.011	<0.01	<0.01	<0.0003	<0.01	0.04	<0.04	<0.02	<0.004	<0.1	0.008	0.1
LF-17	15-Feb-94	<0.005	<0.002	0.05	<0.002	<0.005	0.009	<0.01	<0.01	<0.0002	<0.01	0.03	<0.04	<0.02	<0.004	<0.1	0.007	0.05
LF-17	22-Sep-94	<0.001	<0.002	0.06	<0.0005	<0.001	0.005	<0.002	<0.002	<0.0002	0.003	0.015	<0.005	0.005	<0.004	<0.02	0.006	0.035
LF-17	14-Mar-95	<0.001	<0.002	0.065	<0.0005	<0.001	0.006	<0.002	<0.002	<0.002	<0.002	0.022	<0.002	<0.004	<0.004	0.01	0.003	0.056
LF-17	6-Sep-95	<0.001	<0.002	0.057	<0.0005	<0.001	0.004	<0.002	<0.002	<0.0002	0.002	0.017	<0.002	<0.004	<0.004	0.01	0.004	<0.01
LF-F1	8-Dec-93	<0.005	0.012	0.07	<0.002	0.049	0.055	<0.01	<0.01	<0.0003	<0.01	0.07	<0.04	<0.02	<0.04	<0.1	0.008	13
LF-F1	18-Feb-94	<0.005	0.004	<0.05	<0.002	0.065	0.062	<0.01	<0.01	<0.0002	0.02	0.07	<0.04	<0.02	<0.004	<0.1	<0.005	20
LF-F1	23-Sep-94	0.002	0.21	0.02	<0.0005	<0.005	0.2	<0.002	<0.002	<0.0002	0.006	0.13	<0.005	<0.02	<0.004	<0.1	<0.005	39
LF-F1	15-Mar-95	0.001	0.092	0.021	<0.0005	0.02	0.1	<0.002	<0.002	<0.0002	0.009	0.05	<0.002	<0.02	<0.004	<0.05	0.001	14
LF-F1	7-Sep-95	<0.001	0.09	0.020	<0.0005	0.038	0.11	<0.002	<0.002	<0.0002	0.011	0.076	<0.002	<0.004	<0.02	<0.01	<0.001	17
MW-1	5-Nov-91	<0.002	0.073	0.085	<0.001	<0.005	0.008	<0.01	<0.005	<0.0003	0.02	0.032	<0.005	<0.02	<0.004	<0.1	<0.005	2.7
MW-1	27-Oct-92	<0.005	0.084	0.09	<0.002	0.031	0.052	<0.01	<0.01	<0.0003	<0.01	0.3	<0.04	<0.02	<0.004	<0.1	0.007	42
MW-1	5-Mar-93	<0.005	0.024	0.05	<0.002	0.008	0.015	<0.01	<0.01	<0.0003	<0.01	0.11	<0.04	<0.02	<0.004	<0.1	0.006	16
MW-1	25-May-93	<0.005	0.064	0.06	<0.002	<0.005	0.008	<0.01	<0.01	<0.0003	0.02	0.02	<0.04	0.03	<0.004	<0.1	0.007	1.6
MW-1	1-Sep-93	<0.005	0.097	0.07	<0.002	<0.005	0.009	<0.01	<0.01	<0.0003	0.02	0.02	<0.04	<0.02	<0.004	<0.1	0.005	2.3
MW-1	26-Oct-93	<0.005	0.03	0.08	<0.002	0.009	0.012	<0.01	<0.01	<0.0003	<0.01	0.1	<0.04	<0.02	<0.004	<0.1	<0.005	13
MW-1	18-Feb-94	<0.005	0.052	0.1	<0.002	<0.005	0.011	<0.01	<0.01	<0.0002	0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.007	2.8
MW-1	22-Sep-94	<0.001	0.029	0.08	<0.0005	0.005	0.009	<0.002	<0.002	<0.0002	0.007	0.051	<0.005	0.017	<0.01	<0.02	0.01	5
MW-1	14-Mar-95	<0.001	0.033	0.092	<0.0005	<0.001	0.02	<0.002	0.004	<0.0002	0.013	0.019	<0.002	0.079	<0.004	<0.01	0.009	1.8
MW-1	5-Sep-95	<0.001	0.12	0.12	<0.0005	0.002	0.018	0.002	<0.002	<0.0002	0.018	0.014	<0.005	0.029	<0.01	<0.01	0.019	1.4
MW-2	5-Nov-92	0.008	2.1	0.013	0.002	7	0.42	<0.01	0.093	0.0055	0.01	1.2	<0.2	<0.2	<0.004	<0.1	<0.005	4200
MW-2	27-Oct-92	<0.05	1.5	<0.5	<0.02	10	1.5	<0.1	0.2	<0.0003	<0.1	4.9	<0.4	<0.2	0.014	<1	<0.05	6000
MW-2 (1)	5-Mar-93	<0.005	0.011	<0.05	<0.002	0.28	0.24	<0.01	0.14	<0.0003	<0.1	1	<0.04	<0.02	<0.01	<0.1	<0.005	290
MW-2	25-May-93	<0.05	1.8	<0.05	<0.02	5.2	0.85	<0.1	<0.1	<0.0003	<0.1	2.4	<0.4	<0.2	<0.004	<1	<0.05	3000
MW-2	1-Sep-93	<0.05	2.1	<0.05	<0.02	5.2	0.77	<0.1	<0.1	<0.0003	<0.1	2.3	<0.4	<0.2	<0.004	<1	<0.05	2700
MW-2	26-Oct-93	<0.05	4	<0.5	<0.02	5.1	0.73	0.3	0.3	<0.0003	<0.1	2.2	<0.4	<0.2	<0.04	<1	<0.05	2600
MW-2	18-Feb-94	<0.05	1.5	<0.5	<0.02	4.6	0.62	<0.1	<0.1	<0.0002	<0.1	2	<0.4	<0.2	<0.004	<1	<0.05	2600
MW-2	22-Sep-94	<0.05	2.1	<0.05	<0.02	5	0.65	<0.1	0.1	<0.0002	<0.1	2	<0.01	<0.2	<0.2	<1	<0.05	2300
MW-2	14-Mar-95	<0.05	1.4	<0.1	<0.02	4.1	0.52	<0.1	<0.1	<0.0002	<0.1	1.8	<0.02	<0.2	<0.04	<0.5	<0.05	2200

Table 2
METALS DETECTED IN GROUND-WATER SAMPLES
5050 COLISEUM WAY AND 750-50TH AVENUE
OAKLAND, CALIFORNIA

(Concentrations reported in parts per million [ppm])

Sample ID	Sample Date	Silver	Arsenic	Barium	Beryllium	Cadmium	Cobalt	Chromium	Copper	Mercury	Molyb-denum	Nickel	Lead	Antimony	Selenium	Thallium	Vanadium	Zinc
MW-2	5-Sep-95	<0.05	1.3	<0.1	<0.02	5.2	0.55	<0.1	0.2	<0.0002	<0.1	1.9	0.02	<0.2	<0.2	<0.5	<0.05	2300
MW-3	5-Nov-92	0.005	<0.002	0.017	0.001	0.57	0.42	<0.01	0.28	0.0028	<0.01	1.2	0.005	<0.02	<0.004	<0.1	<0.005	600
MW-3	27-Oct-92	0.009	0.004	<0.05	0.003	0.73	0.74	<0.01	0.3	<0.0003	<0.01	2.6	<0.04	<0.02	0.011	<0.1	<0.005	730
MW-3 (1)	5-Mar-93	<0.05	1.6	<0.05	<0.02	5.8	1	<0.1	0.07	<0.0003	<0.1	3.1	<0.4	<0.2	<0.02	<1	<0.05	3000
MW-3	25-May-93	<0.005	<0.002	<0.05	<0.002	0.28	0.24	<0.01	0.07	<0.0003	<0.01	0.83	<0.04	<0.02	<0.004	<0.1	<0.005	260
MW-3	1-Sep-93	<0.005	0.011	<0.05	<0.002	0.32	0.3	<0.01	0.2	<0.0003	<0.01	1.1	<0.04	<0.02	<0.004	<0.1	<0.005	360
MW-3	26-Oct-93	<0.005	<0.002	<0.05	0.002	0.44	0.49	<0.01	0.32	<0.0003	<0.01	1.7	<0.04	<0.02	<0.004	<0.1	<0.005	560
MW-3	18-Feb-94	<0.005	<0.002	<0.05	<0.002	0.22	0.25	<0.01	0.19	<0.0002	<0.01	0.77	<0.04	<0.02	<0.004	<0.1	<0.005	230
MW-3	24-May-94	<0.005	<0.002	<0.05	<0.002	0.1	0.14	<0.01	0.12	<0.0002	<0.01	0.42	<0.003	<0.03	<0.004	<0.1	<0.005	120
MW-3	22-Sep-94	<0.005	<0.002	<0.05	<0.002	0.21	0.25	<0.01	0.2	<0.0002	<0.01	0.75	<0.005	<0.02	<0.004	<0.1	<0.005	230
MW-3	19-Dec-94	<0.005	<0.002	<0.05	<0.002	0.094	0.089	<0.01	0.06	<0.0002	<0.01	0.36	<0.002	<0.02	<0.004	<0.1	<0.005	100
MW-3	14-Mar-95	<0.005	<0.002	0.02	<0.002	0.13	0.14	<0.01	0.1	<0.0002	<0.01	0.59	<0.002	<0.02	<0.004	<0.05	<0.005	220
MW-3	7-Jun-95	<0.005	<0.002	0.02	0.002	0.33	0.47	<0.01	0.32	<0.0002	<0.01	1.5	<0.005	<0.02	<0.004	<0.05	<0.005	500
MW-3	5-Sep-95	<0.005	<0.002	0.03	0.004	0.84	1.3	<0.01	0.90	<0.0002	0.01	3.8	<0.002	<0.02	0.004	<0.05	<0.005	1100
MW-4	5-Nov-92	<0.002	0.007	0.017	<0.001	<0.005	<0.005	<0.01	<0.005	0.0027	<0.01	0.012	<0.005	<0.02	<0.004	<0.1	<0.005	<0.005
MW-4	27-Oct-92	<0.005	<0.002	<0.05	<0.002	0.006	<0.005	<0.01	0.02	<0.0003	<0.01	0.02	<0.04	<0.02	0.004	<0.1	0.011	0.047
MW-4	4-Mar-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	0.01	0.03
MW-4	25-May-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	0.006	0.008
MW-4	1-Sep-93	<0.005	0.009	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.016
MW-4	26-Oct-93	<0.005	0.003	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.15
MW-4	18-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	0.02	<0.04	<0.02	<0.004	<0.1	<0.005	0.17
MW-4	22-Sep-94	<0.001	<0.002	0.02	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.025	<0.005	<0.005	<0.004	<0.02	0.004	0.039
MW-4	14-Mar-95	<0.001	<0.002	0.02	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.02	<0.002	<0.004	<0.004	<0.01	0.004	0.05
MW-4	6-Sep-95	<0.001	<0.002	0.019	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	0.016	<0.002	<0.004	<0.004	0.01	0.004	0.02
LF-1-FB	26-Oct-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.035
LF-9-FB	1-Nov-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.038
LF-17-FB	8-Dec-93	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0003	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.1
LF-11-FB	18-Feb-94	<0.005	<0.002	<0.05	<0.002	<0.005	<0.005	<0.01	<0.01	<0.0002	<0.01	<0.01	<0.04	<0.02	<0.004	<0.1	<0.005	0.05
LF-3-BB	25-May-94	<0.001	<0.002	<0.01	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	<0.002	<0.003	<0.005	<0.004	<0.02	<0.001	0.015
LF-15-BB	8-Sep-95	<0.001	<0.002	<0.002	<0.0005	<0.001	<0.001	<0.002	<0.002	<0.0002	<0.002	<0.002	<0.002	0.005	<0.004	<0.01	<0.001	0.02

Data entered by RCM 28-Jul-95. Data proofed by JXM. QA/QC by JXM.

NOTES

(1) Labeling errors in the field or laboratory may account for the anomalous data reported for wells MW-2 and MW-3.
Analyses performed by American Environmental Network, Pleasant Hill, California.
FB/BB - Field Blank

Table 3
Gasoline Hydrocarbons and BTEX Detected in Ground-Water Samples
5050 Coliseum Way and 750 50th Avenue
Oakland, California
(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	TPHg	Benzene	Ethylbenzene	Toluene	Xylenes
LF-1	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-2	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-3	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-3	25-May-94	<0.05	NA	NA	NA	NA
LF-103 (dup)	25-May-94	<0.05	NA	NA	NA	NA
LF-3	23-Sep-94	<0.05	NA	NA	NA	NA
LF-103 (dup)	23-Sep-94	<0.05	NA	NA	NA	NA
LF-3	20-Dec-94	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-103 (dup)	20-Dec-94	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-3	15-Mar-95	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-3	07-Sep-95	<0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-4	04-Nov-91	0.59	<0.005	<0.005	<0.005	<0.01
LF-5	04-Nov-91	NA	<0.005	<0.005	<0.005	<0.01
LF-6	04-Nov-91	NA	<0.005	<0.005	<0.005	<0.01
LF-7	04-Nov-91	NA	<0.005	<0.005	<0.005	<0.01
LF-8	28-Oct-93	-1	NA	NA	NA	NA
LF-8	24-May-94	0.7	NA	NA	NA	NA
LF-8	23-Sep-94	0.4	NA	NA	NA	NA
LF-8	20-Dec-94	0.4	0.003	0.0065	0.0009	0.004
LF-8	15-Mar-95	0.3	0.002	0.003	0.0006	0.003
LF-8	09-Jun-95	0.3	0.001	0.003	0.0006	0.003
LF-8	07-Sep-95	0.4	0.001	0.003	0.0006	0.003
LF-9	01-Nov-93	<0.1	NA	NA	NA	NA
LF-109 (dup)	01-Nov-93	<0.1	NA	NA	NA	NA
LF-9	23-Sep-94	NA	<0.005	<0.005	<0.005	<0.01
LF-11	28-Oct-93	<0.1	NA	NA	NA	NA
LF-13	06-Dec-93	0.05	<0.0005	<0.0005	<0.0005	<0.002
LF-113 (dup)	06-Dec-93	0.06	<0.0005	<0.0005	<0.0005	<0.002
LF-14	21-Sep-94	1.4	NA	NA	NA	NA
LF-14	19-Dec-94	1	0.001	<0.0005	0.002	0.012
LF-14	15-Mar-95	1.2	0.001	<0.0005	0.0006	0.015
LF-14	08-Sep-95	1.4	0.0009	<0.0005	0.0007	0.002
MW-2	05-Nov-91	NA	<0.0003	<0.0003	<0.0003	<0.001
LF-9-FB	01-Nov-93	<0.1	NA	NA	NA	NA
LF-4-BB	04-Nov-91	<0.05	<0.005	<0.005	<0.005	<0.01
LF-3-BB	25-May-94	<0.05	NA	NA	NA	NA
Trip Blank	26-Sep-94	<0.05	NA	NA	NA	NA
Trip Blank	16-Mar-95	<0.05	<0.0005	<0.0005	<0.0005	<0.002

Data entered by RCM 28-Jul-95. Data proofed by JXM. QA/QC by SKS.

NOTES

Samples analyzed by American Environmental Network, Pleasant Hill, California.

FB/BB - Field Blank

NA - not analyzed

TPHg - Total petroleum hydrocarbons as gasoline (EPA Method 5030)

Benzene, ethylbenzene, toluene, and xylenes (BTEX) analyzed using modified EPA Method 8015 or by EPA Method 8240.

Table 4
Petroleum Hydrocarbons Detected in Ground-Water Samples
5050 Coliseum Way and 750 50th Avenue
Oakland, California
(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	TPHd	TPHo	TOG	Hydrocarbons
LF-1	4-Nov-91	0.09	NA	<0.5	<0.5
LF-2	4-Nov-91	0.3	NA	NA	NA
LF-3	4-Nov-91	0.2	NA	NA	NA
LF-3	25-May-94	0.3	0.4	NA	NA
LF-103 (dup)	25-May-94	0.3	0.4	NA	NA
LF-3	23-Sep-94	1.2	<0.2	NA	NA
LF-103 (dup)	23-Sep-94	1	<0.2	NA	NA
LF-3	20-Dec-94	0.89	0.2	NA	NA
LF-103 (dup)	20-Dec-94	0.88	0.2	NA	NA
LF-3	15-Mar-95	0.8	<0.2	NA	NA
LF-3	7-Sep-95	0.62	0.4	NA	NA
LF-4	4-Nov-91	0.1	NA	NA	NA
LF-8	28-Oct-93	9.8	NA	2	1
LF-8	24-May-94	4.5	0.6	NA	NA
LF-8	23-Sep-94	6.7	<0.2	NA	NA
LF-8	20-Dec-94	5.6	0.4	NA	NA
LF-8	15-Mar-95	4.1	0.2	NA	NA
LF-8	9-Jun-95	3.8	<0.2	NA	NA
LF-8	7-Sep-95	4.7	0.3	NA	NA
LF-9	1-Nov-93	0.2	NA	<0.5	<0.5
LF-109 (dup)	1-Nov-93	0.2	NA	<0.5	<0.5
LF-11	28-Oct-93	<0.05	NA	<0.5	<0.5
LF-13 (*)	6-Dec-93	0.5	0.4	1	<0.5
LF-113 (dup)	6-Dec-93	0.6	0.4	NA	NA
LF-14	21-Sep-94	<0.3	<0.2	NA	NA
LF-14	19-Dec-94	0.65	<0.2	NA	NA
LF-14	15-Mar-95	0.3	<0.2	NA	NA
LF-14	8-Sep-95	<0.05	<0.2	NA	NA
MW-2	4-Nov-91	<0.05	NA	NA	NA
LF-3-BB	25-May-94	<0.05	<0.2	NA	NA

Data entered by RCM 28-Jul-95. Data proofed by JXM. QA/QC by SXS.

NOTES

Analyses performed by American Environmental Network, Pleasant Hill, CA

BB - Field Blank

NA - not analyzed

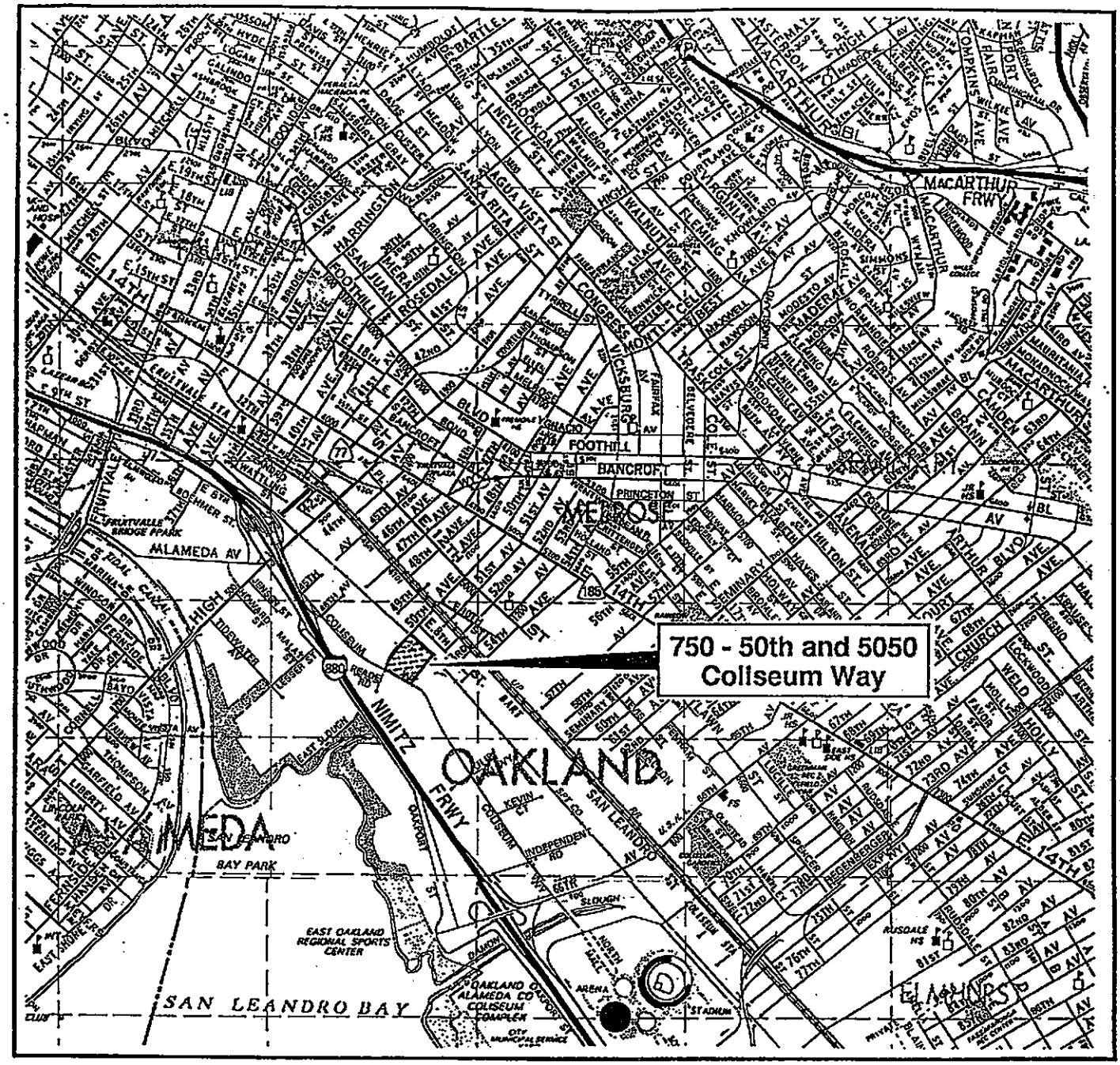
TPHd - Total petroleum hydrocarbons as diesel (EPA Method 3510)

TPHo - Total petroleum hydrocarbons as oil (EPA Method 3510)

TOG - Total oil and grease (Standard Method 5520bf)

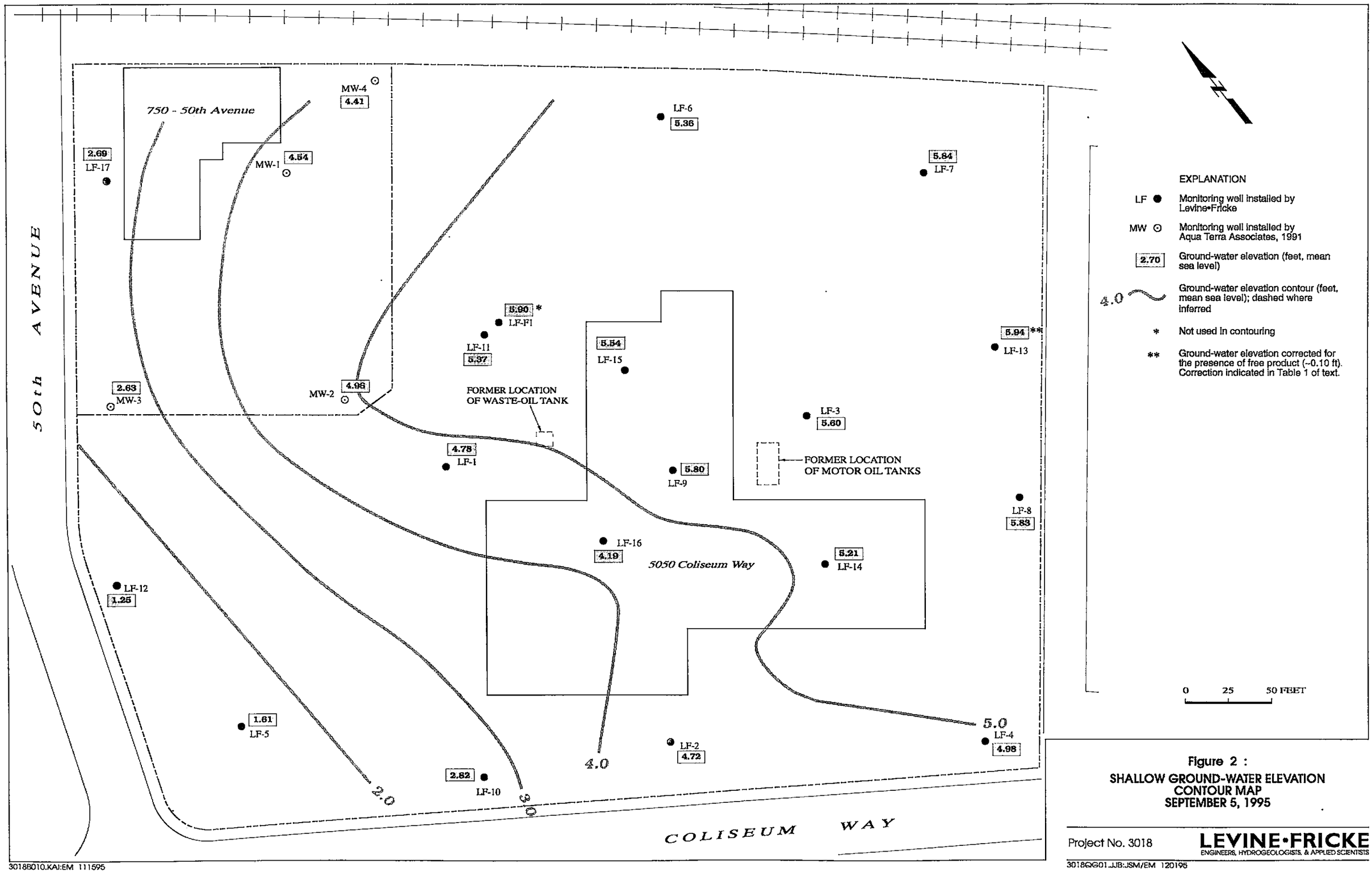
Hydrocarbons - Total hydrocarbons (Standard Method 5520f)

(*) - Free product measured in February 1994.



SOURCE: Thomas Bros. map
Alameda and Contra Costa
1990

Figure 1 : SITE LOCATION MAP



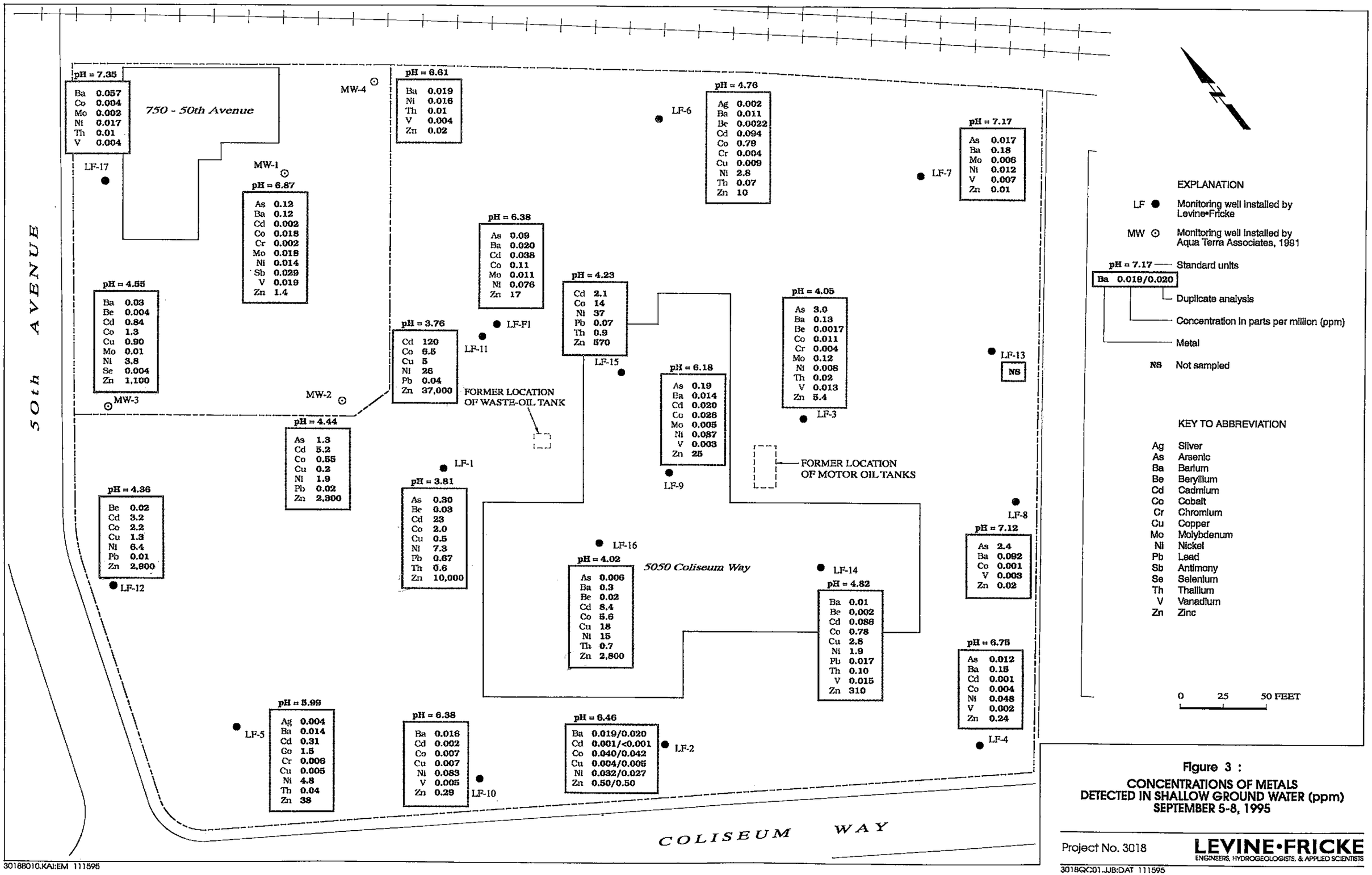
3018B010.KAI:EM 111595

Figure 2 :
SHALLOW GROUND-WATER ELEVATION CONTOUR MAP SEPTEMBER 5, 1995

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018QG01.JJB:JSM/EM 120195



30188010.KAI:EM 111595

Figure 3 :
CONCENTRATIONS OF METALS DETECTED IN SHALLOW GROUND WATER (ppm) SEPTEMBER 5-8, 1995

Project No. 3018

LEVINE•FRICKE
ENGINEERS, HYDROGEOLOGISTS, & APPLIED SCIENTISTS

3018QC01.JJB:DAT 111595

APPENDIX A

LABORATORY CERTIFICATES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: JOHN KEELER
CLIENT PROJ. ID: 3018.95.20
CLIENT PROJ. NAME: VOLVO/GM
C.O.C. NUMBER: 013749

REPORT DATE: 10/03/95
DATE(S) SAMPLED: 09/06/95
DATE RECEIVED: 09/07/95
AEN WORK ORDER: 9509076

PROJECT SUMMARY:

On September 7, 1995, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for inorganic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

RECEIVED
OCT 3

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: LF-17
AEN LAB NO: 9509076-01
AEN WORK ORDER: 9509076
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/06/95
DATE RECEIVED: 09/07/95
REPORT DATE: 10/03/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/20/95
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.057 *	0.002	mg/L	09/20/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/20/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	09/20/95
Co Cobalt	EPA 200.7	0.004 *	0.001	mg/L	09/20/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/20/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/20/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	0.002 *	0.002	mg/L	09/20/95
Ni Nickel	EPA 200.7	0.017 *	0.002	mg/L	09/20/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/20/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.01 *	0.01	mg/L	09/20/95
V Vanadium	EPA 200.7	0.004 *	0.001	mg/L	09/20/95
Zn Zinc	EPA 200.7	ND	0.01	mg/L	09/20/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-4
AEN LAB NO: 9509076-02
AEN WORK ORDER: 9509076
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/06/95
DATE RECEIVED: 09/07/95
REPORT DATE: 10/03/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/20/95
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.019 *	0.002	mg/L	09/20/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/20/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	09/20/95
Co Cobalt	EPA 200.7	ND	0.001	mg/L	09/20/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/20/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/20/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/20/95
Ni Nickel	EPA 200.7	0.016 *	0.002	mg/L	09/20/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/20/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.01 *	0.01	mg/L	09/20/95
V Vanadium	EPA 200.7	0.004 *	0.001	mg/L	09/20/95
Zn Zinc	EPA 200.7	0.02 *	0.01	mg/L	09/20/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-12
AEN LAB NO: 9509076-03
AEN WORK ORDER: 9509076
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/06/95
DATE RECEIVED: 09/07/95
REPORT DATE: 10/03/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/17/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/13/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	09/15/95
As Arsenic	EPA 206.2	ND	0.005	mg/L	09/30/95
Ba Barium	EPA 200.7	ND	0.1	mg/L	09/15/95
Be Beryllium	EPA 200.7	0.02 *	0.02	mg/L	09/15/95
Cd Cadmium	EPA 200.7	3.2 *	0.05	mg/L	09/15/95
Co Cobalt	EPA 200.7	2.2 *	0.05	mg/L	09/15/95
Cr Chromium	EPA 200.7	ND	0.1	mg/L	09/15/95
Cu Copper	EPA 200.7	1.3 *	0.1	mg/L	09/15/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	09/15/95
Ni Nickel	EPA 200.7	6.4 *	0.1	mg/L	09/15/95
Pb Lead	EPA 239.2	0.01 *	0.01	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.2	mg/L	09/15/95
Se Selenium	EPA 270.2	ND	0.01	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.5	mg/L	09/15/95
V Vanadium	EPA 200.7	ND	0.05	mg/L	09/15/95
Zn Zinc	EPA 200.7	2,900 *	1	mg/L	09/15/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-6
AEN LAB NO: 9509076-04
AEN WORK ORDER: 9509076
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/06/95
DATE RECEIVED: 09/07/95
REPORT DATE: 10/03/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.002 *	0.001	mg/L	09/20/95
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.011 *	0.002	mg/L	09/20/95
Be Beryllium	EPA 200.7	0.0022 *	0.0005	mg/L	09/20/95
Cd Cadmium	EPA 200.7	0.094 *	0.001	mg/L	09/20/95
Co Cobalt	EPA 200.7	0.79 *	0.001	mg/L	09/20/95
Cr Chromium	EPA 200.7	0.004 *	0.002	mg/L	09/20/95
Cu Copper	EPA 200.7	0.009 *	0.002	mg/L	09/20/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/20/95
Ni Nickel	EPA 200.7	2.8 *	0.002	mg/L	09/20/95
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/20/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.07 *	0.01	mg/L	09/20/95
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/20/95
Zn Zinc	EPA 200.7	10 *	0.01	mg/L	09/20/95

Reporting limit elevated for lead due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-7
AEN LAB NO: 9509076-05
AEN WORK ORDER: 9509076
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/06/95
DATE RECEIVED: 09/07/95
REPORT DATE: 10/03/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	0.017 *	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.18 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	ND	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	0.006 *	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.012 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	0.007 *	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	0.01 *	0.01	mg/L	09/19/95

Reporting limit elevated for lead due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9509076
CLIENT PROJECT ID: 3018.95.20

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spikes(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analyses.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behaviour, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrument performance.

D: Surrogates diluted out.

!: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL REPORT

BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW_BLANK
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	ND	0.002						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW_BLNK
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW_BLNK
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	ND	0.002						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW_BLNK
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	ND	0.0002						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS_BLNK
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 12
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	ND	0.06						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW_BLNK_0
INSTR RUN: ICP\950915173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	ND	0.005						
Ba	Barium	ND	0.01						
Be	Beryllium	ND	0.002						
Cd	Cadmium	ND	0.005						
Co	Cobalt	ND	0.005						
Cr	Chromium	ND	0.01						
Cu	Copper	ND	0.01						
Mo	Molybdenum	ND	0.01						
Ni	Nickel	ND	0.01						
Sb	Antimony	ND	0.02						
Tl	Thallium	ND	0.05						
V	Vanadium	ND	0.005						
Zn	Zinc	ND	0.01						

QUALITY CONTROL REPORT

BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW BLNK A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	ND	0.001						
Ba	Barium	ND	0.002						
Be	Beryllium	ND	0.0005						
Cd	Cadmium	ND	0.001						
Co	Cobalt	ND	0.001						
Cr	Chromium	ND	0.002						
Cu	Copper	ND	0.002						
Mo	Molybdenum	ND	0.002						
Ni	Nickel	ND	0.002						
Sb	Antimony	ND	0.004						
Tl	Thallium	ND	0.01						
V	Vanadium	ND	0.001						
Zn	Zinc	ND	0.01						

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW STD 1
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0316	0.002	0.0400	79.0	69	136		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW STD 2
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0334	0.002	0.0400	83.5	69	136		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19098-02A
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 11
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0433	0.002	0.0400	108	41	167		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29098-02A
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 12
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0426	0.002	0.0400	107	41	167		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19127-12A
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 16
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0378	0.002	0.0400	94.5	41	167		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29127-12A
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 17
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0385	0.002	0.0400	96.3	41	167		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW MS 1
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0617	0.004	0.0800	77.1	75	115		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW MS 2
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0636	0.004	0.0800	79.5	75	115		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19059-03A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 6
REF SEQ: 5

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0262	0.004	0.0800	32.8	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29059-03A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 7
REF SEQ: 5

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0314	0.004	0.0800	39.3	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19098-02A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 11
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004	0.0800	0	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29098-02A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 12
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004	0.0800	0	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19127-12A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 16
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0597	0.004	0.0800	74.6	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29127-12A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 17
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0672	0.004	0.0800	84.0	0	173		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW MS 1
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0183	0.002	0.0200	91.5	75	125		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW MS 2
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0190	0.002	0.0200	95.0	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS19098-02A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 11
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0101	0.002	0.0200	50.5	35	153		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS29098-02A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 12
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0125	0.002	0.0200	62.5	35	153		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS19127-12A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 16
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0179	0.002	0.0200	89.5	35	153		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS29127-12A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 17
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0186	0.002	0.0200	93.0	35	153		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW MS1
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00204	0.0002	0.00200	102	89	121		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW MS2
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00204	0.0002	0.00200	102	89	121		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS09076-01A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 7
REF SEQ: 6

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00207	0.0002	0.00200	104	69	128		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS 9110-04A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 10
REF SEQ: 9

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00201	0.0002	0.00200	101	69	128		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS MS1
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 13
REF SEQ: 12

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.408	0.06	0.400	102	79	118		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS MS2
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 14
REF SEQ: 12

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.414	0.06	0.400	104	79	118		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS 9095-03A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 17
REF SEQ: 16

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.659	0.06	0.400	86.5	44	153		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 1 0
INSTR RUN: ICP\9509I5173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.0233	0.005	0.0250	93.2	75	125		
Ba	Barium	1.02	0.01	1.00	102	75	125		
Be	Beryllium	0.0247	0.003	0.0250	98.8	75	125		
Cd	Cadmium	0.0509	0.005	0.0500	102	75	125		
Co	Cobalt	0.260	0.005	0.250	100	75	125		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 1 0
INSTR RUN: ICP\9509I5173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Cr	Chromium	0.108	0.01	0.100	108	75	125		
Cu	Copper	0.132	0.01	0.125	106	75	125		
Mo	Molybdenum	0.203	0.01	0.200	102	75	125		
Ni	Nickel	0.253	0.01	0.250	101	75	125		
Sb	Antimony	0.483	0.02	0.500	96.6	75	125		
Tl	Thallium	0.522	0.05	0.500	104	75	125		
V	Vanadium	0.258	0.005	0.250	103	75	125		
Zn	Zinc	0.263	0.03	0.250	105	75	125		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 2 0
INSTR RUN: ICP\9509I5173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.0250	0.005	0.0250	100	75	125		
Ba	Barium	1.07	0.01	1.00	107	75	125		
Be	Beryllium	0.0268	0.003	0.0250	107	75	125		
Cd	Cadmium	0.0563	0.005	0.0500	113	75	125		
Co	Cobalt	0.243	0.005	0.250	97.2	75	125		
Cr	Chromium	0.103	0.01	0.100	103	75	125		
Cu	Copper	0.136	0.01	0.125	109	75	125		
Mo	Molybdenum	0.215	0.01	0.200	108	75	125		
Ni	Nickel	0.267	0.01	0.250	107	75	125		
Sb	Antimony	0.499	0.02	0.500	99.8	75	125		
Tl	Thallium	0.551	0.05	0.500	110	75	125		
V	Vanadium	0.269	0.005	0.250	108	75	125		
Zn	Zinc	0.269	0.03	0.250	108	75	125		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 1 A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00490	0.001	0.00500	98.0	75	125		
Ba	Barium	0.2083	0.002	0.200	104	75	125		
Be	Beryllium	0.00510	0.0005	0.00500	100	75	125		
Cd	Cadmium	0.0107	0.001	0.0100	107	75	125		
Co	Cobalt	0.0536	0.001	0.0500	107	75	125		
Cr	Chromium	0.0224	0.002	0.0200	112	75	125		
Cu	Copper	0.0265	0.002	0.0250	106	75	125		
Mo	Molybdenum	0.0422	0.002	0.0400	106	75	125		
Ni	Nickel	0.0523	0.002	0.0500	105	75	125		
Sb	Antimony	0.1000	0.004	0.100	100	75	125		
Tl	Thallium	0.1009	0.01	0.100	101	75	125		
V	Vanadium	0.0528	0.001	0.0500	106	75	125		
Zn	Zinc	0.0521	0.005	0.0500	104	75	125		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 2 A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00510	0.001	0.00500	100	75	125		
Ba	Barium	0.2071	0.002	0.200	104	75	125		
Be	Beryllium	0.00510	0.0005	0.00500	100	75	125		
Cd	Cadmium	0.0104	0.001	0.0100	104	75	125		
Co	Cobalt	0.0532	0.001	0.0500	106	75	125		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 2 A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Cr-	Chromium	0.0215	0.002	0.0200	108	75	125		
Cu	Copper	0.0265	0.002	0.0250	106	75	125		
Mo	Molybdenum	0.0422	0.002	0.0400	106	75	125		
Ni	Nickel	0.0517	0.002	0.0500	103	75	125		
Sb	Antimony	0.0993	0.004	0.100	99.3	75	125		
Tl	Thallium	0.0955	0.01	0.100	95.5	75	125		
V	Vanadium	0.0524	0.001	0.0500	105	75	125		
Zn	Zinc	0.0518	0.005	0.0500	104	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19076-05A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 6
REF SEQ: 5

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00500	0.001	0.00500	100	75	125		
Ba	Barium	0.382	0.002	0.200	99.0	75	125		
Be	Beryllium	0.00490	0.0005	0.00500	98.0	75	125		
Cd	Cadmium	0.00930	0.001	0.0100	93.0	75	125		
Co	Cobalt	0.0473	0.001	0.0500	94.6	75	125		
Cr	Chromium	0.0195	0.002	0.0200	97.5	75	125		
Cu	Copper	0.0262	0.002	0.0250	105	75	125		
Mo	Molybdenum	0.0439	0.002	0.0400	93.8	75	125		
Ni	Nickel	0.0580	0.002	0.0500	91.2	75	125		
Sb	Antimony	0.0911	0.004	0.100	91.1	75	125		
Tl	Thallium	0.0977	0.01	0.100	97.7	75	125		
V	Vanadium	0.0554	0.001	0.0500	97.4	75	125		
Zn	Zinc	0.0579	0.005	0.0500	89.4	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MS29076-05A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 7
REF SEQ: 5

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00460	0.001	0.00500	92.0	75	125		
Ba	Barium	0.377	0.002	0.200	96.5	75	125		
Be	Beryllium	0.00480	0.0005	0.00500	96.0	75	125		
Cd	Cadmium	0.00890	0.001	0.0100	89.0	75	125		
Co	Cobalt	0.0468	0.001	0.0500	93.6	75	125		
Cr	Chromium	0.0193	0.002	0.0200	96.5	75	125		
Cu	Copper	0.0255	0.002	0.0250	102	75	125		
Mo	Molybdenum	0.0435	0.002	0.0400	92.8	75	125		
Ni	Nickel	0.0571	0.002	0.0500	89.4	75	125		
Sb	Antimony	0.0899	0.004	0.100	89.9	75	125		
Tl	Thallium	0.0904	0.01	0.100	90.4	75	125		
V	Vanadium	0.0552	0.001	0.0500	97.0	75	125		
Zn	Zinc	0.0576	0.005	0.0500	88.8	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MS19098-09A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 12
REF SEQ: 11

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00410	0.001	0.00500	82.0	75	125		
Ba	Barium	0.335	0.002	0.200	91.0	75	125		
Be	Beryllium	0.00460	0.0005	0.00500	92.0	75	125		
Cd	Cadmium	0.00970	0.001	0.0100	84.0	75	125		
Co	Cobalt	0.0484	0.001	0.0500	89.0	75	125		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MS19098-09A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 12
REF SEQ: 11

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Cr	Chromium	0.0205	0.002	0.0200	103	75	125		
Cu	Copper	0.0254	0.002	0.0250	102	75	125		
Mo	Molybdenum	0.0375	0.002	0.0400	93.8	75	125		
Ni	Nickel	0.0913	0.002	0.0500	87.0	75	125		
Sb	Antimony	0.0924	0.004	0.100	92.4	75	125		
Tl	Thallium	0.0897	0.01	0.100	89.7	75	125		
V	Vanadium	0.0474	0.001	0.0500	91.6	75	125		
Zn	Zinc	0.276	0.005	0.0500	78.0	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MS29098-09A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 13
REF SEQ: 11

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00450	0.001	0.00500	90.0	75	125		
Ba	Barium	0.341	0.002	0.200	94.0	75	125		
Be	Beryllium	0.00460	0.0005	0.00500	92.0	75	125		
Cd	Cadmium	0.0103	0.001	0.0100	90.0	75	125		
Co	Cobalt	0.0497	0.001	0.0500	91.6	75	125		
Cr	Chromium	0.0195	0.002	0.0200	97.5	75	125		
Cu	Copper	0.0256	0.002	0.0250	102	75	125		
Mo	Molybdenum	0.0384	0.002	0.0400	96.0	75	125		
Ni	Nickel	0.0915	0.002	0.0500	87.4	75	125		
Sb	Antimony	0.0944	0.004	0.100	94.4	75	125		
Tl	Thallium	0.0858	0.01	0.100	85.8	75	125		
V	Vanadium	0.0478	0.001	0.0500	92.4	75	125		
Zn	Zinc	0.281	0.005	0.0500	88.0	75	125		

QUALITY CONTROL REPORT

DUPLICATE SAMPLES

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW MD
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0334	0.002					5.54	11.5

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9098-02A
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 13
REF SEQ: 11

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0426	0.002					1.63	13

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Arsenic
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: AS_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9127-12A
INSTR RUN: 4000\950930111000
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 18
REF SEQ: 16

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Arsenic by EPA 206.2	0.0385	0.002					1.83	13

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW MD
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0636	0.004					3.03	13

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9059-03A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 8
REF SEQ: 6

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0314	0.004					18.1 !	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9098-02A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 13
REF SEQ: 11

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004					0	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9127-12A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 18
REF SEQ: 16

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0672	0.004					11.8	15

QUALITY CONTROL REPORT

DUPLICATE SAMPLES

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW MD
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0190	0.002					3.75	14

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MD 9098-02A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 13
REF SEQ: 11

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0125	0.002					21.2 !	16

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MD 9127-12A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 18
REF SEQ: 16

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0186	0.002					3.84	16

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW MD
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00204	0.0002					0	8

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD09076-01A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 8
REF SEQ: 7

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00207	0.0002					0	6

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9110-04A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 11
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00207	0.0002					2.94	6

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS MD
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 15
REF SEQ: 13

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.414	0.06					1.46	7

QUALITY CONTROL REPORT

DUPLICATE SAMPLES

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9095-03A
INSTR RUN: HGT\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 18
REF SEQ: 17

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.650	0.06					1.38	15

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW MD 0
INSTR RUN: ICP\950915173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.0250	0.005					7.04	15
Ba	Barium	1.07	0.01					4.78	15
Be	Beryllium	0.0268	0.003					8.16	15
Cd	Cadmium	0.0563	0.005					10.1	15
Co	Cobalt	0.273	0.005					4.88	15
Cr	Chromium	0.103	0.01					4.74	15
Cu	Copper	0.136	0.01					2.99	15
Mo	Molybdenum	0.215	0.01					5.74	15
Ni	Nickel	0.267	0.01					5.38	15
Sb	Antimony	0.499	0.02					3.26	15
Tl	Thallium	0.551	0.05					5.41	15
V	Vanadium	0.269	0.005					4.17	15
Zn	Zinc	0.269	0.03					2.26	15

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW MD A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00510	0.001					4.00	15
Ba	Barium	0.2071	0.002					0.5778	15
Be	Beryllium	0.00510	0.0005					0	15
Cd	Cadmium	0.0104	0.001					2.84	15
Co	Cobalt	0.0532	0.001					0.749	15
Cr	Chromium	0.0215	0.002					4.10	15
Cu	Copper	0.0265	0.002					0	15
Mo	Molybdenum	0.0422	0.002					0	15
Ni	Nickel	0.0517	0.002					1.15	15
Sb	Antimony	0.0993	0.004					0.702	15
Tl	Thallium	0.0955	0.01					5.50	15
V	Vanadium	0.0524	0.001					0.760	15
Zn	Zinc	0.0518	0.01					0.577	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MD 9076-05A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 8
REF SEQ: 6

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00460	0.001					8.33	15
Ba	Barium	0.377	0.002					1.32	15
Be	Beryllium	0.00480	0.0005					2.06	15
Cd	Cadmium	0.00890	0.001					4.40	15
Co	Cobalt	0.0468	0.001					1.06	15
Cr	Chromium	0.0193	0.002					1.03	15
Cu	Copper	0.0255	0.002					2.71	15
Mo	Molybdenum	0.0435	0.002					0.915	15
Ni	Nickel	0.0571	0.002					1.56	15
Sb	Antimony	0.0899	0.004					1.33	15
Tl	Thallium	0.0904	0.01					7.76	15
V	Vanadium	0.0552	0.001					0.362	15

QUALITY CONTROL REPORT

DUPLICATE SAMPLES

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MD 9076-05A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 8
REF SEQ: 6

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Zn	Zinc	0.0576	0.01					0.519	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MD 9098-09A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 14
REF SEQ: 12

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00450	0.001					9.30	15
Ba	Barium	0.341	0.002					1.78	15
Be	Beryllium	0.00460	0.0005					0	15
Cd	Cadmium	0.0103	0.001					6.00	15
Co	Cobalt	0.0497	0.001					2.65	15
Cr	Chromium	0.0195	0.002					5.00	15
Cu	Copper	0.0254	0.002					0	15
Mo	Molybdenum	0.0384	0.002					2.37	15
Ni	Nickel	0.0915	0.002					0.219	15
Sb	Antimony	0.0944	0.004					2.14	15
Tl	Thallium	0.0858	0.01					4.44	15
V	Vanadium	0.0478	0.001					0.840	15
Zn	Zinc	0.281	0.01					1.80	15

---------- End of Quality Control Report ----------

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9509076

Project No.: 3018.95.20	Field Logbook No.:	Date: 9/7/95	Serial No.: № 013749
Project Name: Volvo/GM	Project Location: Oakland, CA.		
Sampler (Signature): JC, KL			Samplers: JCK

	SAMPLES						ANALYSES							
	SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	TITLE 22 METALS				HOLD	RUSH	REMARKS
01A	LF-17	9/6/95	15:15		1	H_2O			X						STD TAT
02A	MW-4	↓	15:35		↓	↓			X						
03A	LF-12		16:15						X						RESULTS TO ~~JENNIFER ISO~~ JOHN KEELER
04A	LF-6		1710						X						
05A	LF-7		1740						X						
															TITLE 22 METALS
															BASIN PLAN DETECTION LIMITS
															FIELD FILTERED

RELINQUISHED BY: (Signature) JC KL	DATE 9/7/95	TIME 14:10	RECEIVED BY: (Signature) Michael E. McMillan	DATE 9/7/95	TIME 14:10
RELINQUISHED BY: (Signature) Michael E. McMillan	DATE 9/7/95	TIME 15:20	RECEIVED BY: (Signature) Dina McKeller	DATE 9/7/95	TIME 1520
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory: AEN
PLEASANT HILL CA.

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: JOHN KEELER
CLIENT PROJ. ID: 3018.95.20
CLIENT PROJ. NAME: VOLVO/GM
C.O.C. NUMBER: 013796

REPORT DATE: 10/09/95
DATE(S) SAMPLED: 09/08/95
DATE RECEIVED: 09/08/95
AEN WORK ORDER: 9509110

PROJECT SUMMARY:

On September 8, 1995, this laboratory received 5 water sample(s).

Client requested sample(s) be analyzed for inorganic and organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: LF-14
AEN LAB NO: 9509110-01A
AEN WORK ORDER: 9509110
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/08/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/13/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.005	mg/L	09/16/95
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.01 *	0.01	mg/L	09/16/95
Be Beryllium	EPA 200.7	0.002 *	0.002	mg/L	09/16/95
Cd Cadmium	EPA 200.7	0.086 *	0.005	mg/L	09/16/95
Co Cobalt	EPA 200.7	0.78 *	0.005	mg/L	09/16/95
Cr Chromium	EPA 200.7	ND	0.01	mg/L	09/16/95
Cu Copper	EPA 200.7	2.8 *	0.01	mg/L	09/16/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	ND	0.01	mg/L	09/16/95
Ni Nickel	EPA 200.7	1.9 *	0.01	mg/L	09/16/95
Pb Lead	EPA 239.2	0.017 *	0.005	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.02	mg/L	09/16/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.10 *	0.05	mg/L	09/16/95
V Vanadium	EPA 200.7	0.015 *	0.005	mg/L	09/16/95
Zn Zinc	EPA 200.7	310 *	0.1	mg/L	09/15/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-14
AEN LAB NO: 9509110-01B
AEN WORK ORDER: 9509110
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/08/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	0.9 *	0.5	ug/L	09/19/95
Toluene	108-88-3	0.7 *	0.5	ug/L	09/19/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	09/19/95
Xylenes, Total	1330-20-7	2 *	2	ug/L	09/19/95
Purgeable HCs as Gasoline	5030/GCFID	1.4 *	0.05	mg/L	09/19/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-14
AEN LAB NO: 9509110-01E
AEN WORK ORDER: 9509110
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/08/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	09/18/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	09/19/95
TPH as Oil	GC-FID	ND	0.2	mg/L	09/19/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-15
AEN LAB NO: 9509110-02A
AEN WORK ORDER: 9509110
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/08/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/13/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	10/07/95
As Arsenic	EPA 206.2	ND	0.01	mg/L	09/30/95
Ba Barium	EPA 200.7	ND	0.1	mg/L	10/07/95
Be Beryllium	EPA 200.7	ND	0.02	mg/L	10/07/95
Cd Cadmium	EPA 200.7	2.1 *	0.05	mg/L	10/07/95
Co Cobalt	EPA 200.7	14 *	0.05	mg/L	10/07/95
Cr Chromium	EPA 200.7	ND	0.1	mg/L	10/07/95
Cu Copper	EPA 200.7	ND	0.1	mg/L	10/07/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	10/07/95
Ni Nickel	EPA 200.7	37 *	0.1	mg/L	10/07/95
Pb Lead	EPA 239.2	0.07 *	0.02	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.2	mg/L	10/07/95
Se Selenium	EPA 270.2	ND	0.02	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.9 *	0.5	mg/L	10/07/95
V Vanadium	EPA 200.7	ND	0.05	mg/L	10/07/95
Zn Zinc	EPA 200.7	570 *	0.1	mg/L	09/15/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-16
AEN LAB NO: 9509110-03A
AEN WORK ORDER: 9509110
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/08/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	10/01/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	10/06/95
As Arsenic	EPA 206.2	0.006 *	0.005	mg/L	09/30/95
Ba Barium	EPA 200.7	0.3 *	0.1	mg/L	10/06/95
Be Beryllium	EPA 200.7	0.02 *	0.02	mg/L	10/06/95
Cd Cadmium	EPA 200.7	8.4 *	0.05	mg/L	10/06/95
Co Cobalt	EPA 200.7	5.6 *	0.05	mg/L	10/06/95
Cr Chromium	EPA 200.7	ND	0.1	mg/L	10/06/95
Cu Copper	EPA 200.7	18 *	0.1	mg/L	10/06/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	10/06/95
Ni Nickel	EPA 200.7	15 *	0.1	mg/L	10/06/95
Pb Lead	EPA 239.2	ND	0.02	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.2	mg/L	10/06/95
Se Selenium	EPA 270.2	ND	0.01	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.7 *	0.5	mg/L	10/06/95
V Vanadium	EPA 200.7	ND	0.05	mg/L	10/06/95
Zn Zinc	EPA 200.7	2,800 *	1	mg/L	10/07/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9509110

CLIENT PROJECT ID: 3018.95.20

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9509110
AEN LAB NO: 0918-BLANK
DATE EXTRACTED: 09/18/95
DATE ANALYZED: 09/19/95
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05
Oil	ND	0.2

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9509110
DATE EXTRACTED: 09/18/95
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
09/19/95	LF-14	01	112
QC Limits:			59-118

DATE EXTRACTED: 09/18/95
DATE ANALYZED: 09/18/95
SAMPLE SPIKED: DI WATER
INSTRUMENT: C

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.07	80	<1	65-103	12

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9509110
AEN LAB NO: 0919-BLANK
DATE ANALYZED: 09/19/95
INSTRUMENT: H
MATRIX: WATER

Method Blank

	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
HCs as Gasoline		ND mg/L	0.05 mg/L

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9509110
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
09/19/95	LF-14	01	99
QC Limits:			92-109

DATE ANALYZED: 09/18/95
SAMPLE SPIKED: 9509111-01
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	35.4	107	<1	85-109	17
Toluene	108	109	<1	87-111	16
Hydrocarbons as Gasoline	1000	89	3	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9509110
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 09/15-10/07/95
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.025	93	7	75-125	15
As, Arsenic	4000/7060	ND	0.04	79	6	69-136	11
Ba, Barium	ICP/200.7	ND	0.2	102	5	75-125	15
Cd, Cadmium	ICP/200.7	ND	0.05	102	10	75-125	15
Cr, Chromium	ICP/200.7	ND	0.1	108	5	75-125	15
Cu, Copper	ICP/200.7	ND	0.125	106	3	75-125	15
Hg, Mercury	Hg/7470	ND	2.0 ug/L	102	<1	89-121	8
Ni, Nickel	ICP/200.7	ND	0.25	101	5	75-125	15
Pb, Lead	4000/239.2	ND	0.02	92	4	75-125	14
Se, Selenium	4000/7740	ND	0.08	77	3	75-115	13
Zn, Zinc	ICP/200.7	ND	0.25	105	2	75-125	15

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM 950911D R-7, S-B; C-1, S-3; R-3, S-1

Project No.: 3018.95.20	Field Logbook No.:	Date: 9/8/95	Serial No.: Nº 013796
Project Name: VOLVO/GM	Project Location: OAKLAND, CA.		
Sampler (Signature): JC, LL			Samplers: JCK

SAMPLES / ANALYSES

	SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	TITLE22 METALS	TPH-5 DIESEL	TPH GAS	HOLD	RUSH	REMARKS
01A-F	LF-14	9/8/95	9:10	01A-F	6				X	X	X			STD TAT
02A	LF-16	↓	10:45	03A	1				X					
03A	LF-9		9:55	04A	1				X					RESULTS TO JOHN KEELER
04A	LF-15		1200	02A	1				X					
05A	LF-15 BB		1055	05A	1				X					TITLE 22 METALS
														BASIN PLAN DETECTION LIMIT
														FIELD FILTERED & PRESERVED

RELINQUISHED BY (Signature)	DATE 9/8/95	TIME 13:40	RECEIVED BY: (Signature)	DATE 9/8/95	TIME 13:40
RELINQUISHED BY: (Signature)	DATE 9/8/95	TIME 17:25	RECEIVED BY: (Signature)	DATE 9/8/95	TIME 1725
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:
LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory:
AEN
PLEASANT HILL, CA.

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1644 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: JENIFER BEATTY
CLIENT PROJ. ID: 3018.95.20
CLIENT PROJ. NAME: VOLVO/GM
C.O.C. NUMBER: 013747

REPORT DATE: 10/09/95
DATE(S) SAMPLED: 09/05/95
DATE RECEIVED: 09/06/95
AEN WORK ORDER: 9509059

PROJECT SUMMARY:

On September 6, 1995, this laboratory received 3 water sample(s).

Client requested sample(s) be analyzed for inorganic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: MW-1
AEN LAB NO: 9509059-01
AEN WORK ORDER: 9509059
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/05/95
DATE RECEIVED: 09/06/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	0.12 *	0.005	mg/L	09/30/95
Ba Barium	EPA 200.7	0.12 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	0.002 *	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.018 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	0.002 *	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	0.018 *	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.014 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.005	mg/L	10/01/95
Sb Antimony	EPA 200.7	0.029 *	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.01	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	0.019 *	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	1.4 *	0.01	mg/L	09/19/95

Reporting limits elevated for selenium and lead due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-2
AEN LAB NO: 9509059-02
AEN WORK ORDER: 9509059
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/05/95
DATE RECEIVED: 09/06/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/13/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	09/15/95
As Arsenic	EPA 206.2	1.3 *	0.1	mg/L	09/30/95
Ba Barium	EPA 200.7	ND	0.1	mg/L	09/15/95
Be Beryllium	EPA 200.7	ND	0.02	mg/L	09/15/95
Cd Cadmium	EPA 200.7	5.2 *	0.05	mg/L	09/15/95
Co Cobalt	EPA 200.7	0.55 *	0.05	mg/L	09/15/95
Cr Chromium	EPA 200.7	ND	0.1	mg/L	09/15/95
Cu Copper	EPA 200.7	0.2 *	0.1	mg/L	09/15/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	09/15/95
Ni Nickel	EPA 200.7	1.9 *	0.1	mg/L	09/15/95
Pb Lead	EPA 239.2	0.02 *	0.01	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.2	mg/L	09/15/95
Se Selenium	EPA 270.2	ND	0.2	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.5	mg/L	09/15/95
V Vanadium	EPA 200.7	ND	0.05	mg/L	09/15/95
Zn Zinc	EPA 200.7	2,300 *	1	mg/L	09/15/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: MW-3
AEN LAB NO: 9509059-03
AEN WORK ORDER: 9509059
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/05/95
DATE RECEIVED: 09/06/95
REPORT DATE: 10/09/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/13/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.005	mg/L	09/16/95
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.03 *	0.01	mg/L	09/16/95
Be Beryllium	EPA 200.7	0.004 *	0.002	mg/L	09/16/95
Cd Cadmium	EPA 200.7	0.84 *	0.005	mg/L	09/16/95
Co Cobalt	EPA 200.7	1.3 *	0.005	mg/L	09/16/95
Cr Chromium	EPA 200.7	ND	0.01	mg/L	09/16/95
Cu Copper	EPA 200.7	0.90 *	0.01	mg/L	09/16/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/15/95
Mo Molybdenum	EPA 200.7	0.01 *	0.01	mg/L	09/16/95
Ni Nickel	EPA 200.7	3.8 *	0.01	mg/L	09/16/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.02	mg/L	09/16/95
Se Selenium	EPA 270.2	0.004 *	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.05	mg/L	09/16/95
V Vanadium	EPA 200.7	ND	0.005	mg/L	09/16/95
Zn Zinc	EPA 200.7	1,100 *	0.1	mg/L	09/15/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9509059

CLIENT PROJECT ID: 3018.95.20

Quality Control and Project Summary

Selenium RPD for sample MW-3 (9509059-03) was outside of established limits; this appears to be a matrix effect as selenium method spike RPD was in control.

All other laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

!: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL REPORT

BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW_BLNK
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW_BLNK
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	ND	0.002						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW_BLNK
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	ND	0.0002						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS_BLNK
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 12
REF SEQ:

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	ND	0.06						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW_BLNK_0
INSTR RUN: ICP\9509I5173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	ND	0.005						
Ba	Barium	ND	0.01						
Be	Beryllium	ND	0.002						
Cd	Cadmium	ND	0.005						
Co	Cobalt	ND	0.005						
Cr	Chromium	ND	0.01						
Cu	Copper	ND	0.01						
Mo	Molybdenum	ND	0.01						
Ni	Nickel	ND	0.01						
Sb	Antimony	ND	0.02						
Tl	Thallium	ND	0.05						
V	Vanadium	ND	0.005						
Zn	Zinc	ND	0.01						

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW_BLNK_A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	ND	0.001						
Ba	Barium	ND	0.002						
Be	Beryllium	ND	0.0005						

QUALITY CONTROL REPORT

BLANK SAMPLES

SAMPLE TYPE: Blank-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW BLNK A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 1
REF SEQ:

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Cd	Cadmium	ND	0.001						
Co	Cobalt	ND	0.001						
Cr	Chromium	ND	0.002						
Cu	Copper	ND	0.002						
Mo	Molybdenum	ND	0.002						
Ni	Nickel	ND	0.002						
Sb	Antimony	ND	0.004						
Tl	Thallium	ND	0.01						
V	Vanadium	ND	0.001						
Zn	Zinc	ND	0.01						

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW MS 1
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0617	0.004	0.0800	77.1	75	115		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW MS 2
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0636	0.004	0.0800	79.5	75	115		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19059-03A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 6
REF SEQ: 5

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0262	0.004	0.0800	32.8	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29059-03A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 7
REF SEQ: 5

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0314	0.004	0.0800	39.3	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19098-02A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 11
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004	0.0800	0	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29098-02A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 12
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004	0.0800	0	0	173		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19127-12A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 16
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0597	0.004	0.0800	74.6	0	173		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS29127-12A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 17
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0672	0.004	0.0800	84.0	0	173		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW_MS_1
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0183	0.002	0.0200	91.5	75	125		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW_MS_2
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0190	0.002	0.0200	95.0	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS19098-02A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 11
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0101	0.002	0.0200	50.5	35	153		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS29098-02A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 12
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0125	0.002	0.0200	62.5	35	153		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS19127-12A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 16
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0179	0.002	0.0200	89.5	35	153		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MS29127-12A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 17
REF SEQ: 15

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0186	0.002	0.0200	93.0	35	153		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW MS1
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00204	0.0002	0.00200	102	89	121		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW MS2
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00204	0.0002	0.00200	102	89	121		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS09076-01A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 7
REF SEQ: 6

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00207	0.0002	0.00200	104	69	128		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS 9110-04A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 10
REF SEQ: 9

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00201	0.0002	0.00200	101	69	128		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS MS1
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 13
REF SEQ: 12

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.408	0.06	0.400	102	79	118		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS MS2
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 14
REF SEQ: 12

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.414	0.06	0.400	104	79	118		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS 9095-03A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 17
REF SEQ: 16

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.659	0.06	0.400	86.5	44	153		

WORK ORDER: 9509059

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 1 0
INSTR RUN: ICP\9509I5173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.0233	0.005	0.0250	93.2	75	125		
Ba	Barium	1.02	0.01	1.00	102	75	125		
Be	Beryllium	0.0247	0.003	0.0250	98.8	75	125		
Cd	Cadmium	0.0509	0.005	0.0500	102	75	125		
Co	Cobalt	0.260	0.005	0.250	100	75	125		
Cr	Chromium	0.108	0.01	0.100	108	75	125		
Cu	Copper	0.132	0.01	0.125	106	75	125		
Mo	Molybdenum	0.203	0.01	0.200	102	75	125		
Ni	Nickel	0.253	0.01	0.250	101	75	125		
Sb	Antimony	0.483	0.02	0.500	96.6	75	125		
Tl	Thallium	0.522	0.05	0.500	104	75	125		
V	Vanadium	0.258	0.005	0.250	103	75	125		
Zn	Zinc	0.263	0.03	0.250	105	75	125		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 2 0
INSTR RUN: ICP\9509I5173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 3
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.0250	0.005	0.0250	100	75	125		
Ba	Barium	1.07	0.01	1.00	107	75	125		
Be	Beryllium	0.0268	0.003	0.0250	107	75	125		
Cd	Cadmium	0.0563	0.005	0.0500	113	75	125		
Co	Cobalt	0.243	0.005	0.250	97.2	75	125		
Cr	Chromium	0.103	0.01	0.100	103	75	125		
Cu	Copper	0.136	0.01	0.125	109	75	125		
Mo	Molybdenum	0.215	0.01	0.200	108	75	125		
Ni	Nickel	0.267	0.01	0.250	107	75	125		
Sb	Antimony	0.499	0.02	0.500	99.8	75	125		
Tl	Thallium	0.551	0.05	0.500	110	75	125		
V	Vanadium	0.269	0.005	0.250	108	75	125		
Zn	Zinc	0.269	0.03	0.250	108	75	125		

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 1 A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 2
REF SEQ: 1

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00490	0.001	0.00500	98.0	75	125		
Ba	Barium	0.2083	0.002	0.200	104	75	125		
Be	Beryllium	0.00510	0.0005	0.00500	100	75	125		
Cd	Cadmium	0.0107	0.001	0.0100	107	75	125		
Co	Cobalt	0.0536	0.001	0.0500	107	75	125		
Cr	Chromium	0.0224	0.002	0.0200	112	75	125		
Cu	Copper	0.0265	0.002	0.0250	106	75	125		
Mo	Molybdenum	0.0422	0.002	0.0400	106	75	125		
Ni	Nickel	0.0523	0.002	0.0500	105	75	125		
Sb	Antimony	0.1000	0.004	0.100	100	75	125		
Tl	Thallium	0.1009	0.01	0.100	101	75	125		
V	Vanadium	0.0528	0.001	0.0500	106	75	125		
Zn	Zinc	0.0521	0.005	0.0500	104	75	125		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Method/Media blank
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW MS 2 A
INSTR RUN: ICP\9509I9102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 3
REF SEQ:

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00510	0.001	0.00500	100	75	125		
Ba	Barium	0.2071	0.002	0.200	104	75	125		
Be	Beryllium	0.00510	0.0005	0.00500	100	75	125		
Cd	Cadmium	0.0104	0.001	0.0100	104	75	125		
Co	Cobalt	0.0532	0.001	0.0500	106	75	125		
Cr	Chromium	0.0215	0.002	0.0200	108	75	125		
Cu	Copper	0.0265	0.002	0.0250	106	75	125		
Mo	Molybdenum	0.0422	0.002	0.0400	106	75	125		
Ni	Nickel	0.0517	0.002	0.0500	103	75	125		
Sb	Antimony	0.0993	0.004	0.100	99.3	75	125		
Tl	Thallium	0.0955	0.01	0.100	95.5	75	125		
V	Vanadium	0.0524	0.001	0.0500	105	75	125		
Zn	Zinc	0.0518	0.005	0.0500	104	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MS19076-05A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ:
REF SEQ:

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00500	0.001	0.00500	100	75	125		
Ba	Barium	0.382	0.002	0.200	99.0	75	125		
Be	Beryllium	0.00490	0.0005	0.00500	98.0	75	125		
Cd	Cadmium	0.00930	0.001	0.0100	93.0	75	125		
Co	Cobalt	0.0473	0.001	0.0500	94.6	75	125		
Cr	Chromium	0.0195	0.002	0.0200	97.5	75	125		
Cu	Copper	0.0262	0.002	0.0250	105	75	125		
Mo	Molybdenum	0.0439	0.002	0.0400	93.8	75	125		
Ni	Nickel	0.0580	0.002	0.0500	91.2	75	125		
Sb	Antimony	0.0911	0.004	0.100	91.1	75	125		
Tl	Thallium	0.0977	0.01	0.100	97.7	75	125		
V	Vanadium	0.0554	0.001	0.0500	97.4	75	125		
Zn	Zinc	0.0579	0.005	0.0500	89.4	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MS29076-05A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ:
REF SEQ

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00460	0.001	0.00500	92.0	75	125		
Ba	Barium	0.377	0.002	0.200	96.5	75	125		
Be	Beryllium	0.00480	0.0005	0.00500	96.0	75	125		
Cd	Cadmium	0.00890	0.001	0.0100	89.0	75	125		
Co	Cobalt	0.0468	0.001	0.0500	93.6	75	125		
Cr	Chromium	0.0193	0.002	0.0200	96.5	75	125		
Cu	Copper	0.0255	0.002	0.0250	102	75	125		
Mo	Molybdenum	0.0435	0.002	0.0400	92.8	75	125		
Ni	Nickel	0.0571	0.002	0.0500	89.4	75	125		
Sb	Antimony	0.0899	0.004	0.100	89.9	75	125		
Tl	Thallium	0.0904	0.01	0.100	90.4	75	125		
V	Vanadium	0.0552	0.001	0.0500	97.0	75	125		
Zn	Zinc	0.0576	0.005	0.0500	88.8	75	125		

QUALITY CONTROL REPORT

SPIKE SAMPLES

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MS19098-09A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ:
REF SEQ

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00410	0.001	0.00500	82.0	75	125		
Ba	Barium	0.335	0.002	0.200	91.0	75	125		
Be	Beryllium	0.00460	0.0005	0.00500	92.0	75	125		
Cd	Cadmium	0.00970	0.001	0.0100	84.0	75	125		
Co	Cobalt	0.0484	0.001	0.0500	89.0	75	125		
Cr	Chromium	0.0205	0.002	0.0200	103	75	125		
Cu	Copper	0.0254	0.002	0.0250	102	75	125		
Mo	Molybdenum	0.0375	0.002	0.0400	93.8	75	125		
Ni	Nickel	0.0913	0.002	0.0500	87.0	75	125		
Sb	Antimony	0.0924	0.004	0.100	92.4	75	125		
Tl	Thallium	0.0897	0.01	0.100	89.7	75	125		
V	Vanadium	0.0474	0.001	0.0500	91.6	75	125		
Zn	Zinc	0.276	0.005	0.0500	78.0	75	125		

SAMPLE TYPE: Spike-Sample/Matrix
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MS29098-09A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ:
REF SEQ

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00450	0.001	0.00500	90.0	75	125		
Ba	Barium	0.341	0.002	0.200	94.0	75	125		
Be	Beryllium	0.00460	0.0005	0.00500	92.0	75	125		
Cd	Cadmium	0.0103	0.001	0.0100	90.0	75	125		
Co	Cobalt	0.0497	0.001	0.0500	91.6	75	125		
Cr	Chromium	0.0195	0.002	0.0200	97.5	75	125		
Cu	Copper	0.0256	0.002	0.0250	102	75	125		
Mo	Molybdenum	0.0384	0.002	0.0400	96.0	75	125		
Ni	Nickel	0.0915	0.002	0.0500	87.4	75	125		
Sb	Antimony	0.0944	0.004	0.100	94.4	75	125		
Tl	Thallium	0.0858	0.01	0.100	85.8	75	125		
V	Vanadium	0.0478	0.001	0.0500	92.4	75	125		
Zn	Zinc	0.281	0.005	0.0500	88.0	75	125		

QUALITY CONTROL REPORT

DUPLICATE SAMPLES

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: GFW MD
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0636	0.004					3.03	13

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9059-03A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 8
REF SEQ: 6

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0314	0.004					18.1 !	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9098-02A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 13
REF SEQ: 11

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	ND	0.004					0	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Selenium
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 09/30/95

TEST CODE: SE_DG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9127-12A
INSTR RUN: 4000\950930111100
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 18
REF SEQ: 16

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Selenium by EPA 270.2	0.0672	0.004					11.8	15

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: GFW MD
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0190	0.002					3.75	14

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MD 9098-02A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 13
REF SEQ: 11

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0125	0.002					21.2 !	16

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Lead
INSTRUMENT: TJA 4000, GFAA
ANALYZED: 10/01/95

TEST CODE: PB_WG
UNITS: mg/L
PREPARED: 09/14/95
BLANK:
TUNE:

SAMPLE ID: MD 9127-12A
INSTR RUN: 4000\951001143700
DILUTION: 1.000000
BATCH ID: GFW091495-T
STANDARD:

SEQ: 18
REF SEQ: 16

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Lead in water by GFAA	0.0186	0.002					3.84	16

QUALITY CONTROL REPORT

DUPLICATE SAMPLES

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGW MD
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00204	0.0002					0	8

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD09076-01A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 8
REF SEQ: 7

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00207	0.0002					0	6

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG
UNITS: mg/L
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9110-04A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGW091595
STANDARD:

SEQ: 11
REF SEQ: 10

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in water/EPA 7470	0.00207	0.0002					2.94	6

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: HGS MD
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 15
REF SEQ: 13

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.414	0.06					1.46	7

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: Mercury
INSTRUMENT: Coleman Hg Analyzer 50D
ANALYZED: 09/15/95

TEST CODE: HG_S
UNITS: mg/kg
PREPARED:
BLANK:
TUNE:

SAMPLE ID: MD 9095-03A
INSTR RUN: HG\950915000000
DILUTION: 1.000000
BATCH ID: HGS091595
STANDARD:

SEQ: 18
REF SEQ: 17

ANALYTE	RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Mercury in soil/EPA 7471	0.650	0.06					1.38	15

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/15/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/13/95
BLANK:
TUNE:

SAMPLE ID: IFW MD 0
INSTR RUN: ICP\950915173800
DILUTION: 5
BATCH ID: IFW091395-0
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.0250	0.005					7.04	15
Ba	Barium	1.07	0.01					4.78	15
Be	Beryllium	0.0268	0.003					8.16	15
Cd	Cadmium	0.0563	0.005					10.1	15
Co	Cobalt	0.273	0.005					4.88	15
Cr	Chromium	0.103	0.01					4.74	15
Cu	Copper	0.136	0.01					2.99	15
Mo	Molybdenum	0.215	0.01					5.74	15
Ni	Nickel	0.267	0.01					5.38	15
Sb	Antimony	0.499	0.02					3.26	15
Tl	Thallium	0.551	0.05					5.41	15
V	Vanadium	0.269	0.005					4.17	15
Zn	Zinc	0.269	0.03					2.26	15

QUALITY CONTROL REPORT

DUPLICATE SAMPLES

SAMPLE TYPE: Method Spike Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: IFW MD A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 4
REF SEQ: 2

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00510	0.001					4.00	15
Ba	Barium	0.2071	0.002					0.5778	15
Be	Beryllium	0.00510	0.0005					0	15
Cd	Cadmium	0.0104	0.001					2.84	15
Co	Cobalt	0.0532	0.001					0.749	15
Cr	Chromium	0.0215	0.002					4.10	15
Cu	Copper	0.0265	0.002					0	15
Mo	Molybdenum	0.0422	0.002					0	15
Ni	Nickel	0.0517	0.002					1.15	15
Sb	Antimony	0.0993	0.004					0.702	15
Tl	Thallium	0.0955	0.01					5.50	15
V	Vanadium	0.0524	0.001					0.760	15
Zn	Zinc	0.0518	0.01					0.577	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MD 9076-05A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 8
REF SEQ: 6

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00460	0.001					8.33	15
Ba	Barium	0.377	0.002					1.32	15
Be	Beryllium	0.00480	0.0005					2.06	15
Cd	Cadmium	0.00890	0.001					4.40	15
Co	Cobalt	0.0468	0.001					1.06	15
Cr	Chromium	0.0193	0.002					1.03	15
Cu	Copper	0.0255	0.002					2.71	15
Mo	Molybdenum	0.0435	0.002					0.915	15
Ni	Nickel	0.0571	0.002					1.56	15
Sb	Antimony	0.0899	0.004					1.33	15
Tl	Thallium	0.0904	0.01					7.76	15
V	Vanadium	0.0552	0.001					0.362	15
Zn	Zinc	0.0576	0.01					0.519	15

SAMPLE TYPE: Spiked Sample Duplicate
ANALYSIS: CCR 17 Metals (Low Level)
INSTRUMENT: TJA Enviro 36
ANALYZED: 09/19/95

TEST CODE: CM17LL
UNITS: mg/L
PREPARED: 09/17/95
BLANK:
TUNE:

SAMPLE ID: MD 9098-09A
INSTR RUN: ICP\950919102700
DILUTION: 1.000000
BATCH ID: IFW091795-A
STANDARD:

SEQ: 14
REF SEQ: 12

ANALYTE		RESULT	REPORTING LIMIT	SPIKE VALUE	RECOVERY (%)	REC LIMITS (%) LOW	REC LIMITS (%) HIGH	RPD (%)	RPD LIMIT (%)
Ag	Silver	0.00450	0.001					9.30	15
Ba	Barium	0.341	0.002					1.78	15
Be	Beryllium	0.00460	0.0005					0	15
Cd	Cadmium	0.0103	0.001					6.00	15
Co	Cobalt	0.0497	0.001					2.65	15
Cr	Chromium	0.0195	0.002					5.00	15
Cu	Copper	0.0254	0.002					0	15
Mo	Molybdenum	0.0384	0.002					2.37	15
Ni	Nickel	0.0915	0.002					0.219	15
Sb	Antimony	0.0944	0.004					2.14	15
Tl	Thallium	0.0858	0.01					4.44	15
V	Vanadium	0.0478	0.001					0.840	15
Zn	Zinc	0.281	0.01					1.80	15

---------- End of Quality Control Report ----------

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9509059

Project No.: 3018.95.20	Field Logbook No.:	Date: 9/6/95	Serial No.: Nº 013747
Project Name: Volvo / GM	Project Location: Oakland CA.		
Sampler (Signature): JC Kl			Samplers: JCK

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	TITLE 22 METALS				HOLD	RUSH	REMARKS
MW-1	9/5/95		01A	1	H2O			X						STD TAT
MW-2	9/5/95		02A	1	"			X						
MW-3	9/5/95		03A	1	↓			X						TITLE 22 METALS
														BASIN PLAN DETECTION LIMITS
														FIELD FILTERED
														Jennifer Beatty ?

RELINQUISHED BY: (Signature) JC Kl	DATE 9/6/95	TIME 15:00	RECEIVED BY: (Signature) Michael E Hendricks	DATE 9/6/95	TIME 15:00
RELINQUISHED BY: (Signature) Michael E Hendricks	DATE 9/6/95	TIME 15:40	RECEIVED BY: (Signature) Dana M Bellini	DATE 9/6	TIME 1540
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector: LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory: AEN
PLEASANT HILL, CA.

Shipping (White) Lab Copy (Green) File Copy (Yellow) Id Copy (Pink) FORM N 6/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

LEVINE-FRICKE
1900 POWELL ST. 12TH FL.
EMERYVILLE, CA 94608

ATTN: JOHN KEELER
CLIENT PROJ. ID: 3018.95.20
CLIENT PROJ. NAME: VOLVO/GM
C.O.C. NUMBER: 013752

REPORT DATE: 10/13/95
DATE(S) SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
AEN WORK ORDER: 9509098

PROJECT SUMMARY:

On September 8, 1995, this laboratory received 10 water sample(s).

Client requested sample(s) be analyzed for inorganic and organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.

Larry Klein
Laboratory Director

Revision of report dated 10/09/95

LEVINE-FRICKE

SAMPLE ID: LF-5
AEN LAB NO: 9509098-01A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	0.004 *	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	ND	0.005	mg/L	09/30/95
Ba Barium	EPA 200.7	0.014 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	0.31 *	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	1.5 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	0.006 *	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	0.005 *	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	4.8 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.01	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.04 *	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	38 *	0.01	mg/L	09/20/95

Reporting limits elevated for arsenic, lead and selenium due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-10
AEN LAB NO: 9509098-02A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	ND	0.005	mg/L	09/30/95
Ba Barium	EPA 200.7	0.016 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	0.002 *	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.007 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	0.007 *	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.083 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.01	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.01	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	0.005 *	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	0.29 *	0.01	mg/L	09/19/95

Reporting limits elevated for arsenic, lead and selenium due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9509098-03A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	1 *	0.5	ug/L	09/18/95
Toluene	108-88-3	0.6 *	0.5	ug/L	09/18/95
Ethylbenzene	100-41-4	3 *	0.5	ug/L	09/18/95
Xylenes, Total	1330-20-7	3 *	2	ug/L	09/18/95
Purgeable HCs as Gasoline	5030/GCFID	0.4 *	0.05	mg/L	09/18/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9509098-03D
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	09/18/95
TPH as Diesel	GC-FID	4.7 *	0.05	mg/L	09/19/95
TPH as Oil	GC-FID	0.3 *	0.2	mg/L	09/19/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9509098-03F
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	2.4 *	0.1	mg/L	09/30/95
Ba Barium	EPA 200.7	0.092 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.001 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	ND	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.2	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	0.003 *	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	0.02 *	0.01	mg/L	09/19/95

Reporting limit elevated for selenium due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9509098-03G
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for BNAs	EPA 3520	-		Extrn Date	09/13/95
Semi-Volatile Organics	EPA 8270				
Acenaphthene	83-32-9	690 *	10	ug/L	09/30/95
Acenaphthylene	208-96-8	15 *	10	ug/L	09/20/95
Anthracene	120-12-7	41 *	10	ug/L	09/20/95
Benzidine	92-87-5	ND	50	ug/L	09/20/95
Benzoic Acid	65-85-0	ND	50	ug/L	09/20/95
Benzo(a)anthracene	56-55-3	ND	10	ug/L	09/20/95
Benzo(b)fluoranthene	205-99-2	ND	10	ug/L	09/20/95
Benzo(k)fluoranthene	207-08-9	ND	10	ug/L	09/20/95
Benzo(g,h,i)perylene	191-24-2	ND	10	ug/L	09/20/95
Benzo(a)pyrene	50-32-8	ND	10	ug/L	09/20/95
Benzyl Alcohol	100-51-6	ND	20	ug/L	09/20/95
Bis(2-chloroethoxy)methane	111-91-1	ND	10	ug/L	09/20/95
Bis(2-chloroethyl) Ether	111-44-4	ND	10	ug/L	09/20/95
Bis(2-chloroisopropyl) Ether	108-60-1	ND	10	ug/L	09/20/95
Bis(2-ethylhexyl) Phthalate	117-81-7	21 *	10	ug/L	09/20/95
4-Bromophenyl Phenyl Ether	101-55-3	ND	10	ug/L	09/20/95
Butylbenzyl Phthalate	85-68-7	ND	10	ug/L	09/20/95
4-Chloroaniline	106-47-8	ND	20	ug/L	09/20/95
2-Chloronaphthalene	91-58-7	ND	10	ug/L	09/20/95
4-Chlorophenyl Phenyl Ether	7005-72-3	ND	10	ug/L	09/20/95
Chrysene	218-01-9	ND	10	ug/L	09/20/95
Dibenzo(a,h)anthracene	53-70-3	ND	10	ug/L	09/20/95
Dibenzofuran	132-64-9	200 *	10	ug/L	09/20/95
Di-n-butyl Phthalate	84-74-2	ND	10	ug/L	09/20/95
1,2-Dichlorobenzene	95-50-1	ND	10	ug/L	09/20/95
1,3-Dichlorobenzene	541-73-1	ND	10	ug/L	09/20/95
1,4-Dichlorobenzene	106-46-7	ND	10	ug/L	09/20/95
3,3'-Dichlorobenzidine	91-94-1	ND	20	ug/L	09/20/95
Diethyl Phthalate	84-66-2	ND	10	ug/L	09/20/95
Dimethyl Phthalate	131-11-3	ND	10	ug/L	09/20/95
2,4-Dinitrotoluene	121-14-2	ND	10	ug/L	09/20/95
2,6-Dinitrotoluene	606-20-2	ND	10	ug/L	09/20/95
Di-n-octyl Phthalate	117-84-0	ND	10	ug/L	09/20/95
Fluoranthene	206-44-0	32 *	10	ug/L	09/20/95
Fluorene	86-73-7	170 *	10	ug/L	09/20/95
Hexachlorobenzene	118-74-1	ND	10	ug/L	09/20/95
Hexachlorobutadiene	87-68-3	ND	10	ug/L	09/20/95
Hexachlorocyclopentadiene	77-47-4	ND	10	ug/L	09/20/95
Hexachloroethane	67-72-1	ND	10	ug/L	09/20/95

LEVINE-FRICKE

SAMPLE ID: LF-8
AEN LAB NO: 9509098-03G
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10	ug/L	09/20/95
Isophorone	78-59-1	ND	10	ug/L	09/20/95
2-Methylnaphthalene	91-57-6	ND	10	ug/L	09/20/95
Naphthalene	91-20-3	13 *	10	ug/L	09/20/95
2-Nitroaniline	88-74-4	ND	50	ug/L	09/20/95
3-Nitroaniline	99-09-2	ND	50	ug/L	09/20/95
4-Nitroaniline	100-01-6	ND	50	ug/L	09/20/95
Nitrobenzene	98-95-3	ND	10	ug/L	09/20/95
N-Nitrosodiphenylamine	86-30-6	ND	10	ug/L	09/20/95
N-Nitrosodi-n-propylamine	621-64-7	ND	10	ug/L	09/20/95
Phenanthrene	85-01-8	ND	10	ug/L	09/20/95
Pyrene	129-00-0	19 *	10	ug/L	09/20/95
1,2,4-Trichlorobenzene	120-82-1	ND	10	ug/L	09/20/95
4-Chloro-3-methylphenol	59-50-7	ND	10	ug/L	09/20/95
2-Chlorophenol	95-57-8	ND	10	ug/L	09/20/95
2,4-Dichlorophenol	120-83-2	ND	10	ug/L	09/20/95
2,4-Dimethylphenol	105-67-9	ND	10	ug/L	09/20/95
4,6-Dinitro-2-methylphenol	534-52-1	ND	50	ug/L	09/20/95
2,4-Dinitrophenol	51-28-5	ND	50	ug/L	09/20/95
2-Methylphenol	95-48-7	ND	10	ug/L	09/20/95
4-Methylphenol	106-44-5	ND	10	ug/L	09/20/95
2-Nitrophenol	88-75-5	ND	10	ug/L	09/20/95
4-Nitrophenol	100-02-7	ND	50	ug/L	09/20/95
Pentachlorophenol	87-86-5	ND	50	ug/L	09/20/95
Phenol	108-95-2	ND	10	ug/L	09/20/95
2,4,5-Trichlorophenol	95-95-4	ND	10	ug/L	09/20/95
2,4,6-Trichlorophenol	88-06-2	ND	10	ug/L	09/20/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-3
AEN LAB NO: 9509098-04A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	09/18/95
Toluene	108-88-3	ND	0.5	ug/L	09/18/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	09/18/95
Xylenes, Total	1330-20-7	ND	2	ug/L	09/18/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	09/18/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-3
AEN LAB NO: 9509098-04D
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	09/18/95
TPH as Diesel	GC-FID	0.62 *	0.05	mg/L	09/19/95
TPH as Oil	GC-FID	0.4 *	0.2	mg/L	09/19/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-3
AEN LAB NO: 9509098-04F
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	3.0 *	0.1	mg/L	09/30/95
Ba Barium	EPA 200.7	0.13 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	0.0017 *	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.011 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	0.004 *	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	0.12 *	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.008 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.2	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.02 *	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	0.013 *	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	5.4 *	0.01	mg/L	09/19/95

Reporting limit elevated for selenium due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-1
AEN LAB NO: 9509098-05A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/13/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.05	mg/L	09/15/95
As Arsenic	EPA 206.2	0.30 *	0.05	mg/L	09/30/95
Ba Barium	EPA 200.7	ND	0.1	mg/L	09/15/95
Be Beryllium	EPA 200.7	0.03 *	0.02	mg/L	09/15/95
Cd Cadmium	EPA 200.7	23 *	0.05	mg/L	09/15/95
Co Cobalt	EPA 200.7	2.0 *	0.05	mg/L	09/15/95
Cr Chromium	EPA 200.7	ND	0.1	mg/L	09/15/95
Cu Copper	EPA 200.7	0.5 *	0.1	mg/L	09/15/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	ND	0.1	mg/L	09/15/95
Ni Nickel	EPA 200.7	7.3 *	0.1	mg/L	09/15/95
Pb Lead	EPA 239.2	0.67 *	0.05	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.2	mg/L	09/15/95
Se Selenium	EPA 270.2	ND	0.1	mg/L	09/30/95
Tl Thallium	EPA 200.7	0.6 *	0.5	mg/L	09/15/95
V Vanadium	EPA 200.7	ND	0.05	mg/L	09/15/95
Zn Zinc	EPA 200.7	10,000 *	1	mg/L	09/15/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-11
AEN LAB NO: 9509098-06A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE		METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace		EPA 200.0	-			Prep Date	09/14/95
#Digestion/ICP		EPA 200.0	-			Prep Date	09/13/95
CCR 17 Metals (Low Level)							
Ag	Silver	EPA 200.7	ND		0.5	mg/L	09/15/95
As	Arsenic	EPA 206.2	ND		0.01	mg/L	09/30/95
Ba	Barium	EPA 200.7	ND		1	mg/L	09/15/95
Be	Beryllium	EPA 200.7	ND		0.2	mg/L	09/15/95
Cd	Cadmium	EPA 200.7	120	*	0.5	mg/L	09/15/95
Co	Cobalt	EPA 200.7	6.5	*	0.5	mg/L	09/15/95
Cr	Chromium	EPA 200.7	ND		1	mg/L	09/15/95
Cu	Copper	EPA 200.7	5	*	1	mg/L	09/15/95
Hg	Mercury	EPA 245.1	ND		0.0002	mg/L	09/17/95
Mo	Molybdenum	EPA 200.7	ND		1	mg/L	09/15/95
Ni	Nickel	EPA 200.7	26	*	1	mg/L	09/15/95
Pb	Lead	EPA 239.2	0.04	*	0.02	mg/L	10/01/95
Sb	Antimony	EPA 200.7	ND		2	mg/L	09/15/95
Se	Selenium	EPA 270.2	ND		0.02	mg/L	09/30/95
Tl	Thallium	EPA 200.7	ND		5	mg/L	09/15/95
V	Vanadium	EPA 200.7	ND		0.5	mg/L	09/15/95
Zn	Zinc	EPA 200.7	37,000	*	3	mg/L	09/15/95

Reporting limits elevated due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-F1
AEN LAB NO: 9509098-07A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	0.09 *	0.01	mg/L	09/30/95
Ba Barium	EPA 200.7	0.020 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	0.038 *	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.11 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	0.011 *	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.076 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.02	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	17 *	0.01	mg/L	09/19/95

Reporting limit elevated for arsenic and selenium due to matrix interference.

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-122
AEN LAB NO: 9509098-08A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.020 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	ND	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.042 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	0.005 *	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.027 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	0.50 *	0.01	mg/L	09/19/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-4
AEN LAB NO: 9509098-09A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	0.012 *	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.15 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	0.001 *	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.004 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	ND	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.048 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	0.002 *	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	0.24 *	0.01	mg/L	09/19/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

LEVINE-FRICKE

SAMPLE ID: LF-22
AEN LAB NO: 9509098-10A
AEN WORK ORDER: 9509098
CLIENT PROJ. ID: 3018.95.20

DATE SAMPLED: 09/07/95
DATE RECEIVED: 09/08/95
REPORT DATE: 10/13/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion/G. Furnace	EPA 200.0	-		Prep Date	09/14/95
#Digestion/ICP	EPA 200.0	-		Prep Date	09/17/95
CCR 17 Metals (Low Level)					
Ag Silver	EPA 200.7	ND	0.001	mg/L	09/19/95
As Arsenic	EPA 206.2	ND	0.002	mg/L	09/30/95
Ba Barium	EPA 200.7	0.019 *	0.002	mg/L	09/19/95
Be Beryllium	EPA 200.7	ND	0.0005	mg/L	09/19/95
Cd Cadmium	EPA 200.7	0.001 *	0.001	mg/L	09/19/95
Co Cobalt	EPA 200.7	0.040 *	0.001	mg/L	09/19/95
Cr Chromium	EPA 200.7	ND	0.002	mg/L	09/19/95
Cu Copper	EPA 200.7	0.004 *	0.002	mg/L	09/19/95
Hg Mercury	EPA 245.1	ND	0.0002	mg/L	09/17/95
Mo Molybdenum	EPA 200.7	ND	0.002	mg/L	09/19/95
Ni Nickel	EPA 200.7	0.032 *	0.002	mg/L	09/19/95
Pb Lead	EPA 239.2	ND	0.002	mg/L	10/01/95
Sb Antimony	EPA 200.7	ND	0.004	mg/L	09/19/95
Se Selenium	EPA 270.2	ND	0.004	mg/L	09/30/95
Tl Thallium	EPA 200.7	ND	0.01	mg/L	09/19/95
V Vanadium	EPA 200.7	ND	0.001	mg/L	09/19/95
Zn Zinc	EPA 200.7	0.50 *	0.01	mg/L	09/19/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9509098

CLIENT PROJECT ID: 3018.95.20

Quality Control Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9509098
AEN LAB NO: 0918-BLANK
DATE EXTRACTED: 09/18/95
DATE ANALYZED: 09/19/95
INSTRUMENT: C
MATRIX: WATER

Method Blank

Analyte	Result (mg/L)	Reporting Limit (mg/L)
Diesel	ND	0.05
Oil	ND	0.2

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9509098
DATE EXTRACTED: 09/18/95
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
09/19/95	LF-8	03	105
09/19/95	LF-3	04	88
QC Limits:			59-118

DATE EXTRACTED: 09/18/95
DATE ANALYZED: 09/18/95
SAMPLE SPIKED: DI WATER
INSTRUMENT: C

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.07	80	<1	65-103	12

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9509098
AEN LAB NO: 0918-BLANK
DATE ANALYZED: 09/18/95
INSTRUMENT: H
MATRIX: WATER

Method Blank

	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Benzene	71-43-2	ND	0.5
Toluene	108-88-3	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
Xylenes, Total	1330-20-7	ND	2
HCs as Gasoline		ND mg/L	0.05 mg/L

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9509098
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
09/18/95	LF-8	03	99
09/18/95	LF-3	04	100
QC Limits:			92-109

DATE ANALYZED: 09/18/95
SAMPLE SPIKED: LCS
INSTRUMENT: H

Laboratory Control Sample Recovery

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	35.4	98	7	60-120	20
Toluene	108	97	10	60-120	20
Hydrocarbons as Gasoline	1000	105	10	60-120	20

QUALITY CONTROL DATA

METHOD: EPA 8270

AEN JOB NO: 9509098
AEN LAB NO: 0913-BLANK
DATE EXTRACTED: 09/13/95
DATE ANALYZED: 09/20/95
INSTRUMENT: 11
MATRIX: WATER

Semi-Volatile Organic Compounds
GC/MS Extractables

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Acenaphthene	83-32-9	ND	10
Acenaphthylene	208-96-8	ND	10
Anthracene	120-12-7	ND	10
Benzidine	92-87-5	ND	50
Benzoic Acid	65-85-0	ND	50
Benzo(a)anthracene	56-55-3	ND	10
Benzo(b)fluoranthene	205-99-2	ND	10
Benzo(k)fluoranthene	207-08-9	ND	10
Benzo(g,h,i)perylene	191-24-2	ND	10
Benzo(a)pyrene	50-32-8	ND	10
Benzyl Alcohol	100-51-6	ND	20
Bis(2-chloroethoxy)methane	111-91-1	ND	10
Bis(2-chloroethyl)ether	111-44-4	ND	10
Bis(2-chloroisopropyl)ether	108-60-1	ND	10
Bis(2-ethylhexyl)phthalate	117-81-7	ND	10
4-Bromophenyl phenyl ether	101-55-3	ND	10
Butylbenzyl phthalate	85-68-7	ND	10
4-Chloroaniline	106-47-8	ND	20
2-Chloronaphthalene	91-58-7	ND	10
4-Chlorophenyl phenylether	7005-72-3	ND	10
Chrysene	218-01-9	ND	10
Dibenzo(a,h)anthracene	53-70-3	ND	10
Dibenzofuran	132-64-9	ND	10
Di-n-butylphthalate	84-74-2	ND	10
1,2-Dichlorobenzene	95-50-1	ND	10
1,3-Dichlorobenzene	541-73-1	ND	10
1,4-Dichlorobenzene	106-46-7	ND	10
3,3'-Dichlorobenzidine	91-94-1	ND	20
Diethylphthalate	84-66-2	ND	10
Dimethylphthalate	131-11-3	ND	10
2,4-Dinitrotoluene	121-14-2	ND	10
2,6-Dinitrotoluene	606-20-2	ND	10
Di-n-octylphthalate	117-84-0	ND	10
1,2-Diphenylhydrazine	122-66-7	ND	10

QUALITY CONTROL DATA

METHOD: EPA 8270

AEN JOB NO: 9509098
AEN LAB NO: 0913-BLANK
DATE EXTRACTED: 09/13/95
DATE ANALYZED: 09/20/95
INSTRUMENT: 11
MATRIX: WATER

GC/MS Extractables (Cont.)

Analyte	CAS #	Result (ug/L)	Reporting Limit (ug/L)
Fluoranthene	206-44-0	ND	10
Fluorene	86-73-7	ND	10
Hexachlorobenzene	118-74-1	ND	10
Hexachlorobutadiene	87-68-3	ND	10
Hexachlorocyclopentadiene	77-47-4	ND	10
Hexachloroethane	67-72-1	ND	10
Indeno(1,2,3-cd)pyrene	193-39-5	ND	10
Isophorone	78-59-1	ND	10
2-Methylnaphthalene	91-57-6	ND	10
Naphthalene	91-20-3	ND	10
2-Nitroaniline	88-74-4	ND	50
3-Nitroaniline	99-09-2	ND	50
4-Nitroaniline	100-01-6	ND	50
Nitrobenzene	98-95-3	ND	10
N-nitrosodimethylamine	62-75-9	ND	10
N-nitrosodiphenylamine	86-30-6	ND	10
N-nitroso-di-n-propylamine	621-64-7	ND	10
Phenanthrene	85-01-8	ND	10
Pyrene	129-00-0	ND	10
1,2,4-Trichlorobenzene	120-82-1	ND	10
4-Chloro-3-methylphenol	59-50-7	ND	10
2-Chlorophenol	95-57-8	ND	10
2,4-Dichlorophenol	120-83-2	ND	10
2,4-Dimethylphenol	105-67-9	ND	10
4,6-Dinitro-2-methylphenol	534-52-1	ND	50
2,4-Dinitrophenol	51-28-5	ND	50
2-Methylphenol	95-48-7	ND	10
4-Methylphenol	106-44-5	ND	10
2-Nitrophenol	88-75-5	ND	10
4-Nitrophenol	100-02-7	ND	50
Pentachlorophenol	87-86-5	ND	50
Phenol	108-95-2	ND	10
2,4,5-Trichlorophenol	95-95-4	ND	10
2,4,6-Trichlorophenol	88-06-2	ND	10

QUALITY CONTROL DATA

METHOD: EPA 8270

AEN JOB NO: 9509098
DATE EXTRACTED: 09/13/95
INSTRUMENT: 11
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery 2-Fluoro-phenol	Phenol-d_5	Nitro-benzene-d_5	2-Fluoro-biphenyl	2,4,6-Tri-bromophenol	Terphenyl-d_{14}
09/20/95	LF-8	03	59	87	96	107	118	93
QC Limits:			21-100	10-94	35-114	43-116	10-123	33-141

DATE EXTRACTED: 09/13/95
DATE ANALYZED: 09/20/95
SAMPLE SPIKED: LCS
INSTRUMENT: 11

Laboratory Control Sample Recovery

Analyte	Spike Added (ug/L)	Percent Recovery	QC Limits Percent Recovery
Phenol	220	86	5-112
2-Chlorophenol	209	131	23-134
1,4-Dichlorobenzene	208	55	20-124
N-Nitrosodi-n-propylamine	212	154	0-230
1,2,4-Trichlorobenzene	209	63	44-142
4-Chloro-3-methylphenol	205	143	22-147
Acenaphthene	202	101	47-145
4-Nitrophenol	216	131	0-132
2,4-Dinitrotoluene	211	76	0-112
Pentachlorophenol	209	144	14-176
Pyrene	217	91	52-115

QUALITY CONTROL DATA

AEN JOB NO: 9509098
SAMPLE SPIKED: DI WATER
DATE(S) ANALYZED: 09/15-10/01/95
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Ag, Silver	ICP/200.7	ND	0.025	93	7	75-125	15
As, Arsenic	4000/7060	ND	0.04	79	6	69-136	11
Ba, Barium	ICP/200.7	ND	0.2	102	5	75-125	15
Cd, Cadmium	ICP/200.7	ND	0.05	102	10	75-125	15
Cr, Chromium	ICP/200.7	ND	0.1	108	5	75-125	15
Cu, Copper	ICP/200.7	ND	0.125	106	3	75-125	15
Hg, Mercury	Hg/7470	ND	2.0 ug/L	100	3	89-121	8
Ni, Nickel	ICP/200.7	ND	0.25	101	5	75-125	15
Pb, Lead	4000/239.2	ND	0.02	92	4	75-125	14
Se, Selenium	4000/7740	ND	0.08	77	3	75-115	13
Zn, Zinc	ICP/200.7	ND	0.25	105	2	75-125	15

*** END OF REPORT ***

K-4,5-K
(-3,5-3
(-1,5-3
9509098

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

Project No.: 3018.95.20	Field Logbook No.:	Date: 9/8/95	Serial No.: № 013752
Project Name: Volvo/GM	Project Location: OAKLAND, CA.		
Sampler (Signature): JC Ke			

SAMPLES — ANALYSES

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPH 8015 Modified	TPH 8015 BTEX	VOA 8260	Title 22 Metals	Title 22 8270			HOLD	RUSH
LF-5	9/7/95	10:00	01A	1				X						
LF-10		15:10	02A	1				X						
LF-8		1400	03A-H	8		X	X	X	X					
LF-3		1440	04A-F	6		X	X	X						
LF-1		1535	05A				⊗	X						
LF-11		1545	06A					X						
LF-F1		1615	07A					X						
LF-122		1730	08A					X						
LF-4		1655	09A					X						
LF-22	↓	1630	10A					X						
~~TB~~	9/5		~~11A~~											

Samplers: JCK

REMARKS

STD TAT

RESULTS TO JOHN KEELER

TITLE 22 METALS

BASIN PLAN DETECTION LIMITS

9/8/95 PER John Keeler, do not analyze TB. JRS

RELINQUISHED BY: (Signature) JC Ke	DATE 9/8/95	TIME 10:00	RECEIVED BY: (Signature) Michael E. McDuffie	DATE 9/8/95	TIME 10:00
RELINQUISHED BY: (Signature) Michael E. McDuffie	DATE 9/8/95	TIME 12:55	RECEIVED BY: (Signature) Lori L. Pruitt	DATE 9-8-95	TIME 1255
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:	DATE	TIME	LAB COMMENTS:		

Sample Collector:

LEVINE-FRICKE
1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500

Analytical Laboratory:

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink)

FORM NO. 86/COC/ARF

APPENDIX B

WATER-QUALITY SAMPLING FORMS

LEVINE•FRICKE

Page ____ of ____

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20

Date: 9/7/95

Project Name: Volvo / GM

Sample No.: LF-F1

Sample Location: LF-F1

☐ FB:

Samplers Name: DRJ JCK

☐ DUP:

Sampling Plan Prepared By: JCK

Sampling Method:

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used:

Method of Shipment: AEN (Lab Name)

☒ Courier

☐ Hand Deliver:

Well Number: LF-F1

Well Diameter:

Depth of Water: 2.92

☐ 2" (0.16 Gallon/Feet)

Well Depth: 7.16

☐ 4" (0.65 Gallon/Feet

Height of Water Column: 4.24

☐ 5" (1.02 Gallon/Feet)

Volume in Well: 2.76

☐ 6" (1.47 Gallon/Feet)

7.16
2.92
4.24
16
254
424
6784

4.24
.65
2120
2544
2.7560

8.0 / 2.0 / 3.0 / 6.0 / 8.0 / 9.0 / 8.0

80% DTW

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:44								START
12:47			3	27.0	6.37	4330		SL. TURBID
12:51			6	26.4	6.38	4360		MOD. TURBID
12:54	DEWATERED							STOP BAILING
16:15	4.01							SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.93.20 Date: 9/7/95

Project Name: Volvo / GM Sample No.: LF-1

Sample Location: LF-1 ☐ FB: ____

Samplers Name: JCK DRJ ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1 500 mL PLASTIC

Method of Shipment

AEN (Lab Name) ☒ Courier ____

☐ Hand Deliver:

Well Number: LF-1

Depth of Water: 2.75

Well Depth: 20.00

Height of Water Column: 17.25

Volume in Well: 2.76

Well Diameter:

☐ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

20.00
2.75
17.25
.16
10350
1725
27600

17.25 · 20.00
.8 13.80
13800 6.20

80% DTW 6.20

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:43								START
10:47		3		22.8	4.71	10730		CLEAR
10:51		6		21.6	4.19	14570		MOD TURBID
10:56		9		21.2	3.71	37800		MOD TURBID
11:01	DEWATER	11		21.1	3.81	18090		MOD TURBID
15:35	3.80							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/7/95

Project Name: VOLVO / GM Sample No.: LF-2

Sample Location: LF2 ☐ FB: ____

Samplers Name: JCK DRJ ☒ DUP: LF-122

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1 PLASTIC 500mL

14.75
5.12
9.63
.16
5778
963
15408

Method of Shipment

4EN (Lab Name) ☒ Courier ____ ☐ Hand Deliver:

Well Number: LF-2 Well Diameter: ____

Depth of Water: 5.12 ☐ 2" (0.16 Gallon/Feet)

Well Depth: 14.75 ☐ 4" (0.65 Gallon/Feet

Height of Water Column: 9.63 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: 1.54 ☐ 6" (1.47 Gallon/Feet)

80% DTW ____

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond. (mohs)	Turbidity (NTU)	Remarks
13:07								START
13:09		2		23.8	6.41	3720		TURBID
13:12		4		22.6	6.32	3780		TURBID
13:18		6		22.6	6.46	3830		TURBID
16:30	5.50							SAMPLE
17:30								DUPLICATE (SEPERATE FILTER)

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

LEVINE•FRICKE

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20

Date: 9/7/95

Project Name: VOLVO/GL

Sample No.: LF-3

Sample Location: LF-3

☐ FB:

Samplers Name: JCK DRJ

☐ DUP:

Sampling Plan Prepared By: JCK

Sampling Method: ✓

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ______ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 PLASTIC
TPH-d+o	2L GLASS
TPHg + BTEX	3 VOA

14.93
5.38
9.55
.16
5730
955
1.5280

Method of Shipment

AEN (Lab Name)

☒ Courier

☐ Hand Deliver:

Well Number: LF-3

Well Diameter:

Depth of Water: 5.38

☒ 2" (0.16 Gallon/Feet)

Well Depth: 14.93

☐ 4" (0.65 Gallon/Feet

Height of Water Column: 9.55

☐ 5" (1.02 Gallon/Feet)

Volume in Well: 1.53

☐ 6" (1.47 Gallon/Feet)

80% DTW ______

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1426								Start
14:28		2		23.4	6.74	3.83		turbid
14:30		4		23.4	6.62	3.99		turbid
1432		6		23.3	6.57	4.05		TURBID
1440	5.90							SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/7/95

Project Name: VOLVO / GM Sample No.: LF-4

Sample Location: LF-4 ☐ FB: ____

Samplers Name: JCK DRT ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 500 ML PLASTIC

Method of Shipment

AEN (Lab Name) ☒ Courier ____

☐ Hand Deliver:

Well Number: LF-4 Well Diameter: ____

Depth of Water: 5.38 ☐ 2" (0.16 Gallon/Feet)

Well Depth: 18.25 ☐ 4" (0.65 Gallon/Feet

Height of Water Column: 12.87 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: 2.07 ☐ 6" (1.47 Gallon/Feet)

18.25
5.38
12.87
.16
7722
1287
20692

12.87
.8
10296

18.25
10.30
7.95

80% DTW 7.95

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
13:23								START
13:26		2		23.0	6.66	2490		CLEAR
13:29		4		22.4	6.66	2600		CLEAR
13:33		6		21.5	6.75	3050		CLEAR
16:55	11.90				1			SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/7/95

Project Name: Volvo/GM Sample No.: LF-5

Sample Location: LF-5 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested

TITLE 22 METALS

Number and Types of Bottle used

1 500 mL PLASTIC

Method of Shipment

AEN (Lab Name) ☒ Courier ____

☐ Hand Deliver:

Well Number: LF-5

Depth of Water: 6.40

Well Depth: 21.10

Height of Water Column: ____

Volume in Well: 2.35

Well Diameter: ____

☐ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

21.10
6.40
14.70
.16
8820
1470
23520

14.70 × .8 = 11760

21.10 − 11.76 = 9.34

80% DTW 9.34

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:43								START
9:45		2.5		22.7	6.16	18100		TURBID
9:48		5.0		21.9	6.04	20000		TURBID
9:53		7.5		21.6	599	20100		TURBID
10:00	9.30							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94.RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Date: 9/6/95
Project Name: VOLVO / GM
Sample No.: LF-6
Sample Location: LF-6
☐ FB:
Samplers Name: JCK
☐ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

☐ Centrifugal Pump ☐ Disposable Bailer
☐ Submersible Pump ☒ Teflon Bailer
☒ Hand Bail ☐ _____ (Other)

Analyses Requested: TITLE 22 METALS
Number and Types of Bottle used: 1 500 mL PLASTIC

Method of Shipment: AEN (Lab Name)
☒ Courier
☐ Hand Deliver:

Well Number: LF-5
Depth of Water: 6.42
Well Depth: 20.00
Height of Water Column: 13.58
Volume in Well: 2.17

Well Diameter:
☒ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

20.00
6.42
13.58
.16
8148
1358
2.1728

13.58 × .8 = 10.864
20.00 − 10.86 = 9.14

80% DTW 9.14

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
16:52								START
16:54		2.5		22.5	4.76	5990		TURBID
16:56		5.0		22.4	4.81	5660		TURBID
16 59		7.5		22.2	4.76	5940		TURBID
7:10	9.10							SAMPLE

Inlet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22/UL94/RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/6/95

Project Name: VOLVO / GM Sample No.: LF-7

Sample Location: LF-7 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1 500 ML PLASTIC

21.50
4.81
16.69
.16
10014
1669
2.6604

16.69 × .8 = 13312

21.50 − 13.31 = 8.19

Method of Shipment: AEN (Lab Name) ☒ Courier ____ ☐ Hand Deliver:

Well Number: LF-7

Depth of Water: 4.81

Well Depth: 21.50

Height of Water Column: 16.69

Volume in Well: 2.66

Well Diameter:

☒ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

80% DTW 8.19

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1718								START
1721		3		21.8	7.11	1708		TURBID
1723		6		21.5	7.16	1742		TURBID
1728		9		21.1	7.17	1735		TURB.D
17:40	7.10							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/7/95

Project Name: Volvo/GM Sample No.: LF-8

Sample Location: LF-8 ☐ FB: ____

Samplers Name: JCK DRJ ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 PLASTIC
TPH-d + o	2 L. GL
TPHg + BTEX	3 VOA
8270	2 1 GL

Method of Shipment: AEN (Lab Name) ☒ Courier ____ ☐ Hand Deliver:

Well Number: LF-8

Depth of Water: 5.08

Well Depth: 14.65

Height of Water Column: 9.57

Volume in Well: 6.22

Well Diameter:
- ☐ 2" (0.16 Gallon/Feet)
- ☐ 4" (0.65 Gallon/Feet
- ☐ 5" (1.02 Gallon/Feet)
- ☐ 6" (1.47 Gallon/Feet)

14.65
5.08
9.57
.65
4785
5742
62205

9.57
.8

80% DTW ____

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
13:46								START
13:47		7		23.7	7.22	2950		CLEAR
3147	DEWATER	8						OFF
13:49								ON
3:50	DEWATER	14		23.6	7.17	2850		CLEAR/OFF
1351								
1352	DEWATER	21		23.6	7.12	2770		CLEAR / OFF
1400	5.26							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20

Date: 9/8/95

Project Name: VOLVO / GM

Sample No.: LF-9

Sample Location: LF-9

☐ FB: ____

Samplers Name: JCK

☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ ____ (Other)

Analyses Requested

• TITLE 22 METALS

Number and Types of Bottle used

1 L. PLASTIC

Method of Shipment

AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: LF-9

Depth of Water: 5.90

Well Depth: 13.88

Height of Water Column: 7.98

Volume in Well: 1.28

Well Diameter: ____

☐ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

13.88
5.90
7.98
.16
4788
798
1276 8

7.98 · 8 = 6384

13.88 − 6.38 = 7.50

80% DTW 7.50

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:37								START
9:39		1.5		19.4	6.00	2930		TURBID
9:41		3.0		19.0	6.15	3010		TURBID
9:48		4.5		19.0	6.18	3060		TURBID
9:55	7.00							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Date: 9/7/95
Project Name: Volvo / GL
Sample No.: LF-10
Sample Location: LF-10
☐ FB:
Samplers Name: JCK DRJ
☐ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

☒ Centrifugal Pump ☐ Disposable Bailer
☐ Submersible Pump ☒ Teflon Bailer
☐ Hand Bail ☐ _____ (Other)

Analyses Requested: TITLE 22 METALS
Number and Types of Bottle used: 1 500-L PLASTIC

Method of Shipment: AEN (Lab Name)
☒ Courier
☐ Hand Deliver:

Well Number: LF-10
Depth of Water: 6.55
Well Depth: 14.74
Height of Water Column: 8.19
Volume in Well: 5.32

Well Diameter:
☐ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

80% DTW 8.19

14.74
6.55
8.19
.65
4095
4914
53235

8.19
.8
6552

14.74
6.55
8.19

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:20								START
10:22	DEWATER	5.5		23.2	6.30	9740		TURBID/OFF
10:28								ON
10:29	DEWATER	11.0		23.5	6.38	11230		CLEAR/OFF
10:10	11.55							SAMPLE

Bailet Depth: _____

Comments: _____
(Recommended Method For Purging Well)

WTR.QLTY.SAMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20

Project Name: VOLVO/GM

Sample Location: LF-11

Samplers Name: JCK DRJ

Sampling Plan Prepared By: JCK

Sampling Method:

Date: 9/7/95

Sample No.: LF-11

☐ FB:

☐ DUP:

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ _____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 6 1 PLASTIC 500 mL

Method of Shipment: TEN (Lab Name)

☒ Courier

☐ Hand Deliver:

Well Number: LF-11

Depth of Water: 3.70

Well Depth: 20.01

Height of Water Column: 16.31

Volume in Well: 10.60

Well Diameter:

- ☐ 2" (0.16 Gallon/Feet)
- ☐ 4" (0.65 Gallon/Feet
- ☐ 5" (1.02 Gallon/Feet)
- ☐ 6" (1.47 Gallon/Feet)

20.01
3.70
16.31
.65
8155
9786
10.6015

16.31
.8
13.048

20.01
13.04
~~5.70~~
6.97

80% DTW 6.97

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
11:12								START
11:15		11		24.6	3.66	33,200		CLEAR
11:17	DEWATER	20						OFF
11:20								ON
11 23	DE-WATER	24		26.5	3.76	43000		CLEAR/OFF
1545	16.82							SAMPLE

Inlet Depth:

Comments:

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/6/95

Project Name: VOLVO / GM Sample No.: LF-12

Sample Location: LF-12 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☒ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☐ Hand Bail ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 500 ml PLASTIC

Method of Shipment

AEN (Lab Name) ☒ Courier ____

☐ Hand Deliver:

Well Number: ____

Depth of Water: 7.45

Well Depth: 14.70

Height of Water Column: 7.25

Volume in Well: 4.71

Well Diameter:

☐ 2" (0.16 Gallon/Feet)

☒ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

14.70
7.45
7.25
.65
3625
4350
47125

7.25 14.70
.8 5.80
5800 8.90

80% DTW 8.90

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
14:37								START
14:39			5	25.1	4.40	10530		SL. TURBID
1440	DEWATER		7					OFF
1445								ON
445			10	27.4	4.37	10860		MOD TURBID
1446	DEWATER		11	[redacted]				OFF
1457								ON
1458	DEWATER		14	29.1	4.36	10900		CLEAR
~~1535~~								
1615	8.50							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/8/95

Project Name: Volvo/GL Sample No.: LF-14

Sample Location: LF-14 ☐ FB: _____

Samplers Name: JCK ☐ DUP: _____

Sampling Plan Prepared By: JCK

Sampling Method: _____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 L. PLASTIC

25.00
6.51
18.49
.16
11094
1849
2.9584

18.49
.8
14792

25.00
14.79
10.21

Method of Shipment

AEN (Lab Name) ☒ Courier _____

☐ Hand Deliver:

Well Number: LF-14 Well Diameter: _____

Depth of Water: 6.51 ☐ 2" (0.16 Gallon/Feet)

Well Depth: 25.00 ☐ 4" (0.65 Gallon/Feet

Height of Water Column: 18.49 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: 2.96 ☐ 6" (1.47 Gallon/Feet)

80% DTW 10.21

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
835								START
838		3		18.8	4.60	5240		TURBID
843		6		18.5	4.61	7500		TURBID
852	DEWATER	9		18.5	4.82	7460		TURBID
910	6.70							SAMPLE

Inlet Depth: _____

Comments: _____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20

Project Name: VOLVO / GL

Sample Location: LF-15

Samplers Name: JCK

Sampling Plan Prepared By: JCK

Sampling Method:

Date: 9/8/95

Sample No.: LF-15

☒ FB:

☐ DUP:

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ _____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1 L. PL.

Method of Shipment

ACN (Lab Name)

☒ Courier

☐ Hand Deliver:

Well Number: LF-15

Depth of Water: 6.08

Well Depth: 20.03

Height of Water Column: 13.95

Volume in Well: 2.23

Well Diameter:

☒ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

20.03
6.08
13.95
.16
8370
1395
2232 0

13.95 × 3 = 1180

20.03
11.16
8.87

80% DTW 8.87

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:55								~~START~~ FIELD BLANK
10:58		2.5 ↓				21		TURBID
11:04		5.0 ↓		18.2	4.83	21900		TURBID ↓
11 04		↓		18.2	4.79	24200		↓
11:10		7.5		18.1	4.61		21400	TURBID
11:15		10		18.1	4.43	23000		TURBID
11:18	DEWATER	12		18.1	4.23	21200		TURBID
12:00	8.80							SAMPLE

Inlet Depth:

Comments:

(Recommended Method For Purging Well)

WTR QLTY SMPLNG INFO 2JUL94.FYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/8/95

Project Name: Volvo / GM Sample No.: LF-16

Sample Location: LF-16 ~~FB: LF-BB~~ 16 VOA

Samplers Name: JCK ☐ DUP: _____

Sampling Plan Prepared By: JCK

Sampling Method: _____

☐ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ _____ (Other)

24.50
6.68
17.82
.16
10692
1782
2.8912

Analyses Requested | **Number and Types of Bottle used**

TITLE 22 + EDB'S | 1 PT. L.

Method of Shipment

AEN (Lab Name) ☒ Courier _____

☐ Hand Deliver:

Well Number: _____ Well Diameter: _____

Depth of Water: 6.68 ~~☒~~ 2" (0.16 Gallon/Feet)

Well Depth: 24.50 ☐ 4" (0.65 Gallon/Feet

Height of Water Column: 17.82 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: ~~2.87~~ 2.84 ☐ 6" (1.47 Gallon/Feet)

80% DTW _____

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:15								~~FIELD FILTER~~ SNAP
10:18		3		19.4	3.98	14070		TURBID
10:22		6		19.0	4.03	15390		TURBID
10:28		9		18.7	4.02	16330		TURBID / BLOTCHES OF SHEEN
10:45	6.95							SAMPLE

Inlet Depth: _____

Comments: _____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/26/95

Project Name: Volvo/GM Sample No.: LF-17

Sample Location: LF-17 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☒ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☐ Hand Bail ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 500 mL PLASTIC

Method of Shipment

AEN (Lab Name) ☒ Courier ____

☐ Hand Deliver:

Well Number: LF-17 Well Diameter: ____

Depth of Water: 7.02 ☐ 2" (0.16 Gallon/Feet)

Well Depth: 20.20 ☒ 4" (0.65 Gallon/Feet

Height of Water Column: 13.18 ☐ 5" (1.02 Gallon/Feet)

Volume in Well: 8.57 ☐ 6" (1.47 Gallon/Feet)

20.20
7.02
13.18
.65
6590
7908
85670
13.18
.8
10544

20.20
10.54
9.66

80% DTW 9.66

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1330								START
1332		9		21.2	7.55	1613		SLIGHTLY TURBID
1335		18		21.6	7.30	2470		TURBID
1336	DEWATER	20						OFF
1350								
1352		27		21.5	7.35	1410		CLEAR/OFF
1515	7.80							SAMPLE

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/5/95

Project Name: Volvo/GM Sample No.: MW-1

Sample Location: MW-1 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

- ☒ Centrifugal Pump
- ☐ Submersible Pump
- ☐ Hand Bail
- ☐ Disposable Bailer
- ☒ Teflon Bailer
- ☐ ____ (Other)

Analyses Requested: TITLE 22 METALS

Number and Types of Bottle used: 1500 mL HNO3

Method of Shipment: AEN (Lab Name)

☒ Courier ____

☐ Hand Deliver:

Well Number: MW-1

Depth of Water: 5.67

Well Depth: 28.50

Height of Water Column: 22.83

Volume in Well: 3.65

Well Diameter:

- ☒ 2" (0.16 Gallon/Feet)
- ☐ 4" (0.65 Gallon/Feet
- ☐ 5" (1.02 Gallon/Feet)
- ☐ 6" (1.47 Gallon/Feet)

28.50
5.67
2283
.16
13698
2283
36528

22.83 28.50
18.26 10.24
18264 1024

80% DTW 10.24

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1554						117		START
1555		4		23.0	6.87	1176		TURBID
1557		8		22.3	6.83	1214		TURBID
1558	DEWATER	12		22.0	6.87	1184		LOD TURBID / OFF
1607	24.0							
1715	6.50							CAMLE

Inlet Depth: ____

Comments: ____
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20
Project Name: Volvo/GM
Sample Location: MW-2
Samplers Name: JCK
Sampling Plan Prepared By: JCK
Sampling Method:

Date: 9/5/95
Sample No.: MW-2
☐ FB:
☐ DUP:

☐ Centrifugal Pump ☐ Disposable Bailer
☐ Submersible Pump ☐ Teflon Bailer
☐ Hand Bail ☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
~~ABN~~ TITLE 22 METALS	1 500 mL PLASTIC

Method of Shipment: AEN (Lab Name) ☒ Courier _____ ☐ Hand Deliver:

Well Number: MW-2
Depth of Water: 3.90
Well Depth: 27.00
Height of Water Column: 23.10
Volume in Well: 3.70

Well Diameter:
☐ 2" (0.16 Gallon/Feet)
☐ 4" (0.65 Gallon/Feet
☐ 5" (1.02 Gallon/Feet)
☐ 6" (1.47 Gallon/Feet)

27.00
3.90
23.10
.16
13860
2310
3.696 0

23.10
.8
18480

27.00
18.48
852

80% DTW 8.52

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1620								START
1621		4		24.0	4.94	95200		TURB. 10
1622		8		24.6	4.62	6580		↓
1623		12		23.6	4.46	7440		↓
1624		16		23.2	4.44	7360		↓
1625		17						OFF
1630	18.50							
1725	5.25							SAMPLE

Inlet Depth:
Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3018.95.20 Date: 9/5/95

Project Name: Volvo / GM Sample No.: MW-3

Sample Location: MW-3 ☐ FB: ____

Samplers Name: JCK ☐ DUP: ____

Sampling Plan Prepared By: JCK

Sampling Method: ____

☒ Centrifugal Pump ☐ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☐ Hand Bail ☐ ____ (Other)

Analyses Requested	Number and Types of Bottle used
TITLE 22 METALS	1 500 ML PLASTIC

Method of Shipment

AEN (Lab Name) ☒ Courier ____

☐ Hand Deliver:

Well Number: ____ Well Diameter: ____

Depth of Water: 6.38

Well Depth: 27.00

Height of Water Column: 20.62

Volume in Well: 3.30

☒ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

27.00
6.38
20.62
.16
1 2372
2 062
3 299 2

20.62 × .8 = 16496

27.00 − 16.50 = 1050

80% DTW 10.50

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
16:46								START
1647		3.5		23.4	4.60	6000		TURBID
1648		7.0		23.1	4.54	6430		TURBID
1651		11		22.5	4.55	6560		TURBID
17:45	6.80							SAMPLE

WTR.QLTY.SMPLNG.INFO.22JUL94RYL

Inlet Depth: ____

Comments: ____

(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3019.95.20
Date: 9/6/95
Project Name: VOLVO / GM
Sample No.: MW-4
Sample Location: MW-4
☐ FB:
Samplers Name: JCK
☐ DUP:
Sampling Plan Prepared By: JCK
Sampling Method:

☐ Centrifugal Pump ☐ Disposable Bailer
☐ Submersible Pump ☒ Teflon Bailer
☒ Hand Bail ☐ _____ (Other)

23.94
6.34
17.60
.16
10560
1760
28160

17.60 × .8 = 14080

23.94 − 14.08 = 9.86

Analyses Requested: TITLE 22 METALS
Number and Types of Bottle used: 1 500 ML PLASTIC

Method of Shipment: AEN (Lab Name)
☒ Courier
☐ Hand Deliver:

Well Number: MW-4
Well Diameter:
Depth of Water: 6.34
☒ 2" (0.16 Gallon/Feet)
Well Depth: 23.94
☐ 4" (0.65 Gallon/Feet
Height of Water Column: 17.60
☐ 5" (1.02 Gallon/Feet)
Volume in Well: 2.82
☐ 6" (1.47 Gallon/Feet)

80% DTW 9.86

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:07								START
4:10		3		21.7	6.57	1947		MOD TURBID
4:13		6		21.3	6.54	2180		TURBID
4:19		9		21.1	6.61	2540		TURBID
15:22	17.15							
15:35	9.80							SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.22JUL94RYL