Harding Lawson Associates

July 28, 1994

26560 1

Ms. Madhulla Logan
Alameda County Health Agency
Department of Environmental Health
80 Swan Way, Room 200
Oakland, California 94621

Second Quarter 1994 Groundwater Monitoring Report
James River Corporation
San Leandro, California

Dear Ms. Logan:

This report presents the results of the second quarter of 1994 groundwater monitoring for the James River Corporation facility at 2101 Williams Street, San Leandro, California (Plate 1). This document was prepared for the sole use of the James River Corporation and the Alameda County Department of Environmental Health (ACDEH), the only intended beneficiaries of our work. No other party may rely on the information contained in this report without prior written consent of HLA.

SECOND QUARTER GROUNDWATER MONITORING

Field Investigation

On June 3, 1994, groundwater samples were collected from 8 wells for chemical analysis. Monitoring Wells W-3, W-5, W-6, W-7, W-8, W-9, W-10, and B-1, which range in total depth from 17 to 48 feet, were sampled.

All sampling equipment was steam cleaned before sampling activities began. The equipment was then rinsed with deionized water and placed in clean containers to minimize the possibility of cross-contamination.

Before the eight wells were purged and sampled, water-level measurements were obtained using a steel survey tape graduated in hundredths of a foot. Water-level measurements were also obtained for two wells (W-1 and W-4) that were not scheduled to be sampled. The measurements were repeated twice, or until consecutive measurements differed by less than 0.01 foot. After each water level was recorded, an observation sample was collected from the well and its visual quality was evaluated.

Each well was purged of at least three well volumes of water using a dedicated purge hose for each well and a clean centrifugal pump. Temperature, specific conductance, pH, and turbidity were monitored during purging, and samples were collected after the readings had stabilized (Table 1). Copies of HLA's groundwater sampling forms are attached.

After purging, the groundwater sample was collected from each well using a clean stainless steel bailer. To minimize the potential for cross-contamination, a new dropline and a different bailer were used for each well. Samples collected for volatile organic analysis (VOA) were decanted into three 40-milliliter VOA bottles. In addition, two 1-liter amber glass bottles of groundwater were collected from Wells W-7 and W-8 for analysis of total petroleum hydrocarbon (TPH) as motor oil. Samples were assigned sequential numbers unrelated to the well of origin (to maintain sample anonymity during laboratory analysis), stored on ice, and delivered with a chain of custody record to Anametrix Laboratories (Anametrix), San Jose, California.

One VOA trip blank was submitted to the laboratory as a quality assurance (QA) check. The purpose of the trip blank was to identify the presence of artifact laboratory chemicals in the sample bottles. This sample was entered on the chain of custody form and delivered to the laboratory with the cooler containing the well samples. A copy of the chain of custody record is attached.

Groundwater Gradient and Flow Direction

Potentiometric surface elevations from past water-level surveys and the June 1994 water-level survey are presented in Table 2. The direction of groundwater flow is toward the southwest at gradient ranging between 0.0027 to 0.0048 ft/ft (Plate 2). Groundwater flow direction and gradient data are consistent with data collected from previous monitoring periods.

Chemical Analyses

Samples collected on June 3, 1994, were submitted to Anametrix, which is state certified to perform EPA Test Methods 8240 and 8015. Samples collected from Wells W-7 and W-8 were also analyzed for the presence of motor oil using EPA Test Method (Modified) 8015.

Table 3 presents November 1993 through June 1994 analytical data. Chemical concentrations reported in June 1994 were in most cases similar to the concentrations detected in March 1994. The compounds 1,1-DCE and carbon disulfide were detected for the first time during this quarterly monitoring period. Well W-9 was reported to contain 1,1-DCE at a concentration of 6 micrograms per liter (μg/l) and Well B-1 reported carbon disulfide at 13 μg/l.

During the June 3, 1994 sampling event, HLA collected groundwater from Wells W-7 and W-8 to be analyzed for TPH as motor oil (TPHmo) and diesel (TPHd). The intent of this analysis was to monitor the hydrocarbon release from the abandoned cardboard bailer vault located inside the Flexible Packaging Plant. Peaks on the chromatograph identifying both diesel and motor oil were reported by the laboratory. The sample from Well W-7 was reported to contain both TPHd and TPHmo at 130 parts per billion (ppb). The sample from Well W-8 was reported to contain TPHd and TPHmo at 200 ppb and 110 ppb, respectively. A copy of the laboratory report is attached for all wells sampled.

CONCLUSIONS AND RECOMMENDATIONS

Results of quarterly groundwater sampling and analysis performed during June 1994, indicate that chlorinated hydrocarbons continue to be present in the shallow groundwater beneath the James River facility in San Leandro. As stated in HLA's letter report to James River dated February 11, 1994, it is evident that the chlorinated hydrocarbons detected in the shallow groundwater at the James River San Leandro facility originated from an upgradient offsite source, possibly 1964 Williams Street. James River is committed to remediating soil and groundwater problems resulting from their activities; however, they should not be required to remediate groundwater containing chlorinated hydrocarbons that have migrated onto their facility from an offsite source.

The next groundwater monitoring event is scheduled to take place in September 1994. If you have any questions regarding this report, please contact either of the undersigned at (415) 883-0112.

Very truly yours,

HARDING LAWSON ASSOCIATES

Richard J. Hutton
Senior Hydrologist

R. Bruce Scheibach, R.G. 5062
Principal Hydrogeologist

cc: Mr. Mel Lawyer, James River Corporation

Attachments: Table 1: Field Parameter Measurements of Water Purged from Wells Before Sampling
Table 2: Water-Level Measurements
Table 3: Analytical Results for Groundwater Samples
Plate 1: Area Map
Plate 2: Groundwater Level and Contour Map
Plate 3: Groundwater Quality Analytical Results, June 3, 1994
Groundwater Sampling Forms
Anametrix Analytical Data
Chain of Custody Form

RJH/RBS:gj/GJ35813-JR

Table 1. Field Parameter Measurements of Water Purged from Wells Before Sampling

James River Corporation
San Leandro, California
June 3, 1994

Well No.	Gallons Purged	pH	Specific Conductance* (μmhos/cm)	Temperature (° C)	Turbidity (NTU)
B-1	0	6.9	621	19.5	43
	25	7.0	616	20.0	31
	50	7.0	627	19.0	21
	75	7.0	638	18.0	12
W-3	0	6.7	933	20.0	85
	15	6.7	712	20.0	63
	30	6.7	653	20.0	41
	50	6.7	659	19.5	30
W-5	0	6.8	535	21.0	>100
	5	6.9	535	21.0	>100
	10	6.9	594	21.0	72
	15	6.9	535	21.0	52
W-6	0	7.0	660	20.0	>100
	5	6.9	660	22.0	>100
	10	7.0	660	21.0	72
	15	7.0	660	21.0	51
W-7	0	7.0	649	19.0	74
	15	7.0	643	20.0	52
	30	7.0	632	20.0	32
	50	7.0	632	20.0	22
W-8	0	6.7	454	19.0	83
	30	6.7	519	18.0	51
	60	6.7	510	19.0	37
	80	6.7	510	19.0	19

* at 25° C
μmhos/cm Micromhos per centimeter
° C Degrees Celsius

Table 1. Field Parameter Measurements of Water Purged from Wells Before Sampling

James River Corporation
San Leandro, California
June 3, 1994
(Continued)

Well No.	Gallons Purged	pH	Specific Conductance* (μmhos/cm)	Temperature (° C)	Turbidity (NTU)
W-9	0	6.9	621	19.5	49
	15	7.1	683	19.5	31
	30	7.1	632	19.5	26
	40	7.1	621	19.5	14
W-10	0	6.4	725	22.0	62
	5	6.4	725	21.0	50
	10	6.4	725	21.0	37
	15	6.4	725	21.0	22

* at 25° C
μmhos/cm Micromhos per centimeter
° C Degrees Celsius

Table 2. Water-Level Measurements

James River Corporation
San Leandro, California

Well Number	Date	Top of Well Casing Elevation (feet above MSL)	Depth to Water Below Top of Casing (feet)	Water Table Elevation (feet above MSL)
W-1	9-6-90	20.67	13.15	7.52
	12-27-90	20.67	12.67	8.00
	8-27-91	20.67	12.98	7.69
	11-19-91	20.67	13.03	7.64
	2-13-92	20.67	10.54	10.13
	5-22-92	20.67	11.94	8.73
	2-19-93	20.67	8.90	11.77
	11-22-93	20.67	12.31	8.36
	3-1-94	20.67	10.72	9.95
	6-3-94	20.67	11.62	9.05
W-3	9-6-90	20.80	13.37	7.43
	12-27-90	20.80	12.89	7.91
	8-27-91	20.80	13.00	7.80
	11-19-91	20.80	13.25	7.55
	2-13-92	20.80	10.84	9.96
	5-22-92	20.80	12.22	8.58
	2-19-93	20.80	9.30	11.50
	11-22-93	20.80	12.47	8.33
	3-1-94	20.80	10.97	9.83
	6-3-94	20.80	11.82	8.98
W-4	9-6-90	21.00	13.50	7.50
	12-27-90	21.00	13.07	7.93
	8-27-91	21.00	13.34	7.66
	11-19-91	21.00	13.35	7.65
	2-13-92	21.00	10.92	10.08
	5-22-92	21.00	12.33	8.67
	2-19-93	21.00	9.53	11.47
	11-22-93	21.00	12.64	8.36
	3-1-94	21.00	11.08	9.92
	6-3-94	21.00	11.98	9.02

Table 2. Water-Level Measurements

James River Corporation
San Leandro, California
(Continued)

Well Number	Date	Top of Well Casing Elevation (feet above MSL)	Depth to Water Below Top of Casing (feet)	Water Table Elevation (feet above MSL)
W-5	9-6-90	21.64	14.22	7.42
	12-27-90	21.64	13.62	8.02
	8-27-91	21.64	14.03	7.61
	11-19-91	21.64	14.04	7.60
	2-13-92	21.64	12.68	8.96
	5-22-92	21.64	12.98	8.66
	2-19-93	21.64	9.92	11.72
	11-22-93	21.64	13.30	8.34
	3-1-94	21.64	11.75	9.89
	6-3-94	21.64	12.64	9.00
W-6	9-6-90	21.05	13.53	7.52
	12-27-90	21.05	13.04	8.01
	8-27-91	21.05	13.34	7.71
	11-19-91	21.05	13.37	7.68
	2-13-92	21.05	10.88	10.17
	5-22-92	21.05	12.30	8.75
	2-19-93	21.05	9.26	11.79
	11-22-93	21.05	12.64	8.41
	3-1-94	21.05	11.14	9.91
	6-3-94	21.05	11.97	9.08
W-7	9-6-90	20.41	13.47	6.94
	12-27-90	20.41	13.08	7.33
	8-27-91	20.41	13.32	7.09
	11-19-91	20.41	13.34	7.07
	2-13-92	20.41	11.28	9.13
	5-22-92	20.41	12.36	8.05
	2-19-93	20.41	9.98	10.43
	11-22-93	20.41	12.62	7.79
	3-1-94	20.41	11.20	9.21
	6-3-94	20.41	12.02	8.39

Table 2. Water-Level Measurements

James River Corporation
San Leandro, California
(Continued)

Well Number	Date	Top of Well Casing Elevation (feet above MSL)	Depth to Water Below Top of Casing (feet)	Water Table Elevation (feet above MSL)
W-8	9-6-90	20.50	12.98	7.52
	12-27-90	20.50	12.58	7.92
	8-27-91	20.50	12.78	7.72
	11-19-91	20.50	12.81	7.69
	2-13-92	20.50	10.60	9.90
	5-22-92	20.50	11.80	8.70
	2-19-93	20.50	9.12	11.38
	11-22-93	20.50	12.07	8.43
	3-1-94	20.50	10.63	9.87
	6-3-94	20.50	11.48	9.02
W-9	9-6-90	20.16	13.00	7.16
	12-27-90	20.16	12.56	7.60
	8-27-91	20.16	12.84	7.32
	11-19-91	20.16	12.84	7.32
	2-13-92	20.16	10.78	9.38
	5-22-92	20.16	11.90	8.26
	2-19-93	20.16	9.38	10.78
	11-22-93	20.16	12.11	8.05
	3-1-94	20.16	10.71	9.45
	6-3-94	20.16	11.52	8.64
W-10	9-6-90	20.22	----	----
	12-27-90	20.22	----	----
	8-27-91	20.22	----	----
	11-19-91	20.22	13.58	6.64
	2-13-92	20.22	11.06	9.16
	5-22-92	20.22	12.58	7.64
	2-19-93	20.22	9.60	10.62
	11-22-93	20.22	12.87	7.35
	3-1-94	20.22	11.30	8.92
	6-3-94	20.22	12.16	8.06

Table 2. Water-Level Measurements

James River Corporation
San Leandro, California
(Continued)

Well Number	Date	Top of Well Casing Elevation (feet above MSL)	Depth to Water Below Top of Casing (feet)	Water Table Elevation (feet above MSL)
B-1	9-6-90	20.59	13.12	7.47
	12-27-90	20.59	12.68	7.91
	8-27-91	20.59	12.95	7.64
	11-19-91	20.59	12.95	7.64
	2-13-92	20.59	10.72	9.87
	5-22-92	20.59	11.91	8.68
	2-19-93	20.59	9.04	11.55
	11-22-93	20.59	12.22	8.37
	3-1-94	20.59	10.73	9.86
	6-3-94	20.59	11.60	8.99

Data recorded after 11-22-93 were provided by Harding Lawson Associates, Novato, CA. Data recorded on all dates prior to 11-22-93 shown above were provided by Brown & Caldwell Consultants, Emeryville, CA.

Table 3: Analytical Results for Groundwater Samples

James River Corporation
San Leandro, California
(Concentrations in ug/l)

Hydrocarbons: Light and Heavy Fractions

Well Name	Sample Date	Benzene	Ethylbenzene	Toluene	Xylenes	TPH diesel	TPH motor oil
W-3	Nov-93	<5	<5	<5	<5	NA	NA
	Mar-94	<5	<5	<5	<5	NA	NA
	Jun-94	<5	<5	<5	<5	NA	NA
W-5	Nov-93	<50	<50	<50	<50	NA	NA
	Mar-94	<50	<50	<50	<50	NA	NA
	Jun-94	<50	<50	<50	<50	NA	NA
W-6	Nov-93	<10	<10	<10	<10	NA	NA
	Mar-94	<5	<5	<5	<5	NA	NA
	Jun-94	<5	<5	<5	<5	NA	NA
W-7	Nov-93	<10	<10	<10	<10	NA	NA
	Mar-94	<5	<5	<5	<5	NA	NA
	Jun-94	<5	<5	<5	<5	130	130
W-8	Nov-93	<5	<5	<5	<5	NA	NA
	Mar-94	<5	<5	<5	<5	NA	NA
	Jun-94	<5	<5	<5	<5	200	110
W-9	Nov-93	<5	<5	<5	<5	NA	NA
	Mar-94	<5	<5	<5	<5	NA	NA
	Jun-94	<5	<5	<5	<5	NA	NA
W-10	Nov-93	<5,000	<5,000	<5,000	<5,000	NA	NA
	Mar-94	<1,300	<1,300	<1,300	<1,300	NA	NA
	Jun-94	<2,000	<2,000	<2,000	<2,000	NA	NA
B-1	Nov-93	<5	<5	<5	<5	NA	NA
	Mar-94	<5	<5	<5	<5	NA	NA
	Jun-94	<5	<5	<5	<5	NA	NA

NA = Not Applicable

Table 3: Analytical Results for Groundwater Samples

James River Corporation
San Leandro, California
(Concentrations in ug/l)

Volatile Organics

Well Name	Sample Date	TCE	Vinyl Chloride	PCE	TCA	Cis-1,2 DCE	1,1 DCA	Acetone	MIBK	1,1-DCE	Carbon Disulfide
W-3	Nov-93	<5	26	<5	<5	14	<5	<20	<10	<5	<5
	Mar-94	<5	<10	<5	<5	25	<5	62	<10	<5	<5
	Jun-94	<5	<10	<5	<5	8	<5	<20	210	<5	<5
W-5	Nov-93	500	160	2,100	<50	1,000	<50	<200	<100	<50	<50
	Mar-94	460	<100	2,600	<50	1,200	<50	<200	<100	<50	<50
	Jun-94	530	160	3,400	<50	1,700	<50	<200	<100	<50	<50
W-6	Nov-93	170	<10	280	<10	<10	<10	23	<20	<10	<10
	Mar-94	160	<10	220	<5	56	<5	<20	<10	<5	<5
	Jun-94	310	<10	450	5	100	<5	<20	<10	<5	<5
W-7	Nov-93	160	<20	190	<10	15	<10	<40	<20	<10	<10
	Mar-94	230	<10	220	<5	21	<5	<20	<10	<5	<5
	Jun-94	240	<10	240	<5	26	<5	<20	<10	<5	<5
W-8	Nov-93	3	130	<5	<5	150	3	<20	<10	<5	<5
	Mar-94	<5	180	<5	<5	250	<5	<20	<10	<5	<5
	Jun-94	<5	280	<5	<5	290	<5	<20	<10	<5	<5
W-9	Nov-93	92	<5	11	5	<5	3	<20	<10	<5	<5
	Mar-94	110	<10	13	<5	<5	<5	<20	<10	<5	<5
	Jun-94	110	<10	12	5	<5	<5	<20	<10	6	<5
W-10	Nov-93	<5,000	<10,000	<5,000	<5,000	<5,000	<5,000	210,000	6,000	<5,000	<5,000
	Mar-94	<1,300	<2,500	<1,300	<1,300	<1,300	<1,300	99,000	3,600	<1,300	<1,300
	Jun-94	<2,000	<4,000	<2,000	<4,000	<2,000	<2,000	150,000	4,800	<2,000	<2,000
B-1	Nov-93	<5	<5	3	<5	<5	<5	<20	<10	<5	<5
	Mar-94	<5	<10	<5	<5	<5	<5	<20	<10	<5	<5
	Jun-94	<5	<10	<5	<5	<5	<5	27	<10	<5	13

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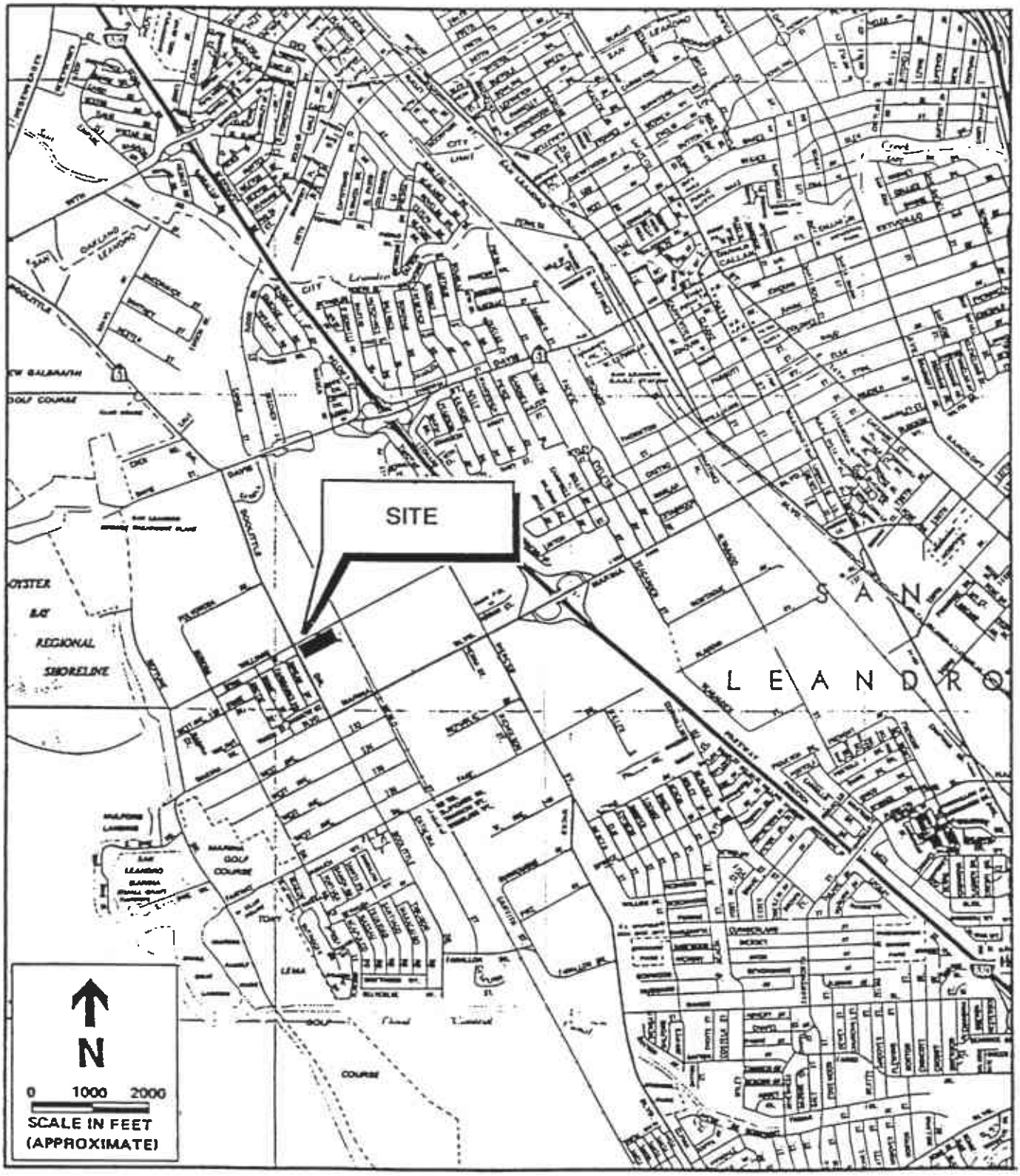
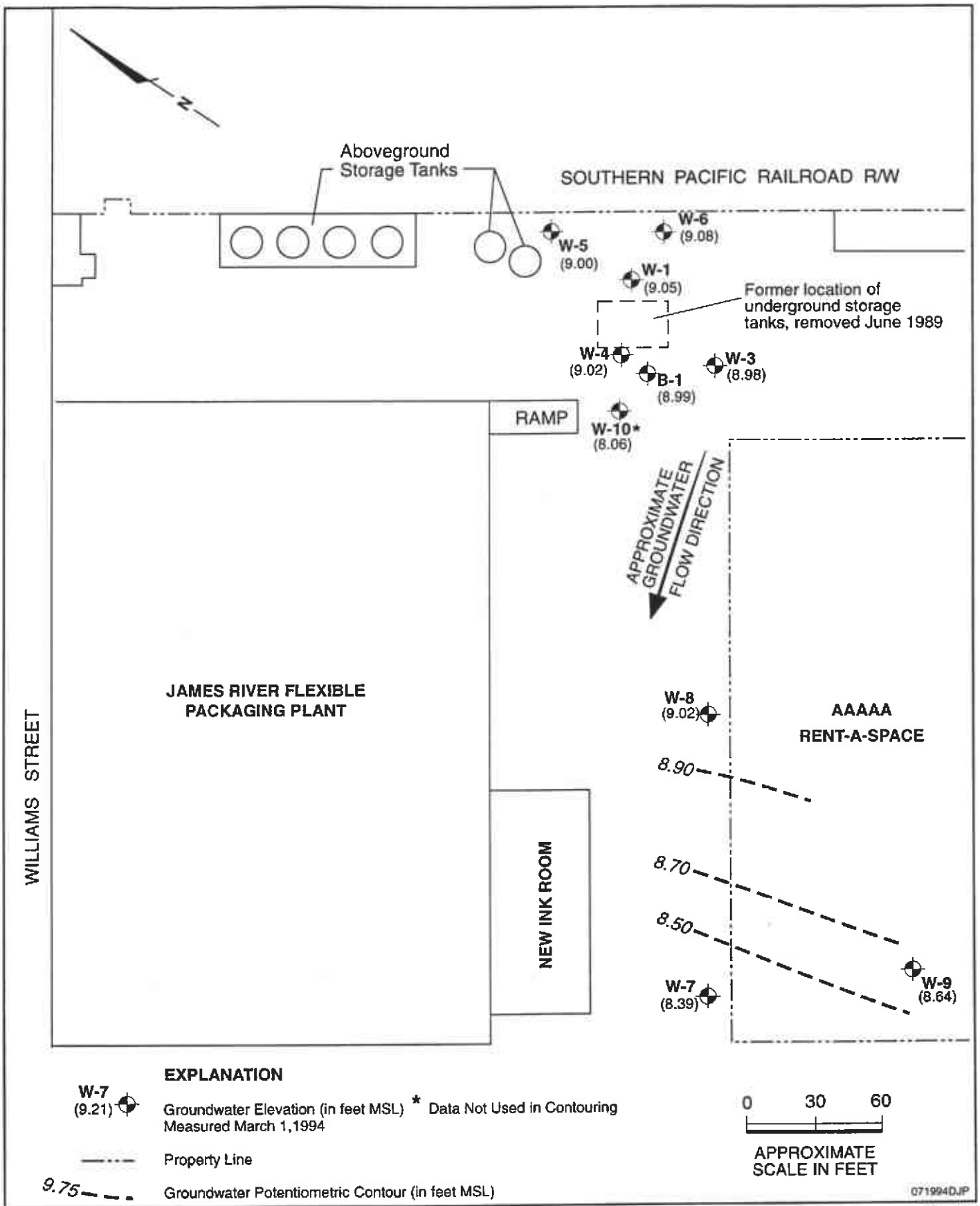


Harding Lawson Associates
Engineering and
Environmental Services

Area Map
James River Corporation
2101 Williams Street
San Leandro, California

PLATE
1

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
	26560 1		7/94	

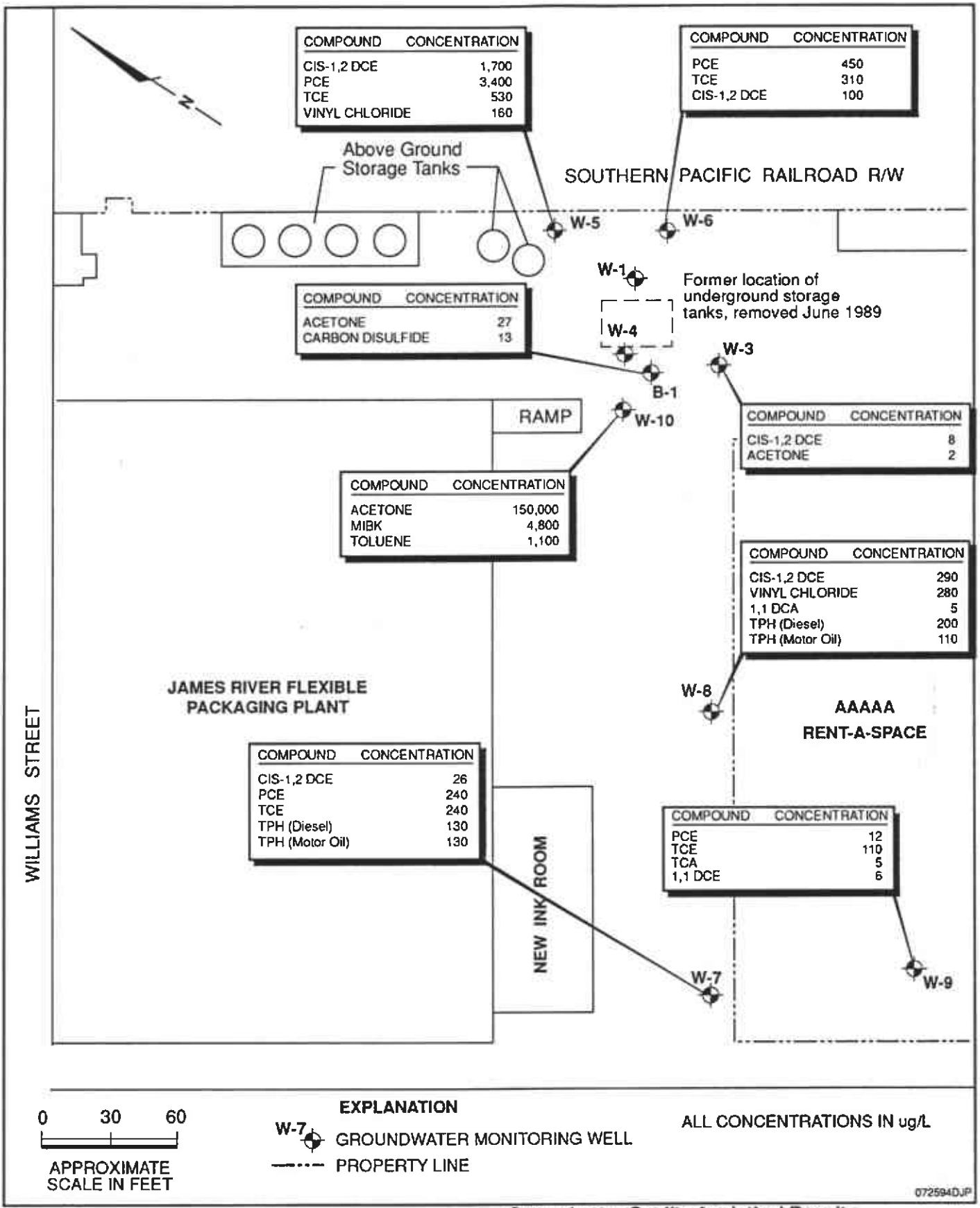


Harding Lawson Associates
Engineering and Environmental Services

Groundwater Level and Contour Map
James River Corporation
2101 Williams Street
San Leandro, California

PLATE **2**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
DJPc	26560 1	RJH	2/94	7/94



Harding Lawson Associates
Engineering and Environmental Services

Groundwater Quality Analytical Results
June 3,1994
James River Corporation
2101 Williams Street
San Leandro, California

PLATE **3**

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
	26560 1		4/94	

GROUNDWATER SAMPLING FORMS

Harding Lawson Associates
Engineering and Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560.1
Recorded by Steve Kodey (signature)

Well No. W-5
Well Type: ☒ Monitor ☐ Extraction ☐ Other ____
Well Material: ☒ PVC ☐ St. Steel ☐ Other ____
Date 6-3-94 Time 1400
Sampled by SJK (initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other ____
Total Depth of Casing (TD in feet BTOC): 33
Water Level Depth (WL in feet BTOC): 12.64
Number of Well Volumes to be purged (# Vols)
☒ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other ____

PURGE METHOD

☐ Bailer - Type: ____
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.: ____
☐ Other - Type: ____

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other ____
Depth in feet (BTOC): ____ Screen Interval in Feet (BTOC) from ____ to ____

PURGE VOLUME CALCULATION:

(33 (TD feet) - 12.64 (WL feet)) X 2 (D inches)^2 X 3 (# Vols) X 0.0408 = 9.9 gallons (Calculated Purge Volume)

PURGE TIME

1345 Start 1355 Stop ~~1410~~ 10 Elapsed

PURGE RATE

Initial 1.5 gpm Final 1.5 gpm

ACTUAL PURGE VOLUME

15 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb
Initial	6.8	600	21.0	>100
5	6.9	600	21.0	>100
10	6.9	600	21.0	72.3
15	6.9	600	21.0	51.7

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other ____
Meter Nos.	4717	9668		

Observations During Purging (Well Condition, Turbidity, Color, Odor): Light Brown Slight odor Clearing
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum On Site

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: S.S.
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: ____
☐ Same As Above
☐ Grab - Type: ____
☐ Other - Type: ____

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
JR08	3 VOA	8240	HCL	Anametrix	

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.
Trip	JR09

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560.1
Recorded by Steve Kodey (signature)

Well No. W-9
Well Type: ☒ Monitor ☐ Extraction ☐ Other _____
Well Material: ☒ PVC ☐ St. Steel ☐ Other _____
Date 6-3-94 Time 0835
Sampled by SJK (initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Total Depth of Casing (TD in feet BTOC): 31
Water Level Depth (WL in feet BTOC): 11.52
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other _____

PURGE METHOD

☐ Bailer - Type: _____
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other _____
Depth in feet (BTOC): _____ Screen Interval in Feet (BTOC) from _____ to _____

PURGE VOLUME CALCULATION:

(31 (TD feet) - 11.52 (WL feet)) X 4 (D inches)^2 X 3 (# Vols) X 0.0408 = 38.1 gallons (Calculated Purge Volume)

PURGE TIME

0813 Start 0830 Stop 17 Elapsed

PURGE RATE

Initial 2.5 gpm Final 2.5 gpm

ACTUAL PURGE VOLUME

40 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb
Initial	6.9	700	19.5	48.7
15	7.1	750	19.5	31.4
30	7.1	700	19.5	26.3
40	7.1	700	19.5	14.1

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other ____
Meter Nos.	4717 9668			

Observations During Purging (Well Condition, Turbidity, Color, Odor): Clear No Odor
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum On Site

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: S.S.
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____
☐ Same As Above
☐ Grab - Type: _____
☐ Other - Type: _____

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
JR01	3 VOA	8240	HCL	Anametrix	

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560,1
Recorded by Steve Koday (Signature)

Well No. W-6
Well Type: ☒ Monitor ☐ Extraction ☐ Other _____
Well Material: ☒ PVC ☐ St. Steel ☐ Other _____
Date 6-3-94 Time 1325
Sampled by SJK (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☒ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other _____
Total Depth of Casing (TD in feet BTOC): 36
Water Level Depth (WL in feet BTOC): 11.97
Number of Well Volumes to be purged (# Vols)
☒ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other _____

PURGE METHOD

☐ Bailer - Type: _____
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other _____
Depth in feet (BTOC): _____ Screen Interval in Feet (BTOC) from _____ to _____

PURGE VOLUME CALCULATION:

(36 (TD feet) - 11.97 (WL feet)) x 2 (D inches)^2 x 3 (# Vols) x 0.0408 = 11.7 gallons (Calculated Purge Volume)

PURGE TIME

1305 Start 1320 Stop 15 Elapsed

PURGE RATE

Initial 1 gpm Final 1 gpm

ACTUAL PURGE VOLUME

15 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb
Initial	7.0	600	20.0	>100
5	6.9	600	22.0	>100
10	7.0	600	21.0	72.9
15	7.0	600	21.0	51.4

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other ____
Meter Nos.	4717 9668			

Observations During Purging (Well Condition, Turbidity, Color, Odor): Dark Brown Clearing No Odor
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum On Site

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: S.S.
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____
☐ Same As Above
☐ Grab - Type: _____
☐ Other - Type: _____

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
JR07	3 VOA	8240	HCL	Anametrix	

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560.1
Recorded by Steve Kodray (signature)

Well No. W-3
Well Type: ☒ Monitor ☐ Extraction ☐ Other _____
Well Material: ☒ PVC ☐ St. Steel ☐ Other _____
Date 6-3-94 Time 1235
Sampled by SJK (initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other _____
Total Depth of Casing (TD in feet BTOC): 37
Water Level Depth (WL in feet BTOC): 11.82
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other _____

PURGE METHOD

☐ Bailer - Type: _____
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.: _____
☐ Other - Type: _____

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other _____
Depth in feet (BTOC): _____ Screen Interval in Feet (BTOC) from _____ to _____

PURGE VOLUME CALCULATION:

(37 (TD feet) - 11.82 (WL feet)) X 4 (D inches)^2 X 3 (# Vols) X 0.0408 = 49.3 gallons (Calculated Purge Volume)

PURGE TIME

1215 Start 1230 Stop 15 Elapsed

PURGE RATE

Initial 3.5 gpm Final _____ gpm

ACTUAL PURGE VOLUME

50 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb
Initial	6.7	800	20.0	84.7
15	6.7	700	20.0	63.2
30	6.7	650	20.0	41.9
50	6.7	650	19.5	29.8

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other _____
Meter Nos.	9717	9668		

Observations During Purging (Well Condition, Turbidity, Color, Odor): _____

Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum on site.

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: SS
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: _____

☐ Same As Above
☐ Grab - Type: _____
☐ Other - Type: _____

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
GR06	3 VOA	8240	HCL	Anametrix	

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560.1
Recorded by Steve Koday (Signature)

Well No. B-1
Well Type: ☐ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date 6-3-94 Time 1155
Sampled by SJK (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☐ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC): 48
Water Level Depth (WL in feet BTOC): 11.60
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type:

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other
Depth in feet (BTOC): 30 Screen Interval in Feet (BTOC) from ____ to ____

PURGE VOLUME CALCULATION:

$(48 \text{ (TD)} - 11.60 \text{ (WL)}) \times 4 \text{ (D)}^2 \times 3 \text{ (\# Vols)} \times 0.0408 = 71.2$ gallons (Calculated Purge Volume)

PURGE TIME

1115 Start 1150 Stop 35 Elapsed

PURGE RATE

Initial 2 gpm Final 2 gpm

ACTUAL PURGE VOLUME

75 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb
Initial	6.9	600	19.5	42.7
25	7.0	550	20.0	31.2
50	7.0	550	19.0	20.9
75	7.0	550	18.0	12.4

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other ____
Meter Nos.	4717	9668		

Observations During Purging (Well Condition, Turbidity, Color, Odor): Clear Strong odor
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum On Site

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: S.S.
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
JR05	3x40A	8240	HCL	Anametrix	

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560,1
Recorded by Steve Kosky (Signature)

Well No. W-10
Well Type: ☒ Monitor ☐ Extraction ☐ Other ____
Well Material: ☐ PVC ☐ St. Steel ☐ Other ____
Date 6-3-94 Time 1105
Sampled by SJK (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other ____
Total Depth of Casing (TD in feet BTOC): 17
Water Level Depth (WL in feet BTOC): 12.16
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other ____

PURGE METHOD

☐ Bailer - Type: ____
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.: ____
☐ Other - Type: ____

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other ____
Depth in feet (BTOC): ____ Screen Interval in Feet (BTOC) from ____ to ____

PURGE VOLUME CALCULATION:

(17 (TD) - 12.16 (WL)) X 4 (D) ^{2} X 3 (# Vols) X 0.0408 = 9.4 gallons (Calculated Purge Volume)

PURGE TIME

1050 Start 1058 Stop 8 Elapsed

PURGE RATE

Initial 2 gpm Final 2 gpm

ACTUAL PURGE VOLUME

~~9~~ 15 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb
Initial	6.4	850	22.0	62.3
5	6.4	1,000	21.0	49.7
10	6.4	1000	21.0	36.9
15	6.4	1000	21.0	22.4

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other ____
Meter Nos.	4717	9668		

Observations During Purging (Well Condition, Turbidity, Color, Odor): Clear No Odor
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum On Site

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: S.S.
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: ____
☐ Same As Above
☐ Grab - Type: ____
☐ Other - Type: ____

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
JR04	3VOA	8240	HCL	Anametrix	

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560.1
Recorded by Steve Koday (Signature)

Well No. W-8
Well Type: ☒ Monitor ☐ Extraction ☐ Other
Well Material: ☒ PVC ☐ St. Steel ☐ Other
Date 6-3-94 Time 1020
Sampled by SJK (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other
Total Depth of Casing (TD in feet BTOC): 34
Water Level Depth (WL in feet BTOC): 11.48
Number of Well Volumes to be purged (# Vols)
☐ 3 ☐ 4 ☒ 5 ☐ 10 ☐ Other

PURGE METHOD

☐ Bailer - Type:
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.:
☐ Other - Type:

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other
Depth in feet (BTOC): Screen Interval in Feet (BTOC) from to

PURGE VOLUME CALCULATION:

(34 (TD feet) - 11.48 (WL feet)) X 4 (D inches)^2 X 5 (# Vols) X 0.0408 = 73.5 gallons (Calculated Purge Volume)

PURGE TIME

0955 Start 1015 Stop 20 Elapsed

PURGE RATE

Initial 4 gpm Final 4 gpm

ACTUAL PURGE VOLUME

80 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb
Initial	6.7	600	19.0	82.6
30	6.7	550	18.0	51.3
60	6.7	500	19.0	37.1
80	6.7	500	19.0	18.7

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other
Meter Nos.	4717 9668			

Observations During Purging (Well Condition, Turbidity, Color, Odor): Clear Slight Odor
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum on Site

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: S.S.
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.:
☐ Same As Above
☐ Grab - Type:
☐ Other - Type:

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
JR03	3 VOAs	8240	HCL	Anametrix	
	2 1 liter gl.	TPH Motor 0.1 8015	None		

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

Harding Lawson Associates
Engineering and
Environmental Services

GROUND-WATER SAMPLING FORM

Job Name James River
Job Number 26560,1
Recorded by Steve Kodey (Signature)

Well No. W-7
Well Type: ☒ Monitor ☐ Extraction ☐ Other ____
Well Material: ☒ PVC ☐ St. Steel ☐ Other ____
Date 6-3-94 Time 0925
Sampled by SJK (Initials)

WELL PURGING

PURGE VOLUME

Casing Diameter (D in inches):
☐ 2-inch ☒ 4-inch ☐ 6-inch ☐ Other ____
Total Depth of Casing (TD in feet BTOC): 36
Water Level Depth (WL in feet BTOC): 12.02
Number of Well Volumes to be purged (# Vols)
☒ 3 ☐ 4 ☐ 5 ☐ 10 ☐ Other ____

PURGE METHOD

☐ Bailer - Type: ____
☐ Submersible ☒ Centrifugal ☐ Bladder; Pump No.: ____
☐ Other - Type: ____

PUMP INTAKE SETTING

☒ Near Bottom ☐ Near Top ☐ Other ____
Depth in feet (BTOC): ____ Screen Interval in Feet (BTOC) from ____ to ____

PURGE VOLUME CALCULATION:

(36 (TD feet) - 12.02 (WL feet)) x 4 (D inches)^2 x 3 (# Vols) x 0.0408 = 46.9 gallons (Calculated Purge Volume)

PURGE TIME

0900 Start 0920 Stop 20 Elapsed

PURGE RATE

Initial 2.5 gpm Final 2.5 gpm

ACTUAL PURGE VOLUME

50 gallons

FIELD PARAMETER MEASUREMENT

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☒ °C ☐ °F	Other Turb.
Initial	7.0	600	19.0	74.3
15	7.0	550	20.0	51.7
30	7.0	550	20.0	32.6
50	7.0	550	20.0	22.1

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T ☐ °C ☐ °F	Other ____
Meter Nos.	4717 9668			

Observations During Purging (Well Condition, Turbidity, Color, Odor): Clear No Odor
Discharge Water Disposal: ☐ Sanitary Sewer ☐ Storm Sewer ☒ Other Drum On Site

WELL SAMPLING

SAMPLING METHOD

☒ Bailer - Type: S.S.
☐ Submersible ☐ Centrifugal ☐ Bladder; Pump No.: ____
☐ Same As Above
☐ Grab - Type: ____
☐ Other - Type: ____

SAMPLING DISTRIBUTION

Sample Series: 9406

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments
JR02	3 VOAs	8240	HCL	Anametrix	
	2-1 Lamb. gl.	TPH, Motor Oil 8015	None		

QUALITY CONTROL SAMPLES

Duplicate Samples

Original Sample No.	Duplicate Sample No.

Blank Samples

Type	Sample No.

Other Samples

Type	Sample No.

ANAMETRIX ANALYTICAL DATA

Inchcape Testing Services
Anametrix Laboratories

1961 Concourse Drive
Suite E
San Jose, CA 95131
Tel: 408-432-8192
Fax: 408-432-8198

MR. RICK HUTTON
HARDING LAWSON ASSOCIATES - NOVATO
105 DIGITAL DRIVE
NOVATO, CA 94949

Workorder # : 9406038
Date Received : 06/03/94
Project ID : 26560.1
Purchase Order: N/A

The following samples were received at Anametrix for analysis :

ANAMETRIX ID	CLIENT SAMPLE ID
9406038- 1	9406JR01
9406038- 2	9406JR02
9406038- 3	9406JR03
9406038- 4	9406JR04
9406038- 5	9406JR05
9406038- 6	9406JR06
9406038- 7	9406JR07
9406038- 8	9406JR08
9406038- 9	9406JR09

This report is organized in sections according to the specific Anametrix laboratory group which performed the analysis(es) and generated the data.

The results contained within this report relate to only the sample(s) tested. Additionally, these data should be considered in their entirety and Anametrix cannot be responsible for the detachment, separation, or otherwise partial use of this report.

Anametrix is certified by the California Department of Health Services (DHS) to perform environmental testing under Certificate Number 1234.

If you have any further questions or comments on this report, please call us as soon as possible. Thank you for using Anametrix.

Doug Robbins
Laboratory Director

6-21-94
Date

This report consists of 22 pages.

ANAMETRIX REPORT DESCRIPTION
GCMS

Organic Analysis Data Sheets (OADS)

OADS forms contain tabulated results for target compounds. The OADS are grouped by method and, within each method, organized sequentially in order of increasing Anametrix ID number.

Tentatively Identified Compounds (TICs)

TIC forms contain tabulated results for non-target compounds detected in GC/MS analyses. TICs must be requested at the time samples are submitted at Anametrix. TIC forms immediately follow the OADS form for each sample. If TICs are requested but not found, then TIC forms will not be included with the report.

Surrogate Recovery Summary (SRS)

SRS forms contain quality assurance data. An SRS form will be printed for each method, if the method requires surrogate compounds. They will list surrogate percent recoveries for all samples and any method blanks. Any surrogate recovery outside the established limits will be flagged with an "*", and the total number of surrogates outside the limits will be listed in the column labelled "Total Out".

Matrix Spike Recovery Form (MSR)

MSR forms contain quality assurance data. They summarize percent recovery and relative percent difference information for matrix spikes and matrix spike duplicates. This information is a statement of both accuracy and precision. Any percent recovery or relative percent difference outside established limits will be flagged with an "*", and the total number outside the limits will be listed at the bottom of the page. Not all reports will contain an MSR form.

Qualifiers

Anametrix uses several data qualifiers (Q) in it's report forms. These qualifiers give additional information on the compounds reported. They should help a data reviewer to verify the integrity of the analytical results. The following is a list of qualifiers and their meanings:

- U - Indicates that the compound was analyzed for, but was not detected at or above the specified reporting limit.
- B - Indicates that the compound was detected in the associated method blank.
- J - Indicates that the compound was detected at an amount below the specified reporting limit. Consequently, the amount should be considered an approximate value. Tentatively identified compounds will always have a "J" qualifier because they are not included in the instrument calibration.
- E - Indicates that the amount reported exceeded the linear range of the instrument calibration.
- D - Indicates that the compound was detected in an analysis performed at a secondary dilution.
- A - Indicates that the tentatively identified compound is a suspected aldol condensation product. This is common in EPA Method 8270 soil analyses.

Absence of a qualifier indicates that the compound was detected at a concentration at or above the specified reporting limit.

REPORTING CONVENTIONS

- Due to a size limitation in our data processing step, only the first eight (8) characters of your project ID and sample ID will be printed on the report forms. However, the report cover letter and report summary pages display up to twenty (20) characters of your project and sample IDs.
- Amounts reported are gross values, i.e., not corrected for method blank contamination.

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. RICK HUTTON
HARDING LAWSON ASSOCIATES - NOVATO
105 DIGITAL DRIVE
NOVATO, CA 94949

Workorder # : 9406038
Date Received : 06/03/94
Project ID : 26560.1
Purchase Order: N/A
Department : GCMS
Sub-Department: GCMS

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9406038- 1	9406JR01	WATER	06/03/94	8240
9406038- 2	9406JR02	WATER	06/03/94	8240
9406038- 3	9406JR03	WATER	06/03/94	8240
9406038- 4	9406JR04	WATER	06/03/94	8240
9406038- 5	9406JR05	WATER	06/03/94	8240
9406038- 6	9406JR06	WATER	06/03/94	8240
9406038- 7	9406JR07	WATER	06/03/94	8240
9406038- 8	9406JR08	WATER	06/03/94	8240
9406038- 9	9406JR09	WATER	06/03/94	8240

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. RICK HUTTON
HARDING LAWSON ASSOCIATES - NOVATO
105 DIGITAL DRIVE
NOVATO, CA 94949

Workorder # : 9406038
Date Received : 06/03/94
Project ID : 26560.1
Purchase Order: N/A
Department : GCMS
Sub-Department: GCMS

QA/QC SUMMARY :

- No QA/QC problems were encountered for EPA Method 8240.

David L. Schwarz 6/20/94
Department Supervisor Date

Denise Powell 6-20-94
Chemist Date

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR01
Matrix : WATER
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

W-9

Anametrix ID : 9406038-01
Analyst : bd
Supervisor : RC

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	6.	
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	ND	U
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	5.	
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	110.	
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	12.	
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR02
Matrix : WATER
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

W-7

Anametrix ID : 9406038-02
Analyst : MP
Supervisor : DO

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	26.	
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	240.	
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	240.	
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR03
Matrix : WATER W-8
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

Anametrix ID : 9406038-03
Analyst :
Supervisor :

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	280.	
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	290.	
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR04
Matrix : WATER
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

W-10

Anametrix ID : 9406038-04
Analyst : DP
Supervisor : DV

Dilution Factor : 400.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	4000.	ND	U
75-01-4	Vinyl chloride	4000.	ND	U
74-83-9	Bromomethane	4000.	ND	U
75-00-3	Chloroethane	4000.	ND	U
75-69-4	Trichlorofluoromethane	2000.	ND	U
75-35-4	1,1-Dichloroethene	2000.	ND	U
76-13-1	Trichlorotrifluoroethane	2000.	ND	U
67-64-1	Acetone	8000.	150000.	
75-15-0	Carbon disulfide	2000.	ND	U
75-09-2	Methylene chloride	2000.	ND	U
156-60-5	Trans-1,2-dichloroethene	2000.	ND	U
75-34-3	1,1-Dichloroethane	2000.	ND	U
156-59-2	Cis-1,2-dichloroethene	2000.	ND	U
78-93-3	2-Butanone	8000.	ND	U
67-66-3	Chloroform	2000.	ND	U
71-55-6	1,1,1-Trichloroethane	2000.	ND	U
56-23-5	Carbon tetrachloride	2000.	ND	U
108-05-4	Vinyl acetate	4000.	ND	U
71-43-2	Benzene	2000.	ND	U
107-06-2	1,2-Dichloroethane	2000.	ND	U
79-01-6	Trichloroethene	2000.	ND	U
78-87-5	1,2-Dichloropropane	2000.	ND	U
75-27-4	Bromodichloromethane	2000.	ND	U
10061-01-5	Cis-1,3-dichloropropene	2000.	ND	U
108-10-1	4-Methyl-2-pentanone	4000.	4800.	
108-88-3	Toluene	2000.	ND	U
10061-02-6	Trans-1,3-dichloropropene	2000.	ND	U
79-00-5	1,1,2-Trichloroethane	2000.	ND	U
127-18-4	Tetrachloroethene	2000.	ND	U
591-78-6	2-Hexanone	4000.	ND	U
124-48-1	Dibromochloromethane	2000.	ND	U
108-90-7	Chlorobenzene	2000.	ND	U
100-41-4	Ethylbenzene	2000.	ND	U
1330-20-7	Xylene (Total)	2000.	ND	U
100-42-5	Styrene	2000.	ND	U
75-25-2	Bromoform	2000.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	2000.	ND	U
541-73-1	1,3-Dichlorobenzene	2000.	ND	U
106-46-7	1,4-Dichlorobenzene	2000.	ND	U
95-50-1	1,2-Dichlorobenzene	2000.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR05 B-1
Matrix : WATER
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

Anametrix ID : 9406038-05
Analyst : M
Supervisor : DLS
Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	27.	
75-15-0	Carbon disulfide	5.	13.	
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	ND	U
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR06
Matrix : WATER W-3
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

Anametrix ID : 9406038-06
Analyst : DP
Supervisor : DC
Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	8.	
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR07 W-6
Matrix : WATER
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

Anametrix ID : 9406038-07
Analyst : DP
Supervisor : DS

Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	100.	
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	5.	
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	310.	
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	450.	
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR08 W-5
Matrix : WATER
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

Anametrix ID : 9406038-08
Analyst : DP
Supervisor : DCS
Dilution Factor : 10.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	100.	ND	U
75-01-4	Vinyl chloride	100.	160.	
74-83-9	Bromomethane	100.	ND	U
75-00-3	Chloroethane	100.	ND	U
75-69-4	Trichlorofluoromethane	50.	ND	U
75-35-4	1,1-Dichloroethene	50.	ND	U
76-13-1	Trichlorotrifluoroethane	50.	ND	U
67-64-1	Acetone	200.	ND	U
75-15-0	Carbon disulfide	50.	ND	U
75-09-2	Methylene chloride	50.	ND	U
156-60-5	Trans-1,2-dichloroethene	50.	ND	U
75-34-3	1,1-Dichloroethane	50.	ND	U
156-59-2	Cis-1,2-dichloroethene	50.	1700.	
78-93-3	2-Butanone	200.	ND	U
67-66-3	Chloroform	50.	ND	U
71-55-6	1,1,1-Trichloroethane	50.	ND	U
56-23-5	Carbon tetrachloride	50.	ND	U
108-05-4	Vinyl acetate	100.	ND	U
71-43-2	Benzene	50.	ND	U
107-06-2	1,2-Dichloroethane	50.	ND	U
79-01-6	Trichloroethene	50.	530.	
78-87-5	1,2-Dichloropropane	50.	ND	U
75-27-4	Bromodichloromethane	50.	ND	U
10061-01-5	Cis-1,3-dichloropropene	50.	ND	U
108-10-1	4-Methyl-2-pentanone	100.	ND	U
108-88-3	Toluene	50.	ND	U
10061-02-6	Trans-1,3-dichloropropene	50.	ND	U
79-00-5	1,1,2-Trichloroethane	50.	ND	U
127-18-4	Tetrachloroethene	50.	3400.	
591-78-6	2-Hexanone	100.	ND	U
124-48-1	Dibromochloromethane	50.	ND	U
108-90-7	Chlorobenzene	50.	ND	U
100-41-4	Ethylbenzene	50.	ND	U
1330-20-7	Xylene (Total)	50.	ND	U
100-42-5	Styrene	50.	ND	U
75-25-2	Bromoform	50.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	50.	ND	U
541-73-1	1,3-Dichlorobenzene	50.	ND	U
106-46-7	1,4-Dichlorobenzene	50.	ND	U
95-50-1	1,2-Dichlorobenzene	50.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Sample ID : 9406JR09
Matrix : WATER TRIP BLANK
Date Sampled : 6/ 3/94
Date Analyzed : 6/16/94
Instrument ID : MSD1

Anametrix ID : 9406038-09
Analyst : DP
Supervisor : DLS
Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	ND	U
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

ORGANIC ANALYSIS DATA SHEET -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID :
Sample ID : VBLKV5
Matrix : WATER
Date Sampled : 0/ 0/ 0
Date Analyzed : 6/16/94
Instrument ID : MSD1

Anametrix ID : BU1602A2
Analyst : bp
Supervisor : DCS
Dilution Factor : 1.0
Conc. Units : ug/L

CAS No.	COMPOUND NAME	REPORTING LIMIT	AMOUNT DETECTED	Q
74-87-3	Chloromethane	10.	ND	U
75-01-4	Vinyl chloride	10.	ND	U
74-83-9	Bromomethane	10.	ND	U
75-00-3	Chloroethane	10.	ND	U
75-69-4	Trichlorofluoromethane	5.	ND	U
75-35-4	1,1-Dichloroethene	5.	ND	U
76-13-1	Trichlorotrifluoroethane	5.	ND	U
67-64-1	Acetone	20.	ND	U
75-15-0	Carbon disulfide	5.	ND	U
75-09-2	Methylene chloride	5.	ND	U
156-60-5	Trans-1,2-dichloroethene	5.	ND	U
75-34-3	1,1-Dichloroethane	5.	ND	U
156-59-2	Cis-1,2-dichloroethene	5.	ND	U
78-93-3	2-Butanone	20.	ND	U
67-66-3	Chloroform	5.	ND	U
71-55-6	1,1,1-Trichloroethane	5.	ND	U
56-23-5	Carbon tetrachloride	5.	ND	U
108-05-4	Vinyl acetate	10.	ND	U
71-43-2	Benzene	5.	ND	U
107-06-2	1,2-Dichloroethane	5.	ND	U
79-01-6	Trichloroethene	5.	ND	U
78-87-5	1,2-Dichloropropane	5.	ND	U
75-27-4	Bromodichloromethane	5.	ND	U
10061-01-5	Cis-1,3-dichloropropene	5.	ND	U
108-10-1	4-Methyl-2-pentanone	10.	ND	U
108-88-3	Toluene	5.	ND	U
10061-02-6	Trans-1,3-dichloropropene	5.	ND	U
79-00-5	1,1,2-Trichloroethane	5.	ND	U
127-18-4	Tetrachloroethene	5.	ND	U
591-78-6	2-Hexanone	10.	ND	U
124-48-1	Dibromochloromethane	5.	ND	U
108-90-7	Chlorobenzene	5.	ND	U
100-41-4	Ethylbenzene	5.	ND	U
1330-20-7	Xylene (Total)	5.	ND	U
100-42-5	Styrene	5.	ND	U
75-25-2	Bromoform	5.	ND	U
79-34-5	1,1,2,2-Tetrachloroethane	5.	ND	U
541-73-1	1,3-Dichlorobenzene	5.	ND	U
106-46-7	1,4-Dichlorobenzene	5.	ND	U
95-50-1	1,2-Dichlorobenzene	5.	ND	U

SURROGATE RECOVERY SUMMARY -- EPA METHOD 8240
ANAMETRIX, INC. (408)432-8192

Project ID : 26560.1
Matrix : LIQUID

Anametrix ID : 9406038
Analyst : BP
Supervisor : DLS

	SAMPLE ID	SU1	SU2	SU3
1	VBLKV5	95	97	101
2	VLCSHI	98	99	102
3	9406JR01	104	99	103
4	9406JR02	107	99	103
5	9406JR03	107	100	103
6	9406JR04	106	99	104
7	9406JR09	110	100	103
8	9406JR05	111	98	103
9	9406JR06	111	101	103
10	9406JR08	110	99	103
11	9406JR07	109	101	102
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

	QC LIMITS
SU1 = 1,2-Dichloroethane-d4	(75-113)
SU2 = Toluene-d8	(83-110)
SU3 = 1,4-Bromofluorobenzene	(82-114)

* Values outside of Anametrix QC limits

LABORATORY CONTROL SPIKE RECOVERY FORM --- EPA METHOD 624/8240
ANAMETRIX, INC. (408)432-8192

Project/Case	:	Anametrix ID	: MU1601A2
Matrix	: WATER	Analyst	: DF
Date Sampled	: 0/ 0/ 0	Supervisor	: DCS
Date Analyzed	: 6/16/94	SDG/Batch	:
Instrument ID	: MSD1	Sample ID	: VLCSHI

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	%REC LIMITS
1,1-Dichloroethene	50	0	52	104	72-145
Benzene	50	0	52	104	83-125
Trichloroethene	50	0	47	94	61-140
Toluene	50	0	52	104	82-123
Chlorobenzene	50	0	53	106	82-125

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. RICK HUTTON
HARDING LAWSON ASSOCIATES - NOVATO
105 DIGITAL DRIVE
NOVATO, CA 94949

Workorder # : 9406038
Date Received : 06/03/94
Project ID : 26560.1
Purchase Order: N/A
Department : GC
Sub-Department: TPH

SAMPLE INFORMATION:

ANAMETRIX SAMPLE ID	CLIENT SAMPLE ID	MATRIX	DATE SAMPLED	METHOD
9406038- 2	9406JR02	WATER	06/03/94	TPHd
9406038- 3	9406JR03	WATER	06/03/94	TPHd

REPORT SUMMARY
ANAMETRIX, INC. (408)432-8192

MR. RICK HUTTON
HARDING LAWSON ASSOCIATES - NOVATO
105 DIGITAL DRIVE
NOVATO, CA 94949

Workorder # : 9406038
Date Received : 06/03/94
Project ID : 26560.1
Purchase Order: N/A
Department : GC
Sub-Department: TPH

QA/QC SUMMARY :

- The concentrations reported as diesel for samples 9406JR02 and 9406JR03 are due to the presence of a combination of diesel and discrete peaks not indicative of diesel.
- The concentrations reported as motor oil for samples 9406JR02 and 9406JR03 are due to the presence of a combination of motor oil and discrete peaks not indicative of motor oil.

Cheryl Balmer 6/21/94
Department Supervisor Date

Dusa Sluoz 6/21/94
Chemist Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS DIESEL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9406038
Matrix : WATER
Date Sampled : 06/03/94
Date Extracted: 06/08/94

Project Number : 26560.1
Date Released : 06/15/94
Instrument I.D.: HP19

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9406038-02	9406JR02 *	06/10/94	50	130	87%
9406038-03	9406JR03 *	06/09/94	50	200	89%
BU0811F9	METHOD BLANK	06/09/94	50	ND	109%

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.
The surrogate recovery limits for o-terphenyl are 47-114%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as diesel is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

* W-7 (9406JR02)
W-8 (9406JR03)

Analyst Date

Supervisor Date

ANALYSIS DATA SHEET - TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
ANAMETRIX, INC. (408) 432-8192

Anametrix W.O.: 9406038
Matrix : WATER
Date Sampled : 06/03/94
Date Extracted: 06/08/94

Project Number : 26560.1
Date Released : 06/15/94
Instrument I.D.: HP19

Anametrix I.D.	Client I.D.	Date Analyzed	Reporting Limit (ug/L)	Amount Found (ug/L)	Surrogate %Rec
9406038-02	9406JR02 *	06/10/94	100	130	87%
9406038-03	9406JR03 *	06/09/94	100	110	89%
BU0811F9	METHOD BLANK	06/09/94	100	ND	109%

Note : Reporting limit is obtained by multiplying the dilution factor times 50 ug/L.
The surrogate recovery limits for o-terphenyl are 47-114%.

ND - Not detected at or above the practical quantitation limit for the method.
TPHd - Total Petroleum Hydrocarbons as motor oil is determined by GCFID following sample extraction by EPA Method 3510.

All testing procedures follow California Department of Health Services (Cal-DHS) approved methods.

* W-7 (9406JR02)
W-8 (9406JR03)

Analyst Date

Supervisor Date

TOTAL EXTRACTABLE HYDROCARBON LABORATORY CONTROL SAMPLE REPORT
EPA METHOD 3510 WITH GC/FID
ANAMETRIX, INC. (408) 432-8192

Sample I.D. : LAB CONTROL SAMPLE
Matrix : WATER
Date Sampled : N/A
Date Extracted: 06/08/94
Date Analyzed : 06/09/94

Anametrix I.D. : MU0811F9
Analyst : IS
Supervisor : CS
Date Released : 06/15/94
Instrument I.D.: HP19

COMPOUND	SPIKE AMT (ug/L)	LCS REC (ug/L)	% REC LCS	LCSD REC (ug/L)	% REC LCSD	RPD	% REC LIMITS
DIESEL	1250	1360	109%	1400	112%	3%	38-96
SURROGATE			93%		94%		47-114

* Quality control limits established by Anametrix, Inc.

CHAIN OF CUSTODY FORM

#2690

9406038

10/18 (16)

Harding Lawson Associates
105 Digital Drive
Novato, CA 94949
P.O. Box 6107
Novato, CA 94948
(415) 883-0112 • (415) 883-3300 FAX

CHAIN OF CUSTODY FORM

Lab: Anametrix

Samplers: SJK

Project Number: 26560.1

Name/Location: James River / San Leandro

Project Manager: Rick Hutton

Recorder: Steve Kerday (Signature Required)

SOURCE CODE	MATRIX: Water	Sediment	Soil	Oil	#CONTAINERS & PRESERV.: Unpres.	H_2SO_4	HNO_3	HCL	SAMPLE NUMBER OR LAB NUMBER: Yr	Wk	Seq	DATE: Yr	Mo	Dy	Time	STATION DESCRIPTION/ NOTES	ANALYSIS REQUESTED: EPA 601/8010	EPA 602/8020	EPA 624/8240	EPA 625/8270	ICP METALS	EPA 8015M/TPH	TPH Heter.C1 modified 8015
1 23	X							3	94	06	JR01	940603	08	35				X				
2 23	X				2			3	94	06	JR02	940603	09	25				X				X
3 23	X				2			3	94	06	JR03	940603	10	20				X				X
4 23	X							3	94	06	JR04	940603	11	05				X				
5 23	X							3	94	06	JR05	940603	11	55				X				
6 23	X							3	94	06	JR06	940603	12	35				X				
7 23	X							3	94	06	JR07	940603	13	25				X				
8 23	X							3	94	06	JR08	940603	14	00				X				
9 23	X							3	94	06	JR09	940603	14	10				X				

LAB NUMBER: Yr	Wk	Seq	DEPTH IN FEET	COL MTD CD	QA CODE	MISCELLANEOUS
						Standard T.A.T.

CHAIN OF CUSTODY RECORD

RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE/TIME
RELINQUISHED BY: (Signature) Steve Kerday	RECEIVED BY: (Signature) Lenny S. Campos	6/3/94 1430
DISPATCHED BY: (Signature) Lenny S. Campos	DATE/TIME 6/3/94 1535	RECEIVED FOR LAB BY: (Signature) Pamela C. Fallon	DATE/TIME 6/3/94 15:35
METHOD OF SHIPMENT		

Laboratory Copy White — Project Office Copy Yellow — Field or Office Copy Pink

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