



Environmental
Science &
Engineering, Inc.

RECEIVED
ENVIRONMENTAL
HEALTH SECTION
95 NOV 27 PM 3:36

November 20, 1995

Mr. Dale Klettke, CHMM
Alameda County Health Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

**SUBJECT: FOURTH QUARTER OF 1995
GROUND WATER MONITORING REPORT
JAMES RIVER CORPORATION
2101 WILLIAMS STREET
SAN LEANDRO, CALIFORNIA
ESE PROJECT NO. 65-95-022**

Dear Mr. Klettke:

This report presents the results of the fourth quarter of 1995 ground water monitoring activities conducted by Environmental Science & Engineering, Inc. (ESE) for the James River Corporation facility at 2101 Williams Street, San Leandro, California (Figure 1). This document was prepared under the supervision of a California Registered Geologist and for the exclusive use of the James River Corporation and the Alameda County Health Care Services Agency (ACHCSA), the only intended beneficiaries of our work. No other party may rely on the information contained in this report without prior written consent of ESE.

FOURTH QUARTER 1995 GROUND WATER MONITORING

Field Investigation

On October 13, 1995, ground water samples were collected from monitoring wells W-3, W-5, W-6, W-7, W-8, W-9, W-10, and B-1 for chemical analyses. All sampling equipment was decontaminated before sampling activities began and after each sampling event at each well. All ground water sampling was performed according to ACHCSA requirements. ESE's Standard Operating Procedure No. 3 for Ground Water Monitoring and Sampling from Monitoring Wells is presented in Appendix A. Copies of ESE's ground water sample collection logs are presented in Appendix B.

Mr. Dale Klettke, CHMM

November 20, 1995

Page 2

Before the wells were purged and sampled, water-level measurements were obtained using an electronic ground water well sounder with an accuracy of 0.01 foot. The measurements were repeated several times until consecutive measurements differed by less than 0.01 foot. The final measurements were recorded on ESE's sample collection logs.

Each well was purged of at least three well volumes of water using a vacuum extraction system. Vacuum extraction services were provided by Automated Environmental Services (AES) located in Modesto, California. Class 2000 PVC "stingers" have been designated to each of the site wells and are utilized by AES to purge each well prior to sampling. During the well purging process field parameters (consisting of temperature, electrical conductivity, and pH) were monitored and recorded on the ESE ground water sample collection logs. Samples were collected after the parameter readings had stabilized. Field parameter measurements for purged water are presented in Table 1 and on ESE's sample collection logs, included as Appendix B.

After purging, ground water samples were collected from each well using a new disposable bailer. To prevent cross-contamination, a new dropline and a new bailer were used for sample collection at each well. Ground water samples collected for volatile organic compound (VOC) analysis were decanted into three 40-milliliter vials. Ground water samples collected from wells W-7 and W-8 were decanted into a one-liter amber glass bottle for analysis of total petroleum hydrocarbons as diesel (TPH-D) and as motor oil (TPH-Mo). Samples were assigned numbers related to the well of origin, stored on ice, and delivered with a chain-of-custody record to Curtis & Tompkins, Ltd. (a State-certified laboratory) located in Berkeley, California.

One trip blank, to be analyzed for VOCs using EPA method 8240 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 or contamination of volatile chemicals during transport. This sample was entered on the chain-of-custody form and delivered to the laboratory in the cooler containing the ground water samples.

Ground Water Gradient and Flow Direction

Water-level measurements during the period of June 1994 to October 1995 are presented in Table 2. The direction of ground water flow during this quarter is towards the west at a gradient of approximately 0.006 ft/ft (Figure 2). Ground water flow direction and gradient data are consistent with data collected from previous monitoring periods.

Chemical Analyses

Figure 3 illustrates the well location and the reported concentration of analytes detected in samples collected from each well. Table 3 presents a summary of reported ground water sample analytical results for the period of June 1994 to October 1995. Concentrations of chemical analytes reported during this quarter are consistent with results reported during the previous third quarter sampling event.

Reported trichloroethene (TCE) concentrations have increased slightly since the third quarter in wells W-5 (from 350 micrograms per liter, $\mu\text{g/L}$, to 450 $\mu\text{g/L}$), W-7 (from 140 $\mu\text{g/L}$ to 190 $\mu\text{g/L}$), and W-9 (from 89 $\mu\text{g/L}$ to 110 $\mu\text{g/L}$). Reported TCE concentrations remained the same in wells W-3 (150 $\mu\text{g/L}$) and W-6 (250 $\mu\text{g/L}$). No detectable concentrations of TCE were reported in wells W-8, W-10, and B-1.

Reported tetrachloroethene (PCE) concentrations increased slightly in wells W-5 (from 3,400 $\mu\text{g/L}$ to 3,700 $\mu\text{g/L}$), W-7 (from 140 $\mu\text{g/L}$ to 170 $\mu\text{g/L}$), and W-9 (from 9 $\mu\text{g/L}$ to 9.9 $\mu\text{g/L}$). The reported concentrations of PCE decreased slightly in well W-3 (from 320 $\mu\text{g/L}$ to 220 $\mu\text{g/L}$) and W-6 (from 470 $\mu\text{g/L}$ to 430 $\mu\text{g/L}$). No detectable concentrations of PCE were reported in wells W-8, W-10, and B-1.

The reported vinyl chloride concentration increased slightly in wells W-3 (from 20 $\mu\text{g/L}$ to 25 $\mu\text{g/L}$), and W-8 (from 200 $\mu\text{g/L}$ to 290 $\mu\text{g/L}$). The reported concentrations of vinyl chloride decreased slightly in well W-7 (from 48 $\mu\text{g/L}$ to 28 $\mu\text{g/L}$). No detectable concentrations of vinyl chloride were reported in wells W-5, W-6, W-9, W-10, and B-1.

The reported acetone concentration increased in well W-10 (from 19,000 $\mu\text{g/L}$ to 39,000 $\mu\text{g/L}$). No detectable concentrations of acetone were reported in other site wells sampled during this quarter.

The reported cis-1,2-dichloroethene (DCE) concentration increased slightly in wells W-3 (from 19 $\mu\text{g/L}$ to 24 $\mu\text{g/L}$), W-5 (from 320 $\mu\text{g/L}$ to 350 $\mu\text{g/L}$) and W-8 (from 230 $\mu\text{g/L}$ to 280 $\mu\text{g/L}$). Reported DCE concentrations decreased slightly in well W-7 (from 49 $\mu\text{g/L}$ to 39 $\mu\text{g/L}$). No detectable concentrations of DCE were reported in wells W-6, W-9, W-10, and B-1.

No detectable concentrations of 1,1,1-trichloroethane (TCA), 1,1-dichloroethane (DCA), 4-methyl-2-pentanone (MIBK), 1,1-dichloroethene (DCE), and carbon disulfide were reported in site wells sampled during this quarter.

Mr. Dale Klettke, CHMM
November 20, 1995
Page 4

No detectable concentrations of TPH-D or TPH-Mo were reported in wells W-7 and W-8 during this quarter. A copy of the laboratory report and chain-of-custody documentation are presented in Appendix C.

Conclusions and Recommendations

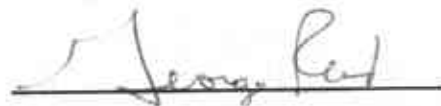
Results of quarterly ground water sampling and analysis performed during October 1995 indicate that chlorinated hydrocarbons continue to be present in the shallow ground water beneath the James River Facility in San Leandro. The findings are consistent with those collected for past ground water monitoring reports.

The next ground water monitoring event is scheduled to occur during January 1996. Please contact Rebecca J. Hoge or George Reid at (510) 685-4053 with any questions pertaining to this report.

Respectfully submitted,

ENVIRONMENTAL SCIENCE & ENGINEERING, INC.


Rebecca J. Hoge
Senior Staff Hydrogeologist


George Reid, R.G. #3608
Senior Geologist

November 20, 1995

Date

Nov. 20, 1995

Date

Mr. Dale Klettke, CHMM
November 20, 1995
Page 5

Attachments: Table 1	Field Parameter Measurements of Water Purged from Monitoring Wells October 13, 1995
Table 2	Water-Level Measurements
Table 3	Analytical Results for Ground Water Samples
Figure 1	Location Map
Figure 2	Ground Water Level Contour Map
Figure 3	Ground Water Quality Analytical Results
Appendix A	ESE Standard Operating Procedure No. 3
Appendix B	Sample Collection Logs
Appendix C	Analytical Reports with Chain-of-Custody Documentation

TABLE 1

FIELD PARAMETER MEASUREMENTS OF WATER PURGED
FROM MONITORING WELLS
October 13, 1995

James River Corporation
San Leandro, California

Monitoring Well Number	Gallons Purged	pH	Electrical Conductivity (umhos/cm)	Temperature (°F)
B-1	20	8.00	721	65.2
	40	7.95	756	65.2
	60	7.91	753	65.3
	75	7.90	750	65.2
W-3	10	7.58	871	66.2
	20	7.46	884	65.0
	30	7.35	846	64.8
	40	7.38	790	64.6
	50	7.33	782	64.6
W-5	5	7.61	794	65.6
	10	7.68	718	65.4
	15	7.68	710	64.4
	20	7.68	712	64.2
W-6	5	7.57	674	65.8
	10	7.50	728	65.4
	15	7.54	734	65.4
	20	7.56	736	65.4
W-7	10	7.45	746	65.4
	20	7.70	759	64.6
	30	7.70	763	64.8
	40	7.73	766	64.8
	50	7.74	759	64.8
W-8	10	7.20	651	66.8
	20	7.10	647	65.4
	30	7.14	644	65.2
	40	7.20	636	65.2
	50	7.21	630	65.2
W-9	10	6.25	919	66.5
	20	6.64	872	66.6
	30	7.04	880	66.4
	40	7.20	863	66.4
	50	7.21	869	66.4
	60	7.25	871	66.4
	70	7.30	868	66.4
W-10	5	7.01	1090	69.0
	10	6.89	1066	67.8
	15	6.84	1059	67.6

Notes:

umhos/cm = Micromhos per centimeter

°F = Degrees Fahrenheit

TABLE 2

WATER-LEVEL MEASUREMENTS

James River Corporation
San Leandro, California

Monitoring 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	Jun-94	20.67	11.62	9.05
	Sep-94	20.67	12.27	8.40
	Dec-94	20.67	10.96	9.71
	Feb-95	20.67	10.26	10.41
	May-95	20.67	10.32	10.35
	Jul-95	20.67	11.26	9.41
	Oct-95	20.67	11.96	8.71
W-3	Jun-94	20.80	11.82	8.98
	Sep-94	20.80	12.48	8.32
	Dec-94	20.80	11.20	9.60
	Feb-95	20.80	10.52	10.28
	May-95	20.80	10.38	10.42
	Jul-95	20.80	11.50	9.30
	Oct-95	20.80	12.22	8.58
W-4	Jun-94	21.00	11.98	9.02
	Sep-94	21.00	12.63	8.37
	Dec-94	21.00	11.35	9.65
	Feb-95	21.00	10.66	10.34
	May-95	21.00	10.72	10.28
	Jul-95	21.00	11.63	9.37
	Oct-95	21.00	12.34	8.66
W-5	Jun-94	21.64	12.64	9.00
	Sep-94	21.64	13.29	8.35
	Dec-94	21.64	12.00	9.64
	Feb-95	21.64	11.32	10.32
	May-95	21.64	11.36	10.28
	Jul-95	21.64	12.84	8.80
	Oct-95	21.64	12.94	8.70
W-6	Jun-94	21.05	11.97	9.08
	Sep-94	21.05	12.62	8.43
	Dec-94	21.05	11.35	9.70
	Feb-95	21.05	10.63	10.42
	May-95	21.05	10.30	10.75
	Jul-95	21.05	13.75	7.30
	Oct-95	21.05	12.47	8.58
W-7	Jun-94	20.41	12.02	8.39
	Sep-94	20.41	12.63	7.78
	Dec-94	20.41	11.44	8.97
	Feb-95	20.41	10.84	9.57
	May-95	20.41	10.30	10.11
	Jul-95	20.41	11.70	8.71
	Oct-95	20.41	12.39	8.02

TABLE 2 (cont)

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-8	Jun-94	20.50	11.48	9.02
	Sep-94	20.50	12.08	8.42
	Dec-94	20.50	10.85	9.65
	Feb-95	20.50	10.19	10.31
	May-95	20.50	10.55	9.95
	Jul-95	20.50	11.14	9.36
	Oct-95	20.50	11.81	8.69
W-9	Jun-94	20.16	11.52	8.64
	Sep-94	20.16	12.00	8.16
	Dec-94	20.16	10.92	9.24
	Feb-95	20.16	10.30	9.86
	May-95	20.16	10.38	9.78
	Jul-95	20.16	11.21	8.95
	Oct-95	20.16	11.90	8.26
W-10	Jun-94	20.22	12.16	8.06
	Sep-94	20.22	12.85	7.37
	Dec-94	20.22	11.53	8.69
	Feb-95	20.22	10.98	9.24
	May-95	20.22	10.95	9.27
	Jul-95	20.22	11.84	8.38
	Oct-95	20.22	12.54	7.68
B-1	Jun-94	20.59	11.60	8.99
	Sep-94	20.59	12.26	8.33
	Dec-94	20.59	10.97	9.62
	Feb-95	20.59	10.28	10.31
	May-95	20.59	10.34	10.25
	Jul-95	20.59	11.25	9.34
	Oct-95	20.59	11.98	8.61

TABLE 3

ANALYTICAL RESULTS FOR GROUND WATER SAMPLES

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

Monitoring Well Number	Sample Date	Benzene	Ethylbenzene	Toluene	Total Xylenes	TPH Diesel	TPH Motor Oil
W-3	Jun-94	ND	ND	ND	ND	NA	NA
	Sep-94	ND	ND	ND	ND	NA	NA
	Dec-94	ND	ND	ND	ND	NA	NA
	Feb-95	ND	ND	ND	ND	NA	NA
	May-95	ND	ND	ND	ND	NA	NA
	Jul-95	ND	ND	ND	ND	NA	NA
	Oct-95	ND	ND	ND	ND	NA	NA
	W-5	Jun-94	ND	ND	ND	ND	NA
Sep-94		ND	ND	ND	ND	NA	NA
Dec-94		ND	ND	ND	ND	NA	NA
Feb-95		ND	ND	ND	ND	NA	NA
May-95		ND	ND	ND	ND	NA	NA
Jul-95		ND	ND	ND	ND	NA	NA
Oct-95		ND	ND	ND	ND	NA	NA
W-6		Jun-94	ND	ND	ND	ND	NA
	Sep-94	ND	ND	ND	ND	NA	NA
	Dec-94	ND	ND	ND	ND	NA	NA
	Feb-95	ND	ND	ND	ND	NA	NA
	May-95	ND	ND	ND	ND	NA	NA
	Jul-95	ND	ND	ND	ND	NA	NA
	Oct-95	ND	ND	ND	ND	NA	NA
	W-7	Jun-94	ND	ND	ND	ND	130
Sep-94		ND	ND	ND	ND	71	630
Dec-94		ND	ND	ND	ND	300	120
Feb-95		ND	ND	ND	ND	ND	ND
May-95		ND	ND	ND	ND	15,000	9,600
Jul-95		ND	ND	ND	ND	ND	ND
Oct-95		ND	ND	ND	ND	ND	ND
W-8		Jun-94	ND	ND	ND	ND	200
	Sep-94	ND	ND	ND	ND	170	870
	Dec-94	ND	ND	ND	ND	450	270
	Feb-95	ND	ND	ND	ND	3,100	1,200
	May-95	ND	ND	ND	ND	ND	ND
	Jul-95	ND	ND	ND	ND	ND	ND
	Oct-95	ND	ND	ND	ND	ND	ND
	W-9	Jun-94	ND	ND	ND	ND	NA
Sep-94		ND	ND	ND	ND	NA	NA
Dec-94		ND	ND	ND	ND	NA	NA
Feb-95		ND	ND	ND	ND	NA	NA
May-95		ND	ND	ND	ND	NA	NA
Jul-95		ND	ND	ND	ND	NA	NA
Oct-95		ND	ND	ND	ND	NA	NA
W-10		Jun-94	ND	ND	ND	ND	NA
	Sep-94	ND	ND	ND	ND	NA	NA
	Dec-94	ND	ND	ND	ND	NA	NA
	Feb-95	ND	ND	ND	ND	NA	NA
	May-95	ND	ND	ND	ND	NA	NA
	Jul-95	ND	15	140	80	NA	NA
	Oct-95	ND	ND	ND	ND	NA	NA
	B-1	Jun-94	ND	ND	ND	ND	NA
Sep-94		ND	ND	ND	ND	NA	NA
Dec-94		ND	ND	ND	ND	NA	NA
Feb-95		ND	ND	ND	ND	NA	NA
May-95		ND	ND	ND	ND	NA	NA
Jul-95		ND	ND	ND	ND	NA	NA
Oct-95		ND	ND	ND	ND	NA	NA

TABLE 3 (cont)

ANALYTICAL RESULTS FOR GROUND WATER SAMPLES

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

Monitoring Well Number	Sample Date	TCE	Vinyl Chloride	PCE	1,1,1-TCA	Cis-1,2DCE	1,1DCA	Acetone	MIBK	1,1-DCE	Carbon Disulfide
W-3	Jun-94	ND	ND	ND	ND	8	ND	ND	210	ND	ND
	Sep-94	14	ND	19	ND	8	ND	ND	ND	ND	ND
	Dec-94	ND	ND	ND	ND	61	ND	ND	ND	ND	ND
	Feb-95	ND	ND	ND	ND	11	ND	ND	ND	ND	4
	May-95	160	28	270	ND	23	ND	ND	ND	ND	ND
	Jul-95	150	20	320	ND	19	ND	ND	ND	ND	ND
	Oct-95	150	25	270	ND	24	ND	ND	ND	ND	ND
W-5	Jun-94	530	160	3,400	ND	1,700	ND	ND	ND	ND	ND
	Sep-94	530	140	2,500	ND	1300	ND	ND	ND	ND	ND
	Dec-94	350	ND	1,800	ND	1,600	ND	ND	ND	ND	ND
	Feb-95	290	ND	1,900	ND	2,100	ND	ND	ND	ND	ND
	May-95	360	ND	3,600	ND	540	ND	ND	ND	ND	ND
	Jul-95	350	28	3,400	ND	320	ND	ND	ND	ND	ND
	Oct-95	450	ND	2,700	ND	350	ND	ND	ND	ND	ND
W-6	Jun-94	310	ND	450	5	100	ND	ND	ND	ND	ND
	Sep-94	230	ND	310	ND	380	ND	ND	ND	ND	ND
	Dec-94	78	ND	120	ND	280	ND	ND	ND	ND	ND
	Feb-95	250	ND	320	ND	24	ND	ND	ND	ND	ND
	May-95	230	ND	440	ND	16	ND	ND	ND	ND	ND
	Jul-95	250	ND	470	ND	ND	ND	ND	ND	ND	ND
	Oct-95	250	ND	470	ND	ND	ND	ND	ND	ND	ND
W-7	Jun-94	240	ND	240	ND	26	ND	ND	ND	ND	ND
	Sep-94	120	ND	86	ND	230	ND	ND	ND	ND	ND
	Dec-94	9	37	8	ND	120	ND	ND	ND	ND	ND
	Feb-95	180	ND	170	ND	17	ND	ND	ND	ND	ND
	May-95	100	59	ND	ND	110	ND	ND	ND	ND	ND
	Jul-95	140	48	140	ND	49	ND	ND	ND	ND	ND
	Oct-95	190	28	170	ND	39	ND	ND	ND	ND	ND
W-8	Jun-94	ND	280	ND	ND	290	ND	ND	ND	ND	ND
	Sep-94	ND	43	ND	ND	59	ND	ND	ND	ND	ND
	Dec-94	ND	ND	ND	ND	15	ND	ND	ND	ND	ND
	Feb-95	ND	82	ND	ND	79	ND	ND	ND	ND	ND
	May-95	ND	260	ND	ND	160	ND	ND	ND	ND	ND
	Jul-95	ND	200	ND	ND	230	ND	ND	ND	ND	ND
	Oct-95	ND	200	ND	ND	280	ND	ND	ND	ND	ND
W-9	Jun-94	110	ND	12	5	ND	ND	ND	ND	6	ND
	Sep-94	80	ND	7	ND	30	ND	ND	ND	ND	ND
	Dec-94	ND	ND	ND	ND	110	ND	ND	ND	ND	ND
	Feb-95	3	ND	ND	ND	63	ND	ND	ND	ND	ND
	May-95	72	ND	7.2	ND	ND	ND	ND	ND	ND	ND
	Jul-95	89	ND	9.0	ND	ND	ND	ND	ND	ND	ND
	Oct-95	110	ND	9.9	ND	ND	ND	ND	ND	ND	ND
W-10	Jun-94	ND	ND	ND	ND	ND	ND	150,000	4,800	ND	ND
	Sep-94	ND	ND	ND	ND	ND	ND	74,000	ND	ND	ND
	Dec-94	ND	ND	ND	ND	ND	ND	18,000	1,600	ND	ND
	Feb-95	ND	ND	ND	ND	ND	ND	47,000	1,300	ND	ND
	May-95	ND	ND	ND	ND	ND	ND	21,000	ND	ND	ND
	Jul-95	ND	ND	ND	ND	ND	ND	19,000	ND	ND	ND
	Oct-95	ND	ND	ND	ND	ND	ND	39,000	ND	ND	ND
B-1	Jun-94	ND	ND	ND	ND	ND	ND	27	ND	ND	ND
	Sep-94	ND	ND	ND	ND	ND	ND	66	ND	ND	ND
	Dec-94	ND	ND	ND	ND	ND	ND	23	ND	ND	ND
	Feb-95	ND	ND	ND	ND	ND	ND	62	ND	ND	ND
	May-95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Jul-95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Oct-95	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

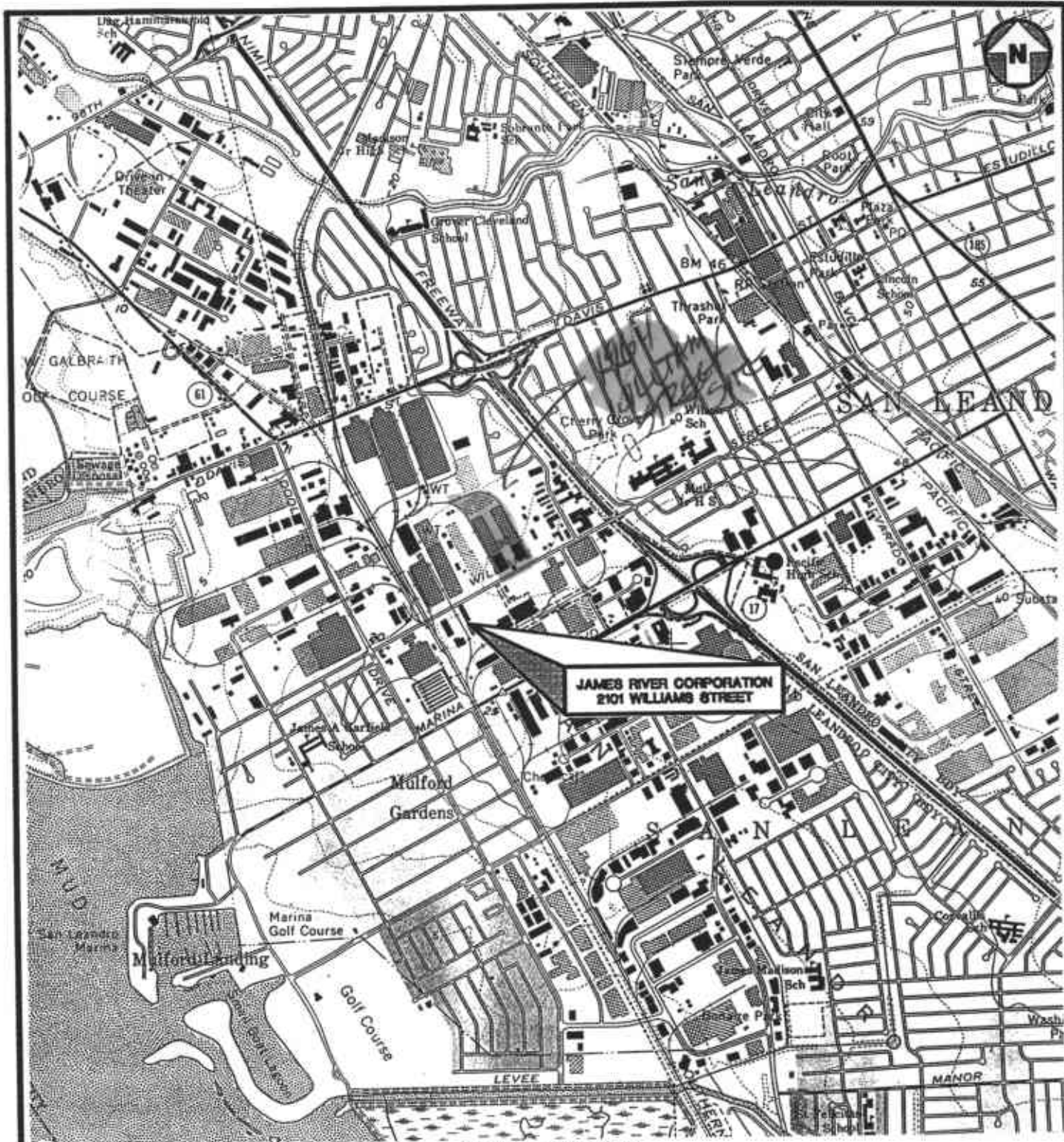
Notes:

NA = Not Analyzed

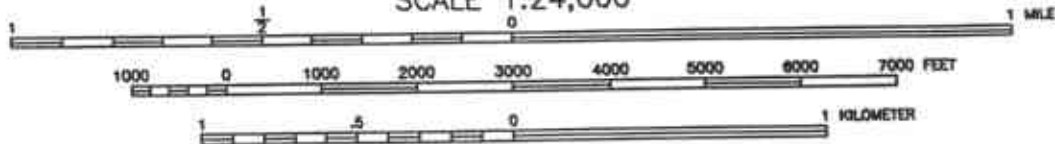
ND = Not detected at the listed concentration.

MIBK = Listed in laboratory reports as 4-Methyl-2-pentanone.


Bold = Concentrations reported above the detection limit during the October 1995 sampling event.



SCALE 1:24,000



ADAPTED FROM U.S.G.S. SAN LEANDRO, CA. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE MAP 1959, PHOTOREVISED 1980.

 Environmental Science & Engineering, Inc.	DATE 3/10/95	LOCATION MAP	FIGURE NO. 1
	REVISED		JAMES RIVER CORPORATION 2101 WILLIAMS STREET SAN LEANDRO, CALIFORNIA
4090 NELSON AVENUE, SUITE J CONCORD, CA 94520	CAD FILE 50220003		



SOUTHERN PACIFIC RAILROAD R/W

WILLIAMS STREET

JAMES RIVER FLEXIBLE PACKAGING PLANT

RAMP

NEW INK ROOM

ABOVE GROUND STORAGE TANKS

FORMER LOCATION OF UNDERGROUND STORAGE TANKS, REMOVED JUNE 1989

W-5
8.70

W-6
8.58

W-1
8.71

W-4
8.66

B-1
8.61

W-3
8.58

W-10
7.68

W-8
8.69

W-7
8.02

W-9
8.26

AAAAA RENT-A-SPACE

8.80

8.40

8.20

LEGEND

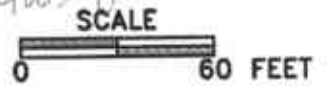
W-9 8.71 GROUND WATER MONITORING WELL WITH ELEVATION

PROPERTY LINE

-8.60- GROUND WATER POTENTIOMETRIC CONTOUR WITH ELEVATION

APPROXIMATE GROUND WATER FLOW DIRECTION

ND WELLS (TPH, BTEX, TPH, TPH, TPH)
Wells sampled this quarter



Environmental Science & Engineering, Inc.

DATE
3/9/95

REVISED
11/7/95

CAD FILE
65502202

GROUND WATER LEVEL CONTOUR MAP
OCTOBER 13, 1995

JAMES RIVER CORPORATION
2101 WILLIAMS STREET
SAN LEANDRO, CALIFORNIA

FIGURE NO.
2

PROJ. NO.
65-95-022

4090 NELSON AVENUE, SUITE J
CONCORD, CA 94520

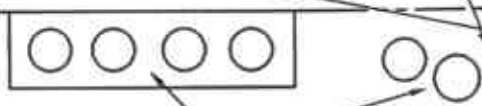


WILLIAMS STREET

COMPOUND CONCENTRATION	
TCE	450
PCE	3,700
DCE	350

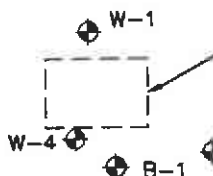
COMPOUND CONCENTRATION	
TCE	250
PCE	430

SOUTHERN PACIFIC RAILROAD R/W



ABOVE GROUND STORAGE TANKS

W-5 W-6



FORMER LOCATION OF UNDERGROUND STORAGE TANKS, REMOVED JUNE 1989

RAMP

COMPOUND CONCENTRATION	
A	39,000

COMPOUND CONCENTRATION	
TCE	150
PCE	220
VC	25
DCE	24

COMPOUND CONCENTRATION	
VC	290
DCE	280

W-8

JAMES RIVER FLEXIBLE PACKAGING PLANT

AAAAA RENT-A-SPACE

NEW INK ROOM

W-7

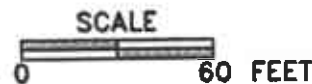
COMPOUND CONCENTRATION	
TCE	190
PCE	170
VC	28
DCE	39

W-9

COMPOUND CONCENTRATION	
TCE	110
PCE	9.9

LEGEND

- ⊕ GROUND WATER ELEVATION
- - - - PROPERTY LINE
- A ACETONE
- DCE CIS-1,2 DICHLOROETHENE
- PCE TETRACHLOROETHENE
- TCE TRICHLOROETHENE
- VC VINYL CHLORIDE



*ALL CONCENTRATIONS REPORTED AS MICROGRAMS PER LITER



Environmental Science & Engineering, Inc.

DATE
3/9/95

REVISED
11/7/95

CAD FILE
65502203

**GROUND WATER QUALITY ANALYTICAL RESULTS
OCTOBER 13, 1995**

JAMES RIVER CORPORATION
2101 WILLIAMS STREET
SAN LEANDRO, CALIFORNIA

FIGURE NO.

3

PROJ. NO.

65-95-022

4090 NELSON AVENUE, SUITE J
CONCORD, CA 94520

Appendix A

ESE Standard Operating Procedure No. 3

**ENVIRONMENTAL SCIENCE & ENGINEERING, INC.
CONCORD, CALIFORNIA OFFICE**

**STANDARD OPERATING PROCEDURE NO. 3
FOR GROUND WATER MONITORING AND SAMPLING FROM MONITORING WELLS**

Environmental Science & Engineering, Inc. (ESE) typically performs ground water monitoring at project sites on a quarterly basis. As part of the monitoring program an ESE staff member will first gauge the depth to water and free product (if present) in each well, then collect ground water samples from each well. Depth to water measurements are taken by lowering an electric fiberglass tape measure into the well and recording the occurrence of water in feet below a fixed datum set on the top of the well-casing. If free-phase liquid hydrocarbons (free product) are known or suspected to be present in the well, then an electric oil/water interface probe is used to determine the depth to the occurrence of ground water and the free product in feet below the fixed datum on the top of the well-casing. Depth to water and depth to product measurements are measured and recorded within an accuracy of 0.005-foot. The electric tape and the electric oil/water interface probe are washed with an Alconox® detergent and tap water solution then rinsed with tap water between uses in different wells.

Ground water samples are collected from a well subsequent to purging a minimum of three to four well-casing volumes of ground water from the well, if the well bails dry prior to the removal of the required minimum volume, then the samples are collected upon the recovery of the ground water in that well to 80% of its initial static level. Ground water is typically purged from monitoring wells using either a hand-operated positive displacement pump, constructed of polyvinylchloride (PVC); a new (precleaned), disposable polyethylene bailer; or, a variable-flow submersible pump, constructed of stainless steel and Teflon®. The hand pumps and the submersible pumps are cleaned between each use with an Alconox® detergent and tap water solution followed by a tap water rinse. During the well purging process the conductivity, pH and temperature of the ground water are monitored by the ESE staff member. Ground water samples are collected from the well subsequent to the stabilization of the of the conductivity, pH and temperature of the purge water, and the removal of four well-casing volumes of ground water (unless the well bails dry). The parameters are deemed to have stabilized when two consecutive measurements are within 10% of each other, for each respective parameter. The temperature, pH, conductivity and purge volume measurements, and observations of water clarity and sediment content will be documented by the ESE staff member on ESE Ground Water Sampling Data Forms.

Ground water samples are collected by lowering a new (precleaned), disposable polyethylene bailer into the well using new, disposable nylon cord. The filled bailer is retrieved, emptied, then filled again. The ground water from this bailer is decanted into appropriate laboratory supplied glassware and/or plastic containers (if sample preservatives are required, they are added to the empty containers at the laboratory prior to the sampling event). The containers are filled carefully so that no headspace is present to avoid volatilization of the sample. The filled sample containers are then labeled and placed in a cooler with ice for transport under chain-of-custody documentation to the designated analytical laboratory. The ESE staff member will document the time and method of sample collection, and the type of sample containers and preservatives (if any) used. These facts will appear on the ESE Ground Water Sampling Data Forms. ESE will collect a duplicate ground water sample from one well for every ten wells sampled at each site. The duplicate will be a blind sample (its well designation will be unknown to the laboratory). The duplicate sample is for Quality Assurance and Quality Control (QA/QC) purposes, and provides a check on ESE sampling procedures and laboratory sample handling procedures. When VOCs are included in the laboratory analyses, ESE will include a trip blank, if required, in the cooler with the ground water samples for analysis for the identical VOCs. The trip blank is supplied by the laboratory and consists of deionized water. The trip blank is for QA/QC purposes and provides a check on both ESE and laboratory sample handling and storage procedures. Since disposable bailers are used for sample collection, and are not reused, no equipment blank (rinsate) samples are collected.

Appendix B
Sample Collection Logs



Environmental Science & Engineering, Inc.

100
SAMPLE COLLECTION LOG

PROJECT NAME: 6595000
PROJECT NO.: San Diego Corp
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-1
SAMPLER: REBECCA HOWE
PROJECT MANAGER: BAJ

CASING DIAMETER

2" _____
4" _____
Other _____

SAMPLE TYPE

Ground Water _____
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing I.D. (inches)	Gal/Ft.
2.0	0.1632
4.0	0.6528
6.0	1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 119.10 (ft.) WATER COLUMN: _____ (ft.) (3 or 4 WCV): _____ (gal)
DEPTH OF WELL: 210 (ft.) WELL CASING VOLUME: _____ (gal) ACTUAL VOLUME PURGED: _____ (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbid. (NTU)	Other
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

Displacement Pump Other
 Bailor (Teflon/PVC/SS) Submersible Pump

SAMPLE METHOD

Bailor (Teflon/PVC/SS) Dedicated
 Bailor (Disposable) Other

SAMPLES COLLECTED

	ID	TIME	DATE	LAB	ANALYSES
SAMPLE	_____	_____	_____	_____	_____
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS: _____

SAMPLER: Rebecca Howe PROJECT MANAGER: BAJ
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323



Environmental
Science &
Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: JAMES RIVER CORP
PROJECT NO.: 10595030
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-3
SAMPLER: REBECCA HOYE
PROJECT MANAGER: BALT

CASING DIAMETER

2" _____
4" _____
Other _____

SAMPLE TYPE

Ground Water _____
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing I.D. (inches)	Gal/Ft.
2.0	0.1632
<u>4.0</u>	0.6528
6.0	1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 17.72 (ft.) WATER COLUMN: 25.13 (ft.) 3 or 4 WCV: 49.2 (gal)
DEPTH OF WELL: 31.35 (ft.) WELL CASING VOLUME: 1040 (gal) ACTUAL VOLUME PURGED: 50 (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbid. (NTU)	Other
<u>11:07</u>	<u>10</u>	<u>7.58</u>	<u>871</u>	<u>66.2</u>	_____	_____
<u>11:11</u>	<u>20</u>	<u>7.46</u>	<u>884</u>	<u>65.0</u>	_____	_____
<u>11:13</u>	<u>30</u>	<u>7.35</u>	<u>846</u>	<u>64.8</u>	_____	_____
<u>11:15</u>	<u>40</u>	<u>7.38</u>	<u>790</u>	<u>64.6</u>	_____	_____
<u>11:17</u>	<u>50</u>	<u>7.33</u>	<u>782</u>	<u>64.6</u>	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE HIDAC UNIT# _____ DATE: 10-13-95 TIME: 9.15 BY: REBECCA HOYE (RES)
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

Displacement Pump Other RES VAC TRUCK Bailer (Teflon/PVC/SS) Dedicated
 Bailer (Teflon/PVC/SS) Submersible Pump Bailer (Disposable) Other

SAMPLE METHOD

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
	<u>W-3</u>	<u>1110</u>	<u>10-13-95</u>	<u>GT</u>	<u>8740</u>
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS:

SAMPLER: REBECCA HOYE PROJECT MANAGER: BALT
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323



Environmental Science & Engineering, Inc.

¹⁰⁰ SAMPLE COLLECTION LOG

PROJECT NAME: James River Loop
PROJECT NO.: 6595000
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-4
SAMPLER: REBECCA HOWE
PROJECT MANAGER: BAIT

CASING DIAMETER

2" _____
4" _____
Other _____

SAMPLE TYPE

Ground Water _____
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing	
I.D. (inches)	Gal/Ft.
2.0	0.1632
4.0	0.6528
6.0	1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 12.34 (ft.) WATER COLUMN: _____ (ft.) (3 or 4 WCV): _____ (gal)
DEPTH OF WELL: 38.00 (ft.) WELL CASING VOLUME: _____ (gal) ACTUAL VOLUME PURGED: _____ (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbld. (NTU)	Other
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

___ Displacement Pump
___ Bailer (Teflon/PVC/SS)
___ Other Submersible Pump

SAMPLE METHOD

___ Bailer (Teflon/PVC/SS)
___ Bailer (Disposable)
___ Dedicated
___ Other

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS:

SAMPLER: Rebecca Howe
4090 Nelson Avenue, Suite J Concord, CA 94520

PROJECT MANAGER: [Signature]
Phone (510) 685-4053 Fax (510) 685-5323



Environmental Science & Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: James River Corp
PROJECT NO.: 1.595022
DATE: 10-13-95

SAMPLE LOCATION I.D.: 10-5
SAMPLER: REBECCA HUNT
PROJECT MANAGER: BAIT

CASING DIAMETER

2"
4" _____
Other _____

SAMPLE TYPE

Ground Water _____
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing
I.D. (inches) Gal/Ft.
2.0 0.1632
4.0 0.6528
6.0 1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 1294 (ft.) WATER COLUMN: 21.83 (ft.) or 4 WCV: 10.109 (gal)
DEPTH OF WELL: 34.77 (ft.) WELL CASING VOLUME: 3.9 (gal) ACTUAL VOLUME PURGED: 120 (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbid. (NTU)	Other
<u>10:38</u>	<u>5</u>	<u>7.61</u>	<u>797</u>	<u>65.6</u>	_____	_____
<u>10:41</u>	<u>10</u>	<u>7.68</u>	<u>718</u>	<u>65.4</u>	_____	_____
<u>10:44</u>	<u>15</u>	<u>7.68</u>	<u>710</u>	<u>64.4</u>	_____	_____
<u>10:48</u>	<u>20</u>	<u>7.68</u>	<u>712</u>	<u>64.2</u>	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE HANNA UNIT# _____ DATE: 10-13-95 TIME: 9:15 BY: REBECCA HUNT (AES)
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

____ Displacement Pump
____ Bailer (Teflon/PVC/SS) Other VAC TRUCK
____ Submersible Pump

SAMPLE METHOD

____ Bailer (Teflon/PVC/SS) _____ Dedicated
____ Bailer (Disposable) _____ Other

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
SAMPLE	<u>10-5</u>	<u>1040</u>	<u>10-13-95</u>	<u>C+T</u>	<u>8740</u>
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS: _____

SAMPLER: Rebecca Hunt PROJECT MANAGER: Bait
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4083 Fax (510) 685-5323



Environmental
Science &
Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: JAMES River Corp
PROJECT NO.: 10595002
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-6
SAMPLER: REBECCA HOWE
PROJECT MANAGER: BERT MILLER

CASING DIAMETER

2"
4" _____
Other _____

SAMPLE TYPE

Ground Water _____
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing I.D. (Inches)	Gal/Ft.
2.0	0.1632
4.0	0.6528
6.0	1.4690

DEPTH TO PRODUCT: - (ft.) PRODUCT THICKNESS: - (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 12.47 (ft.) WATER COLUMN: 2498 (ft.) (3 or 4 WCV): 1223 (gal)
DEPTH OF WELL: 12.47 (ft.) WELL CASING VOLUME: 4.02 (gal) ACTUAL VOLUME PURGED: 13.0 (gal)
37.45

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F)	Turbid. (NTU)	Other
<u>10:52</u>	<u>5</u>	<u>7.57</u>	<u>674</u>	<u>65.8</u>	_____	_____
<u>10:54</u>	<u>10</u>	<u>7.50</u>	<u>728</u>	<u>65.4</u>	_____	_____
<u>10:56</u>	<u>15</u>	<u>7.54</u>	<u>734</u>	<u>65.4</u>	_____	_____
<u>10:59</u>	<u>20</u>	<u>7.56</u>	<u>736</u>	<u>65.4</u>	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE HYDAP UNIT# _____ DATE: 10-13-95 TIME: 9:15 BY: REBECCA HOWE (AS)
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

Displacement Pump
 Bailer (Teflon/PVC/SS)
 Other VAC TRUCK
 Submersible Pump

SAMPLE METHOD

Bailer (Teflon/PVC/SS)
 Bailer (Disposable)
 Dedicated
 Other

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
	<u>W-6</u>	<u>1100</u>	<u>10-13-95</u>	<u>C+T</u>	<u>8240</u>
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS: _____

SAMPLER: REBECCA HOWE PROJECT MANAGER: BERT MILLER
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323



Environmental Science & Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: JAMES RIVER CORP
PROJECT NO.: WS-95-022
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-7
SAMPLER: REBECCA HOGE
PROJECT MANAGER: BPT

CASING DIAMETER

2" _____
4" _____
Other _____

SAMPLE TYPE

Ground Water
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing
I.D. (inches) Gal/Ft.
2.0 0.1632
4.0 0.6528
6.0 1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 17.34 (ft.) WATER COLUMN: 23.81 (ft.) (3 or 4 WCV): 40.63 (gal)
DEPTH OF WELL: 30.2 (ft.) WELL CASING VOLUME: 1354 (gal) ACTUAL VOLUME PURGED: 50 (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbid. (NTU)	Other
<u>12:32</u>	<u>10</u>	<u>7.45</u>	<u>746</u>	<u>65.4</u>	_____	_____
<u>12:34</u>	<u>20</u>	<u>7.70</u>	<u>759</u>	<u>64.6</u>	_____	_____
<u>12:36</u>	<u>30</u>	<u>7.70</u>	<u>763</u>	<u>64.8</u>	_____	_____
<u>12:38</u>	<u>40</u>	<u>7.73</u>	<u>766</u>	<u>64.8</u>	_____	_____
<u>12:40</u>	<u>50</u>	<u>7.74</u>	<u>759</u>	<u>64.8</u>	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE HXOR UNIT# _____ DATE: 10-13-95 TIME: 9:15 BY: LOW/AEC
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

___ Displacement Pump
___ Bailer (Teflon/PVC/SS) Other ACS - Vacuum
___ Submersible Pump

SAMPLE METHOD

___ Bailer (Teflon/PVC/SS)
 Bailer (Disposable) ___ Dedicated
___ Other

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
DUPLICATE	<u>W-7</u>	<u>12:38</u>	<u>10-13-95</u>	<u>C+T</u>	<u>8040, 8015M</u>
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS: _____

SAMPLER: Rebecca Hoge PROJECT MANAGER: BPT
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323



Environmental
Science &
Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: JAMES RIVER CORP
PROJECT NO.: 0597022
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-8
SAMPLER: REBECCA HONE
PROJECT MANAGER: BAIT

CASING DIAMETER

2" _____
4"
Other _____

SAMPLE TYPE

Ground Water
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing I.D. (inches)	Gal/Ft.
2.0	0.1632
<u>4.0</u>	0.6528
6.0	1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 11.81 (ft.) WATER COLUMN: 25.79 (ft.) or 4 WCV: 50.51 (gal)
DEPTH OF WELL: 37.10 (ft.) WELL CASING VOLUME: 1084 (gal) ACTUAL VOLUME PURGED: 55 (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F)	Turbid. (NTU)	Other
<u>12:18</u>	<u>10</u>	<u>7.20</u>	<u>651</u>	<u>66.9</u>	_____	_____
<u>12:21</u>	<u>20</u>	<u>7.10</u>	<u>647</u>	<u>65.4</u>	_____	_____
<u>12:23</u>	<u>30</u>	<u>7.14</u>	<u>644</u>	<u>65.2</u>	_____	_____
<u>12:25</u>	<u>40</u>	<u>7.20</u>	<u>636</u>	<u>65.2</u>	_____	_____
<u>12:27</u>	<u>50</u>	<u>7.21</u>	<u>630</u>	<u>65.2</u>	_____	_____

TOTAL PURGE = 55 GAL.

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE 1900C UNIT# _____ DATE: 10-13-95 TIME: 9:15 BY: Low/Asc
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

Displacement Pump
 Bailer (Teflon/PVC/SS)
 Other AES Vacuum
 Submersible Pump

SAMPLE METHOD

Bailer (Teflon/PVC/SS)
 Bailer (Disposable)
 Dedicated
 Other

SAMPLES COLLECTED

	ID	TIME	DATE	LAB	ANALYSES
SAMPLE	<u>W-8</u>	<u>12:15</u>	<u>10-13-95</u>	<u>CA7</u>	<u>SD15H+8240</u>
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS: PH

SAMPLER: Rebecca Hone PROJECT MANAGER: Bait
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323



Environmental
Science &
Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: Wesleyville Corp
PROJECT NO.: W5950022
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-9
SAMPLER: REBECCA HOGE
PROJECT MANAGER: BJJ

CASING DIAMETER

2" _____
4"
Other _____

SAMPLE TYPE

Ground Water
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing I.D. (Inches)	Gal/Ft.
2.0	0.1632
4.0	0.6528
6.0	1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 4.90 (ft.) WATER COLUMN: 29.20 (ft.) (3 or 4 WCV): 50.00 (gal)
DEPTH OF WELL: 31.0 (ft.) WELL CASING VOLUME: 818 (gal) ACTUAL VOLUME PURGED: _____ (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbid. (NTU)	Other
9:56	10	6.25	919	66.5	—	—
9:59	20	6.64	872	66.6	—	—
10:01	30	7.04	880	66.4	—	—
10:03	40	7.26	863	66.4	—	—
10:05	50	7.21	869	66.4	—	—
10:07	60	7.25	871	66.4	—	—
10:09	70	7.30	868	66.4	—	—

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE HYDR UNIT# _____ DATE: 10-13-95 TIME: 9:15 BY: WJH(AES)
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

____ Displacement Pump Other
____ Bailer (Teflon/PVC/SS) _____ Submersible Pump

SAMPLE METHOD

____ Bailer (Teflon/PVC/SS) _____ Dedicated
 Bailer (Disposable) _____ Other

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
SAMPLE	<u>W-9</u>	<u>10:00</u>	<u>10-13</u>	<u>C+T</u>	<u>8240</u>
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS: _____

SAMPLER: Rebecca Hoge PROJECT MANAGER: BJJ
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323



Environmental
Science &
Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: JAMES ROSE CORP
PROJECT NO.: 10595022
DATE: 10-13-95

SAMPLE LOCATION I.D.: W-10
SAMPLER: RJA
PROJECT MANAGER: BART MEYER

CASING DIAMETER

2" _____
4" _____
Other _____

SAMPLE TYPE

Ground Water
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing I.D. (Inches)	Gal/Ft.
2.0	0.1632
<u>4.0</u>	0.6528
6.0	1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 12.54 (ft.) WATER COLUMN: 4.21 (ft.) or 4 WCV: 8.72 (gal)
DEPTH OF WELL: 10.75 (ft.) WELL CASING VOLUME: 2.74 (gal) ACTUAL VOLUME PURGED: 18 (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbid. (NTU)	Other
<u>11:54</u>	<u>5</u>	<u>7.01</u>	<u>1090</u>	<u>69.0</u>	_____	_____
<u>11:58</u>	<u>10</u>	<u>6.89</u>	<u>1066</u>	<u>67.8</u>	_____	_____
<u>12:01</u>	<u>15</u>	<u>6.84</u>	<u>1059</u>	<u>67.6</u>	_____	_____
_____	_____	_____	_____	_____	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE A908 UNIT# _____ DATE: 10-13-95 TIME: 9:15 BY: LOW (AES)
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

Displacement Pump
 Bailer (Teflon/PVC/SS)
 Other AES VAC TRUCK
 Submersible Pump

SAMPLE METHOD

Bailer (Teflon/PVC/SS)
 Bailer (Disposable)
 Dedicated
 Other

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
SAMPLE	<u>W-10</u>	<u>1145</u>	<u>10-13-95</u>	<u>C+T</u>	<u>8240</u>
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS:

SAMPLER: Rebecca [Signature]
4090 Nelson Avenue, Suite J

PROJECT MANAGER: [Signature]
Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323



Environmental
Science &
Engineering, Inc.

SAMPLE COLLECTION LOG

PROJECT NAME: Jones Road Loop
PROJECT NO.: 1595002
DATE: 10-13-95

SAMPLE LOCATION I.D.: B-1
SAMPLER: REBECCA HOLE
PROJECT MANAGER: BOLT

CASING DIAMETER

2" _____
4"
Other _____

SAMPLE TYPE

Ground Water
Surface Water _____
Treat. Influent _____
Treat. Effluent _____
Other _____

WELL VOLUMES PER UNIT

Well Casing I.D. (inches)	Gal/Ft.
2.0	0.1632
<u>4.0</u>	0.6528
6.0	1.4690

DEPTH TO PRODUCT: _____ (ft.) PRODUCT THICKNESS: _____ (ft.) MINIMUM PURGE VOLUME
DEPTH TO WATER: 11.98 (ft.) WATER COLUMN: 310.02 (ft.) @ or 4 WCV: 70.54 (gal)
DEPTH OF WELL: 48.00 (ft.) WELL CASING VOLUME: 23.5 (gal) ACTUAL VOLUME PURGED: 75 (gal)

TIME	Volume (GAL)	pH (Units)	E.C. (Micromhos)	Temperature (F°)	Turbid. (NTU)	Other
<u>11:36</u>	<u>20</u>	<u>8.00</u>	<u>721</u>	<u>65.2</u>	_____	_____
<u>11:40</u>	<u>40</u>	<u>7.95</u>	<u>756</u>	<u>65.2</u>	_____	_____
<u>11:44</u>	<u>60</u>	<u>7.91</u>	<u>753</u>	<u>65.3</u>	_____	_____
<u>11:49</u>	<u>75</u>	<u>7.90</u>	<u>750</u>	<u>65.2</u>	_____	_____

INSTRUMENT CALIBRATION

pH/COND./TEMP.: TYPE HPCX UNIT# _____ DATE: 10-13-95 TIME: 9:35 BY: Wend (Sec)
TURBIDITY: TYPE _____ UNIT# _____ DATE: _____ TIME: _____ BY: _____

PURGE METHOD

____ Displacement Pump Other VACUUM
____ Bailer (Teflon/PVC/SS) _____ Submersible Pump

SAMPLE METHOD

____ Bailer (Teflon/PVC/SS) _____ Dedicated
 Bailer (Disposable) _____ Other

SAMPLES COLLECTED

SAMPLE	ID	TIME	DATE	LAB	ANALYSES
SAMPLE	<u>B-1</u>	<u>1130</u>	<u>10-13-95</u>	<u>C+T</u>	<u>8240, 8015H</u>
DUPLICATE	_____	_____	_____	_____	_____
SPLIT	_____	_____	_____	_____	_____
FIELD BLANK	_____	_____	_____	_____	_____

COMMENTS: CLEAR H²S OROX

SAMPLER: Rebecca Hole PROJECT MANAGER: Bolt
4090 Nelson Avenue, Suite J Concord, CA 94520 Phone (510) 685-4053 Fax (510) 685-5323

Appendix C

ANALYTICAL REPORTS WITH CHAIN-OF-CUSTODY DOCUMENTS



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

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

Prepared for:

Environmental Science & Engineering
4090 Nelson Avenue
Suite J
Concord, CA 94520

Date: 26-OCT-95
Lab Job Number: 123040
Project ID: 65-95-022
Location: James River Corporation

Reviewed by: _____

Reviewed by: _____

This package may be reproduced only in its entirety.



TEH-Tot Ext Hydrocarbons

Client: Environmental Science & Engineering	Analysis Method: CA LUFT (EPA 8015M)
Project#: 65-95-022	Prep Method: LUFT
Location: James River Corporation	

Sample #	Client ID	Batch #	Sampled	Extracted	Analyzed	Moisture
123040-004	W-7	23897	10/13/95	10/17/95	10/26/95	
123040-005	W-8	23897	10/13/95	10/17/95	10/21/95	

Analyte	Units	123040-004	123040-005
Diln Fac:		1	1
Diesel Range	ug/L	<50	<50
Motor Oil Range	ug/L	<1300	<1300
Surrogate			
Hexacosane	%REC	121	104



Lab #: 123040

BATCH QC REPORT

Page 1 of 1

TEH-Tot Ext Hydrocarbons

Client: Environmental Science & Engineering	Analysis Method: CA LUFT (EPA 8015M)
Project#: 65-95-022	Prep Method: 3520
Location: James River Corporation	

METHOD BLANK

Matrix: Water	Prep Date: 10/17/95
Batch#: 23897	Analysis Date: 10/26/95
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC06895

Analyte	Result	
Diesel Range	<50	
Motor Oil Range	<1300	
Surrogate	%Rec	Recovery Limits
Hexacosane	99	60-140



Lab #: 123040

BATCH QC REPORT

TEH-Tot Ext Hydrocarbons			
Client:	Environmental Science & Engineering	Analysis Method:	CA LUFT (EPA 8015M)
Project#:	65-95-022	Prep Method:	3520
Location:	James River Corporation		
BLANK SPIKE/BLANK SPIKE DUPLICATE			
Matrix:	Water	Prep Date:	10/17/95
Batch#:	23897	Analysis Date:	10/26/95
Units:	ug/L		
Diln Fac:	1		

BS Lab ID: QC06896

Analyte	Spike Added	BS	%Rec #	Limits
Diesel Range	2565	2497	97	60-140
Surrogate	%Rec	Limits		
Hexacosane	102	60-140		

BSD Lab ID: QC06897

Analyte	Spike Added	BSD	%Rec #	Limits	RPD #	Limit
Diesel Range	2565	2347	91	60-140	6	<35
Surrogate	%Rec	Limits				
Hexacosane	100	60-140				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 1 outside limits

Spike Recovery: 0 out of 2 outside limits



Volatile Organics by GC/MS		
Client: Environmental Science & Engineering	Analysis Method: EPA 8240	
Project#: 65-95-022	Prep Method: EPA 5030	
Location: James River Corporation		
Field ID: W-3	Sampled: 10/13/95	
Lab ID: 123040-001	Received: 10/16/95	
Matrix: Water	Extracted: 10/18/95	
Batch#: 23886	Analyzed: 10/18/95	
Units: ug/L		
Diln Fac: 1		
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	25	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	24	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	150	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	220	25
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	104	87-125
Bromofluorobenzene	94	79-122
1,2-Dichloroethane-d4	86	68-126



Volatile Organics by GC/MS

Client: Environmental Science & Engineering
 Project#: 65-95-022
 Location: James River Corporation

Analysis Method: EPA 8240
 Prep Method: EPA 5030

Field ID: W-5
 Lab ID: 123040-002
 Matrix: Water
 Batch#: 23912
 Units: ug/L
 Diln Fac: 25

Sampled: 10/13/95
 Received: 10/16/95
 Extracted: 10/19/95
 Analyzed: 10/19/95

Analyte	Result	Reporting Limit
Chloromethane	ND	250
Bromomethane	ND	250
Vinyl Chloride	ND	250
Chloroethane	ND	250
Methylene Chloride	ND	500
Acetone	ND	500
Carbon Disulfide	ND	130
Trichlorofluoromethane	ND	130
1,1-Dichloroethene	ND	130
1,1-Dichloroethane	ND	130
trans-1,2-Dichloroethene	ND	130
cis-1,2-Dichloroethene	350	130
Chloroform	ND	130
Freon 113	ND	130
1,2-Dichloroethane	ND	130
2-Butanone	ND	250
1,1,1-Trichloroethane	ND	130
Carbon Tetrachloride	ND	130
Vinyl Acetate	ND	1300
Bromodichloromethane	ND	130
1,2-Dichloropropane	ND	130
cis-1,3-Dichloropropene	ND	130
Trichloroethene	450	130
Dibromochloromethane	ND	130
1,1,2-Trichloroethane	ND	130
Benzene	ND	130
trans-1,3-Dichloropropene	ND	130
Bromoform	ND	130
2-Hexanone	ND	250
4-Methyl-2-Pentanone	ND	250
1,1,2,2-Tetrachloroethane	ND	130
Tetrachloroethene	3700	130
Toluene	ND	130
Chlorobenzene	ND	130
Ethylbenzene	ND	130
Styrene	ND	130
m,p-Xylenes	ND	130
o-Xylene	ND	130

Regulation products

Surrogate	%Recovery	Recovery Limits
Toluene-d8	119	87-125
Bromofluorobenzene	103	79-122
1,2-Dichloroethane-d4	88	68-126



Volatile Organics by GC/MS

Client: Environmental Science & Engineering
Project#: 65-95-022
Location: James River Corporation

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: W-6
Lab ID: 123040-003
Matrix: Water
Batch#: 23886
Units: ug/L
Diln Fac: 1

Sampled: 10/13/95
Received: 10/16/95
Extracted: 10/18/95
Analyzed: 10/18/95

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	13
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	13
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	103	87-125
Bromofluorobenzene	95	79-122
1,2-Dichloroethane-d4	86	68-126



Volatile Organics by GC/MS		
Client: Environmental Science & Engineering	Analysis Method: EPA 8240	
Project#: 65-95-022	Prep Method: EPA 5030	
Location: James River Corporation		
Field ID: W-7	Sampled: 10/13/95	
Lab ID: 123040-004	Received: 10/16/95	
Matrix: Water	Extracted: 10/19/95	
Batch#: 23912	Analyzed: 10/19/95	
Units: ug/L		
Diln Fac: 1		
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	28	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	39	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	190	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	170	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	123	87-125
Bromofluorobenzene	106	79-122
1,2-Dichloroethane-d4	101	68-126



Volatile Organics by GC/MS		
Client: Environmental Science & Engineering	Analysis Method: EPA 8240	
Project#: 65-95-022	Prep Method: EPA 5030	
Location: James River Corporation		
Field ID: W-8	Sampled: 10/13/95	
Lab ID: 123040-005	Received: 10/16/95	
Matrix: Water	Extracted: 10/18/95	
Batch#: 23886	Analyzed: 10/18/95	
Units: ug/L		
Diln Fac: 1		
Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	290	25
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	280	13
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	116	87-125
Bromofluorobenzene	100	79-122
1,2-Dichloroethane-d4	89	68-126



Volatile Organics by GC/MS

Client: Environmental Science & Engineering
Project#: 65-95-022
Location: James River Corporation

Analysis Method: EPA 8240
Prep Method: EPA 5030

Field ID: W-9
Lab ID: 123040-006
Matrix: Water
Batch#: 23941
Units: ug/L
Diln Fac: 1

Sampled: 10/13/95
Received: 10/16/95
Extracted: 10/20/95
Analyzed: 10/20/95

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	110	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	9.9	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	107	87-125
Bromofluorobenzene	94	79-122
1,2-Dichloroethane-d4	102	68-126



Volatile Organics by GC/MS		
Client: Environmental Science & Engineering	Analysis Method: EPA 8240	
Project#: 65-95-022	Prep Method: EPA 5030	
Location: James River Corporation		
Field ID: W-10	Sampled: 10/13/95	
Lab ID: 123040-007	Received: 10/16/95	
Matrix: Water	Extracted: 10/20/95	
Batch#: 23941	Analyzed: 10/20/95	
Units: ug/L		
Diln Fac: 500		
Analyte	Result	Reporting Limit
Chloromethane	ND	1000
Bromomethane	ND	1000
Vinyl Chloride	ND	1000
Chloroethane	ND	1000
Methylene Chloride	ND	2000
Acetone	39000	10000
Carbon Disulfide	ND	500
Trichlorofluoromethane	ND	500
1,1-Dichloroethene	ND	500
1,1-Dichloroethane	ND	500
trans-1,2-Dichloroethene	ND	500
cis-1,2-Dichloroethene	ND	500
Chloroform	ND	500
Freon 113	ND	500
1,2-Dichloroethane	ND	500
2-Butanone	ND	1000
1,1,1-Trichloroethane	ND	500
Carbon Tetrachloride	ND	500
Vinyl Acetate	ND	5000
Bromodichloromethane	ND	500
1,2-Dichloropropane	ND	500
cis-1,3-Dichloropropene	ND	500
Trichloroethene	ND	500
Dibromochloromethane	ND	500
1,1,2-Trichloroethane	ND	500
Benzene	ND	500
trans-1,3-Dichloropropene	ND	500
Bromoform	ND	500
2-Hexanone	ND	1000
4-Methyl-2-Pentanone	830 J	1000
1,1,2,2-Tetrachloroethane	ND	500
Tetrachloroethene	ND	500
Toluene	ND	500
Chlorobenzene	ND	500
Ethylbenzene	ND	500
Styrene	ND	500
m,p-Xylenes	ND	500
o-Xylene	ND	500
Surrogate	%Recovery	Recovery Limits
Toluene-d8	105	87-125
Bromofluorobenzene	94	79-122
1,2-Dichloroethane-d4	96	68-126



Volatile Organics by GC/MS

Client: Environmental Science & Engineering
 Project#: 65-95-022
 Location: James River Corporation

Analysis Method: EPA 8240
 Prep Method: EPA 5030

Field ID: B-1
 Lab ID: 123040-008
 Matrix: Water
 Batch#: 23941
 Units: ug/L
 Diln Fac: 1

Sampled: 10/13/95
 Received: 10/16/95
 Extracted: 10/20/95
 Analyzed: 10/20/95

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	3 J	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Recovery	Recovery Limits
Toluene-d8	107	87-125
Bromofluorobenzene	95	79-122
1,2-Dichloroethane-d4	99	68-126



Volatile Organics by GC/MS

Client: Environmental Science & Engineering Analysis Method: EPA 8240
Project#: 65-95-022 Prep Method: EPA 5030
Location: James River Corporation

Field ID: TRIP BLANK Sampled: 10/13/95
Lab ID: 123040-009 Received: 10/16/95
Matrix: Water Extracted: 10/18/95
Batch#: 23912 Analyzed: 10/18/95
Units: ug/L
Diln Fac: 1

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0

Surrogate	%Recovery	Recovery Limits
Toluene-d8	122	87-125
Bromofluorobenzene	104	79-122
1,2-Dichloroethane-d4	97	68-126

Lab #: 123040

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics

Client: Environmental Science & Engineering	Analysis Method: EPA 8240
Project#: 65-95-022	Prep Method: EPA 5030
Location: James River Corporation	

METHOD BLANK

Matrix: Water	Prep Date: 10/18/95
Batch#: 23886	Analysis Date: 10/18/95
Units: ug/L	
Diln Fac: 1	

MB Lab ID: QC06846

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	105	87-125
Bromofluorobenzene	95	79-122
1,2-Dichloroethane-d4	91	68-126



Lab #: 123040

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics

Client: Environmental Science & Engineering
 Project#: 65-95-022
 Location: James River Corporation

Analysis Method: EPA 8240
 Prep Method: EPA 5030

METHOD BLANK

Matrix: Water
 Batch#: 23912
 Units: ug/L
 Diln Fac: 1

Prep Date: 10/18/95
 Analysis Date: 10/18/95

MB Lab ID: QC06963

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	122	87-125
Bromofluorobenzene	107	79-122
1,2-Dichloroethane-d4	94	68-126

Lab #: 123040

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics		
Client: Environmental Science & Engineering	Analysis Method: EPA 8240	
Project#: 65-95-022	Prep Method: EPA 5030	
Location: James River Corporation		
METHOD BLANK		
Matrix: Water	Prep Date: 10/20/95	
Batch#: 23941	Analysis Date: 10/20/95	
Units: ug/L		
Diln Fac: 1		

MB Lab ID: QC07083

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	108	87-125
Bromofluorobenzene	93	79-122
1,2-Dichloroethane-d4	105	68-126

Lab #: 123040

BATCH QC REPORT

Page 1 of 1

EPA 8240 Volatile Organics		
Client: Environmental Science & Engineering	Analysis Method: EPA 8240	
Project#: 65-95-022	Prep Method: EPA 5030	
Location: James River Corporation		
METHOD BLANK		
Matrix: Water	Prep Date: 10/20/95	
Batch#: 23941	Analysis Date: 10/20/95	
Units: ug/L		
Diln Fac: 1		

MB Lab ID: QC07084

Analyte	Result	Reporting Limit
Chloromethane	ND	10
Bromomethane	ND	10
Vinyl Chloride	ND	10
Chloroethane	ND	10
Methylene Chloride	ND	20
Acetone	ND	20
Carbon Disulfide	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1-Dichloroethene	ND	5.0
1,1-Dichloroethane	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
cis-1,2-Dichloroethene	ND	5.0
Chloroform	ND	5.0
Freon 113	ND	5.0
1,2-Dichloroethane	ND	5.0
2-Butanone	ND	10
1,1,1-Trichloroethane	ND	5.0
Carbon Tetrachloride	ND	5.0
Vinyl Acetate	ND	50
Bromodichloromethane	ND	5.0
1,2-Dichloropropane	ND	5.0
cis-1,3-Dichloropropene	ND	5.0
Trichloroethene	ND	5.0
Dibromochloromethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
Benzene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
Bromoform	ND	5.0
2-Hexanone	ND	10
4-Methyl-2-Pentanone	ND	10
1,1,2,2-Tetrachloroethane	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	ND	5.0
Chlorobenzene	ND	5.0
Ethylbenzene	ND	5.0
Styrene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Surrogate	%Rec	Recovery Limits
Toluene-d8	108	87-125
Bromofluorobenzene	93	79-122
1,2-Dichloroethane-d4	104	68-126



Lab #: 123040

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Environmental Science & Engineering	Analysis Method: EPA 8240
Project#: 65-95-022	Prep Method: EPA 5030
Location: James River Corporation	

LABORATORY CONTROL SAMPLE

Matrix: Water	Prep Date: 10/18/95
Batch#: 23886	Analysis Date: 10/18/95
Units: ug/L	
Diln Fac: 1	

LCS Lab ID: QC06845

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	55.93	50	112	51-180
Trichloroethene	42.63	50	85	73-141
Benzene	42.44	50	85	78-142
Toluene	51.38	50	103	76-150
Chlorobenzene	48.88	50	98	83-129
Surrogate	%Rec	Limits		
Toluene-d8	104	87-125		
Bromofluorobenzene	99	79-122		
1,2-Dichloroethane-d4	88	68-126		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



Lab #: 123040

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Environmental Science & Engineering
Project#: 65-95-022
Location: James River Corporation

Analysis Method: EPA 8240
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 23912
Units: ug/L
Diln Fac: 1

Prep Date: 10/18/95
Analysis Date: 10/18/95

LCS Lab ID: QC06962

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	54.01	50	108	51-180
Trichloroethene	51.76	50	104	73-141
Benzene	58.19	50	116	78-142
Toluene	56.78	50	114	76-150
Chlorobenzene	49.38	50	99	83-129
Surrogate	%Rec	Limits		
Toluene-d8	121	87-125		
Bromofluorobenzene	110	79-122		
1,2-Dichloroethane-d4	89	68-126		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits



Lab #: 123040

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Environmental Science & Engineering
Project#: 65-95-022
Location: James River Corporation

Analysis Method: EPA 8240
Prep Method: EPA 5030

LABORATORY CONTROL SAMPLE

Matrix: Water
Batch#: 23941
Units: ug/L
Diln Fac: 1

Prep Date: 10/20/95
Analysis Date: 10/20/95

LCS Lab ID: QC07082

Analyte	Result	Spike Added	%Rec #	Limits
1,1-Dichloroethene	61.61	50	123	51-180
Trichloroethene	52.39	50	105	73-141
Benzene	49.28	50	99	78-142
Toluene	52.85	50	106	76-150
Chlorobenzene	49.01	50	98	83-129
Surrogate	%Rec	Limits		
Toluene-d8	108	87-125		
Bromofluorobenzene	94	79-122		
1,2-Dichloroethane-d4	101	68-126		

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

Spike Recovery: 0 out of 5 outside limits

Lab #: 123040

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Environmental Science & Engineering	Analysis Method: EPA 8240
Project#: 65-95-022	Prep Method: EPA 5030
Location: James River Corporation	
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: W-3	Sample Date: 10/13/95
Lab ID: 123040-001	Received Date: 10/16/95
Matrix: Water	Prep Date: 10/18/95
Batch#: 23886	Analysis Date: 10/18/95
Units: ug/L	
Diln Fac: 1	

MS Lab ID: QC06847

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5.000	57.13	114	51-180
Trichloroethene	50	146.1	159.9	78	73-141
Benzene	50	<5.000	44.47	89	78-142
Toluene	50	<5.000	52.91	106	76-150
Chlorobenzene	50	<5.000	48.93	98	83-129
Surrogate	%Rec	Limits			
Toluene-d8	105	87-125			
Bromofluorobenzene	99	79-122			
1,2-Dichloroethane-d4	95	68-126			

MSD Lab ID: QC06848

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	54.13	108	51-180	5	<14
Trichloroethene	50	159.2	76	73-141	0	<14
Benzene	50	42.94	86	78-142	4	<11
Toluene	50	52.68	105	76-150	0	<13
Chlorobenzene	50	49.42	99	83-129	1	<13
Surrogate	%Rec	Limits				
Toluene-d8	106	87-125				
Bromofluorobenzene	97	79-122				
1,2-Dichloroethane-d4	91	68-126				

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits
 RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 10 outside limits

Lab #: 123040

BATCH QC REPORT

EPA 8240 Volatile Organics	
Client: Environmental Science & Engineering	Analysis Method: EPA 8240
Project#: 65-95-022	Prep Method: EPA 5030
Location: James River Corporation	
MATRIX SPIKE/MATRIX SPIKE DUPLICATE	
Field ID: ZZZZZZ	Sample Date: 10/17/95
Lab ID: 123055-001	Received Date: 10/17/95
Matrix: Water	Prep Date: 10/19/95
Batch#: 23912	Analysis Date: 10/19/95
Units: ug/L	
Diln Fac: 1	

MS Lab ID: QC06965

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5.000	51.11	102	51-180
Trichloroethene	50	<5.000	48.1	96	73-141
Benzene	50	<5.000	53.97	108	78-142
Toluene	50	<5.000	53.56	107	76-150
Chlorobenzene	50	<5.000	45.56	91	83-129
Surrogate	%Rec	Limits			
Toluene-d8	121	87-125			
Bromofluorobenzene	108	79-122			
1,2-Dichloroethane-d4	96	68-126			

MSD Lab ID: QC06966

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	50.67	101	51-180	1	<14
Trichloroethene	50	44.23	89	73-141	8	<14
Benzene	50	49.64	99	78-142	8	<11
Toluene	50	49.86	100	76-150	7	<13
Chlorobenzene	50	46.21	92	83-129	1	<13
Surrogate	%Rec	Limits				
Toluene-d8	113	87-125				
Bromofluorobenzene	99	79-122				
1,2-Dichloroethane-d4	99	68-126				

Column to be used to flag recovery and RPD values with an asterisk
 * Values outside of QC limits
 RPD: 0 out of 5 outside limits
 Spike Recovery: 0 out of 10 outside limits



Lab #: 123040

BATCH QC REPORT

EPA 8240 Volatile Organics

Client: Environmental Science & Engineering
 Project#: 65-95-022
 Location: James River Corporation

Analysis Method: EPA 8240
 Prep Method: EPA 5030

MATRIX SPIKE/MATRIX SPIKE DUPLICATE

Field ID: W-9
 Lab ID: 123040-006
 Matrix: Water
 Batch#: 23941
 Units: ug/L
 Diln Fac: 1

Sample Date: 10/13/95
 Received Date: 10/16/95
 Prep Date: 10/20/95
 Analysis Date: 10/20/95

MS Lab ID: QC07085

Analyte	Spike Added	Sample	MS	%Rec #	Limits
1,1-Dichloroethene	50	<5.000	54.12	108	51-180
Trichloroethene	50	114.2	158.8	89	73-141
Benzene	50	<5.000	50.35	101	78-142
Toluene	50	<5.000	52.85	106	76-150
Chlorobenzene	50	<5.000	49.12	98	83-129
Surrogate	%Rec	Limits			
Toluene-d8	107	87-125			
Bromofluorobenzene	97	79-122			
1,2-Dichloroethane-d4	91	68-126			

MSD Lab ID: QC07086

Analyte	Spike Added	MSD	%Rec #	Limits	RPD #	Limit
1,1-Dichloroethene	50	53.95	108	51-180	0	<14
Trichloroethene	50	149.6	71 *	73-141	6	<14
Benzene	50	49.66	99	78-142	1	<11
Toluene	50	52.69	105	76-150	0	<13
Chlorobenzene	50	49.35	99	83-129	0	<13
Surrogate	%Rec	Limits				
Toluene-d8	106	87-125				
Bromofluorobenzene	96	79-122				
1,2-Dichloroethane-d4	95	68-126				

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits

RPD: 0 out of 5 outside limits

Spike Recovery: 1 out of 10 outside limits

125090

CHAIN OF CUSTODY RECORD

DATE 10/13/95 PAGE 1 OF 1

PROJECT NAME JAMES RIVER CORPORATION

ADDRESS 2101 WILLIAMS ST.

SAN LEANDRO, CA

PROJECT NO. 65-95-022

SAMPLED BY _____

LAB NAME CURTIS : TOMPKINS

ANALYSES TO BE PERFORMED

MATRIX

MATRIX
NUMBER OF CONTAINERS



Environmental Science & Engineering, Inc.

4090 Nelson Avenue
Suite J
Concord, CA 94520

Phone (510) 685-4053

Fax (510) 685-5323

REMARKS
(CONTAINER, SIZE, ETC.)

1
2
3
4
5
6
7
8
9

SAMPLE #	DATE	TIME	LOCATION	EPA 8240	TMDL: TPA-MO 2015m	MATRIX	NUMBER OF CONTAINERS	REMARKS
W-3	10/13/95	1110	SAN LEANDRO	✓		WATER	3	VOAS
W-5	10/13/95	1040	"	✓		"	3	VOAS
W-6	10/13/95	1100	"	✓		"	3	VOAS
W-7	10/13/95	1230	"	✓	✓	"	4	3 VOAS, 1 LITER
W-8	10/13/95	1215	"	✓	✓	"	4	3 VOAS, 1 LITER
W-9	10-13-95	10:00	"	✓		"	3	VOAS
W-10	10/13/95	1145	"	✓		"	3	VOAS
B-1	10/13/95	1130	"	✓		"	3	VOAS
TRIP BLANK	10/13/95	---	"	✓		"	1	VOA

RELINQUISHED BY: (signature)

RECEIVED BY: (signature)

date time

TOTAL NUMBER OF CONTAINERS

1. *[Signature]*
- 2.
- 3.
- 4.
- 5.

[Signature]

10/16 1:35

REPORT RESULTS TO:
BART SIMLER
ESE

SPECIAL SHIPMENT REQUIREMENTS
COLD TRANSPORT

SAMPLE RECEIPT

INSTRUCTIONS TO LABORATORY (handling, analyses, storage, etc.):
NORMAL T.A.T. INVOICE TO ESE. SUSPECT DETECTABLE CONCENTRATIONS OF CHLORINATED VOC'S IN SOME SAMPLES.

CHAIN OF CUSTODY SEALS
REC'D GOOD COND'TN/COLD
CONFORMS TO RECORD

120894

CHAIN OF CUSTODY RECORD

DATE MAY 2, 1995 PAGE 1 OF 1

PROJECT NAME JAMES RIVER

ADDRESS 2101 WILLIAMS ST.

SAN LEANDRO, CA

PROJECT NO. 65-95-022

SAMPLED BY P. Marsden

LAB NAME CURTIS TOMPKINS

ANALYSES TO BE PERFORMED										MATRIX	MATRIX	NUMBER OF CONTAINERS
EPA 8240	TPH-D: TPH-MO	EPA 8015CM										
W-3	5/2	1240	SAN LEANDRO	✓						Water	3	3 Vials
W-5		1250	"	✓						"	3	
W-6		1300	"	✓						"	3	
W-7		1315	"	✓	✓					"	4	3 Vials & 1 liter
W-8		1305	"	✓	✓					"	4	" "
W-9		1205	"	✓						"	3	3 Vials
W-10		1220	"	✓						"	3	
B-1		1230	"	✓						"	3	
TRIP BLANK			"	✓						"	1	



Environmental Science & Engineering, Inc.

4090 Nelson Avenue
Suite J
Concord, CA 94520

Phone (510) 685-4053
Fax (510) 685-5323

REMARKS (CONTAINER, SIZE, ETC.)

-1
-2
-3
-4
-5
-6
-7
-8
-9

RELINQUISHED BY: (signature)

RECEIVED BY: (signature)

date time

27

TOTAL NUMBER OF CONTAINERS

1. [Signature]
2. [Signature]
3.
4.
5.

[Signature]
[Signature]

5/3/95 7:10 AM
5/3/95 3:05 PM

REPORT RESULTS TO:
BART MILLER
ESE

SPECIAL SHIPMENT REQUIREMENTS

COLD TRANSPORT

SAMPLE RECEIPT

INSTRUCTIONS TO LABORATORY (handling, analyses, storage, etc.):

NORMAL T.A.T. INVOICE TO ESE.

CHAIN OF CUSTODY SEALS

REC'D GOOD COND'TN/COLD

CONFORMS TO RECORD

TEMP. RECEIVED: 5.5 °C
RECEIVED BY: [Signature]