

May 22, 1997

3042.95-002

Mr. Mark Johnson
San Francisco Bay Region
Regional Water Quality Control Board
2101 Webster Street, Suite 500
Oakland, California 94612

Subject: Quarterly Groundwater Monitoring Results for January 1 through March 31, 1997,
A Portion of the Rifkin Property, 4525-4563 Horton Street, Emeryville, California

Dear Mr. Johnson:

This letter transmits the results for quarterly monitoring on a portion of the Rifkin Property located at 4525-4563 Horton Street in Emeryville, California ("the Site"), for the monitoring period from January 1 to March 31, 1997.

Quarterly groundwater monitoring was conducted at the Site, as proposed in a letter dated October 26, 1994, from Dave Gustafson and Larry Mencin of The Sherwin-Williams Company to you. This proposed quarterly groundwater monitoring program was approved by the RWQCB in a letter to Dave Gustafson from Steven Ritchie, dated November 4, 1994. In addition, wells MW-1 through MW-3 (installed by TMC Environmental) were included in this quarterly monitoring event.

Depth-to-water measurements were recorded in on-site wells RP-1 through RP-5 (installed by Levine-Fricke-Recon Inc. [LFR]) and MW-1 through MW-3 on April 15, 1997. On March 25, 1997, groundwater samples were collected from wells RP-1 through RP-5 and MW-1 through MW-3 and submitted to American Environmental Network (AEN), a California state-certified laboratory, for chemical analysis. Locations of on-site wells are shown on Figure 1. Water level and sampling field forms are included in Appendix A.

Depth to groundwater in the monitoring wells was measured using an electric water-level meter to the nearest 0.01 foot. Depth-to-water measurements and groundwater elevations in the monitoring wells are presented in Table 1. Groundwater contours are shown on Figure 1.

During sampling of the on-site wells, after the volume of water in each well was calculated, 3 to 5 well volumes were purged from each well either using a gasoline-powered, centrifugal pump equipped with a clean suction hose or by hand bailing with a clean Teflon bailer.

During purging of the wells, groundwater parameters (pH, specific conductance, and temperature) were monitored and recorded to aid in collecting samples that were representative of the groundwater in surrounding sediments. Samples were collected after these parameters had stabilized. If a well did not sustain a constant yield (i.e., went dry), the well was sampled after the water level had recovered to approximately 80 percent of the original level or two hours after purging, whichever occurred first.

After purging, groundwater samples were collected using a clean Teflon bailer fitted with a new rope and placed into the appropriate laboratory-supplied sample containers. Samples were placed in a chilled cooler for transportation to AEN for analysis following chain-of-custody procedures. A duplicate sample collected from well RP-5 and a trip blank were submitted for chemical analysis to monitor laboratory and equipment decontamination quality assurance and quality control. Equipment used during groundwater sampling was cleaned with Alconox (a laboratory-grade detergent) and/or steam cleaned.

Water purged from each well during sampling was discharged into the groundwater extraction and treatment system located at the Sherwin-Williams site.

Groundwater samples were submitted to AEN for analysis of dissolved arsenic using EPA Method 7060; total petroleum hydrocarbons as gasoline using EPA Method 5030; total petroleum hydrocarbons as diesel using EPA Method 3510; and benzene, toluene, ethylbenzene, and total xylenes using EPA Method 8020. Analytical results for these samples are presented in Table 2. Analytical results for dissolved arsenic are shown on Figure 2. Laboratory certificates and chain-of-custody forms are included in Appendix B.

The next quarterly groundwater monitoring event will be conducted in May 1997 after site access is approved. Results from this event will be reported in the quarterly groundwater monitoring report for the period from April 1 through June 30, 1997.

Please contact either of the undersigned at (510) 652-4500 or Larry Mencin of The Sherwin-Williams Company at (216) 566-1768, if you have any questions or comments.

Sincerely,



Mark D. Knox, P.E.
Principal Engineer



Kenton A. Gee
Project Hydrogeologist

Enclosures

cc: Larry Mencin, The Sherwin-Williams Company
Sue Free, The Sherwin-Williams Company
Ed Sangster, McKenna and Cuneo
Susan Hugo, Alameda County
Ric Notini, Chiron Corporation
Tom Kalinowski, Erler & Kalinowski
Ignacio Dayrit, City of Emeryville

CERTIFICATION

All engineering information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by a Levine·Fricke·Recon California Professional Engineer.

Mark D. Knox

5/22/97
Date

Mark D. Knox
Principal Engineer
California Professional Engineer (33194)

Table 1
Historical Groundwater Elevation Data
Rifkin Property, Emeryville, California

Well Number	Date	Elevation Top of Casing (msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (msl)
RP-1 ⁽¹⁾	8-Sep-94	15.12	8.65	6.47
	28-Feb-95		7.83	7.29
	10-May-95		7.53	7.59
	9-Aug-95		8.39	6.73
	17-Nov-95		8.91	6.21
	9-Jan-96	15.14 ⁽³⁾	7.95	7.19
	24-Apr-96		7.81	7.33
	29-Jul-96		8.58	6.56
	13-Dec-96		6.00	9.14
	15-Apr-97		8.18	6.96
RP-2 ⁽¹⁾	8-Sep-94	15.23	8.99	6.24
	28-Feb-95		8.11	7.12
	10-May-95		7.77	7.46
	9-Aug-95		8.67	6.56
	17-Nov-95		9.27	5.96
	9-Jan-96	15.24 ⁽³⁾	8.27	6.97
	24-Apr-96		8.04	7.20
	29-Jul-96		8.89	6.35
	13-Dec-96		6.20	9.04
	18-Apr-97		8.46	6.78
RP-3 ⁽¹⁾	8-Sep-94	15.15	8.80	6.35
	28-Feb-95		7.87	7.28
	10-May-95		7.61	7.54
	9-Aug-95		8.48	6.67
	17-Nov-95		9.09	6.06
	9-Jan-96	15.17 ⁽³⁾	8.07	7.10
	24-Apr-96		7.92	7.25
	29-Jul-96		8.71	6.46
	13-Dec-96		6.03	9.14
	15-Apr-97		8.27	6.90
RP-4 ⁽¹⁾	8-Sep-94	15.10	9.02	6.08
	28-Feb-95		8.13	6.97
	10-May-95		7.77	7.33
	9-Aug-95		8.65	6.45
	17-Nov-95		9.28	5.82
	9-Jan-96	15.13 ⁽³⁾	8.28	6.85
	24-Apr-96		8.05	7.08
	29-Jul-96		8.88	6.25
	13-Dec-96		6.12	9.01
	15-Apr-97		8.44	6.69
RP-5 ⁽¹⁾	8-Sep-94	15.03	8.95	6.08
	28-Feb-95		8.06	6.97
	10-May-95		7.69	7.34
	9-Aug-95		8.57	6.46
	17-Nov-95		9.23	5.80
	9-Jan-96	15.04 ⁽³⁾	8.21	6.83
	24-Apr-96		7.96	7.08
	29-Jul-96		8.81	6.23

Table 1
Historical Groundwater Elevation Data
Rifkin Property, Emeryville, California

Well Number	Date	Elevation Top of Casing (msl)	Depth to Groundwater (ft bgs)	Groundwater Elevation (msl)	
MW-1	13-Dec-96		5.93	9.11	
	15-Apr-97		8.35	6.69	
	(2) 9-Aug-95	13.79	7.50	6.29	
	17-Nov-95		8.00	5.79	
	9-Jan-96	13.78 ⁽³⁾	7.19	6.59	
	24-Apr-96		6.93	6.85	
	29-Jul-96		7.76	6.02	
	13-Dec-96		5.19	8.59	
	15-Apr-97		7.34	6.44	
	MW-2	(2) 9-Aug-95	13.39	7.31	6.08
17-Nov-95			8.12	5.27	
9-Jan-96		13.58 ⁽³⁾	7.04	6.54	
24-Apr-96			6.56	7.02	
29-Jul-96			7.59	5.99	
13-Dec-96			5.04	8.54	
15-Apr-97			7.17	6.41	
MW-3		(2) 9-Aug-95	14.64	7.89	6.75
		17-Nov-95		8.40	6.24
		9-Jan-96	14.60 ⁽³⁾	7.48	7.12
	24-Apr-96		7.19	7.41	
	29-Jul-96		8.08	6.52	
	13-Dec-96		5.33	9.27	
	15-Apr-97		7.70	6.90	
MW-4	(2) 9-Aug-95	15.35	7.93	7.42	
	17-Nov-95		8.67	6.68	
	9-Jan-96	15.53 ⁽³⁾	8.12	7.41	
	24-Apr-96		7.72	7.81	
	29-Jul-96		8.29	7.24	
	13-Dec-96		6.75	8.78	
	15-Apr-97		NM	NM	
MW-5	(2) 9-Aug-95	15.87	7.87	8.00	
	17-Nov-96		8.65	7.22	
	9-Jan-96	15.24 ⁽³⁾	7.93	7.31	
	24-Apr-96		7.49	7.75	
	29-Jul-96		8.24	7.00	
	13-Dec-96		6.97	8.27	
	15-Apr-97		NM	NM	

Data entered by TGL, Proofed by KAG.

Notes

- (1) Monitoring well installed by LFR.
 - (2) Monitoring well installed by TMC Environmental.
 - (3) Elevation of top casing re-surveyed on April 24 and 25, 1996
- msl = mean sea level
 NM = not measured
 bgs = below ground surface

Table 2
Chemicals Detected in Groundwater Samples
Rifkin Property, Emeryville, California
Concentrations expressed in parts per million (ppm)

Sample ID	Sample Date	As	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	Acetone	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	MIBK	TCE
RP-1 (4) dup	28-Jul-94	0.07	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.08	1.9	4.4	0.3	<0.005	<0.0005	<0.0005	<0.002	<0.100	<0.100	0.002	0.003	0.001	<0.050	<0.005
	28-Feb-95	0.046	0.3	1.8	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	29-Mar-95	0.035	<0.05	0.78	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.095	2.6	1.4	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.059	1.4	1.4	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.086	1.2	0.96	NA	<0.0005	0.0008	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	10-Jan-96	0.061	0.8	0.55	NA	<0.0005	0.001	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
	17-Apr-96	0.058	0.12	0.59	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Apr-96	0.069	0.15	0.72	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.068	1.4	1.1	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	19-Nov-96	0.041	0.6	2.3	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.054	0.68	1.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-2 dup (3)	28-Jul-94	0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.024	0.09	0.4	0.5	<0.005	0.0005	<0.005	<0.002	<0.100	<0.100	0.001	0.001	<0.0005	<0.050	0.0006
	08-Sep-94	0.020	0.09	0.3	0.6	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	0.001	0.001	<0.0005	<0.050	0.0005
	28-Feb-95	0.013	0.09	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	29-Mar-95	0.01	0.07	0.4	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.029	<0.05	0.3	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.01	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.011	0.1	0.2	NA	0.002	0.003	0.0009	0.004	NA	NA	NA	NA	NA	NA	NA
	10-Jan-96	0.031	0.05	0.1	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
	17-Apr-96	0.010	<0.05	0.17	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.007	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	19-Nov-96	0.016	<0.05	0.18	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.012	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-3 (5)	28-Jul-94	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.004	0.1	0.7	0.2	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	<0.005	<0.0005	<0.0005	<0.050	<0.0005
	28-Feb-95	0.004	0.2	1.2	NA	<0.0005	0.0007	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	29-Mar-95	0.004	0.3	1.9	0.6	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.013	0.1	1.7	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.003	0.2	1.2	NA	<0.0005	0.0009	<0.0005	0.0094	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.006	0.1	1.1	NA	<0.0005	0.001	<0.0005	0.005	NA	NA	NA	NA	NA	NA	NA
	10-Jan-96	0.014	0.1	0.56	NA	<0.0005	0.0006	<0.0005	0.003	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	17-Apr-96	0.006	0.13	0.42	NA	<0.0005	<0.0005	0.0006	0.0008	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.009	0.1	0.39	NA	<0.0005	0.0005	0.0005	0.007	NA	NA	NA	NA	NA	NA	NA

Table 2
Chemicals Detected in Groundwater Samples
Rifkin Property, Emeryville, California
Concentrations expressed in parts per million (ppm)

Sample ID	Sample Date	As	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	Acetone	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	MIBK	TCE
	19-Nov-96	0.005	0.07	1.2	NA	<0.0005	0.0005	0.0005	0.003	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.004	0.09	0.47	NA	<0.0005	<0.0005	<0.0005	0.004	NA	NA	NA	NA	NA	NA	NA
RP-4	28-Jul-94	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.009	0.1	0.2	0.2	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	0.001	0.007	0.004	<0.050	0.002
	28-Feb-95	0.007	0.08	0.07	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	28-Feb-95	0.006	0.07	0.07	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
(2)	29-Mar-95	0.008	0.07	0.3	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.013	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	10-May-95	0.011	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.007	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	09-Aug-95	0.007	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.011	<0.05	0.1	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	17-Nov-95	0.011	<0.05	0.3	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Jan-96	0.004	0.05	0.1	NA	<0.0005	<0.0005	0.0005	<0.002	<0.100	<0.100	<0.005	0.006	<0.005	<0.050	<0.005
	17-Apr-96	0.009	<0.05	0.14	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.005	<0.05	0.24	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	31-Jul-96	0.003	<0.05	0.21	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	19-Nov-96	0.009	<0.05	0.12	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.009	<0.05	0.19	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-5	28-Jul-94	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	08-Sep-94	0.003	0.09	0.6	2	<0.005	<0.0005	<0.005	<0.002	<0.100	<0.100	0.0008	0.0005	<0.0005	<0.050	<0.005
	28-Feb-95	0.007	0.06	0.2	NA	<0.0005	0.0009	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
(1)	29-Mar-95	0.006	<0.05	0.8	<0.5	<0.005	<0.005	<0.005	<0.01	<0.100	NA	<0.005	<0.005	<0.005	NA	<0.005
	10-May-95	0.018	<0.05	1.1	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	09-Aug-95	0.003	<0.05	0.69	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	17-Nov-95	0.008	<0.05	0.5	NA	<0.0005	<0.0005	<0.0005	<0.010	NA	NA	NA	NA	NA	NA	NA
	09-Jan-96	0.005	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
dup	09-Jan-96	0.004	<0.05	0.2	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
	17-Apr-96	0.008	<0.05	0.64	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	<0.002	<0.05	0.79	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	19-Nov-96	0.007	<0.05	0.41	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	19-Nov-96	0.008	<0.05	0.53	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.006	<0.05	0.54	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
dup	25-Mar-97	0.004	<0.05	0.59	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
MW-1 (6,7)	09-Jan-96	0.022	1.3	4	NA	0.053	0.003	0.002	0.006	<0.100	<0.100	0.052	0.012	<0.005	<0.050	<0.005

Table 2
Chemicals Detected in Groundwater Samples
Rifkin Property, Emeryville, California
Concentrations expressed in parts per million (ppm)

Sample ID	Sample Date	As	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	Acetone	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	MIBK	TCE
	17-Apr-96	0.034	1.7	1.1	NA	0.065	0.0035	0.0055	0.007	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.037	2.4	12	NA	0.053	0.0098	0.012	0.014	NA	NA	NA	NA	NA	NA	NA
	19-Nov-96	0.071	0.85	1.5	NA	0.032	0.0017	0.0017	0.005	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.042	0.99	1.8	NA	0.049	0.0022	0.0024	0.005	NA	NA	NA	NA	NA	NA	NA
MW-2 (8)	09-Jan-96	0.016	0.9	2.5	NA	0.039	0.001	0.0009	0.002	<0.100	<0.100	0.007	0.023	0.008	<0.050	<0.005
	17-Apr-96	0.028	0.62	4.6	NA	0.032	0.0013	0.008	<0.002	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.037	0.71	3.2	NA	0.042	0.0016	0.0009	<0.002	NA	NA	NA	NA	NA	NA	NA
	19-Nov-96	0.041	0.37	3.2	NA	0.018	0.0017	0.0007	0.004	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.038	0.52	3.3	NA	0.024	0.0007	0.001	<0.002	NA	NA	NA	NA	NA	NA	NA
MW-3	09-Jan-96	0.015	0.2	0.3	NA	<0.005	<0.005	<0.005	<0.002	<0.100	<0.100	0.01	0.037	0.029	<0.050	0.006
	17-Apr-96	0.018	0.16	0.18	NA	<0.005	<0.005	<0.005	<0.002	NA	NA	NA	NA	NA	NA	NA
	31-Jul-96	0.059	9.4	0.42	NA	<0.005	<0.005	<0.005	<0.002	NA	NA	NA	NA	NA	NA	NA
	19-Nov-96	0.048	0.47	0.46	NA	<0.005	0.0006	<0.005	0.004	NA	NA	NA	NA	NA	NA	NA
	25-Mar-97	0.019	0.31	<0.05	NA	<0.005	<0.005	<0.005	<0.002	NA	NA	NA	NA	NA	NA	NA
MW-4	10-Jan-96	15	0.7	6.3	NA	0.002	0.027	0.002	0.012	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
(10)	19-Nov-96	3.1	0.7	6.9	NA	0.0024	0.0021	0.0017	0.01	NA	NA	NA	NA	NA	NA	NA
MW-5	10-Jan-96	79	160	5.4	NA	0.95	100	3	15	130	<100	<5	<5	<5	<50	<5
(9)	19-Nov-96	192	180	3.7	NA	0.7	120	2.1	10	NA	NA	NA	NA	NA	NA	NA
Blanks																
RP-3-FB	28-Feb-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-3-FB	10-May-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-3-FB	09-Aug-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-3-FB	17-Nov-95	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
Trip Blank	17-Nov-95	NA	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-5-FB	09-Jan-96	<0.002	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	<0.100	<0.100	<0.005	<0.005	<0.005	<0.050	<0.005
RP-4-FB	17-Apr-96	NA	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
RP-1-FB	31-Jul-96	<0.002	<0.05	<0.05	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
Trip Blank	19-Nov-96	NA	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
Trip Blank	3/25/97	NA	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
MW-1-FB	3/25/97	<0.002	<0.05	NA	NA	<0.0005	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	NA	NA	NA
MCLS	-----	0.050	-----	-----	-----	0.005	1.000	0.700	10	-----	-----	0.0005	0.070	0.100	-----	0.005

Data entered by SDS. Data proofed by . QA/QC by .

Table 2
Chemicals Detected in Groundwater Samples
Rifkin Property, Emeryville, California
Concentrations expressed in parts per million (ppm)

Sample ID	Sample Date	As	TPHg	TPHd	TPHo	Benzene	Toluene	Ethyl-benzene	Xylenes	Acetone	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	MIBK	TCE
-----------	-------------	----	------	------	------	---------	---------	---------------	---------	---------	-----	---------	-------------	---------------	------	-----

Notes:

Analyses performed by American Environmental Network, Pleasant Hill, California by method cited in report.

If analyte is not listed, it was not present above laboratory detection limits.

NA = not analyzed

ND = not detected

As = arsenic

MEK = methyl ethyl ketone (2-Butanone)

MIBK = methyl isobutyl ketone (4-Methyl-2-pentanone)

TPHd = total petroleum hydrocarbons as diesel

TPHg = total petroleum hydrocarbons as gasoline

TPHo = total petroleum hydrocarbons as oil and grease

1,2-DCA = 1,2-dichloroethane

cis-1,2-DCE = cis-1,2-Dichloroethene

trans-1,2-DCE = trans-1,2-Dichloroethene

TCE = trichloroethene

(1) Barium detected at 0.04 mg/L, Zinc detected at 0.03 mg/L.

(2) Barium detected at 0.06 mg/L, Lead detected at 0.15 mg/L, Zinc detected at 0.16 mg/L.

(3) Carbon Disulfide detected at 0.015 mg/L, Barium detected at 0.08 mg/L, Zinc detected at 0.03 mg/L.

(4) Barium detected at 0.04 mg/L, Zinc detected at 0.01 mg/L.

(5) Barium detected at 0.18 mg/L, Vanadium 0.015 mg/L, Zinc detected at 0.01 mg/L.

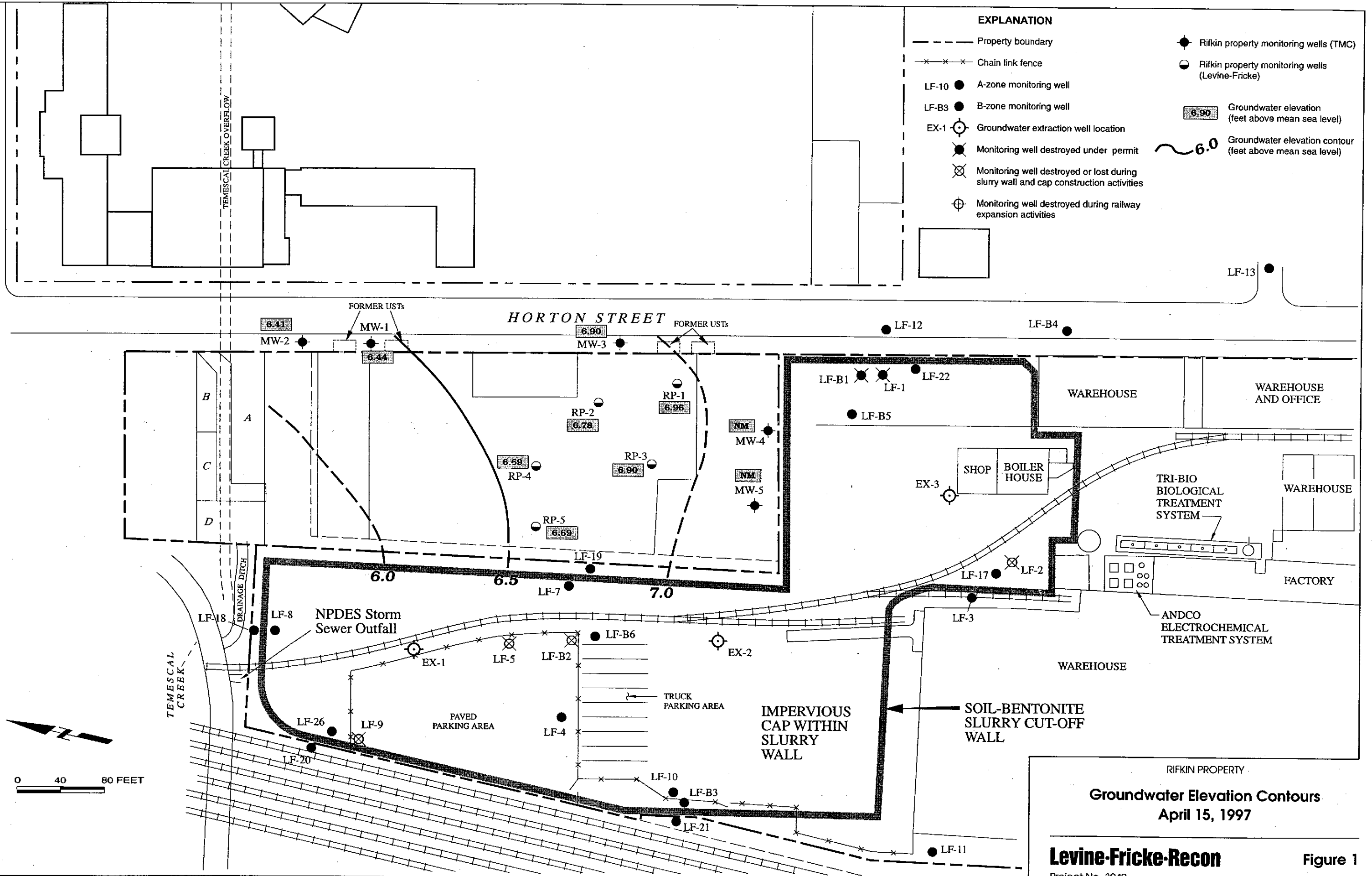
(6) 1,2-Dichloropropane at 0.13 ppm.

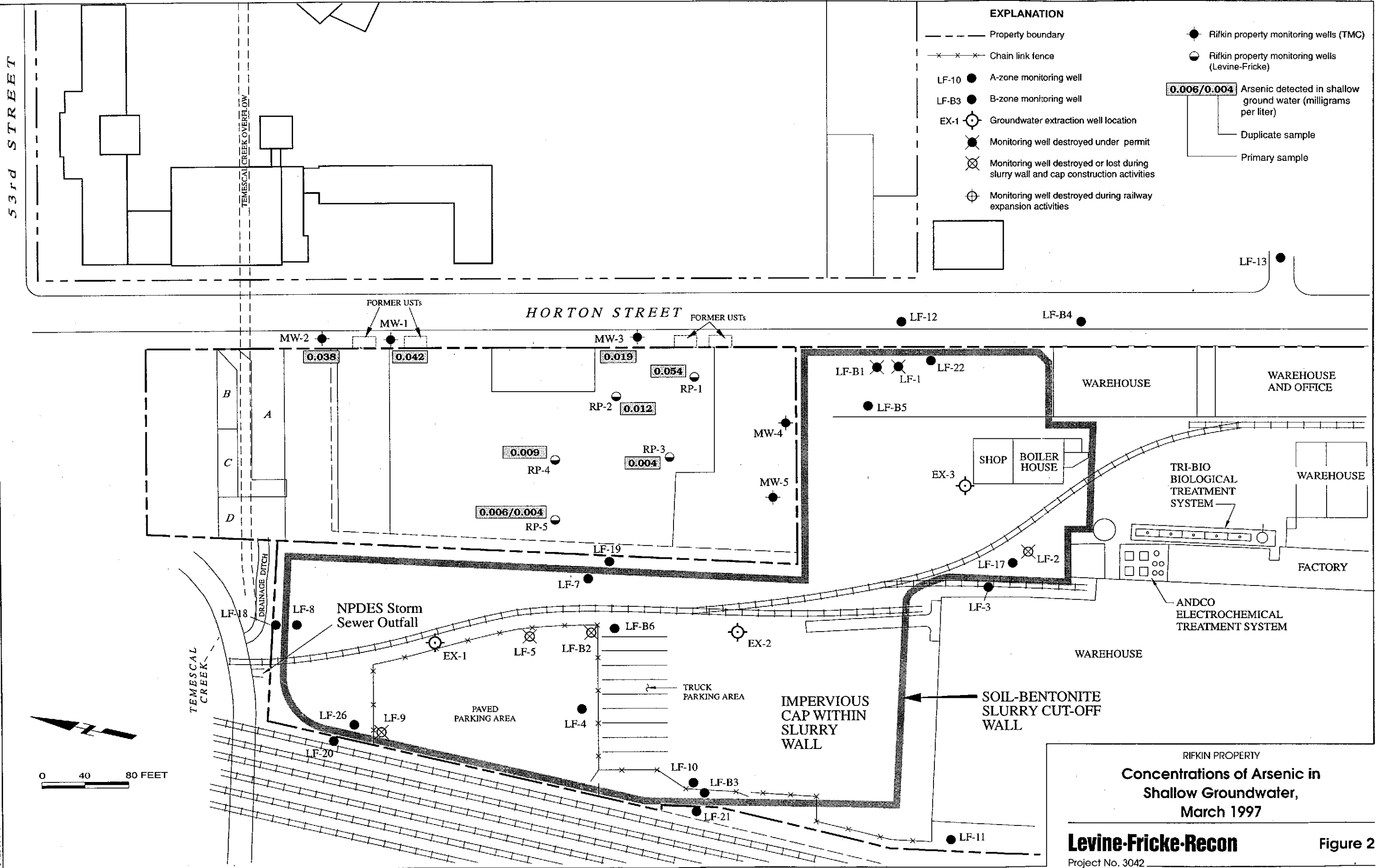
(7) Vinyl chloride detected at 0.015 ppm.

(8) 1,2-Dichloropropane detected at 0.020 ppm.

(9) Lead detected at 0.07 mg/L, Zinc detected at 21 mg/L.

(10) Lead below laboratory detection limit(0.04 mg/L), Zinc detected at 230 mg/L.





RIFKIN PROPERTY
Concentrations of Arsenic in Shallow Groundwater, March 1997
Levine-Fricke-Recon
 Project No. 3042 Figure 2

APPENDIX A

Water Level and Sampling Field Forms

WATER-LEVEL MEASUREMENTS

Project Name: *Sherwin Williams - Rifkin*

Project No.: *3435.00.04*

Field Personnel: *JMR*

Date: *4/15/97*

General Observations: *Warm Sunny*

WELL NO.	WELL ELEVATION	DEPTH TO WATER MEASUREMENTS		WATER ELEVATION	REMARKS (UNITS = FEET)
		1	2		
LF-3		5.78	5.78		13:49
LF-4		NM	NM		no access
LF-7		8.21	8.21		13:24
LF-8		7.21	7.21		13:36
LF-10		4.67	4.67		13:15
LF-11		4.76	4.76		13:47
LF-12		6.94	6.94		12:37
LF-13		6.71	6.71		12:44
LF-17		4.04	4.04		13:53
LF-18		8.50	8.50		13:34
LF-20		7.85	7.85		13:38
LF-21		5.58	5.58		12:55
LF-22		10.19	10.14		13:57
LF-23		5.51	5.51		13:02
LF-24		5.56	5.56		13:04
LF-25		8.02	8.02		13:07
LF-26		7.21	7.21		13:45
LF-83		3.95	3.95		12:50
LF-89		6.68	6.68		12:40
LF-85		10.68	10.68		13:55
LF-86		5.61	5.61		13:22
ML-1		7.34	7.34		12:08
ML-2		7.17	7.17		12:12
ML-3		7.70	7.70		12:05 - Needs new 2" cap
ML-4					
ML-5					
RP-1		8.18	8.18		12:28 - needs new 2" cap
RP-2		8.46	8.46		12:24
RP-3		8.27	8.27		12:33
RP-4		8.44	8.44		12:20
RP-5		8.35	8.35		12:15
LF-19		7.36	7.36		13:42
EX-1		15.50	15.50		13:31 (P)
EX-2		10.55	10.55		13:19 (P)
EX-3		17.20	17.20		14:01 (P)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.95.02
 Project Name: Sherwin Williams-Rifkin
 Sample Location: Emeryville, CA
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 3/25/97
 Sample No.: RP-3
 FB: _____
 DUP: _____

- Centrifugal Pump Disposable Bailer
 Submersible Pump Teflon Bailer
 Hand Bail _____
 (Other)

Number and Types of Bottle used

Analyses Requested
TPHg / BTEX
TPHd
Dissolved As

3 VOA/HCL
2 Amber litre
1 250 ml plastic

13.10
7.96
<hr/>
5.14
.16
<hr/>
3084
5140
<hr/>
8224
5.14
.2
<hr/>
1.028
7.96
<hr/>
8.988
80% DTW <u>8.98</u>

Method of Shipment

AEN
 (Lab Name)

- Courier _____
 Hand Deliver: _____

Well Number: ~~JMR~~ RP-3

Well Diameter: _____

Depth of Water: 7.96

- 2" (0.16 Gallon/Feet)
 4" (0.65 Gallon/Feet)
 5" (1.02 Gallon/Feet)
 6" (1.47 Gallon/Feet)

Well Depth: JMR 12.78 13.10 (Sound)

Height of Water Column: 5.14

Volume in Well: 1

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
1:21								Start
11:23		1		16.7	6.24	2660		turbid / odor
11:25		2		16.5	6.23	2690		↓ ↓
11:27		3		16.4	6.23	2690		
	8.60							
11:35								SAMPLE

Inlet Depth: _____

Comments: _____
 (Recommended Method For Purging Well)

USE PREPARED WATER SAMPLING EQUIPMENT

WATER-QUALITY SAMPLING INFORMATION

KAG

Project No.: 3042.95.02
 Project Name: Sherwin Williams-Rifkin
 Sample Location: Emeryville, CA
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG

Date: 3/25/97
 Sample No.: RP-4
 FB: _____
 DUP: _____

Sampling Method: _____
 Centrifugal Pump Disposable Bailer
 Submersible Pump Teflon Bailer
 Hand Bail _____
 (Other)

Analyses Requested: TPHg / BTEX
TPHd
Dissolved As
 Number and Types of Bottle used:
3 VOA/HEL
2 Amber litre
1 250 ml plastic

Method of Shipment: AEN
 (Lab Name) Courier _____
 Hand Deliver: _____

Well Number: RP-4 Well Diameter: _____
 Depth of Water: 8.18
 Well Depth: JMR-16-15 17.35 (rounded)
 Height of Water Column: _____
 Volume in Well: 1.5
 2" (0.16 Gallon/Feet)
 4" (0.65 Gallon/Feet)
 5" (1.02 Gallon/Feet)
 6" (1.47 Gallon/Feet)

17.35
 8.18

 9.17
 .16

 55.02
 9.17

 1.4672

 9.17
 .2

 1.834
 8.18

 10.014

 80% DTW 10.01

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
8:18								start
8:20		1.5		17.1	6.43	1233		turbid
8:22		3		17.2	6.25	1396		turbid
8:25		4.5		17.2	6.10	1461		turbid
8:27		6		17.2	6.06	1449		turbid
	8.20							
8:35								sample

Inlet Depth: _____
 Comments: _____
 Recommended Method For Purging Well) _____

MARIELLA VON DER BRUNNEN

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.95.02
 Project Name: Sherwin Williams-Rifkin
 Sample Location: Emeryville, CA
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 3/25/97
 Sample No.: RP5
 FB: _____
 DUP: RP-105

- Centrifugal Pump Disposable Bailer
 Submersible Pump Teflon Bailer
 Hand Bail _____
 (Other)

Analyses Requested
TPHg / BTEX
TPHd
Dissolved As

Number and Types of Bottle used
6 VOA/ML
4 Amber litre
2 250 ml plastic

15.15
 8.09

 7.06
 .16

 4236
 7060

 1.1296

 7.06
 .2

 1.412
 8.09

 9.502

 80% DTW 9.50

Method of Shipment
AEN
 (Lab Name) Courier _____
 Hand Deliver: _____

Well Number: RP5 Well Diameter: _____
 Depth of Water: 8.09 2" (0.16 Gallon/Feet)
 Well Depth: ~~4.5~~ 15.15 (sounded) 4" (0.65 Gallon/Feet)
 Height of Water Column: 7.06 5" (1.02 Gallon/Feet)
 Volume in Well: 1.5 6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:46								Start
9:48		1.5		17.2	6.33	743		turbid / sl. odor
9:50		3		17.0	6.33	724		turbid / sl. odor
9:53		4.5		17.0	6.33	715		turbid / sl. odor
	8.50							
10:00								Sample
11:00								Dup

Inlet Depth: _____
 Comments: _____
 (Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.95.02
 Project Name: Sherwin Williams-Rifkin
 Sample Location: Emeryville, CA
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG

Date: 3/25/97
 Sample No.: MW-1
 FB: MW-1-FB
 DUP: _____

Sampling Method: _____

Centrifugal Pump Disposable Bailor
 Submersible Pump Teflon Bailor
 Hand Bail _____
 (Other)

Analyses Requested: TPHg / BTEX
TPHd
Dissolved As

Number and Types of Bottle used:
6 VOA/HEL
2 Amber litre
2 250 ml plastic

15.60
7.06

8.54
.16

5124
8540

13664

8.54
.2

1.708
7.06

8.768

80% DTW 8.76

Method of Shipment: AEN
 (Lab Name) Courier _____
 Hand Deliver

Well Number: MW-1 Well Diameter: _____
 Depth of Water: 7.06
 Well Depth: JMR 15.90 15.60 (sounded)
 Height of Water Column: 8.54
 Volume in Well: 1.5

2" (0.16 Gallon/Feet)
 4" (0.65 Gallon/Feet)
 5" (1.02 Gallon/Feet)
 6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:25								Field Blank
12:27								Start
12:29		1.5		17.5	6.04	1249		turbid/odor/spots of she
12:31		3		17.2	6.02	1173		
12:33		4.5		17.1	6.01	1116		↓ ↓ ↓
12:40	7.08							Sample

Inlet Depth: _____

Comments: _____
 (Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.95.02
 Project Name: Sherwin Williams-Rifkin
 Sample Location: Emeryville, CA
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 3/25/97
 Sample No.: MW-2
 FB: _____
 DUP: _____

- Centrifugal Pump
 Submersible Pump
 Hand Bail
 Disposable Bailer
 Teflon Bailer
 _____ (Other)

Analyses Requested
TPHg / BTEX
TPHd
Dissolved As

Number and Types of Bottle used
3 VOA/ML
2 Amber litre
1 250 ml plastic

```

      15.50
      6.72
      -----
      8.78
      - 1.6
      -----
      52.68
      8780
      -----
      14048

      8.78
      .2
      -----
      17.56
      6.72
      -----
      8.476

      80% DTW 8.47
    
```

Method of Shipment

AEN

(Lab Name)

Courier

Hand Deliver:

Well Number: MW-2
 Depth of Water: 6.72
 Well Depth: JMR 15.40 15.50 (sounded)
 Height of Water Column: 8.78
 Volume in Well: 1.5

Well Diameter:
 2" (0.16 Gallon/Feet)
 4" (0.65 Gallon/Feet)
 5" (1.02 Gallon/Feet)
 6" (1.47 Gallon/Feet)

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:50								start
12:52		1.5		18.2	6.31	982		turbid/color/spots of sheen
12:54		3		18.1	6.28	1013		
12:56		4.5		18.1	6.28	1023		↓ ↓ ↓
	8.47							
13:05								Sample

Inlet Depth: _____

Comments: _____
 (Recommended Method For Purging Well)

FORM NO. 100-108-01 (REV. 02/94)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.95.02
 Project Name: Sherwin Williams-Rifkin
 Sample Location: Emeryville, CA
 Samplers Name: JMR
 Sampling Plan Prepared By: KAG
 Sampling Method: _____

Date: 3/25/97
 Sample No.: MW-3
 FB: _____
 DUP: _____

- | | |
|---|---|
| <input type="checkbox"/> Centrifugal Pump | <input checked="" type="checkbox"/> Disposable Bailer |
| <input type="checkbox"/> Submersible Pump | <input type="checkbox"/> Teflon Bailer |
| <input checked="" type="checkbox"/> Hand Bail | <input type="checkbox"/> _____
(Other) |

Analyses Requested
PHg / BTEX
TPHd
Dissolved As

Number and Types of Bottle used
3 VOA/ML
2 Amber litre
1 250 ml plastic

Method of Shipment
AEN
 (Lab Name) Courier _____
 Hand Deliver: _____

Well Number: MW-3 Well Diameter: _____
 Depth of Water: 7.45 2" (0.16 Gallon/Feet)
 Well Depth: 19.20 (sounded) 4" (0.65 Gallon/Feet)
 Height of Water Column: 11.75 5" (1.02 Gallon/Feet)
 Volume in Well: 2 6" (1.47 Gallon/Feet)

19.20
7.45
11.75
.16
7.050
1 1.750
1.8 800
11.75
.2
2.350
7.45
9.800
80% DTW 9.80

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temperature °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
11:51								Start
11:54		2		17.2	6.60	552		turbid / sl. odor
11:57		4		16.9	6.61	513		
12:00		6		16.8	6.58	465		↓ ↓
12:10	7.79							SAMPLE

Inlet Depth: _____
 Comments: _____
 (Recommended Method For Purging Well)

WTRCLTY.SWPING.INFO.2210.0KRTL

APPENDIX B

Laboratory Certificates

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

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

REPORT DATE: 04/04/97

DATE(S) SAMPLED: 03/25/97

DATE RECEIVED: 03/25/97

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.95.02
CLIENT PROJ. NAME: SHERWIN WMS
C.O.C. NUMBER: 1903

AEN WORK ORDER: 9703319

PROJECT SUMMARY:

On March 25, 1997, this laboratory received 5 water sample(s).

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

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

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


Larry Klein
Laboratory Director

LEVINE-FRICKE-RECON

SAMPLE ID: RP-3
 AEN LAB NO: 9703319-01A
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	4 *	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	0.09 *	0.05	mg/L	03/31/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-3
AEN LAB NO: 9703319-01D
AEN WORK ORDER: 9703319
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/31/97
TPH as Diesel	GC-FID	0.47 *	0.05	mg/L	04/02/97

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

LEVINE - FRICKE - RECON

SAMPLE ID: RP-3
 AEN LAB NO: 9703319-01F
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	0.004 *	0.002	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-3
 AEN LAB NO: 9703319-02A
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	0.31 *	0.05	mg/L	03/31/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-3
 AEN LAB NO: 9703319-02D
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/31/97
TPH as Diesel	GC-FID	ND	0.05	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-3
AEN LAB NO: 9703319-02F
AEN WORK ORDER: 9703319
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	✓ 0.019 *	0.002	mg/L	04/02/97

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

LEVINE - FRICKE - RECON

SAMPLE ID: MW-1-FB
AEN LAB NO: 9703319-03A
AEN WORK ORDER: 9703319
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	04/01/97
Toluene	108-88-3	ND	0.5	ug/L	04/01/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	04/01/97
Xylenes, Total	1330-20-7	ND	2	ug/L	04/01/97
Purgeable HCs as Gasoline	5030/GCFID	ND ✓	0.05	mg/L	04/01/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-1-FB
AEN LAB NO: 9703319-03D
AEN WORK ORDER: 9703319
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	✓ ND	0.002	mg/L	04/02/97

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

LEVINE - FRICKE - RECON

SAMPLE ID: MW-1
 AEN LAB NO: 9703319-04A
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	49 *	0.5	ug/L	04/02/97
Toluene	108-88-3	2.2 *	0.5	ug/L	04/02/97
Ethylbenzene	100-41-4	2.4 *	0.5	ug/L	04/02/97
Xylenes, Total	1330-20-7	5 *	2	ug/L	04/02/97
Purgeable HCs as Gasoline	5030/GCFID	0.99 *	0.05	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-1
AEN LAB NO: 9703319-04D
AEN WORK ORDER: 9703319
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/31/97
TPH as Diesel	GC-FID	1.8 *	0.05	mg/L	04/02/97

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE - FRICKE - RECON

SAMPLE ID: MW-1
 AEN LAB NO: 9703319-04F
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	0.042 *	0.002	mg/L	04/02/97

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

LEVINE - FRICKE - RECON

SAMPLE ID: MW-2
AEN LAB NO: 9703319-05A
AEN WORK ORDER: 9703319
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	24 *	0.5	ug/L	04/02/97
Toluene	108-88-3	0.7 *	0.5	ug/L	04/02/97
Ethylbenzene	100-41-4	1.0 *	0.5	ug/L	04/02/97
Xylenes, Total	1330-20-7	ND	2	ug/L	04/02/97
Purgeable HCs as Gasoline	5030/GCFID	0.52 *	0.05	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-2
 AEN LAB NO: 9703319-05D
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/31/97
TPH as Diesel	GC-FID	3.3 *	0.05	mg/L	04/02/97

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

LEVINE - FRICKE - RECON

SAMPLE ID: MW-2
 AEN LAB NO: 9703319-05F
 AEN WORK ORDER: 9703319
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	0.038 *	0.002	mg/L	04/02/97

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9703319

CLIENT PROJECT ID: 3042.95.02

Quality Control Summary

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

Definitions

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

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

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

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

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

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

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

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA
METHOD: EPA 3510 GCFID

AEN JOB NO: 9703319
AEN LAB NO: 0331-BLANK
DATE EXTRACTED: 03/31/97
DATE ANALYZED: 03/31/97
INSTRUMENT: C
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9703319
 DATE EXTRACTED: 03/31/97
 INSTRUMENT: C
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
04/02/97	RP-3	01	84
04/02/97	MW-3	02	86
04/02/97	MW-1	04	87
04/02/97	MW-2	05	87
QC Limits:			65-125

DATE EXTRACTED: 03/31/97
 DATE ANALYZED: 03/31/97
 SAMPLE SPIKED: 9702229-01
 INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	4.00	90	3	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9703319
 AEN LAB NO: 0331-BLANK
 DATE ANALYZED: 03/31/97
 INSTRUMENT: F
 MATRIX: WATER

Method Blank

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

AEN LAB NO: 0401-BLANK
 DATE ANALYZED: 04/01/97
 INSTRUMENT: F
 MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9703319
AEN LAB NO: 0402-BLANK
DATE ANALYZED: 04/02/97
INSTRUMENT: E
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9703319
 INSTRUMENT: F, E
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
03/31/97	RP-3	01	93
03/31/97	MW-3	02	93
04/01/97	MW-1-FB	03	94
04/02/97	MW-1	04	97
04/02/97	MW-2	05	104
QC Limits:			70-130

DATE ANALYZED: 03/26/97
 SAMPLE SPIKED: LCS
 INSTRUMENT: E

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	16.2	111	<1	85-117	20
Toluene	55.5	110	<1	84-120	20
Hydrocarbons as Gasoline	500	91	2	85-115	20

QUALITY CONTROL DATA

AEN JOB NO: 9703319
 SAMPLE SPIKED: DI WATER
 DATE ANALYZED: 04/02/97
 MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits	
						Percent Recovery	RPD
As. Arsenic	4000/7060	ND	0.04	112	2	82-140	13

*** END OF REPORT ***

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

319 LSP
9703318

Project No.: 3042.95.02 Project Location: Emeryville, CA Date: 3/25/97 Serial No.:
Project Name: Sherwin Williams-Rifkin Field Logbook No.: No 1903

Sampler (Signature): J. H. M. Rogers ANALYSES Samplers: JMR

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CON-TAINERS	SAMPLE TYPE	ANALYSES					REMARKS
						TPH ₃ /BTX	TPH ₄	Dissolved AS	HOLD	RUSH	
Trip Blank	3/25/97	9:00		2	H ₂ O	X					STD TAT
RP-4		9:35	9703318	6		X	X	X			
RP-5		10:00		6		X	X	X			Filter Dissolved AS in lab.
RP-105		11:00		6		X	X	X			
RP-2		10:35		6		X	X	X			
RP-1		11:00		6		X	X	X			Results to Kenton Geo
RP-3		11:35		01A-F	6		X	X	X		
MW-3		12:10		02 A-F	6		X	X	X		
MW-1-FB		12:25		03 A-D	4		X		X		
MW-1		12:40		04 A-F	6		X	X	X		
MW-2		13:05		05 A-F	6		X	X	X		

RELINQUISHED BY: (Signature) J. H. M. Rogers	DATE 3/25/97	TIME 1515	RECEIVED BY: (Signature) Michael Stejneger	DATE 3/25/97	TIME 1515
RELINQUISHED BY: (Signature) Michael Stejneger	DATE 3/25/97	TIME 1745	RECEIVED BY: (Signature) Tereza Toddorochi	DATE 3/25/97	TIME 18:05
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME

METHOD OF SHIPMENT: DATE TIME LAB COMMENTS:

Sample Collector: LEVINE•FRICKE•RECON
1900 Powell Street, 12th Floor
Emeryville, California 94608-1827
(510) 652-4500

Analytical Laboratory: AEN

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

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

REPORT DATE: 04/04/97

DATE(S) SAMPLED: 03/25/97

DATE RECEIVED: 03/25/97

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042.95.02
CLIENT PROJ. NAME: SHERWIN WMS
C.O.C. NUMBER: 1903

AEN WORK ORDER: 9703318

PROJECT SUMMARY:

On March 25, 1997, this laboratory received 6 water sample(s).

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

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

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


Larry Klein
Laboratory Director

LEVINE - FRICKE - RECON

SAMPLE ID: TRIP BLANK
 AEN LAB NO: 9703318-01A
 AEN WORK ORDER: 9703318
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	03/31/97

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE-RECON

SAMPLE ID: RP-4
AEN LAB NO: 9703318-02A
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
<hr/>					
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	03/31/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-4
 AEN LAB NO: 9703318-02D
 AEN WORK ORDER: 9703318
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/27/97
TPH as Diesel	GC-FID	0.19 *	0.05	mg/L	03/27/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-4
 AEN LAB NO: 9703318-02F
 AEN WORK ORDER: 9703318
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	✓ 0.009 *	0.002	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-5
AEN LAB NO: 9703318-03A
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	ND ✓	0.05	mg/L	03/31/97

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE-RECON

SAMPLE ID: RP-5
AEN LAB NO: 9703318-03D
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/27/97
TPH as Diesel	GC-FID	0.54 *	0.05	mg/L	03/27/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-5
 AEN LAB NO: 9703318-03F
 AEN WORK ORDER: 9703318
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	0.006 *	0.002	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-105
AEN LAB NO: 9703318-04A
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	03/31/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-105
AEN LAB NO: 9703318-04D
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/31/97
TPH as Diesel	GC-FID	0.59 *	0.05	mg/L	04/01/97

ND = Not detected at or above the reporting limit

* = Value at or above reporting limit

LEVINE-FRICKE-RECON

SAMPLE ID: RP-105
AEN LAB NO: 9703318-04F
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	0.004 *L	0.002	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-2
AEN LAB NO: 9703318-05A
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	03/31/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-2
AEN LAB NO: 9703318-05D
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/27/97
TPH as Diesel	GC-FID	0.20 *	0.05	mg/L	03/28/97

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

LEVINE - FRICKE - RECON

SAMPLE ID: RP-2
 AEN LAB NO: 9703318-05F
 AEN WORK ORDER: 9703318
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	0.012 *	0.002	mg/L	04/02/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-1
 AEN LAB NO: 9703318-06A
 AEN WORK ORDER: 9703318
 CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
 DATE RECEIVED: 03/25/97
 REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/31/97
Toluene	108-88-3	ND	0.5	ug/L	03/31/97
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/31/97
Xylenes, Total	1330-20-7	ND	2	ug/L	03/31/97
Purgeable HCs as Gasoline	5030/GCFID	0.68 *	0.05	mg/L	03/31/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-1
AEN LAB NO: 9703318-06D
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	03/27/97
TPH as Diesel	GC-FID	1.2 *	0.05	mg/L	03/28/97

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

LEVINE-FRICKE-RECON

SAMPLE ID: RP-1
AEN LAB NO: 9703318-06F
AEN WORK ORDER: 9703318
CLIENT PROJ. ID: 3042.95.02

DATE SAMPLED: 03/25/97
DATE RECEIVED: 03/25/97
REPORT DATE: 04/04/97

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/25/97
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	04/01/97
Arsenic	EPA 7060	0.054 *	0.002	mg/L	04/02/97

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9703318

CLIENT PROJECT ID: 3042.95.02

Quality Control Summary

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

Definitions

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

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

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

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

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

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

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

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA
METHOD: EPA 3510 GCFID

AEN JOB NO: 9703318
AEN LAB NO: 0327-BLANK
DATE EXTRACTED: 03/27/97
DATE ANALYZED: 03/27/97
INSTRUMENT: C
MATRIX: WATER

Method Blank

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

AEN LAB NO: 0331-BLANK
DATE EXTRACTED: 03/31/97
DATE ANALYZED: 03/31/97
INSTRUMENT: C
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9703318
 DATE EXTRACTED: 03/27/97; 03/31/97
 INSTRUMENT: C
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			n-Pentacosane	
03/27/97	RP-4	02	82	
03/27/97	RP-5	03	87	
04/01/97	RP-105	04	91	
03/28/97	RP-2	05	90	
03/28/97	RP-1	06	93	
QC Limits:			65-125	

DATE EXTRACTED: 03/25/97
 DATE ANALYZED: 03/26/97
 SAMPLE SPIKED: 9702229-05
 INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Diesel	4.00	92	2	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9703318
AEN LAB NO: 0331-BLANK
DATE ANALYZED: 03/31/97
INSTRUMENT: F
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9703318
 INSTRUMENT: F
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery	
			Fluorobenzene	
03/31/97	TRIP BLANK	01	93	
03/31/97	RP-4	02	96	
03/31/97	RP-5	03	97	
03/31/97	RP-105	04	96	
03/31/97	RP-2	05	95	
03/31/97	RP-1	06	95	
QC Limits:			70-130	

DATE ANALYZED: 03/14/97
 SAMPLE SPIKED: 9703112-03
 INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	18.5	89	3	85-109	17
Toluene	64.4	92	2	87-111	16
Hydrocarbons as Gasoline	500	90	2	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9703318
SAMPLE SPIKED: DI WATER
DATE ANALYZED: 04/02/97
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Percent Recovery	RPD	QC Limits	
						Percent Recovery	RPD
As, Arsenic	4000/7060	ND	0.04	112	2	82-140	13

*** END OF REPORT ***

R-1,5-A

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9703318

Project No.: 3042.95.02 Project Location: Emeryville, CA Date: 3/25/97 Serial No.:
 Project Name: Sherwin Williams-Ritkin Field Logbook No.: N^o 1903

Sampler (Signature): JHM. Rodger ANALYSES Samplers: JMR
 SAMPLES

SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	ANALYSES			HOLD	RUSH	REMARKS
						TPH ₅ /BTEX	TPH ₂	Dissolved As			
Trip Blank	3/25/97	9:00	01 AB	2	H ₂ O	X		X			STD TAT
RP-4		9:35	02 A-F	6		X	X	X			
RA-5		10:00	03 A-F	6		X	X	X			Filter Dissolved As in lab.
RP-105		11:00	04 A-F	6		X	X	X			
RP-2		10:35	05 A-F	6		X	X	X			Results to Kenton Gro
RP-1		11:00	06 A-F	6		X	X	X			
RP-3		11:35		6		X	X	X			
MW-3		12:10		6		X	X	X			
MW-1-FB		12:25		4		X		X			T-B. TPH ₅ /BTEX only
MW-1		12:40		6		X	X	X			
MW-2		13:05		6		X	X	X			

RELINQUISHED BY (Signature) JHM. Rodger DATE 3/25/97 TIME 1515 RECEIVED BY (Signature) Michael Stredulla DATE 3/25/97 TIME 1515

RELINQUISHED BY (Signature) Michael Stredulla DATE 3/25/97 TIME 1845 RECEIVED BY (Signature) Jurena Koddorosh DATE 3/25/97 TIME 18:05

RELINQUISHED BY (Signature) DATE TIME RECEIVED BY (Signature) DATE TIME

METHOD OF SHIPMENT: DATE TIME LAB COMMENTS:

Sample Collector: LEVINE•FRICKE•RECON 1900 Powell Street, 12th Floor Emeryville, California 94608-1827 (510) 652-4500 Analytical Laboratory: AEN