Levine·Fricke·Recon
ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

January 31, 1997

3042.95-002

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

Subject: Quarterly Groundwater Monitoring Results for October 1 to December 31, 1996, A Portion of the Rifkin Property, 4525-4563 Horton Street, Emeryville, California

Dear Mr. Arigala:

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 October 1 to December 31, 1996.

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 Regional Water Quality Control Board (RWQCB) in a letter to Dave Gustafson from Steven Ritchie, dated November 4, 1994. In addition, wells MW-1 through MW-5 (installed by TMC Environmental) were included in this quarterly monitoring event.

On December 13, 1996, depth-to-water measurements were recorded in on-site wells RP-1 through RP-5 (installed by Levine·Fricke·Recon Inc. [LFR; formerly Levine·Fricke, Inc. and Recon Environmental]) and MW-1 through MW-5. On November 19, 1996, groundwater samples were collected from wells RP-1 through RP-5 and wells MW-1 through MW-5 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. 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. The samples were placed into the appropriate laboratory-supplied sample containers and placed in a chilled cooler for transportation to AEN for analysis following chain-of-custody procedures.

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. In addition, groundwater samples collected from wells MW-4 and MW-5 were analyzed for dissolved lead and dissolved zinc using EPA Method 6010. 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 February 1997 after site access is approved. Results from this event will be reported in the quarterly groundwater monitoring report for the period from January 1 through March 31, 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

Mark D. Knox, P.E.
Principal Engineer

Kenton A. Gee
Project Hydrogeologist

Enclosures

cc: Larry Mencin, 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 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 — 1/29/97
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
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
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
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
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)
	13-Dec-96		5.93	9.11
MW-1				
[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
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
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
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
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

Data entered by STPS. Proofed by KDL.

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-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
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
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
		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
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

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
	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
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
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
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 ___.

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

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

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.

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)
	13-Dec-96		5.93	9.11
MW-1				
[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
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
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
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
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

Data entered by SPS. Proofed by KPC.

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	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
(4)	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
dup	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
RP-2	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
dup	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
(3)	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
RP-3	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
(5)	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
	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

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-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
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
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
		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
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

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
	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
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
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
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 KAC. QA/QC by SXS.

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

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

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.

30428G003.CDR 011797

53rd STREET

TEMESCAL CREEK OVERFLOW

HORTON STREET

FORMER USTs

FORMER USTs

MW-1 8.59

MW-2 8.54

MW-3 9.27

MW-4 8.78

MW-5 8.27

RP-1 9.14

RP-2 9.04

RP-3 9.14

RP-4 9.01

RP-5 9.11

9.0

8.0

8.5

7.5

7.0

A

B

C

D

LF-1

LF-2

LF-3

LF-4

LF-5

LF-7

LF-8

LF-9

LF-10

LF-11

LF-12

LF-13

LF-17

LF-18

LF-19

LF-20

LF-21

LF-22

LF-26

LF-B1

LF-B2

LF-B3

LF-B4

LF-B5

LF-B6

EX-1

EX-2

EX-3

DRAINAGE DITCH

TEMESCAL CREEK

NPDES Storm Sewer Outfall

PAVED PARKING AREA

TRUCK PARKING AREA

IMPERVIOUS CAP WITHIN SLURRY WALL

SOIL-BENTONITE SLURRY CUT-OFF WALL

WAREHOUSE

WAREHOUSE AND OFFICE

SHOP

BOILER HOUSE

TRI-BIO BIOLOGICAL TREATMENT SYSTEM

WAREHOUSE

FACTORY

ANDCO ELECTROCHEMICAL TREATMENT SYSTEM

WAREHOUSE

EXPLANATION

- Property boundary
- Chain link fence
- LF-10 A-zone monitoring well
- LF-B3 B-zone monitoring well
- EX-1 Groundwater extraction well location
- Monitoring well destroyed under permit
- Monitoring well destroyed or lost during slurry wall and cap construction activities
- Monitoring well destroyed during railway expansion activities
- Rifkin property monitoring wells (TMC)
- Rifkin property monitoring wells (Levine-Fricke)
- 8.90 Groundwater elevation (feet above mean sea level)
- ~9.0 Groundwater elevation contour (feet above mean sea level)

0 40 80 FEET

30428005.CDR 092696KAG:ecm

RIFKIN PROPERTY

Groundwater Elevation Contours, December 13, 1996

Levine-Fricke-Recon Figure 1

Project No. 3042

3042SC01.CDR 011697

53rd STREET

TEMESCAL CREEK OVERFLOW

HORTON STREET

FORMER USTs

FORMER USTs

MW-1

MW-2

MW-3

MW-4

MW-5

0.041

0.071

0.048

0.041

RP-1

RP-2

0.016

3.1

0.009

RP-3

0.005

RP-4

0.007/0.008

RP-5

192

B

A

C

D

LF-12

LF-B4

LF-13

LF-B1

LF-1

LF-22

LF-B5

WAREHOUSE

WAREHOUSE AND OFFICE

SHOP

BOILER HOUSE

EX-3

TRI-BIO BIOLOGICAL TREATMENT SYSTEM

WAREHOUSE

FACTORY

LF-19

LF-7

LF-17

LF-2

LF-3

ANDCO ELECTROCHEMICAL TREATMENT SYSTEM

LF-18

DRAINAGE DITCH

LF-8

NPDES Storm Sewer Outfall

TEMESCAL CREEK

LF-B6

EX-1

LF-5

LF-B2

EX-2

WAREHOUSE

TRUCK PARKING AREA

PAVED PARKING AREA

LF-4

IMPERVIOUS CAP WITHIN SLURRY WALL

SOIL-BENTONITE SLURRY CUT-OFF WALL

LF-26

LF-9

LF-20

LF-10

LF-B3

LF-21

LF-11

0 40 80 FEET

30428005.CDR 092696KAG:ecm

EXPLANATION

- Property boundary
- Chain link fence
- LF-10 A-zone monitoring well
- LF-B3 B-zone monitoring well
- EX-1 Groundwater extraction well location
- Monitoring well destroyed under permit
- Monitoring well destroyed or lost during slurry wall and cap construction activities
- Monitoring well destroyed during railway expansion activities
- Rifkin property monitoring wells (TMC)
- Rifkin property monitoring wells (Levine-Fricke)
- 0.007/0.008 Arsenic detected in shallow ground water (milligrams per liter)
  - Duplicate sample
  - Primary sample

RIFKIN PROPERTY

Concentrations of Arsenic in Shallow Groundwater, November, 1996

Levine-Fricke-Recon Figure 2

Project No. 3042

APPENDIX A

Water Level and Sampling Field Forms

Project Name: Sherwin-Williams Project No.: 3435.00.04

Field Personnel: JMR Date: 12/13/96

General Observations: cool, overcast

WELL NO.	WELL ELEVATION	DEPTH TO WATER MEASUREMENTS 1	DEPTH TO WATER MEASUREMENTS 2	WATER ELEVATION	REMARKS (UNITS = FEET)
LF-3		4.89	4.89		11:59
LF-4		5.62	5.62		11:34 - Top of PVC damaged
LF-7		6.99	6.99		11:30 - No cap
LF-8		5.12	5.12		11:42
LF-10		3.68	3.68		11:22
LF-11		4.31	4.31		11:05
LF-12		5.69	5.69		10:12
LF-13		5.50	5.50		10:23
LF-17		2.59	2.59		12:03
LF-18		6.44	6.44		11:44
LF-20		7.71	7.71		11:41
LF-21		5.06	5.06		11:08
LF-22		9.07	9.07		12:08
LF-23		3.76	3.76		11:12
LF-24		4.10	4.10		11:19
LF-25		6.85	6.85		11:17
LF-26		6.75	6.75		11:56
LF-B3		2.70	2.70		11:10
LF-B4		5.64	5.64		10:20
LF-B5		9.25	9.25		12:06
LF-B6		4.33	4.33		11:33
MW-1		5.19	5.19		10:04
MW-2		5.04	5.04		9:59
MW-3		5.33	5.33		10:07
MW-4		6.75	6.75		10:44
MW-5		6.97	6.97		10:47
RP-1		6.00	6.00		11:02
RP-2		6.20	6.20		11:00
RP-3		6.03	6.03		10:54
RP-4		6.12	6.12		10:56
RP-5		5.93	5.93		10:58
LF-19		4.85	4.85		11:46
EX-1		3.20	3.20		11:36
EX-2		2.21	2.21		11:26
EX-3		5.10	5.10		12:02

waterlevelmsr27oct89

LEVINE•FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
Date: 11/19/96
Project Name: Sherwin Williams-Rifkin
Sample No.: RP-1
Sample Location: Emeryville
☐ FB:
Samplers Name: JMR
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

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

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCl
TPHd	2 Amber liter
Dissolved As	1 500ml plastic

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

Well Number: RP-1
Depth of Water: 7.45
Well Depth: 11.86
Height of Water Column: 4.41
Volume in Well: 1

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

11.86
7.45
4.41
.16
2646
4410
.7056

4.41
.2
.882
7.45
8.332

80% DTW 8.33

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:21								Start
10:22		1		18.2	6.50	686		sl.turbid / odor
10:23		2		18.2	6.33	696		↓ ↓
10:24		3		18.2	6.30	692		
	8.30							
10:30								SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
Project Name: Sherwin Williams-Rifkin
Sample Location: Emeryville
Samplers Name: JNR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 11/19/96
Sample No.: RP-2
☐ FB:
☐ DUP:

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

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCl
TPHd	2 Amber lite
Dissolved As	1 500ml plastic

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

Well Number: RP-2
Depth of Water: 7.65
Well Depth: 14.43
Height of Water Column: 6.78
Volume in Well: 1

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

14.43
7.65
6.78
.16
4068
6780
10848
6.78
.2
1356
7.65
9.006

80% DTW 9.00

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:52								start.
9:53		1		18.3	6.39	912		turbid/odor
9:54		2		18.3	6.38	940		↓ ↓
9:55		3		18.4	6.38	912		
	7.70							
10:05								SAmple

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR QLTY SMPLNG INFO 2210.PMTL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
Date: 11/19/96
Project Name: Sherwin Williams-Rifkin
Sample No.: RP-3
Sample Location: Emeryville
☐ FB:
Samplers Name: JNR
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

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

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCl
TPHd	2 Amber liter
Dissolved As	1 500ml plastic

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

Well Number: RP-3
Depth of Water: 7.49
Well Depth: 12.78
Height of Water Column: 5.29
Volume in Well: 1

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

12.78
7.49
5.29
.16
3174
1590
.8464

5.29
.2
1.058
7.49
8.548

80% DTW 8.54

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
10:58								Start
10:59		1		18.0	6.30	1474		turbid / odor
11:02		2		17.9	6.30	1686		↓ ↓
11:01		3		18.0	6.33	1776		↓ ↓
	7.95							
11:10								SAmple

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
Project Name: Sherwin Williams-Rifkin
Sample Location: Emeryville
Samplers Name: JNR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 11/19/96
Sample No.: RP-4
☐ FB:
☐ DUP:

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

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCl
TPHd	2 Amber liter
Dissolved As	1 500ml plastic

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

Well Number: RP-4
Depth of Water: 7.56
Well Depth: 16.15
Height of Water Column: 8.59
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)

16.15
7.56
8.59
.16
5154
8590
1.3744

8.59
.2
1.718
7.56
9.278

80% DTW 9.27

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
9:21								Start
9:23		1.5		18.2	6.28	895		turbid/odor
9:25		3		18.2	6.23	887		↓ ↓
9:27		4.5		18.2	6.26	936		↓ ↓
	7.60							
9:30								SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER QUALITY SAMPLING INFORMATION

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
Date: 11/19/96
Project Name: Sherwin Williams-Rifkin
Sample No.: MW-2
Sample Location: Emeryville
☐ FB:
Samplers Name: JNR
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

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

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCl
TPHd	2 Amber lite
Dissolved As	1 500ml plastic

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

Well Number: MW-2
Depth of Water: 6.65
Well Depth: 15.00
Height of Water Column: 8.35
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)

15.00
6.65
8.35
.16
5010
8350
1.3360

8.35
.2
1.670
6.65
8.320

80% DTW 8.32

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
13:34								Start
13:36		1.5		18.5	6.56	902		turbin / Light sheen
13:38		3		18.6	6.54	929		↓ ↓
13:40		4.5		18.7	6.57	938		
	7.50							
14:00								SAMPLE

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02

Project Name: Sherwin Williams-Rifkin

Sample Location: Emeryville

Samplers Name: JMR

Sampling Plan Prepared By: KAG

Sampling Method:

Date: 11/19/96

Sample No.: MW-3

☐ FB:

☐ DUP:

☐ Centrifugal Pump ☒ Disposable Bailer

☐ Submersible Pump ☐ Teflon Bailer

☒ Hand Bail ☐ ______ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCl
TPH d	2 Amber liter
Dissolved As	1 500ml plastic

Method of Shipment

AEN (Lab Name)

☒ Courier

☐ Hand Deliver

19.20
6.47
12.73
.26
7638
12730
2.0368

12.73
.2
2.546
6.47
9.016

Well Number: MW-3

Depth of Water: 6.47

Well Depth: 19.20

Height of Water Column:

Volume in Well: 2

Well Diameter:

☒ 2" (0.16 Gallon/Feet)

☐ 4" (0.65 Gallon/Feet

☐ 5" (1.02 Gallon/Feet)

☐ 6" (1.47 Gallon/Feet)

80% DTW 9.01

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:54								Start
12:56		2		18.6	6.32	504		turbid
12:58		4		18.7	6.36	467		↓
13:00		6		18.8	6.51	468		
13:02		8		18.7	6.50	460		↓
	6.71							
13:10								Sample

WTR QLTY SMPLNG INFO

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02
Project Name: Sherwin Williams-Rifkin
Sample Location: Emeryville
Samplers Name: JMR
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 11/19/96
Sample No.: MW-4
☐ FB:
☐ DUP:

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

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCl
TPHd	2 Amber liter
Dissolved As, total Pb, Zn	1 500ml plastic

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

Well Number: MW-4
Depth of Water: 7.86
Well Depth: 16.40
Height of Water Column: 8.54
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)

16.40
7.86
8.54
-1.5
5124
8540
13664

8.54
.2
1.708
7.86
9.568

80% DTW 9.56

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
12:07								Start
12:09		1.5		18.8	3.74	5830		turbid
12:11		3		18.7	3.75	5920		↓
12:13		4.5		18.8	3.78	6240		↓
	9.50							
12:20								

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042.96.02

Project Name: Sherwin Williams-Rifkin

Sample Location: Emeryville

Samplers Name: JMR

Sampling Plan Prepared By: KAG

Sampling Method:

Date: 11/19/96

Sample No.: MW-5

☐ FB:

☐ DUP:

- ☐ Centrifugal Pump
- ☐ Submersible Pump
- ☒ Hand Bail
- ☒ Disposable Bailer
- ☐ Teflon Bailer
- ☐ ________ (Other)

16.70
8.11
8.59
.16
5154
8590
1.3744

8.59
.2
1.718
8.11
9.828

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA/HCL
TPHd	2 Amber lite
Dissolved As, total Pb, Zn	1 500ml plastic

Method of Shipment

AEN (Lab Name)

☒ Courier

☐ Hand Deliver

Well Number: MW-5

Depth of Water: 8.11

Well Depth: 16.70

Height of Water Column: 8.59

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)

80% DTW 9.82

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
11:30								Start
11:32		1.5		17.8	4.62	2450		turbid
11:34		3		17.8	4.55	2520		↓
11:36		4.5		17.8	4.53	2670		
	9.80							
11:45								

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTR.QLTY.SMPLNG.INFO.7/10.0ARYL

APPENDIX B

Laboratory Certificates

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

ATTN: [redacted]
CLIENT PROJ. ID: 3042.96.02
CLIENT PROJ. NAME: SHERWIN WMS
C.O.C. NUMBER: 15225

REPORT DATE: 12/13/96
DATE(S) SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
AEN WORK ORDER: 9611273

PROJECT SUMMARY:

On November 19, 1996, this laboratory received 4 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: MW-5
AEN LAB NO: 9611273-01A
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	700 *	300	ug/L	11/29/96
Toluene	108-88-3	120,000 *	300	ug/L	11/29/96
Ethylbenzene	100-41-4	2,100 *	300	ug/L	11/29/96
Xylenes, Total	1330-20-7	10,000 *	1000	ug/L	11/29/96
Purgeable HCs as Gasoline	5030/GCFID	180 *	30	mg/L	11/29/96

Reporting limits elevated due to high levels of target compounds. Sample run at dilution.

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-5
AEN LAB NO: 9611273-01D
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/22/96
TPH as Diesel	GC-FID	3.7 *	0.3	mg/L	11/28/96

Reporting limit elevated due to high levels of non-target compounds. Sample run at dilution.

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-5
AEN LAB NO: 9611273-01F
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	192 *	0.002	mg/L	12/08/96

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-5
AEN LAB NO: 9611273-01G
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	11/25/96
Lead	EPA 6010	0.07 *	0.04	mg/L	11/26/96
Zinc	EPA 6010	21 *	0.01	mg/L	11/26/96

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-4
AEN LAB NO: 9611273-02A
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	2.4 *	0.5	ug/L	11/29/96
Toluene	108-88-3	2.1 *	0.5	ug/L	11/29/96
Ethylbenzene	100-41-4	1.7 *	0.5	ug/L	11/29/96
Xylenes, Total	1330-20-7	10 *	2	ug/L	11/29/96
Purgeable HCs as Gasoline	5030/GCFID	0.70 *	0.05	mg/L	11/29/96

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-4
AEN LAB NO: 9611273-02D
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/22/96
TPH as Diesel	GC-FID	6.9 *	0.05	mg/L	11/28/96

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-4
AEN LAB NO: 9611273-02F
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	3.1 *	0.002	mg/L	12/08/96

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

LEVINE-FRICKE-RECON

SAMPLE ID: MW-4
AEN LAB NO: 9611273-02G
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Digestion, Metals by ICP	EPA 3010	-		Prep Date	11/25/96
Lead	EPA 6010	ND	0.04	mg/L	11/26/96
Zinc	EPA 6010	230 *	0.01	mg/L	12/02/96

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: 9611273-03A
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT		REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**					
Benzene	71-43-2	ND		0.5	ug/L	11/27/96
Toluene	108-88-3	0.6	*	0.5	ug/L	11/27/96
Ethylbenzene	100-41-4	ND		0.5	ug/L	11/27/96
Xylenes, Total	1330-20-7	4	*	2	ug/L	11/27/96
Purgeable HCs as Gasoline	5030/GCFID	0.47	*	0.05	mg/L	11/27/96

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: 9611273-03D
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/22/96
TPH as Diesel	GC-FID	0.46 *	0.05	mg/L	11/28/96

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: 9611273-03F
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	0.048 *	0.002	mg/L	12/08/96

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: 9611273-04A
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	18 *	0.5	ug/L	11/27/96
Toluene	108-88-3	1.7 *	0.5	ug/L	11/27/96
Ethylbenzene	100-41-4	0.7 *	0.5	ug/L	11/27/96
Xylenes, Total	1330-20-7	4 *	2	ug/L	11/27/96
Purgeable HCs as Gasoline	5030/GCFID	0.37 *	0.05	mg/L	11/27/96

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: 9611273-04D
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/22/96
TPH as Diesel	GC-FID	3.2 *	0.3	mg/L	11/28/96

Reporting limit elevated due to high levels of non-target compounds. Sample run at dilution.

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: 9611273-04F
AEN WORK ORDER: 9611273
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	0.041 *	0.002	mg/L	12/08/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9611273

CLIENT PROJECT ID: 3042.96.02

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: 9611273
AEN LAB NO: 1122-BLANK
DATE EXTRACTED: 11/22/96
DATE ANALYZED: 11/25/96
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: 9611273
DATE EXTRACTED: 11/22/96
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
11/28/96	MW-5	01	84
11/28/96	MW-4	02	91
11/28/96	MW-3	03	104
11/28/96	MW-2	04	99
QC Limits:			65-125

DATE EXTRACTED: 11/22/96
DATE ANALYZED: 11/25/96
SAMPLE SPIKED: 9610017-01
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	83	5	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9611273
AEN LAB NO: 1127-BLANK
DATE ANALYZED: 11/27/96
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

AEN LAB NO: 1129-BLANK
DATE ANALYZED: 11/29/96
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: 9611273
INSTRUMENT: E
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
11/29/96	MW-5	01	100
11/29/96	MW-4	02	101
11/27/96	MW-3	03	101
11/27/96	MW-2	04	99
QC Limits:			70-130

DATE ANALYZED: 11/27/96
SAMPLE SPIKED: 9611261-05
INSTRUMENT: E

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	MS Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	27.0	88	11	85-109	17
Toluene	75.7	91	5	87-111	16
Hydrocarbons as Gasoline	500	105	1	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9611273
SAMPLE SPIKED: DI WATER
DATE ANALYZED: 11/26/96
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	MS Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
As, Arsenic	4000/7060	ND	0.04	99	4	69-136	12
Pb, Lead	ICP/6010	ND	0.5	103	1	90-122	10
Zn, Zinc	ICP/6010	ND	0.25	110	2	90-121	10

*** END OF REPORT ***

C-1, INORG. R-4 S-B R-3, S-2

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9611273

Project No.: 2642.96.02 (3435)	Field Logbook No.:	Date: 11/19/96	Serial No.: № 15225
Project Name: Sherwin Williams/Rifkin	Project Location: Emeryville		
Sampler (Signature):			Samplers: JMR

SAMPLES / **ANALYSES**

	SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPHg, BTEX	TPHd	Dissolved As	total Pb Zn			HOLD	RUSH	REMARKS
9611272	Trip Blank	11/19/96	9:00		2	H_2O	X								STD TAT
9611272	MW-1	↓	8:15		6	↓	X	X	X						
9611272	RP-5		9:00		6		X	X	X						Results to Kenton Gee
9611272	RP-105		10:00		6		X	X	X						
9611272	RP-4		9:30		6		X	X	X						Filter Dissolved As,
9611272	RP-2		10:05		6		X	X	X						total Pb + Zn in
9611272	RP-1		10:30		6		X	X	X						Lab
9611272	RP-3		11:10		6		X	X	X						
1A-G	MW-5		11:45		6		X	X	X	X					Took split
2A-G	MW-4		12:20		6		X	X	X	X					for total Pb Zn
3A-F	MW-3		13:10		6		X	X	X						
4A-F	MW-2	↓	14:00		6	↓	X	X	X						

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
[signature]	11/19/96	1630	Michael Ehrdulle [signature]	11/19/96	1630
Michael Ehrdulle [signature]	11/19/96	1815	Lorena Podhoursh [signature]	11/19/96	18:50
METHOD OF SHIPMENT:			LAB COMMENTS:		

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

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) FORM NO. 86/COC/ARF

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

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

ATTN: [redacted]
CLIENT PROJ. ID: 3042.96.02
CLIENT PROJ. NAME: SHERWIN WMS
C.O.C. NUMBER: 15225

REPORT DATE: 12/13/96

DATE(S) SAMPLED: 11/19/96

DATE RECEIVED: 11/19/96

AEN WORK ORDER: 9611272

PROJECT SUMMARY:

On November 19, 1996, this laboratory received 8 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: 9611272-01A
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	11/27/96
Toluene	108-88-3	ND	0.5	ug/L	11/27/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	11/27/96
Xylenes, Total	1330-20-7	ND	2	ug/L	11/27/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	11/27/96

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: 9611272-02A
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	32 *	0.5	ug/L	11/27/96
Toluene	108-88-3	1.7 *	0.5	ug/L	11/27/96
Ethylbenzene	100-41-4	1.7 *	0.5	ug/L	11/27/96
Xylenes, Total	1330-20-7	5 *	2	ug/L	11/27/96
Purgeable HCs as Gasoline	5030/GCFID	0.85 *	0.05	mg/L	11/27/96

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: 9611272-02D
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/21/96
TPH as Diesel	GC-FID	1.5 *	0.05	mg/L	11/27/96

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: 9611272-02F
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	0.071 *	0.002	mg/L	11/26/96

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: 9611272-03A
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	11/27/96
Toluene	108-88-3	ND	0.5	ug/L	11/27/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	11/27/96
Xylenes, Total	1330-20-7	ND	2	ug/L	11/27/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	11/27/96

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: 9611272-03D
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/21/96
TPH as Diesel	GC-FID	0.41 *	0.05	mg/L	11/26/96

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: 9611272-04D
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/21/96
TPH as Diesel	GC-FID	0.53 *	0.05	mg/L	11/26/96

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: 9611272-04F
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	0.008 *	0.002	mg/L	11/26/96

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: 9611272-05A
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	11/27/96
Toluene	108-88-3	ND	0.5	ug/L	11/27/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	11/27/96
Xylenes, Total	1330-20-7	ND	2	ug/L	11/27/96
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	11/27/96

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: 9611272-05D
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/21/96
TPH as Diesel	GC-FID	0.12 *	0.05	mg/L	11/26/96

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: 9611272-07A
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	11/27/96
Toluene	108-88-3	ND	0.5	ug/L	11/27/96
Ethylbenzene	100-41-4	ND	0.5	ug/L	11/27/96
Xylenes, Total	1330-20-7	ND	2	ug/L	11/27/96
Purgeable HCs as Gasoline	5030/GCFID	0.6 *	0.05	mg/L	11/27/96

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: 9611272-07D
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/22/96
TPH as Diesel	GC-FID	2.3 *	0.05	mg/L	11/27/96

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: 9611272-07F
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	0.041 *	0.002	mg/L	11/26/96

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: 9611272-08A
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	**EPA 8020**				
Benzene	71-43-2	ND	0.5	ug/L	11/29/96
Toluene	108-88-3	0.5 *	0.5	ug/L	11/29/96
Ethylbenzene	100-41-4	0.5 *	0.5	ug/L	11/29/96
Xylenes, Total	1330-20-7	3 *	2	ug/L	11/29/96
Purgeable HCs as Gasoline	5030/GCFID	0.07 *	0.05	mg/L	11/29/96

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: 9611272-08D
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Extraction for TPH	EPA 3510	-		Extrn Date	11/22/96
TPH as Diesel	GC-FID	1.2 *	0.05	mg/L	11/26/96

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: 9611272-08F
AEN WORK ORDER: 9611272
CLIENT PROJ. ID: 3042.96.02

DATE SAMPLED: 11/19/96
DATE RECEIVED: 11/19/96
REPORT DATE: 12/13/96

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	11/19/96
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	11/25/96
Arsenic	EPA 7060	0.005 *	0.002	mg/L	11/26/96

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9611272

CLIENT PROJECT ID: 3042.96.02

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: 9611272
AEN LAB NO: 1121-BLANK
DATE EXTRACTED: 11/21/96
DATE ANALYZED: 11/22/96
INSTRUMENT: C
MATRIX: WATER

Method Blank

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

AEN LAB NO: 1122-BLANK
DATE EXTRACTED: 11/22/96
DATE ANALYZED: 11/25/96
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: 9611272
DATE EXTRACTED: 11/21/96; 11/22/96
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
11/27/96	MW-1	02	103
11/26/96	RP-5	03	106
11/26/96	RP-105	04	101
11/26/96	RP-4	05	97
11/26/96	RP-2	06	106
11/27/96	RP-1	07	94
11/26/96	RP-3	08	84
QC Limits:			65-125

DATE EXTRACTED: 11/21/96
DATE ANALYZED: 11/22/96
SAMPLE SPIKED: 9611180-01
INSTRUMENT: C

Matrix Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	4.00	86	4	60-110	15

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9611272
AEN LAB NO: 1127-BLANK
DATE ANALYZED: 11/27/96
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: 1129-BLANK
DATE ANALYZED: 11/29/96
INSTRUMENT: H
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9611272
INSTRUMENT: F, H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
11/27/96	TRIP BLANK	01	74
11/27/96	MW-1	02	71
11/27/96	RP-5	03	72
11/27/96	RP-105	04	72
11/27/96	RP-4	05	76
11/27/96	RP-2	06	70
11/27/96	RP-1	07	74
11/29/96	RP-3	08	107
QC Limits:			70-130

DATE ANALYZED: 11/27/96
SAMPLE SPIKED: 9611272-05
INSTRUMENT: F

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	MS Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	23.5	89	4	85-109	17
Toluene	74.8	107	5	87-111	16
Hydrocarbons as Gasoline	500	92	13	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9611272
SAMPLE SPIKED: DI WATER
DATE ANALYZED: 11/26/96
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	MS Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
As, Arsenic	4000/7060	ND	0.04	99	4	69-136	12

*** END OF REPORT ***

ENOAG. R-5, S-A

R-3, S-2

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9611272

Project No.: 3642.9602 (3435)	Field Logbook No.:	Date: 11/19/96	Serial No.: No 15225
Project Name: Sherwin Williams/Rifkin	Project Location: Emeryville		
Sampler (Signature) :			Samplers: JMR

	SAMPLES						ANALYSES									
	SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	TPH g, BTEX	TPH d	Dissolved As	total Pb	total Zn			HOLD	RUSH	REMARKS
1A,B	Trip Blank	11/19/96	9:00		2	H_2O	X									STD TAT
2A-F	MW-1		8:15		6		X	X	X							
3A-F	RP-5		9:00		6		X	X	X							Results to Kenton Gee
4A-F	RP-105		10:00		6		X	X	X							
5A-F	RP-4		9:30		6		X	X	X							Filter Dissolved As,
6A-F	RP-2		10:05		6		X	X	X							total Pb & Zn in
7A-F	RP-1		10:30		6		X	X	X							Lab
8A-F	RP-3		11:10		6		X	X	X							
9611273	MW-5		11:45		6		X	X	X	X						> Took split
	MW-4		12:20		6		X	X	X	X						for total Pb Zn
	MW-3		13:10		6		X	X	X							
	MW-2	↓	14:00		6	↓	X	X	X							

RELINQUISHED BY: (Signature)		DATE 11/19/96	TIME 1630	RECEIVED BY: (Signature)	DATE 11/19/96	TIME 1630
RELINQUISHED BY: (Signature)		DATE 11/19/96	TIME 1715	RECEIVED BY: (Signature)	DATE 11/19/96	TIME 18:30
RELINQUISHED BY: (Signature)		DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:		DATE	TIME	LAB COMMENTS:		

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

Analytical Laboratory: AEN

Shipping Copy (White) Lab Copy (Green) File Copy (Yellow) Field Copy (Pink) [redacted] FO[redacted]. 86[redacted]/ARF [redacted]