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ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

Letter of Transmittal

Date August 16, 1995

From Mark D. Knox, P.E.

Project No. 3042.95-002

To Mr. Sumadhu Arigala
CRWQCB
2101 Webster St., Suite 500
Oakland, California 94612

Subject Updated Quarterly Monitoring Report dated June 13, 1995

The following items are: ☐ Requested ☒ Enclosed ☐ Sent Separately

via First Class Mail

Description	No. of Copies
Quarterly Ground-Water Monitoring Results Report dated June 13, 1995	1

These data are transmitted:

☐ At your request
☐ For your approval
☐ For your review
☐ For your action
☒ For your files
☐ For your information

Comments

Figures were inadvertently excluded from the June 13, 1995 Quarterly Ground-Water Monitoring Results letter. We have attached a revised version of the June 13, 1995 letter that includes the figures. If you have any questions, please contact me at (510) 652-4500.

Angela Jacobson for Mark Knox
(Signed)

cc: Larry Mencin, Sherwin-Williams
Dave Gustafson, Sherwin-Williams
Allen Danzig, Sherwin-Williams
Susan Hugo, Alameda County
Ravi Arulanantham, Alameda County

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ENGINEERS, HYDROGEOLOGISTS & APPLIED SCIENTISTS

June 13, 1995

LF 3042.95-002

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

Subject: Quarterly Ground-Water Monitoring Results, 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 January 1 through March 31, 1995.

Quarterly ground-water 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 Sum Arigula of the California Regional Water Quality Control Board (RWQCB). This proposed quarterly ground-water monitoring program was approved by the RWQCB in a letter to Dave Gustafson from Steven Ritchie of the RWQCB dated November 4, 1994.

On February 28, 1995 ground-water samples were collected from wells RP-1 through RP-5 and submitted to American Environmental Network (AEN) for chemical analysis. In addition, February 28, 1995 depth to water measurements were recorded in on-site wells RP-1 through RP-5. Locations of on-site wells are shown on Figure 1. Water level and sampling field forms are included in Appendix A.

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

3042\3042-E95.QMR:amj

1900 Powell Street, 12th Floor
Emeryville, California 94608
(510) 652-4500
Fax (510) 652-2246

Other offices in Irvine, CA, Sacramento/Roseville, CA, Tallahassee, FL, Honolulu, HI

During sampling of the on-site wells, after the volume of water in each well was calculated, 3 to 5 well volumes of water were purged from each well using either 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, ground-water parameters (pH, specific conductance, and temperature) were monitored and recorded, to aid in collecting ground-water samples that were representative of the ground water in surrounding sediments. Samples were collected after these parameters had stabilized. If a well did not sustain a constant yield (i.e., goes dry), the well was sampled after the water level had recovered to approximately 80 percent of the original water level, or 2 hours after purging, whichever occurred first.

After purging, ground-water samples were collected using a clean Teflon bailer fitted with a new rope. A duplicate sample collected from well RP-4 and a bailer field blank were submitted for chemical analysis to monitor laboratory and equipment decontamination quality assurance and quality control. Equipment used during ground-water 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, a California-certified laboratory for analysis, following chain-of-custody procedures.

Water purged from each well during ground-water sampling was temporarily stored on site in 55-gallon drums for subsequent disposal, based upon chemical analyses results.

Ground-water 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, ethyl benzene, 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 are included in Appendix B.

The next quarterly ground-water monitoring event was conducted in May 1995. Please call Mark Knox or Kenton Gee if you have any questions or comments at (510) 652-4500.

Sincerely,

Mark D. Knox
Mark D. Knox, P.E.
Chief Engineer

Kenton Gee
Kenton A. Gee
Senior Staff Hydrogeologist

enclosures

cc: Larry Mencin, Sherwin-Williams

CERTIFICATION

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

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

6/13/95
Date

TABLE 1

HISTORICAL GROUND-WATER ELEVATION DATA
RIFKIN PROPERTY, EMERYVILLE, CALIFORNIA

Well Number	Date	Elevation Top of Casing (msl)	Depth to Ground-Water (ft bgs)	Ground-Water Elevation (msl)
On Site:				
RP-1	08-Sep-94	15.12	8.65	6.47
	28-Feb-95		7.83	7.29
RP-2	08-Sep-94	15.23	8.99	6.24
	28-Feb-95		8.11	7.12
RP-3	08-Sep-94	15.15	8.80	6.35
	28-Feb-95		7.87	7.28
RP-4	08-Sep-94	15.10	9.02	6.08
	28-Feb-95		8.13	6.97
RP-5	08-Sep-94	15.03	8.95	6.08
	28-Feb-95		8.06	6.97

Data entered by KAC/28 Apr 95. Proofed by KPC.

Notes:

msl = mean sea level
NM = not measured
bgs = below ground surface

TABLE 2

CHEMICALS DETECTED IN GROUND-WATER SAMPLES
RIFKIN PROPERTY, EMERYVILLE, CALIFORNIA
(concentrations reported in parts per million [ppm])

Sample ID	Sample Date	1) As	TPHg	TPHd	TPHo	Acetone	Benzene	Toluene	Xylenes	MEK	1,2-DCA	cis-1,2-DCE	trans-1,2-DCE	Ethyl-benzene	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	<.100	<0.005	<0.0005	<0.002	<0.100	0.002	0.003	0.001	<0.0005	<0.050	<0.005
	28-Feb-95	0.046	0.3	1.8	NA	NA	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	<0.0005	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	<.100	<0.005	0.0005	<0.002	<0.100	0.001	0.001	<0.0005	<0.005	<0.050	0.0006
duplicate	08-Sep-94	0.020	0.09	0.3	0.6	<.100	<0.005	<0.0005	<0.002	<0.100	0.001	0.001	<0.0005	<0.005	<0.050	0.0005
	28-Feb-95	0.013	0.09	<0.05	NA	NA	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	<0.0005	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	<.100	<0.005	<0.0005	<0.002	<0.100	<0.005	<0.0005	<0.0005	<0.005	<0.050	<0.0005
	28-Feb-95	0.004	0.2	1.2	NA	NA	<0.0005	0.0007	<0.002	NA	NA	NA	NA	<0.0005	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	<.100	<0.005	<0.0005	<0.002	<0.100	0.001	0.007	0.004	<0.005	<0.050	0.002
	28-Feb-95	0.007	0.08	0.07	NA	NA	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	<0.0005	NA	NA
duplicate	28-Feb-95	0.006	0.07	0.07	NA	NA	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	<0.0005	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	<.100	<0.005	<0.0005	<0.002	<0.100	0.0008	0.0005	<0.0005	<0.005	<0.050	<0.005
	28-Feb-95	0.007	0.06	0.2	NA	NA	<0.0005	0.0009	<0.002	NA	NA	NA	NA	<0.0005	NA	NA
Blanks:																
RP-3-FB	28-Feb-95	<0.002	<0.05	<0.05	NA	NA	<0.0005	<0.0005	<0.002	NA	NA	NA	NA	<0.0005	NA	NA
MCLS	-------	0.050	-------	-------	-------	-------	0.005	1.000	10	-------	0.0005	0.070	0.100	0.700	-------	0.005

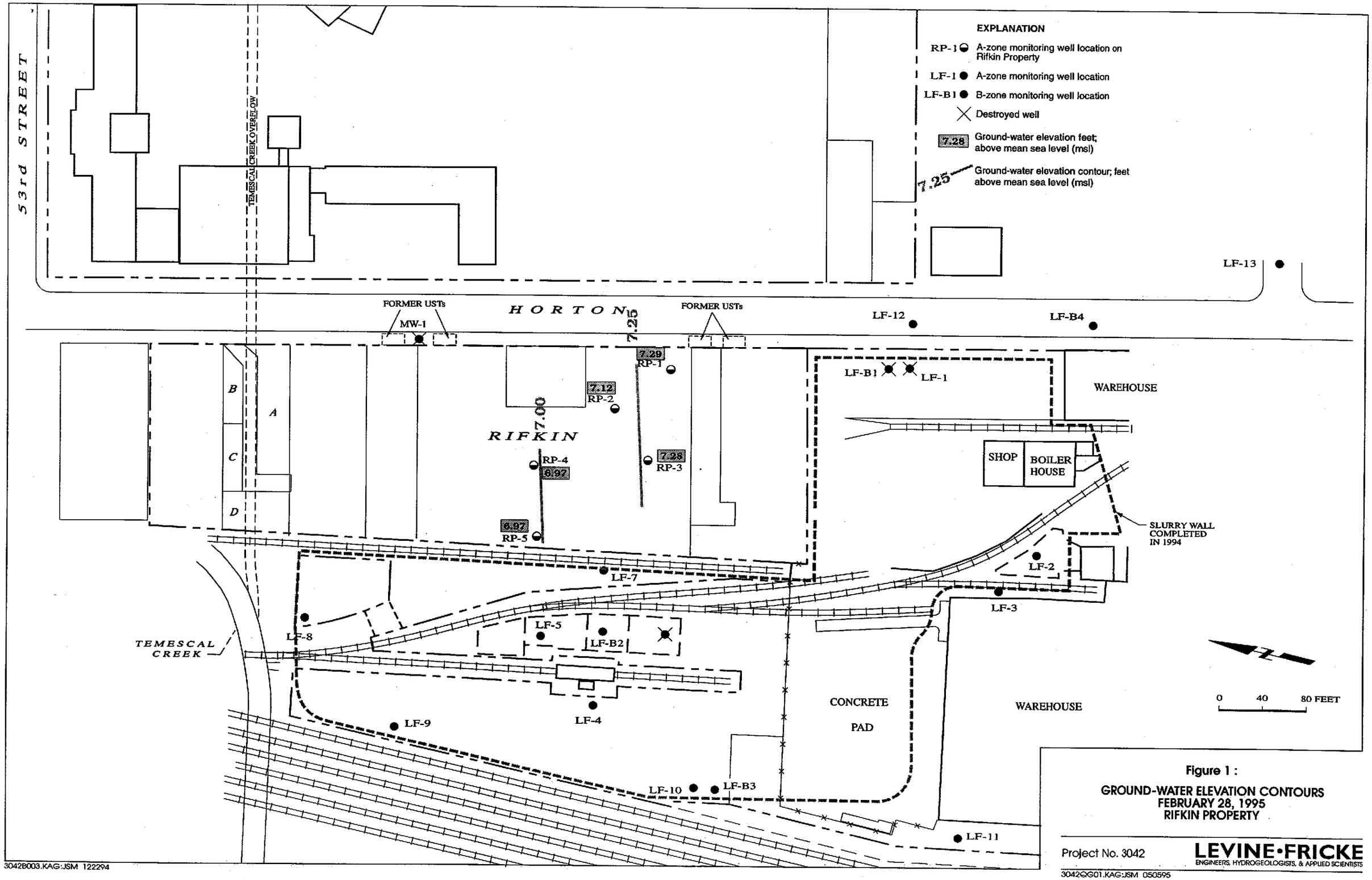
Data entered by KAC/28 Apr 95. Data proofed by JCM. QA/QC by AEGD.

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.

Notes:

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
1,2-DCA = 1,2-dichloroethane
cis-1,2-DCE = cis-1,2-Dichloroethene
trans-1,2-DCE = trans-1,2-Dichloroethene
TCE = trichloroethene



3042B003.KAG:JSM 122294

Figure 1 :

GROUND-WATER ELEVATION CONTOURS
FEBRUARY 28, 1995
RIFKIN PROPERTY

Project No. 3042

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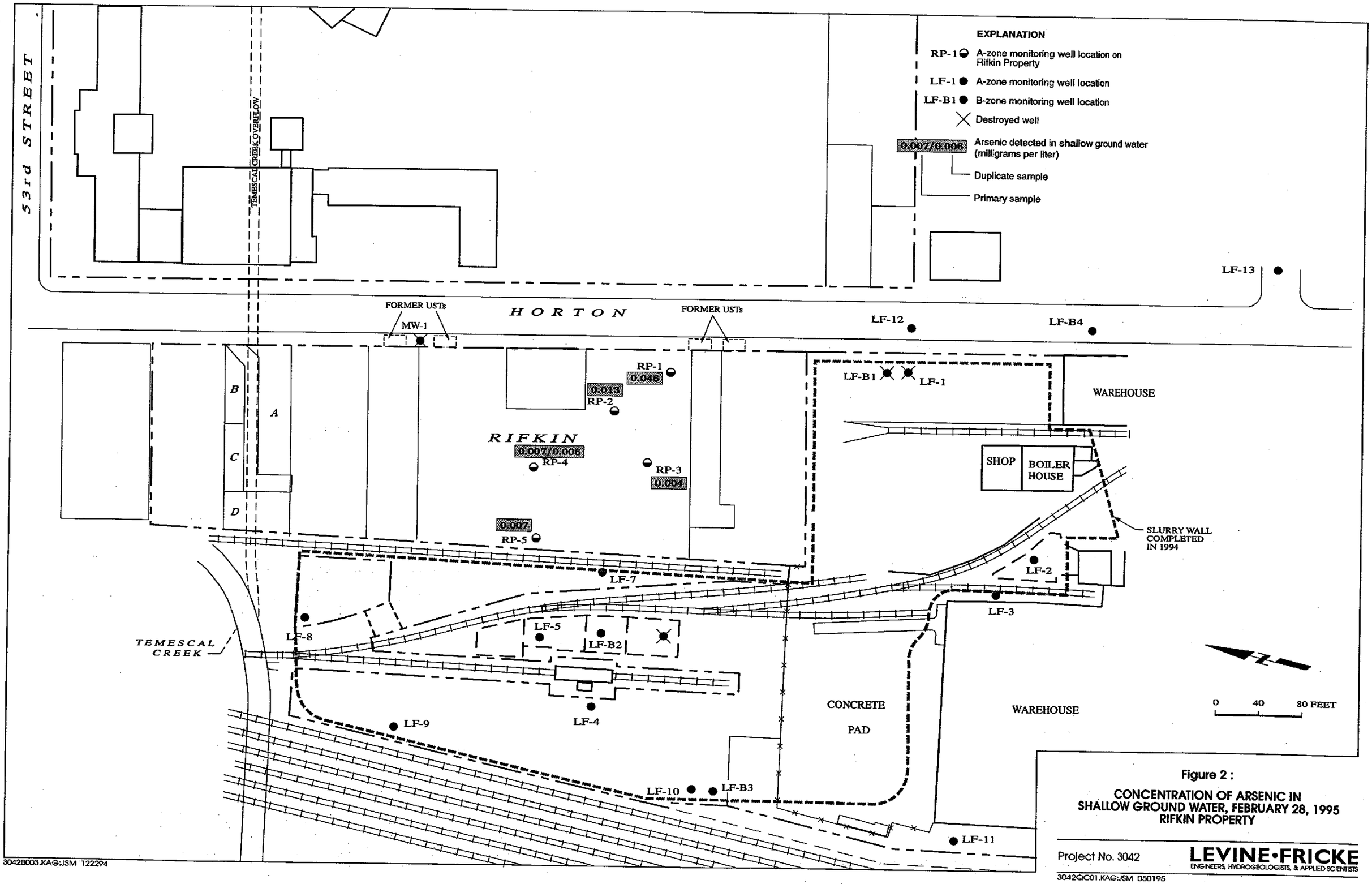
3042QG01.KAG:JSM 050595



3042B003.KAG:JSM 122294

Figure 2 :

CONCENTRATION OF ARSENIC IN SHALLOW GROUND WATER, FEBRUARY 28, 1995 RIFKIN PROPERTY

Project No. 3042

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3042QC01.KAG:JSM 050195

APPENDIX A

WATER LEVEL AND SAPLING FIELD FORMS

WATER-LEVEL MEASUREMENTS KAG

Project Name: Shell-Williams (Rifkin) Project No.: 3042

Field Personnel: JMR Date: 9-23-95

General Observations: Cool, Rainy

WELL NO.	WELL ELEVATION	DEPTH TO WATER MEASUREMENTS 1	DEPTH TO WATER MEASUREMENTS 2	WATER ELEVATION	REMARKS (UNITS = FEET)
RP-1	15.12	7.83			12:56
RP-2	15.23	8.11			12:54
RP-3	15.15	7.87			12:58
RP-4	15.10	8.13			12:52
RP-5	15.03	8.06			12:50

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042

Project Name: Sherwin Williams (Rifkin)

Sample Location: Emeryville

Samplers Name: JMR

Sampling Plan Prepared By: KAG

Sampling Method:

Date: 2-28-95

Sample No.: RP-5

☐ FB:

☐ DUP:

☐ Centrifugal Pump
☐ Submersible Pump
☒ Hand Bail

☒ Disposable Bailer
☒ Teflon Bailer
☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	3 VOA / HCL
TPHd, AS	2 Amber Litre / HCL
	1 250 ml

Method of Shipment: ABN (Lab Name)

☒ Courier

☐ Hand Deliver:

Well Number: RP-5

Depth of Water: 8.06

Well Depth: 15.88

Height of Water Column: 7.82

Volume in Well: 1.2 x 1.5

Well Diameter:

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

15.88
8.06
7.82
.16
4692
782
1251.2

7.82
.2
1564
8.06
9.570

80% DTW 9.57

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
13:35								Start
13:40		1.5		16.7	6.34	742		Sl. turbid / odor
13:45		3.0		16.8	6.40	749		Sl. turbid / odor
13:50		4.5		16.9	6.47	745		Sl. turbid / odor
13:55								Sample

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042

Project Name: Sherwin Williams (Rifkin)

Sample Location: Emeryville

Samplers Name: JMR

Sampling Plan Prepared By: KAG

Sampling Method:

Date: 2-27-95

Sample No.: RP-4

☐ FB:

☒ DUP: RP-104

☐ Centrifugal Pump ☒ Disposable Bailer

☐ Submersible Pump ☒ Teflon Bailer

☒ Hand Bail ☐ _____ (Other)

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	6 VOA / 1tL
TPHd, AS	2 amber litre / 1tL
	2 250 ml

Method of Shipment: AEN (Lab Name)

☒ Courier

☐ Hand Deliver:

Well Number: RP4

Depth of Water: 8.13

Well Depth: 16.15

Height of Water Column: 8.02

Volume in Well: 1*2= 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
8.13
8.02
.16
4812
8020
12832

8.02
.2
1604
8013
9.617

80% DTW 9.61

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
14:20								start
14:25		1.5		16.9	6.34	1509		turbid
14:28		3.0		17.2	6.61	1593		turbid
14:32		4.5		17.3	6.61	1579		turbid
14:40								Sample
15:40								Sample Dup

Inlet Depth:

Comments: (Recommended Method For Purging Well)

WTRQLTY.SMPLNG.INFO 2JUL94RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042
Date: 2-28-95
Project Name: Sherwin Williams (Rifkin)
Sample No.: RP-3
Sample Location: Emeryville
☒ FB: RP-3-FB
Samplers Name: DWR
☐ DUP:
Sampling Plan Prepared By: KAG
Sampling Method:

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

12.78
7.87
4.91
.16
2946
4910
7856

Analyses Requested	Number and Types of Bottle used
TPHg, BTEX	6 VOA / HCL
TPHd, AS	2 amber litre / HCL
	2 250ml

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

4.91
.2
.982
7.087
8.069

Well Number: RP-3
Well Diameter:
Depth of Water: 7.87
☒ 2" (0.16 Gallon/Feet)
Well Depth: 12.78
☐ 4" (0.65 Gallon/Feet
Height of Water Column: 4.91
☐ 5" (1.02 Gallon/Feet)
Volume in Well: .78 ≅ 1
☐ 6" (1.47 Gallon/Feet)

80% DTW 8.06

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
15:10								Start / Field Blank
15:30								Start
15:33		1		16.2	6.65	2.77		sl. turbid / odor
15:35		2		16.3	6.59	3.01		sl. turbid / odor
15:38		3		16.3	6.61	3.00		sl. turbid / odor
15:45								sample

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTRQLTY.SMPLING.INFO.2.BLS/RYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042
Project Name: Sherwin Williams (Rifkin Prop)
Sample Location: Emeryville
Samplers Name: dmc
Sampling Plan Prepared By: KAG
Sampling Method:

Date: 2-28-95
Sample No.: RD-1
☐ 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 / 1tL
TPHd, AS	2 amber litre / 1L
	1 250mL

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

Well Number: RD-1
Depth of Water: 7.83
Well Depth: 11.86
Height of Water Column: .0403
Volume in Well: .64 x 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
7.83
.0403
.16
2418
2410
0403
.6448

0403
.2
.0806
7.0083
7.0809

80% DTW 7.08

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
16:00								Start
16:05		1		16.3	6.77	1001		turbid / sl. odor
16:10		2		16.4	6.71	964		turbid / sl. odor
16:13		3		16.5	6.66	940		turbid / sl. odor
	7.80							
16:30								Sample

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

WTR.QLTY.SMPLNG.INFO.22JUL94.XYL

WATER-QUALITY SAMPLING INFORMATION

Project No.: 3042
Date: 2-28-95
Project Name: Sherwin William (Rifkin)
Sample No.: RP-2
Sample Location: Emeryville
☐ FB:
Samplers Name: dmr
☐ 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, AS	2 amber litre
	1 250 ml

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

Well Number: RP-2
Depth of Water: 8.11
Well Depth: 14.43
Height of Water Column: 6.32
Volume in Well: 1.0 ≅ 1.5

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

14.43
8.11
6.32
.16
3792
6320
1.011 2

6.32
.2
1.264
8.011
9.264

80% DTW 9.26

TIME	Depth to Water	Volume Purged (Gallons)	Totalizer Reading	Temparture °C	pH (SU)	Cond (mohs)	Turbidity (NTU)	Remarks
16:45								Start
16:50		1.5		16.7	6.63	1140		turbid / sl. odor
16:53		3.0		16.9	6.63	1124		turbid / sl. odor
16:56		4.5		17.0	6.63	1111		turbid / sl. odor
17:00	8.30							~~Retrieve sample~~ / sample

Inlet Depth:

Comments:
(Recommended Method For Purging Well)

WTRQLTY.SMPLNG.INFO.22JUL94HYL

APPENDIX B

LABORATORY CERTIFICATES

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172 AIHA Accreditation: 11134

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

REPORT DATE: 03/20/95
DATE(S) SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
AEN WORK ORDER: 9503008

ATTN: KENTON GEE
CLIENT PROJ. ID: 3042
CLIENT PROJ. NAME: SHERWIN WILLMS
C.O.C. NUMBER: 013434

PROJECT SUMMARY:

On March 1, 1995, this laboratory received 7 water sample(s).

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

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

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

RECEIVED MAR 21 1995

Larry Klein
Laboratory Director

LEVINE-FRICKE

SAMPLE ID: RP-5
AEN LAB NO: 9503008-01
AEN WORK ORDER: 9503008
CLIENT PROJ. ID: 3042

DATE SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
REPORT DATE: 03/20/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/01/95
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/10/95
Toluene	108-88-3	0.9 *	0.5	ug/L	03/10/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/10/95
Xylenes, Total	1330-20-7	ND	2	ug/L	03/10/95
Purgeable HCs as Gasoline	5030/GCFID	0.06 *	0.05	mg/L	03/10/95
#Extraction for TPH	EPA 3510	-		Extrn Date	03/09/95
TPH as Diesel	GC-FID	0.2 *	0.05	mg/L	03/10/95
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	03/02/95
Arsenic	EPA 7060	0.007 *	0.002	mg/L	03/02/95

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

LEVINE-FRICKE

SAMPLE ID: RP-4
AEN LAB NO: 9503008-02
AEN WORK ORDER: 9503008
CLIENT PROJ. ID: 3042

DATE SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
REPORT DATE: 03/20/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/01/95
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/10/95
Toluene	108-88-3	ND	0.5	ug/L	03/10/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/10/95
Xylenes, Total	1330-20-7	ND	2	ug/L	03/10/95
Purgeable HCs as Gasoline	5030/GCFID	0.08 *	0.05	mg/L	03/10/95
#Extraction for TPH	EPA 3510	-		Extrn Date	03/09/95
TPH as Diesel	GC-FID	0.07 *	0.05	mg/L	03/10/95
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	03/02/95
Arsenic	EPA 7060	0.007 *	0.002	mg/L	03/02/95

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

LEVINE-FRICKE

SAMPLE ID: RP-104
AEN LAB NO: 9503008-03
AEN WORK ORDER: 9503008
CLIENT PROJ. ID: 3042

DATE SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
REPORT DATE: 03/20/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/01/95
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/10/95
Toluene	108-88-3	ND	0.5	ug/L	03/10/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/10/95
Xylenes, Total	1330-20-7	ND	2	ug/L	03/10/95
Purgeable HCs as Gasoline	5030/GCFID	0.07 *	0.05	mg/L	03/10/95
#Extraction for TPH	EPA 3510	-		Extrn Date	03/09/95
TPH as Diesel	GC-FID	0.07 *	0.05	mg/L	03/10/95
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	03/02/95
Arsenic	EPA 7060	0.006 *	0.002	mg/L	03/02/95

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

LEVINE-FRICKE

SAMPLE ID: RP-3
AEN LAB NO: 9503008-04
AEN WORK ORDER: 9503008
CLIENT PROJ. ID: 3042

DATE SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
REPORT DATE: 03/20/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/01/95
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/10/95
Toluene	108-88-3	0.7 *	0.5	ug/L	03/10/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/10/95
Xylenes, Total	1330-20-7	ND	2	ug/L	03/10/95
Purgeable HCs as Gasoline	5030/GCFID	0.2 *	0.05	mg/L	03/10/95
#Extraction for TPH	EPA 3510	-		Extrn Date	03/09/95
TPH as Diesel	GC-FID	1.2 *	0.05	mg/L	03/10/95
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	03/02/95
Arsenic	EPA 7060	0.004 *	0.002	mg/L	03/02/95

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

LEVINE-FRICKE

SAMPLE ID: RP-3-FB
AEN LAB NO: 9503008-05
AEN WORK ORDER: 9503008
CLIENT PROJ. ID: 3042

DATE SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
REPORT DATE: 03/20/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/01/95
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/10/95
Toluene	108-88-3	ND	0.5	ug/L	03/10/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/10/95
Xylenes, Total	1330-20-7	ND	2	ug/L	03/10/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	03/10/95
#Extraction for TPH	EPA 3510	-		Extrn Date	03/09/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	03/10/95
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	03/02/95
Arsenic	EPA 7060	ND	0.002	mg/L	03/02/95

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

LEVINE-FRICKE

SAMPLE ID: RP-1
AEN LAB NO: 9503008-06
AEN WORK ORDER: 9503008
CLIENT PROJ. ID: 3042

DATE SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
REPORT DATE: 03/20/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/01/95
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/10/95
Toluene	108-88-3	ND	0.5	ug/L	03/10/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/10/95
Xylenes, Total	1330-20-7	ND	2	ug/L	03/10/95
Purgeable HCs as Gasoline	5030/GCFID	0.3 *	0.05	mg/L	03/10/95
#Extraction for TPH	EPA 3510	-		Extrn Date	03/09/95
TPH as Diesel	GC-FID	1.8 *	0.05	mg/L	03/10/95
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	03/02/95
Arsenic	EPA 7060	0.046 *	0.002	mg/L	03/02/95

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

LEVINE-FRICKE

SAMPLE ID: RP-2
AEN LAB NO: 9503008-07
AEN WORK ORDER: 9503008
CLIENT PROJ. ID: 3042

DATE SAMPLED: 02/28/95
DATE RECEIVED: 03/01/95
REPORT DATE: 03/20/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
#Sample Filtration	0.45 um	-		Filtr Date	03/01/95
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	03/10/95
Toluene	108-88-3	ND	0.5	ug/L	03/10/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	03/10/95
Xylenes, Total	1330-20-7	ND	2	ug/L	03/10/95
Purgeable HCs as Gasoline	5030/GCFID	0.09 *	0.05	mg/L	03/10/95
#Extraction for TPH	EPA 3510	-		Extrn Date	03/09/95
TPH as Diesel	GC-FID	ND	0.05	mg/L	03/10/95
#Digestion, Metals by GFAA	EPA 3020	-		Prep Date	03/02/95
Arsenic	EPA 7060	0.013 *	0.002	mg/L	03/02/95

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

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9503008

CLIENT PROJECT ID: 3042

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: 9503008
AEN LAB NO: 0309-BLANK
DATE EXTRACTED: 03/09/95
DATE ANALYZED: 03/09/95

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 3510 GCFID

AEN JOB NO: 9503008
DATE EXTRACTED: 03/09/95
INSTRUMENT: C
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery n-Pentacosane
03/10/95	RP-5	01	100
03/10/95	RP-4	02	116
03/10/95	RP-104	03	106
03/10/95	RP-3	04	107
03/10/95	RP-3-FB	05	107
03/10/95	RP-1	06	120
03/10/95	RP-2	07	102
QC Limits:			73-129

QUALITY CONTROL DATA

AEN JOB NO: 9503008
DATE EXTRACTED: 03/09/95
DATE ANALYZED: 03/09/95
SAMPLE SPIKED: DI WATER
INSTRUMENT: C
MATRIX: WATER

Method Spike Recovery Summary

Analyte	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Diesel	2.02	80	1	65-103	12

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9503008
AEN LAB NO: 0310-BLANK
DATE ANALYZED: 03/10/95
INSTRUMENT: H
MATRIX: WATER

Method Blank

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

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9503008
INSTRUMENT: H
MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
03/10/95	RP-5	01	98
03/10/95	RP-4	02	107
03/10/95	RP-104	03	101
03/10/95	RP-3	04	99
03/10/95	RP-3-FB	05	100
03/10/95	RP-1	06	101
03/10/95	RP-2	07	100
QC Limits:			92-109

DATE ANALYZED: 03/10/95
SAMPLE SPIKED: 9503024-08
INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
Benzene	18.2	103	4	85-109	17
Toluene	52.8	103	3	87-111	16
Hydrocarbons as Gasoline	500	99	7	66-117	19

QUALITY CONTROL DATA

AEN JOB NO: 9503008
SAMPLE SPIKED: DI WATER
DATE ANALYZED: 03/02/95
MATRIX: WATER

Method Blank and Spike Recovery Summary

Analyte	Inst./ Method	Blank Result (mg/L)	Spike Added (mg/L)	Average Percent Recovery	RPD	QC Limits Percent Recovery	QC Limits RPD
As. Arsenic	4000/7060	ND	0.040	112	3	84-118	12

*** END OF REPORT ***

RP-5-8-12-15-G

CHAIN OF CUSTODY / ANALYSES REQUEST FORM

9503008

Project No.: 3042	Field Logbook No.:	Date: 2/28/95	Serial No.: Nº 013434
Project Name: Sherwin Williams	Project Location: Emeryville		
Sampler (Signature): Jeffrey M. Rodger			Samplers: JMK

SAMPLES						ANALYSES								
SAMPLE NO.	DATE	TIME	LAB SAMPLE NO.	NO. OF CONTAINERS	SAMPLE TYPE	EPA 601	EPA 624	TPHgas	BTEX	TPH diesel	AS	HOLD	RUSH	REMARKS
RP-5	2/28/95	13:55	01A-F	6	H_2O			X	X	X	X			
RP-4		14:40	02A-E	5	↓			↓	↓	↓	↓			Analyze for TPHgas, BTEX & TPH diesel
RP-104		15:40	03A-E	5										Also, Analyze Arsenic as filtered & perserved - dissolved
RP-3		15:45	04A-E	5										
RP-3-FB		15:10	05A-E	5										
RP-1		16:30	06A-F	6										
RP-2		17:00	07A-F	6	↓									Standard Turnaround
														Results to Kenton Gee
														VOA's (40 ml) = TPHg, BTEX
														Amber 1 litre = TPHd
														250 ml plastic = AS

RELINQUISHED BY: (Signature) Jeffrey M. Rodger	DATE 2/28/95	TIME	RECEIVED BY: (Signature) Michael E McMullen	DATE 3/1/95	TIME 10:35
RELINQUISHED BY: (Signature) Michael E McMullen	DATE 3/1/95	TIME 11:05	RECEIVED BY: (Signature) Lynn Gillespie	DATE 3-1-95	TIME 1105
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

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