LETTER OF TRANSMITTAL

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TMC Environmental, Inc.

Date: 5-23-95 Project Number: 115093 Total Number of Pages: ____

To: SUSAN HUGO

Company: Alameda County Health

From: MARK YOUNGKIN

We are sending you: ☒ Attached ☐ Under separate cover via: ____

THE FOLLOWING as checked below:

☒ Reports ☐ Copy of Letter ☐ Contract ☐ Drawings
☒ Plans ☐ Site Map ☐ Samples ☐ Prints
☐ Photos ☐ Invoice ☐ Brochure ☐ Test Results
☐ Other: ____

Subject: Rifkin Property report and plans
Plans are separate

THESE ARE TRANSMITTED as checked below:

☐ For approval ☐ For review and comment ☐ Reviewed as submitted
☒ For your use ☐ As requested ☐ Reviewed as noted
☐ Resubmit ____ copies for review ☐ Return ____ corrected prints
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Remarks: Quartery Ground Water Sampling Report
MAY 16, 1995
Plates are separate.

Copies to: Satterwhite, Susan Hugo, RWQCB, Carrington

GROUND WATER SAMPLING REPORT

Rifkin Property
4525-4563 Horton Street
Emeryville, California

May 16, 1995
Project Number 115093

Prepared For:

Alameda County Health Care Services Agency
Department of Environmental Health
Local Oversight Program
1131 Harbor Bay Parkway
Alameda, California 94602

Authorized By:

Frank Satterwhite
Receiver for the Rifkin Property
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Mark Youngkin
Registered Geologist No. 3888

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GROUND WATER SAMPLING REPORT

Rifkin Property

4525-4563 Horton Street, Emeryville, California

1.0 INTRODUCTION

On March 27-29, 1995, TMC Environmental, Inc. (TMC) collected ground water samples from ten monitoring wells (MW-1 to MW-5 and RP-1 to RP-5) on the Rifkin Property as part of a quarterly monitoring episode. The purpose of the sampling is to assess the ground water quality and determine the ground water flow across the property.

2.0 GENERAL SITE INFORMATION

2.1 Site Location and Description

The Rifkin Property, called the "Site" in this report, is at the following addresses:

4525-4563 Horton Street
City of Emeryville
Alameda County, California
APN 49-1041-005.

The study area includes the part of the property south of the Temescal Creek Overflow Culvert. The large, rectangular-shaped property is along Horton Street between 53rd and 45th Streets (see Plate 1, Site Vicinity Map). The property is in an industrialized area of Emeryville, California, near the former shoreline of San Francisco Bay. The neighborhood has a long history of industrial activity. The property contains several two-story, brick-walled warehouse buildings. The buildings occupy the majority of the one acre property. Multiple businesses and addresses occur within the buildings.

The Site is bordered to the north by Chiron International Research Corporation (Chiron), to the south by the Sherwin Williams Company Plant (Plant), to the east by Horton Street and Chiron, and to the west by railroad tracks and the Plant (see Plate 2, Site Map). Prior to Chiron's occupation, the Shell Oil Company had a research laboratory with above ground tank storage across Horton Street to the east. Public utilities serve the general area. Land use of the surrounding area is commercial and industrial. Surface runoff from the site flows into storm drains along Horton Street or infiltrates into the soil along the west and east sides of the buildings. The storm drains and the surface runoff flow into the Temescal Creek Culvert and the Temescal Creek Overflow Culvert. The Temescal Creek Overflow Culvert crosses the northern end of the property. The two culverts converge immediately west of the Site. Temescal Creek flows into San Francisco Bay about 2000 feet to the west.

2.2 Lead Implementing Agencies

The local agency with jurisdiction over the Site is:

Alameda County Health Care Services Agency
Department of Environmental Health, Local Oversight Program
1131 Harbor Bay Parkway, Alameda, California 94602.

The case officer for the site is Susan Hugo, who can be reached at 510-567-6700. The case file is labeled "Rifkin Realty Properties Case".

The State agency with jurisdiction over this site is:

California Regional Water Quality Control Board (RWQCB)
San Francisco Bay Region
2101 Webster Street, Suite 500, Oakland, California 94612
RWQCB Case Number 38-0252

Mr. Sum Arigala is the case officer for the RWQCB, and can be reached at 510-286-0434. The RWQCB has been overseeing the investigation and the interim remediation of the contamination at the adjacent Sherwin Williams Company Plant.

3.0 GROUND WATER SAMPLING

On March 27-29, 1995, TMC collected ground water samples from the ten existing monitoring wells on the subject property (MW-1 to MW-5 and RP-1 to RP-5). Prior to water sample collection, field personnel purged each well of at least three well volumes of water. The field crew used a portable pump and disposable hose to purge the wells. A 55 gallon drum contained the purge water. TMC monitored the water parameters of temperature, conductivity, and pH during the purging. The stabilization of these parameters indicated that a representative ground water sample could be collected. TMC collected the water samples in dedicated and disposable sampling bailers. TMC followed the instructions of the analytical laboratory concerning the sample procedures, appropriate containers, and quantities of water required for each analysis.

TMC submitted the samples to Advanced Materials Engineering Research laboratory (AMER) of Sunnyvale, California for chemical analyses. AMER is a State-certified analytical laboratory experienced in environmental chemical analyses. AMER analyzed the ground water samples for Total Petroleum Hydrocarbons in the gasoline range (TPH-g. EPA method 8015 modified), Total Petroleum Hydrocarbons in the diesel range (TPH-d, EPA method 8015 modified), Volatile Organic Compounds (VOC, EPA method 8240), Total Oil and Grease (TOG, method 5520BF), and Priority Pollutant Metals (including Barium).

The following tables summarize the results of the chemical analyses of ground water. TMC provides the tables only as a quick reference to the more complete and reliable documentation in the laboratory certified analytical reports. See Attachment 2, Analytical Laboratory Reports and Chain-of-Custody Documentation, for the laboratory certified analytical reports.

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TABLE 1: PRIORITY POLLUTANT METALS

Site Address: 4525-4563 Horton Street, Emeryville, California
Site Name: Rifkin Property
Date of Sampling: March 1995

	Arsenic	Barium	Cadmium	Chromium	Copper	Lead	Nickel	Zinc
MW-1	78.6	548	6.8	91.0	95.3	30.8	207	462
MW-2	45.2	772	ND	188	145	55.7	221	449
MW-3	27.6	102	ND	10.5	26.9	7.0	17.8	190
MW-4	22000	333	286	31.0	164	63.6	2030	171000
MW-5	35300	137	ND	10.3	74.6	31.7	167	4670
RP-1	47.4	88.8	ND	ND	37.6	10.8	ND	375
RP-2	17.5	173	ND	17.8	25.2	10.5	24.6	334
RP-3	ND	336	ND	ND	42.8	18.3	ND	189
RP-4	7.4	49.9	ND	ND	13.3	ND	ND	175
RP-5	9.6	97.3	ND	8.6	29.0	25.9	16.3	225

ND: Not Detected above method detection limits
All concentrations are in micrograms per liter (ug/L), equivalent to parts per billion (ppb)

Ground water in wells on the subject property exceed 1993 EPA drinking water standards (Maximum Contaminant Levels, MCL) for arsenic, cadmium, chromium, lead, nickel, and zinc. Samples from wells MW-4 and MW-5 contain high concentrations of arsenic The water sample from well MW-4 also contains high levels of cadmium, nickel, and zinc.

TABLE 2: TPH-g, TPH-d, and OIL & GREASE

Site Address: 4525-4563 Horton Street, Emeryville, California
Site Name: Rifkin Property
Date of Sampling: March 1995

Sample ID	TPH-g	TPH-d	Oil & Grease
MW-1	7410	3600	4900
MW-2	3000	4400	3600
MW-3	2000	1500	ND<1
MW-4	1900	2500	2200
MW-5	660000	1100	64000
RP-1	140	360	1200
RP-2	110	59	ND<1
RP-3	840	430	2000
RP-4	140	90	ND<1
RP-5	55	70	ND<1

ND: Not Detected above method detection limits
NA: Not Analyzed by laboratory but appears on chain-of-custody
All concentrations are in micrograms per liter (ug/L) equivalent to parts per billion (ppb)

The laboratory detected gasoline and diesel contamination in all of the ground water samples. A background concentration of fuel and oil & grease exists across the Rifkin Property. Significant gasoline and oil & grease concentrations occurred in the water sample collected from well MW-5.

TMC has not observed free petroleum product in well MW5. Free petroleum product was reported by Erler & Kalinowski, Inc. in a soil boring near well MW5. Elevated concentrations of gasoline, diesel, and oil & grease occur along the south and east margins of the Rifkin Property.

TABLE 3: VOLATILE ORGANIC COMPOUNDS

Site Address: 4525-4563 Horton Street, Emeryville, California
Site Name: Rifkin Property
Date of Sampling: March 1995

	Acetone	MEK	MIBK	1,2-DCA	B	T	E	X
MW-1	ND	13	ND	17	28	1.3	9.3	2.5
MW-2	ND	ND	ND	ND	16	1.1	ND	0.9
MW-3	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	ND	ND	ND	ND	1.5	1	0.7	3.7
MW-5	290000	42000	390000	ND	470	92000	1300	6800
RP-1	ND	ND	ND	ND	ND	ND	ND	ND
RP-2	ND	ND	ND	ND	ND	ND	ND	ND
RP-3	ND	ND	ND	ND	ND	ND	ND	ND
RP-4	ND	ND	ND	ND	ND	ND	ND	ND
RP-5	ND	ND	ND	ND	ND	ND	ND	ND

	Carbon Disulfide	Tce	1,2-Dcp	Chloro-benzene	trans-1,2-dce	Chloro-form	vinyl chloride
MW-1	5.3	6.5	68	1.7	1.3	2.0	5.0
MW-2	ND	0.9	2.2	ND	ND	ND	ND
MW-3	14	ND	ND	ND	ND	ND	ND
MW-4	ND	6.9	ND	ND	ND	ND	ND
MW-5	ND	ND	ND	ND	ND	ND	ND
RP-1	ND	ND	ND	ND	ND	ND	ND
RP-2	5.1	ND	ND	ND	ND	ND	ND
RP-3	ND	ND	ND	ND	ND	ND	ND
RP-4	2.6	1.3	ND	ND	ND	ND	ND
RP-5	10	ND	ND	ND	ND	ND	ND

All concentrations are in micrograms per liter (ug/L) equivalent to parts per billion (ppb)
ND: Not Detected above method detection limits, see laboratory certified analytical reports for detection limits
MEK: methylethyl ketone, also known as 2-butanone; **MIBK**: methylisobutyl ketone, also known as 4-methyl-2-pentanone;
1,2-DCA: 1,2-dichloroethane; **B**: benzene; **T**: toluene; **E**: ethylbenzene; **X**: total xylenes
TCE: trichloroethylene
1,2-DCP: 1,2-dichloropropane
TRANS-1,2-DCE: trans-1,2-dichloroethlene

Wells on the subject property exceed 1993 EPA drinking water standards (Maximum Contaminant Levels, MCL) for 1,2-dichloroethane, benzene, toluene, ethylbenzene, trichloroethylene, 1,2-dichloropropane, and vinyl chloride. The water sample collected from well MW-5 contained high concentrations of acetone, MEK, MIBK, benzene, toluene, ethylbenzene, and xylenes.

4.0 GROUND WATER MEASUREMENTS

TMC measured the ground water elevation on April 13, 1995. TMC measured the depth to ground water in each of the wells until successive measurements agreed to within 1/100 of a foot. The following table summarizes past and present ground water elevation data.

TABLE 4: GROUND WATER ELEVATION DATA

WELL ID	DEPTH TO WATER (FEET)	CASING ELEVATION (FEET MSL)	WATER ELEVATION (FEET MSL)
January 9, 1995 Water Level Measurements			
MW-1	5.14	13.79	8.65
MW-2	4.93	13.59	8.66
MW-3	5.38	14.64	9.26
MW-4	6.87	15.55	8.68
MW-5	6.14	15.27	9.13
RP-1	NA	15.14	NA
RP-2	6.40	15.24	8.84
RP-3	6.55	15.17	8.62
RP-4	6.31	15.12	8.81
RP-5	6.22	15.04	8.82
January 27, 1995 Water Level Measurements			
MW-1	4.78	13.79	9.01
MW-2	4.53	13.59	9.06
MW-3	4.66	14.64	9.98
MW-4	6.75	15.55	8.80
MW-5	5.71	15.27	9.56
RP-1	5.96	15.14	9.18
RP-2	5.95	15.24	9.29
RP-3	6.12	15.17	9.05
RP-4	5.97	15.12	9.15
RP-5	5.93	15.04	9.11
February 17, 1995 Water Level Measurements			
MW-1	6.73	13.79	7.06
MW-2	6.58	13.59	7.01
MW-3	7.01	14.64	7.63
MW-4	7.24	15.55	8.31
MW-5	6.59	15.27	8.68
RP-1	7.46	15.14	7.68
RP-2	7.76	15.24	7.48
RP-3	7.45	15.17	7.72
RP-4	7.79	15.12	7.33
RP-5	7.71	15.04	7.33
April 13, 1995 Water Level Measurements			
MW-1	6.63	13.79	7.16
MW-2	6.46	13.59	7.13
MW-3	6.93	14.64	7.71
MW-4	7.42	15.55	8.13
MW-5	6.55	15.27	8.72
RP-1	7.43	15.14	7.71
RP-2	7.69	15.24	7.55
RP-3	7.44	15.17	7.73
RP-4	7.69	15.12	7.43
RP-5	7.56	15.04	7.48

NA: Not Available - well box was submerged beneath a large puddle on the warehouse floor.

5 TMC plotted the elevation data on a map showing the ground water gradient beneath the Site. The map is included as Plate 3, Ground Water Gradient Map. The map indicates that ground water flows in a

northward direction. The ground water gradient is steeper at the south end of the property at the 4525 Horton Street address. The gradient slopes less steeply at the 4529 through 4543 Horton Street addresses.

Using the ground water elevation data from four monitoring wells spaced from 178 to 303 feet apart, TMC calculated two estimates of horizontal gradient and down gradient direction. TMC used a 'three point solution' to estimate the horizontal gradient and down gradient direction for each set of three wells, MW2-MW3-RP5 and MW3-MW5-RP5. The average of the two measurements indicates a horizontal gradient of 0.004 foot per foot (4 feet vertical in one thousand feet horizontal) in a down gradient direction towards north 17 degrees west. The direction of ground water flow is northward generally parallel to Horton Street and towards the Temescal Creek Overflow Culvert. The following table shows the results of the ground water gradient estimates:

Table 5 Horizontal Gradient and Direction in Rifkin Property Monitoring Wells

Site Address: 4525-4563 Horton Street, Emeryville, California
Site Name: Rifkin Property
Measurement Date: September 1994, January 1995, February 1995 & April 1995

Monitoring Well Group	Ground Water Elevation in feet	Horizontal Gradient foot per foot	Down Gradient Direction degrees
September 8, 1994			
RP1-RP2-RP3	6.47-6.24-6.35	0.004	North 27 West
RP2-RP3-RP4	6.4-6.35-6.07	0.003	North 2 West
RP3-RP4-RP5	6.35-6.07-6.08	0.003	North 16 West
Average Values:	6.24	0.003	North 15 West
January 9, 1995			
All wells	average 8.78	unstable	unstable
January 27, 1995			
All wells	average 9.17	unstable	unstable
February 17, 1995			
MW2-MW3-RP5	7.01-7.63-7.33	0.002	North 34 West
MW3-MW5-RP5	7.63-8.68-7.33	0.007	North 1 East
Average Values	7.66	0.004	North 17 West
April 13, 1995			
MW2-MW3-RP5	7.13-7.71-7.48	0.002	North 24 West
MW3-MW5-RP5	7.71-8.72-7.48	0.007	North 4 East
Average Values	7.76	0.004	North 14 West

It is likely that the Temescal Creek Overflow Culvert (9-10 feet below surface grade) is draining the shallow ground water of the Rifkin Property. The base of the Temescal Creek Overflow Culvert (about 3-4 feet above mean sea level) is below the level of the ground water table. The measured direction of ground water flow is towards this culvert. Seasonal measurements indicate the shallow ground water is unconfined and experiences rapid increases in ground water elevation. The ground water gradient map shows a change in ground water flow across the Site. The ground water in the vicinity of wells MW2-MW3-RP5 show a north flow direction (north 4 degrees west) with a steeper gradient of 0.007 ft/ft. The ground water in the vicinity of wells MW3-MW5-RP5 show a more northwestern flow direction

(north 24 degrees west) with a shallower gradient of 0.002 ft/ft. Ground water appears to be flowing towards the utility trenches along Horton Street, then down Horton Street to the Temescal Creek Overflow Conduit.

5.0 DISCUSSION OF RESULTS

Wells on the subject property exceed EPA drinking water standards for arsenic, cadmium, chromium, lead, nickel, and zinc. Samples from wells MW-4 and MW-5 contained significant levels of arsenic, and the sample from well MW-4 also contained high levels of cadmium and zinc. Ground water sampling detected gasoline and diesel contamination in all of the ground water monitoring wells. Significant gasoline concentrations occurred in the sample collected from well MW-5. Elevated concentrations of gasoline, diesel, and oil & grease occur along the southern and eastern margins of the property. Samples collected from well MW-5 contained high concentrations of acetone, MEK, MIBK, and BTEX. Low concentrations of BTEX occurred in samples collected from wells MW-1, MW-2, and MW-4.

TMC illustrates the results of the ground water sampling on a series of maps called plates 4 to 13. The plates 2 to 27 are separate from the report. The maps show the concentrations of selected contaminants found in the ground water on the Rifkin Property. Additional information from grab water samples recovered from exploratory borings on the Sherwin Williams Company plant by TMC is included on the maps (borings SW1-SW4). Additional information from a grab water sample recovered from an exploratory boring (boring SB-8) on the Sherwin Williams Company plant by Levine Fricke is included on the maps. No ground water wells occur on the Sherwin Williams Company plant near the south margin of the Rifkin Property. The maps show strong chemical gradients from the south margin of the Rifkin Property. The obvious large source area is the former above ground storage tanks and former Sherwin Williams Company lacquer plant facility. An additional source area of arsenic, MEK, and MIBK occurs beyond the south margin of the Rifkin Property in area termed the "arsenic source area" in Levine Fricke technical reports.

TMC summarizes the results of soil sampling on the Rifkin Property in a series of maps, plates 14 to 27. The maps show the concentrations of selected contaminants found in the soil borings and monitoring wells on the Rifkin Property. Additional information from exploratory soil borings (SW1-SW4) by TMC on the Sherwin Williams Company plant are shown on the plates. Additional information from soil samples recovered from an exploratory boring (boring SB-8) on the Sherwin Williams Company plant by Levine Fricke is included on the maps. Localized soil contamination found surrounding the former underground tanks along Horton Street is not shown on the maps. Refer to the tank and source removal reports for soil sample results at the former underground tank locations. The soil sampling is shown on two maps, one showing shallow samples and the other deeper samples. Composite soil samples are not included on the maps. On the map of deeper samples, the highest concentration result is shown for multiple samples. Many of the maps show strong chemical gradients from the south margin of the Rifkin Property. The obvious large source area is the former above ground storage tanks and former Sherwin Williams Company lacquer plant facility. An additional source area of arsenic occurs beyond the south margin of the Rifkin Property in area termed the "arsenic source area" in Levine Fricke technical reports.

The maps also show ground water contamination along Horton Street. Both wells MW1 and MW2 show contamination by arsenic, cadmium, lead, nickel, gasoline, diesel, oil & grease, MEK, 1,2-DCA, and BTXE. The contamination may be migrating within the utility trenches in Horton Street as

suggested by elevated arsenic concentrations in ground water wells located along Horton Street. Ground water contamination may originate from a former Shell company laboratory across Horton Street to the east.

A total of five abandoned underground storage tanks have been removed from the sidewalk along Horton Street. Three of the former tanks showed evidence of discharge. The former tanks that had discharges contained gasoline, heating oil and paint thinner. TMC performed exploration and soil excavation of the tank pits during 1994. Only small quantities of contaminated soil remain beneath utility lines or the building foundation. TMC installed monitoring wells MW1, MW2, and MW3 down-gradient of the former underground tank pits. All three wells contain gasoline, diesel, BTEX, and oil & grease contamination. These wells also contain contaminated water that is not consistent with an origin from the former underground tanks. These wells have concentrations of arsenic, other metals, MEK, 1,2-DCA, carbon disulfide, TCE, 1,2,-dichloropropane, chlorobenzene, trans-1,2-dichloroelthlene, chloroform, and vinyl chloride.

Diesel and oil & grease occur up-gradient of the former heating oil tank. Gasoline occurs up-gradient of the former gasoline tanks. Volatile organic compounds occur down-gradient of the former paint thinner tank. Erler & Kalinowski, Inc. sampled the contents of the paint thinner tank on July 7, 1993. The sampling occurred prior to the tank removal. The laboratory analysis did not detect any volatile organic compounds (EPA method 8240) in the tank contents, sample UST#2. The monitoring wells in the interior of the Rifkin Property show low concentrations of petroleum fuel, oil & grease and trace amounts of carbon disulfide and trichloroethylene. These contaminants may represent background concentrations for the neighborhood. The monitoring wells along the margins of the Rifkin Property show elevated concentrations of petroleum fuels, oil & grease, arsenic, other metals, acetone, MEK, MIBK, BTEX, and low concentrations of volatile organic compounds. These compounds appear to be impacting the Rifkin Property from off site sources to the south and east.

6.0 DISPOSAL OF CONTAMINATED WASTE

Purge water accumulated from the sampling of monitoring wells is stored in 55-gallon drums on site by TMC and Levine Fricke. TMC performed an inventory of waste drilling and sampling materials at the Rifkin Property during April 1995. The waste material consists of soil cuttings and discarded water generated during the drilling, sampling, and installation of monitoring wells and soil borings. The waste material is stored on the Rifkin Property in 55 gallon steel drums and plastic buckets. The following table summarizes the waste material stored on the property:

TABLE 6 INVENTORY OF WASTE ON RIFKIN PROPERTY

Generator	Date Generated	Total Drums	Soil Drums	Water Drums	Client - Responsible Party
Harding Lawson Associates	September 1992	4	3	1	Rifkin Property
Erler & Kalinowski, Inc.	July 1993	0	0	0	Chiron
Levine Fricke, Inc.	April 1994 April 1995	11	5	6	Sherwin-Williams Company
TMC Environmental, Inc.	1994-1995	14	7	7	Rifkin Property, Receiver

Erler & Kalinowski, Inc. removed all of their waste drilling material during the drilling of soil borings GMTX-12 & 13. The Levine Fricke waste material is the responsibility of Sherwin Williams Company. Also part of the Levine Fricke waste is 3 five gallon pails of drill cuttings left during the Precision Drilling work. TMC is scheduling the disposal of the waste material on the property.

7.0 RECOMMENDATIONS

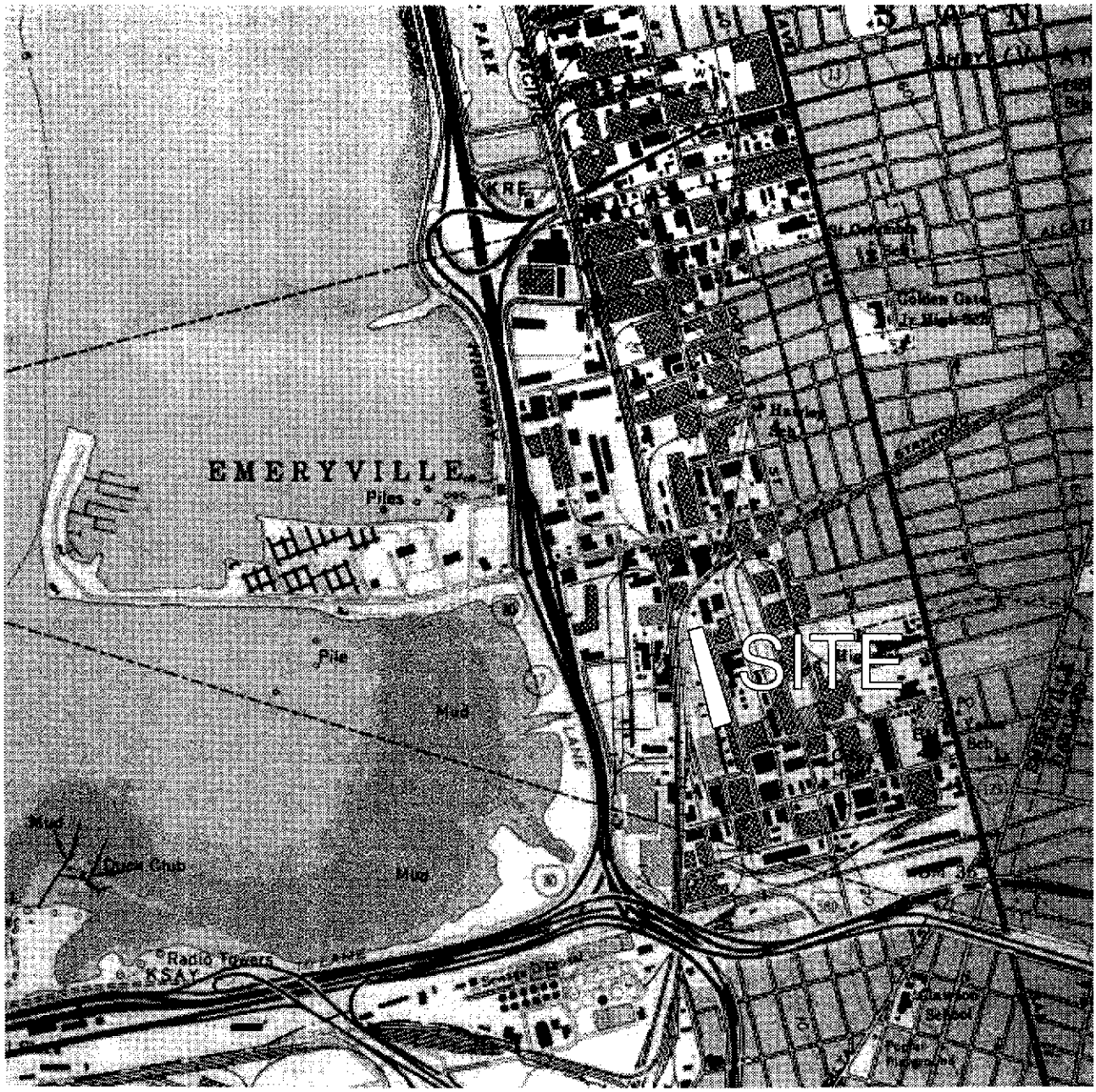
TMC recommends the following additional action at the Rifkin Property:

1. The continued quarterly ground water monitoring and ground water measurements. The analysis of the water samples for petroleum fuels, gasoline and diesel, oil & grease, metals, and volatile organic compounds.
2. Research into sources of contamination at the Sherwin Williams Company plant and former Shell Oil Company laboratory across Horton Street to the east. Ground water pollution is known to exist across the up-gradient southern margin of the Rifkin Property at the Sherwin Williams Company plant. Ground water pollution may also occur along Horton Street from an unknown source to the east on the Chiron facility (former Shell Oil Company research laboratory). Ground water remediation on the Rifkin Property would not be effective if off site sources of ground water contamination are impacting the Site.
3. Removal of all waste drilling and sampling materials from the Rifkin Property.

8.0 LIMITATIONS

The procedures herein agree with professional practice as recommended in the guidelines of the Regional Water Quality Control Board. The laboratory test results rely on limited data collected at specific sampling locations. Budget and access constraints restrict the amount of testing allowed. The laboratory test results do not apply to the subject property as a whole. Therefore, TMC cannot have complete knowledge of the underlying conditions at the study area. Work plans and reports contain information provided to TMC by the client, adjacent property owners, and government agencies. TMC does not warranty the accuracy of reported information. TMC provides this report to our client so that the client may make a more informed decision about site conditions. The professional opinions and judgments are subject to revisions in light of new information. We do not state or imply any guarantees or warranties that the subject property is or is not free of environmental impairment. Monitoring wells are temporary sampling devices that must eventually be abandoned by a licensed well driller at the client's expense.

/////



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Contour Interval 20 Feet

US Geological Survey, Oakland West Quadrangle Map

N
W E
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TMC
Environmental, Inc.

SITE VICINITY MAP
Rifkin Property

4525-4563 Horton Street
Emeryville, California

Project No. 130 November 1994

PLATE
1

ATTACHMENT 1

SUMMARY TABLES OF LABORATORY RESULTS

SUMMARY TABLE: RIFKIN PROJECT GROUND WATER SAMPLING RESULTS

Sample ID	Sample Date	Arsenic	TPH-g	TPH-d	Acetone	2-Butanone	2-Hexanone	MIBK	1,2-DCA	Benzene	Toluene	Ethylbenzene	Xylenes
SW1-H2O	7/6/94	740000	850000	240000	2500000	1300000	5400	320000	<0.9	530	190000	3100	14100
SW2-H2O	7/6/94	450000	860000	9000	1500000	310000	130000	140000	<0.9	360	260000	2500	14100
SW3-H2O	7/6/94	700000	4300	200	500	<1.1	2	75	<0.9	6.7	490	34	118
SW4-H2O	7/6/94	140000	1700	880	2700	3700	ND	520	<0.9	19	230	33	56.7
MW1	12/16/94	NA	NA	NA	<4.2	<1.1	2.8	<1.4	<0.9	16	2.7	<0.4	3.1
MW2	12/16/94	NA	NA	NA	<4.2	<1.1	<1.8	<1.4	<0.9	17	1.9	<0.4	1.2
MW3	12/16/94	NA	NA	NA	<4.2	<1.1	<1.8	<1.4	<0.9	<0.5	<0.4	<0.4	<0.4
MW4	12/16/94	8870	NA	NA	<4.2	<1.1	<1.8	<1.4	<0.9	1.4	2.1	0.6	2.3
MW5	12/16/94	41500	NA	NA	1300000	1700000	<36	130	<18	570	330000	1800	22300
MW1	3/28/95	78.6	7410	3600	<5	13	<2	<2	17	28	1.3	9.3	2.5
MW2	3/28/95	45.2	3000	4400	<5	<2	<2	<2	<0.9	16	1.1	<0.4	0.9
MW3	3/28/95	27.6	2000	1500	<5	<2	<2	<2	<0.9	<0.8	<0.4	<0.4	<0.4
MW4	3/27/95	22000	1900	2500	<5	<2	<2	<2	<0.9	1.5	1	0.7	3.7
MW5	3/27/95	35300	660000	1100	290000	42000	<2	390000	<0.9	470	92000	1300	6800
RP-1	3/29/95	47.4	140	360	<5	<2	<2	<2	<0.9	<0.8	<0.4	<0.4	<0.4
RP-2	3/29/95	17.5	110	59	<5	<2	<2	<2	<0.9	<0.8	<0.4	<0.4	<0.4
RP-3	3/29/95	<5.0	840	430	<5	<2	<2	<2	<0.9	<0.8	<0.4	<0.4	<0.4
RP-4	3/29/95	7.4	140	90	<5	<2	<2	<2	<0.9	<0.8	<0.4	<0.4	<0.4
RP-5	3/29/95	9.6	55	70	<5	<2	<2	<2	<0.9	<0.8	<0.4	<0.4	<0.4
SB-1-GW	4/5/94	18	<4000	5300	<100	<100	<50	<50	<8	<5	<5	<5	<10
SB-2-GW	4/5/94	110	<4000	21000	<100	<100	<50	<50	<5	<5	<5	<5	<10
SB-3-GW	4/5/94	15	<400	600	<100	<100	<50	<50	<5	<5	<5	<5	<10
SB-4-GW	4/5/94	200	<500	4200	<100	<100	<50	<50	<5	<5	<5	<5	<10
SB-5-GW	4/5/94	52	900	400	<500	<500	<300	<300	<30	<30	240	<30	61
SB-6-GW	4/4/94	30	<200	28000	<100	<100	<50	50	<5	22	70	<5	13
SB-7-GW	4/4/94	180	<30000	51000	5000	620	<300	940	<30	<30	280	68	120
SB-8-GW	4/5/94	430000	280000	400	<200000	<200000	<100000	<100000	<10000	<10000	210000	<10000	20000

NA - Not Analyzed
TPH-g - Total Petroleum Hydrocarbons, Gasoline Range
TPH-d - Total Petroleum Hydrocarbons, Diesel Range
MIBK - 4-methy-2-pentanone
1,2-DCA - 1,2-dichloroethane
< - Not detected above laboratory reporting limit
All concentrations are in ug/liter equivalent to pppb, part per billion

SUMMARY TABLE: RIFKIN PROJECT SOIL SAMPLING RESULTS

Sample ID	Sample Date	Depth (ft. bsg)	Arsenic	TPH-g	TPH-d	Acetone	2-Butanone	2-Hexanone	MIBK	Benzene	Toluene	Ethylbenzene	Xylenes
SW1-1	7/6/94	4-4.5	7000	2000	330	120	32	21	31	0.28	190	21	124
SW1-2	7/6/94	7-7.5	2400	980	820	250	17	1.4	17	0.074	300	27	160
SW1-3	7/6/94	10-10.5	3600	5400	1000	86	32	7	21	0.25	1600	120	600
SW1-4	7/6/94	13-14	320	51	13	36	18	0.097	5.9	0.013	3.6	0.56	3.43
SWA2-1	7/6/94	4-4.5	4200	2000	230	1800	<0.006	0.5	0.16	<0.004	740	2.5	240
SW2-2	7/6/94	7-7.5	530	5700	800	2200	<0.006	<0.009	72	0.82	1000	56	350
SW2-3	7/6/94	10-10.5	3000	1600	1.9	47	<0.006	11	<0.007	0.3	610	26	140
SW2-4	7/6/94	13-14	290	30	59	160	77	<0.090	6.3	<0.040	8.6	0.08	0.52
SW3-1	7/6/94	4-4.5	3000	<1	430	0.14	0.1	<0.009	<0.007	<0.004	0.076	0.005	0.029
SW3-2	7/6/94	7-7.5	3500	<1	170	<0.021	<0.006	<0.009	<0.007	<0.004	0.027	<0.002	<0.002
SW3-3	7/6/94	10-10.5	830	<1	<1	0.27	0.17	<0.009	0.021	<0.004	0.017	<0.002	0.038
SW3-4	7/6/94	13-14	20000	<1	5	<0.021	0.029	<0.009	0.011	<0.004	2.4	0.003	0.78
SW4-1	7/6/94	4-4.5	8700	<1	700	<0.021	<0.006	<0.009	<0.007	<0.004	0.012	<0.002	0.003
SW4-2	7/6/94	7-7.5	9500	<1	<1	0.13	<0.006	<0.009	<0.007	<0.004	0.024	<0.002	0.007
SW4-3	7/6/94	10-10.5	1300	<1	<1	<0.021	<0.006	<0.009	<0.007	<0.004	0.005	<0.002	<0.002
SW4-4	7/6/94	13-14	5200	1.2	8	7	<0.006	0.011	0.52	<0.004	29	0.003	0.01
MW1-1	12/8/94	5-5.5	NA	<1	<1	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.005
MW1-2	12/8/94	10-10.5	NA	320*	320*	NA	NA	NA	NA	0.061	0.18	0.11	0.12
MW1-3	12/8/94	15-15.5	NA	<1	<1	NA	NA	NA	NA	0.0083	<0.005	<0.005	<0.005
MW2-1-5.5'-6'	12/8/94	5.5-6	NA	4.2*	4.2*	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.005
MW2-2-10'-10.5'	12/8/94	10-10.5	NA	1400*	1400*	NA	NA	NA	NA	0.015	0.0075	0.026	0.011
MW3-1-5'-5.5'	12/8/94	5-5.5	NA	<1	<1	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.005
MW3-2-10'-10.5'	12/8/94	10-10.5	NA	310*	310*	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.005
MW4-1	12/8/94	5-5.5	33.5	<1	<1	<0.028	<0.007	<0.011	<0.009	<0.005	<0.005	<0.005	<0.005
MW4-2	12/8/94	10-10.5	448	4700*	4700*	<0.028	<0.007	<0.011	<0.009	0.065	0.097	0.08	0.341
MW5-1	12/9/94	5-5.5	5	15*	15*	48	<0.007	<0.011	3.1	0.0075	0.19	0.018	0.094
MW5-2	12/9/94	10-10.5	10.6	<1	<1	<0.028	<0.007	<0.011	<0.009	<0.005	0.041	<0.005	<0.005
SB-1-4.0	4/5/94	4	NA	1	<1	<0.5	<0.5	<0.3	<0.3	<0.03	0.048	0.033	0.14
SB-1-11.0	4/5/94	11	5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-1-11.5	4/5/94	11.5	NA	<6	14	<0.1	<0.1	<0.05	<0.05	<0.005	<0.005	<0.005	<0.010
SB-2-4.0	4/5/94	4	NA	0.4	1	<0.1	<0.1	<0.05	<0.05	<0.005	0.01	<0.005	0.01
SB-2-11.5	4/5/94	11.5	NA	<0.2	7	<0.1	<0.1	<0.05	<0.05	<0.005	0.005	<0.005	<0.010
SB-2-12.0	4/4/94	12	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-3-4.0	4/4/94	4	NA	<0.2	<1	<0.1	<0.1	<0.05	<0.05	<0.005	0.011	<0.005	<0.010
SB-3-9.5	4/4/94	9.5	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-3-10.0	4/4/94	10	NA	0.3	<1	<0.1	<0.1	<0.05	<0.05	<0.005	<0.005	<0.005	<0.010
SB-4-7.0	4/5/94	7	NA	<0.2	<1	<0.1	<0.1	<0.05	<0.05	<0.005	0.006	<0.005	<0.010
SB-4-12.0	4/5/94	12	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-4-12.5	4/5/94	12.5	NA	<4	150	<0.1	<0.1	<0.05	<0.05	<0.005	0.01	<0.005	<0.010
SB-5-6.5	4/5/94	6.5	NA	<0.2	<1	<0.1	<0.1	<0.05	<0.05	<0.005	0.007	<0.005	<0.010
SB-5-9.5	4/5/94	9.5	6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-5-10.0	4/5/94	10	NA	<2	<1	<0.1	<0.1	<0.05	<0.05	<0.005	<0.005	<0.005	<0.010

Sample ID	Sample Date	Depth (ft. bsg)	Arsenic	TPH-g	TPH-d	Acetone	2-Butanone	2-Hexanone	MIBK	Benzene	Toluene	Ethylbenzene	Xylenes
SB-6-7.0	4/4/94	7	NA	0.3	5	<5	<5	<3	<3	<0.3	13	<0.3	0.92
SB-6-9.5	4/4/94	9.5	71	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SB-6-10.0	4/4/94	10	NA	<50	5000	<5	<5	<3	<3	<0.3	2	<0.3	2
SB-7-3.0	4/4/94	3	NA	43	17	110	<10	<5	13	<0.5	4.3	1.2	6
SB-7-11.0	4/4/94	11	33	1.1	17	42	3.8	0.12	4.1	<0.005	0.6	0.1	0.32
SB-8-7.0	4/5/94	7	NA	3200	7	1100	<1000	<500	<500	<50	880	62	360
SB-8-9.5	4/5/94	9.5	NA	8000	3	<1000	<1000	<500	<500	<50	1400	130	670
SB-8-10.0	4/5/94	10	1900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
EB2	9/11/92	3.5	NA	NA	<.05	0.38	<0.005	NA	<0.005	<0.005	0.0082	0.018	0.13
EB3	9/11/92	6	NA	NA	1200	<0.005	<0.005	NA	<0.005	<0.005	<0.005	<0.005	0.037
RP2-5'	7/25/94	5	NA	1.5	<1	<0.028	0.051	<0.011	<0.009	<0.005	0.27	0.029	0.085
RP2-10.5	7/25/94	10.5	NA	<1	3.3	<0.028	<0.007	<0.011	<0.009	<0.005	<0.003	<0.003	<0.003
RP3-6'	7/25/94	6	NA	<1	9.5	0.11	0.093	<0.011	7.2	0.01	4.1	0.18	1.26
RP3-11'	7/25/94	11	NA	<1	1.8	<0.028	<0.007	<0.011	0.042	<0.005	<0.003	<0.003	<0.003
RP4-6'	7/25/94	6	NA	<1	<1	<0.028	<0.007	<0.011	<0.009	<0.005	<0.003	<0.003	<0.003
RP4-10.5	7/25/94	10.5	NA	<1	<1	<0.028	<0.007	<0.011	<0.009	<0.005	<0.003	<0.003	<0.003
4525-6A	7/19/93	3	NA			11	0.52	<0.50	4.4	<0.10	1.4	<0.10	<0.10
4525-7A	7/19/93	4	NA			<0.50	<0.50	<0.50	<0.50	<0.10	<0.10	0.13	0.54
4525-8D	7/19/93	14.5	NA			<0.50	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10
4543-B-4	7/14/93	12	NA			<0.50	<0.50	<0.50	<0.50	<0.10	<0.10	<0.10	<0.10

NA - Not analyzed
TPH-g - Total Petroleum Hydrocarbons, Gasoline Range
TPH-d - Total Petroleum Hydrocarbons, Diesel Range
MIBK - 4-methyl-2-pentanone
< - not detected above laboratory reporting limit
* - result shown is total concentration from full scan of petroleum hydrocarbons, concentration of individual fuel ranges is less than the reported full scan result
All concentrations are in ppm, parts per million, equivalent to milligrams per kilogram

ATTACHMENT 2

ANALYTICAL LABORATORY REPORTS & CHAIN-OF-CUSTODY DOCUMENTATION

AMER
Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-3, E5033028

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	ND	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	ND	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	ND	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

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Sample Name: RP-3, E5033028

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	ND	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	ND	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	ND	0.3
p/m-xylene	1330-20-7	ND	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	95	86-110
4-bromofluorobenzene	90	86-115
1,2-Dichloroethane-D4	93	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

AMER
Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-4, E5033029

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	ND	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	**2.6**	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	ND	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

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EPA METHODS 624 ANALYSIS REPORT
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Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-4, E5033029

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	ND	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	1.3	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	ND	0.3
p/m-xylene	1330-20-7	ND	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	98	86-110
4-bromofluorobenzene	83	86-115
1,2-Dichloroethane-D4	95	76-114

Notes
*Indicates extra compound requested by the client.
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ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

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San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-5, E5033030

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	ND	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	10	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	ND	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

AMER
Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-5, E5033030

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	ND	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	ND	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	ND	0.3
p/m-xylene	1330-20-7	ND	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	95	86-110
4-bromofluorobenzene	87	86-115
1,2-Dichloroethane-D4	95	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
TMC Environmental , Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
MATRIX: WATER

DATE SAMPLED: 03-29-95
DATE RECEIVED: 03-30-95
DATE REPORTED: 04-05-95
AMER ID: E980

PROJECT MANAGER: Tom Ghigliotto & Donald Chung
PROJECT: 4542-4563 Horton Street, 1-15094

Client I.D.	AMER I.D.	8015M/ TPH-DIESEL	DF
RP-1	E5033026	**360**	1
RP-2	E5033027	**59**	1
RP-3	E5033028	**430**	1
RP-4	E5033029	**90**	1
RP-5	E5033030	**70**	1
Units		ug/l	
Method Detection Limits		50ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.
Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

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AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
TMC Environmental , Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
MATRIX: WATER

DATE SAMPLED: 03-29-95
DATE RECEIVED: 03-30-95
DATE REPORTED: 04-05-95
AMER ID: E980

PROJECT MANAGER: Tom Ghigliotto & Donald Chung
PROJECT: 4542-4563 Horton Street, 1-15094

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
RP-1	E5033026	**140**	1
RP-2	E5033027	**110**	1
RP-3	E5033028	**840**	1
RP-4	E5033029	**140**	1
RP-5	E5033030	**55**	1
Units		ug/l	
Method Detection Limits		50ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.
Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 5520BF

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E980
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-29-95
Date Received 03-30-95
Date Analyzed: 04-03-95
Date Reported: 04-10-95
Matrix: WATER

Client I.D.	AMER I.D.	TOG 5520BF	Dilution Factor	MDL	Units
RP-1	E5033026	**1.2**	1	1.0	mg/L
RP-2	E5033027	ND	1	1.0	mg/L
RP-3	E5033028	**2.0**	1	1.0	mg/L
RP-4	E5033029	ND	1	1.0	mg/L
RP-5	E5033030	ND	1	1.0	mg/L

N.D. Not Detected. Analytes were found to be at or below the stated detection limit.
Sample Detection Limit is equal to the Method Detection Limit multiplied by the Dilution Factor

Reviewed By:

Lei Chen, Laboratory Manager

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EPA 6000/7000 LCS TABLE

AMER WORKORDER: E980

AMER I.D. Number:	LCS	Analytical Method:	200.7
Project:	#1-15094	Analysis date:	04/03/95
Ext/Prep. Method:	200.7	Analyst:	AN
Date:	04/03/95	Matrix:	Water
Analyst:	AN	Unit:	ug/L

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Units	Spike Level	LCS Results	MS % R.
Antimony	200.7	200.7	1	ug/L	500	481	96.2
Arsenic	200.7	200.7	1	ug/L	100	97.5	97.5
Barium	200.7	200.7	1	ug/L	2000	1920	96.0
Beryllium	200.7	200.7	1	ug/L	50.0	46.7	93.4
Cadmium	200.7	200.7	1	ug/L	50.0	50.7	101
Chromium	200.7	200.7	1	ug/L	200	195	97.5
Copper	200.7	200.7	1	ug/L	250	241	96.4
Lead	200.7	200.7	1	ug/L	500	491	98.2
Mercury	245.1	245.1	1	ug/L	1.0	1.1	110
Nickel	200.7	200.7	1	ug/L	500	501	100
Selenium	200.7	200.7	1	ug/L	50.0	47.8	95.6
Silver	200.7	200.7	1	ug/L	50.0	46.1	92.2
Thallium	200.7	200.7	1	ug/L	100	99.5	99.5
Zinc	200.7	200.7	1	ug/L	500	492	98.4

Notes:
Spike Level- Level of Concentration Added to the Sample
MS Result- Matrix Spike Result
MS %R- Matrix Spike Percent Recovery
MSD Result- Matrix Spike Duplicate Result
MSD %R- Matrix Spike Dublicate Percent Recovery
RPD- Relative Percent Difference

Laboratory Control Sample Report Table

AMER WORKORDER: E980

AMER I.D. Number:	LCS	Analytical Method:	413.2
Project	#1-15094	Analysis date:	04-03-95
Ext/Prep. Method:	413.2	Analyst:	AN
Date:	04-03-95	Matrix:	Water
Analyst:	AN	Unit:	mg/L

ANALYTES	Dilution Factor	Spike Amount	LCS Results	% Rec.	LCSD Results	% Rec.	% RPD	REC LIMITS
P.H.	1	3.0	2.7	90	2.6	87	4	53-124

Notes:
P.H.- Petroleum Hydrocarbons
Spike Amount- Level of Concentration Added to the Sample
LCS Result- Laboratory Control Sample Result
%R- Percent Recovery
LCSD Result- Laboratory Control Sample Duplicate Result
%R- Percent Recovery
%RPD- Relative Percent Recovery
REC LIMITS- Recovery Limits Allowable

624/8240 TEST QA/QC TABLE

AMER WORKORDER: E980

AMER I.D. Number: E5032903-SP
Project: #1-15094
Ext/Prep. Method: EPA 5030
Date: 03-30-95
Analyst: LC

Analytical Method EPA 624/8240
Analysis date: 03-30-95
Analyst: LC
Matrix: Water
Unit: ug/L

Analyte	Sample Result	Spike Level	MSP Result	MSP %R	MSPD Result	MSPD %R	AVE. %R	LCL %R	UCL %R	RPD %	UCL %RPD
1,1-Dichloroethene	0	50	47.51	95	43.74	87	91	61	145	8	14
Trichloroethene	0	50	49.38	99	46.48	93	96	71	120	6	14
Chlorobenzene	0	50	51.78	104	48.94	98	101	75	130	6	13
Toluene	0	50	50.84	102	46.22	92	97	76	125	10	13
Benzene	0	50	53.48	107	50.23	100	104	76	127	6	11

Notes:
Sample Result-Concentration of Sample which is to used for Sample Spike & Sample Spike Duplicate
Spike Level- Level of Concentration Added to the Sample
MSP Result- Matrix Spike Result
MSP %R- Matrix Spike Percent Recovery
MSPD Result- Matrix Spike Duplicate Result
MSPD %R- Matrix Spike Dublicate Percent Recovery
AVG. %R - Average Recovery for MSP & MSPD % Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E980

AMER I.D.	E980-MSP	Analytical Method:	EPA M. 8015/8020
Project:	#1-15094	Analysis date:	03-31-95
Ext/Prep. Method:	EPA 3510	Analyst:	LC
Date:	03-31-95	Matrix:	Water
Analyst:	JO	Unit:	ug/l

Analyte	Sample Result	Spike Level	SP Result	SP %R	SPD Result	SPD %R	AVE. %R	LCL %R	UCL %R	RPD %	UCL %RPD
TPH-Diesel	0.00	1000.00	1046.40	105	1095.46	110	107	70	130	5	30

Notes:
Sample Result-Concentration of Sample which is to used for Sample Spike & Sample Spike Duplicate
Spike Level- Level of Concentration Added to the Sample
SP Result- Sample Spike Result
SP %R- Sample Spike Percent Recovery
SPD Result- Sample Spike Duplicate Result
SPD %R- Sample Spike Dublicate Percent Recovery
AVE. % R.- Average Percent Recovery for SP & SPD % Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E980

AMER I.D.	E5033002-SP	Analytical Method:	EPA M. 8015/8020
Project:	#1-15094	Analysis date:	03-29-95
Ext/Prep. Method:	EPA 5030	Analyst:	BK
Date:	03-29-95	Matrix:	Water
Analyst:	BK	Unit:	ug/l

Analyte	Sample Result	Spike Level	SP Result	SP %R	SPD Result	SPD %R	AVE. %R	LCL %R	UCL %R	RPD %	UCL %RPD
Benzene	0.00	40.00	36.35	91	36.54	91	91	76	127	1	11
Toluene	0.00	40.00	37.92	95	37.68	94	95	76	125	1	13
Chlorobenzene	0.00	40.00	38.91	97	38.04	95	96	75	130	2	13
TPH-Gasoline	0.00	1000.00	1033.41	103	968.77	97	100	70	130	6	30

Notes:
Sample Result-Concentration of Sample which is to used for Sample Spike & Sample Spike Duplicate
Spike Level- Level of Concentration Added to the Sample
SP Result- Sample Spike Result
SP %R- Sample Spike Percent Recovery
SPD Result- Sample Spike Duplicate Result
SPD %R- Sample Spike Dublicate Percent Recovery
AVE. % R.- Average Percent Recovery for SP & SPD % Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

TMC Environmental, Inc.
13908 San Pablo Ave.
Suite 101
San Pablo, California
(510) 232-8366

CHAIN OF CUSTODY RECORD
ANALYSIS REQUEST FORM
FOR
ENVIRONMENTAL SAMPLING

JOB#:	JOB ADDRESS:	SAMPLER(S):
1-15094	4525-4563 Horton Street Emeryville, California	Tom Ghigliotto & Donald Chung

LABORATORY NAME: Advanced Materials Engineering Research (AMER)
783 E. Eveyln Ave. Sunnyvale, CA 94086

LAB ID NO.	SAMPLE LABEL	SOIL	WATER	DATE	TIME	TPH-GAS	TPH-DIESEL	EPA 8240	Priority Pollutant Metals + Barium	Oil & Grease			
	RP-1		X	3-29-95	1239	X	X	X	X	X			
	RP-2		X	3-29-95	1200	X	X	X	X	X			
	RP-3		X	3-29-95	1310	X	X	X	X	X			
	RP-4		X	3-29-95	1132	X	X	X	X	X			
	RP-5		X	3-29-95	1025	X	X	X	X	X			

Special Instructions:

Relinquished By:		Recieved By:
(Print Name) TOM Ghigliotto	Date: 3/29/95	(Print Name) Michael Princevalle
(Signature) Tom Ghigliotto	Time: 1517	(Signature) Michael Princevalle
(Print Name) Michael Princevalle	Date: 3/29/95	(Print Name)
(Signature) Michael Princevalle	Time: 1:30	(Signature)
(Print Name)	Date:	(Print Name)
(Signature)	Time:	(Signature)
(Print Name)	Date:	(Print Name)
(Signature)	Time:	(Signature)

LABORATORY NOTES: _____ DAYS TURNAROUND TIME FOR ANALYSIS RESULTS
PLEASE INCLUDE SAMPLE CONDITION REPORT WITH RESULTS

PLEASE FAX A COPY OF THE ANALYTICAL RESULTS TO THE FOLLOWING:
TMC ENVIRONMENTAL, INC. AT (510) 232-5133

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
TMC Environmental , Inc. .
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
MATRIX: WATER

DATE SAMPLED: 03-27-95 & 03-28-95
DATE RECEIVED: 03-29-95
DATE REPORTED: 04-05-95
AMER ID: E973

PROJECT MANAGER: Tom Ghigliotto & Donald Chung
PROJECT: 4542-4563 Horton Street, 1-15094

Client I.D.	AMER I.D.	8015M/ TPH-DIESEL	DF
MW4	E5032904	**2500**	1
MW5	E5032905	**1100**	10
MW3	E5032907	**1500**	1
MW2	E5032908	**4400**	1
MW1	E5032909	**3600**	1
Units		ug/l	
Method Detection Limits		50ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.
Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

250 Santa Ana Court, Sunnyvale, CA 94086 · Tel. (408) 738-3033 · Fax. (408) 738-3035

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 8015M

CLIENT:
TMC Environmental , Inc. .
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
MATRIX: WATER

DATE SAMPLED: 03-27-95 & 03-28-95
DATE RECEIVED: 03-29-95
DATE REPORTED: 04-05-95
AMER ID: E973

PROJECT MANAGER: Tom Ghigliotto & Donald Chung
PROJECT: 4542-4563 Horton Street, 1-15094

Client I.D.	AMER I.D.	8015M/ TPH-GASOLINE	DF
MW4	E5032904	**1900**	1
MW5	E5032905	**660000**	100
MW3	E5032907	**2000**	1
MW2	E5032908	**3000**	1
MW1	E5032909	**7410**	1
Units		ug/l	
Method Detection Limits		50ug/l	

ND Not Detected. All analytes recorded as ND were found to be under the limit of detection.
Sample Detection Limit is equal to the Method Detection Limit X the Dilution Factor.

Reviewed By

Lei Chen, Laboratory Manager

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AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD 5520BF

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E973
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-27,28-95
Date Received 03-30-95
Date Analyzed: 04-03-95
Date Reported: 04-10-95
Matrix: WATER

Client I.D.	AMER I.D.	TOG 5520BF	Dilution Factor	MDL	Units
MW-4	E5032904	**2.2**	1	1.0	mg/L
MW-5	E5032905	**64**	20	20.0	mg/L
MW-3	E5032907	ND	1	1.0	mg/L
MW-2	E5032908	**3.6**	1	1.0	mg/L
MW-1	E5032909	**4.9**	2	2.0	mg/L

N.D. Not Detected. Analytes were found to be at or below the stated detection limit.
Sample Detection Limit is equal to the Method Detection Limit multiplied by the Dilution Factor

Reviewed By:

Lei Chen, Laboratory Manager

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AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD Proirity Metals

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E973
Sample Name: MW-4, E5032904
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-27-95
Date Received 03-29-95
Date Analyzed: 03-31-95
Date Reported: 04-10-95
Matrix: Water

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Results	MDL	Units
Antimony	200.7	200.7	1	ND	10.0	ug/L
Arsenic	200.7	200.7	5	**22000**	25.0	ug/L
Barium	200.7	200.7	3	**333**	30.0	ug/L
Beryllium	200.7	200.7	1	**5.8**	5.0	ug/L
Cadmium	200.7	200.7	1	**286**	5.0	ug/L
Chromium	200.7	200.7	1	**31.0**	5.0	ug/L
Copper	200.7	200.7	1	**164**	5.0	ug/L
Lead	200.7	200.7	1	**63.6**	3.0	ug/L
Mercury	245.1	245.1	1	ND	5.0	ug/L
Nickel	200.7	200.7	1	**2030**	5.0	ug/L
Selenium	200.7	200.7	5	ND	50.0	ug/L
Silver	200.7	200.7	5	ND	25.0	ug/L
Thallium	200.7	200.7	5	ND	50.0	ug/L
Zinc	200.7	200.7	25	**171000**	250	ug/L

Analytes reported as ND were not present above the stated limit of detection.
MDL: Method Detection Limit.

Reviewed By:

Lei Chen, Laboratory Manager

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AMER

Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD Proirity Metals

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E973
Sample Name: MW-5, E5032905
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-27-95
Date Received 03-29-95
Date Analyzed: 03-31-95
Date Reported: 04-10-95
Matrix: Water

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Results	MDL	Units
Antimony	200.7	200.7	1	ND	10.0	ug/L
Arsenic	200.7	200.7	50	**35300**	250	ug/L
Barium	200.7	200.7	1	**137**	10	ug/L
Beryllium	200.7	200.7	1	ND	10	ug/L
Cadmium	200.7	200.7	1	ND	5.0	ug/L
Chromium	200.7	200.7	1	**10.3**	5.0	ug/L
Copper	200.7	200.7	1	**74.6**	5.0	ug/L
Lead	200.7	200.7	1	**31.7**	3.0	ug/L
Mercury	245.1	245.1	1	ND	5.0	ug/L
Nickel	200.7	200.7	1	**167**	5.0	ug/L
Selenium	200.7	200.7	5	ND	25.0	ug/L
Silver	200.7	200.7	1	ND	5.0	ug/L
Thallium	200.7	200.7	1	ND	10.0	ug/L
Zinc	200.7	200.7	1	**4670**	10.0	ug/L

Analytes reported as ND were not present above the stated limit of detection.
MDL: Method Detection Limit.

Reviewed By:

Lei Chen, Laboratory Manager

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·AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD Proirity Metals

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E973
Sample Name: MW-3, E5032907
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-28-95
Date Received 03-29-95
Date Analyzed: 03-31-95
Date Reported: 04-10-95
Matrix: Water

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Results	MDL	Units
Antimony	200.7	200.7	1	ND	10.0	ug/L
Arsenic	200.7	200.7	1	**27.6**	5.0	ug/L
Barium	200.7	200.7	1	**102**	10	ug/L
Beryllium	200.7	200.7	1	ND	5.0	ug/L
Cadmium	200.7	200.7	1	ND	5.0	ug/L
Chromium	200.7	200.7	1	**10.5**	5.0	ug/L
Copper	200.7	200.7	1	**26.9**	5.0	ug/L
Lead	200.7	200.7	1	**7.0**	3.0	ug/L
Mercury	245.1	245.1	1	ND	5.0	ug/L
Nickel	200.7	200.7	1	**17.8**	5.0	ug/L
Selenium	200.7	200.7	1	ND	5.0	ug/L
Silver	200.7	200.7	1	ND	5.0	ug/L
Thallium	200.7	200.7	1	ND	10.0	ug/L
Zinc	200.7	200.7	1	**190**	10.0	ug/L

Analytes reported as ND were not present above the stated limit of detection.
MDL: Method Detection Limit.

Reviewed By:

Lei Chen, Laboratory Manager

250 Santa Ana Court, Sunnyvale, CA 94086 · Tel. (408) 738-3033 · Fax. (408) 738-3035

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD Proirity Metals

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E973
Sample Name: MW-2, E5032908
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-28-95
Date Received 03-29-95
Date Analyzed: 03-31-95
Date Reported: 04-10-95
Matrix: Water

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Results	MDL	Units
Antimony	200.7	200.7	1	ND	10.0	ug/L
Arsenic	200.7	200.7	1	**45.2**	5.0	ug/L
Barium	200.7	200.7	1	**772**	10.0	ug/L
Beryllium	200.7	200.7	1	ND	5.0	ug/L
Cadmium	200.7	200.7	1	ND	5.0	ug/L
Chromium	200.7	200.7	1	**188**	5.0	ug/L
Copper	200.7	200.7	1	**145**	5.0	ug/L
Lead	200.7	200.7	1	**55.7**	3.0	ug/L
Mercury	245.1	245.1	1	ND	5.0	ug/L
Nickel	200.7	200.7	1	**221**	5.0	ug/L
Selenium	200.7	200.7	1	ND	5.0	ug/L
Silver	200.7	200.7	1	ND	5.0	ug/L
Thallium	200.7	200.7	1	ND	10.0	ug/L
Zinc	200.7	200.7	1	**449**	10.0	ug/L

Analytes reported as ND were not present above the stated limit of detection.
MDL: Method Detection Limit.

Reviewed By:

Lei Chen, Laboratory Manager

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AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD Proirity Metals

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E973
Sample Name: MW-1, E5032909
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-28-95
Date Received 03-29-95
Date Analyzed: 03-31-95
Date Reported: 04-10-95
Matrix: Water

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Results	MDL	Units
Antimony	200.7	200.7	1	ND	10.0	ug/L
Arsenic	200.7	200.7	1	**78.6**	5.0	ug/L
Barium	200.7	200.7	1	**548**	10.0	ug/L
Beryllium	200.7	200.7	1	ND	5.0	ug/L
Cadmium	200.7	200.7	1	**6.8**	5.0	ug/L
Chromium	200.7	200.7	1	**91.0**	5.0	ug/L
Copper	200.7	200.7	1	**95.3**	5.0	ug/L
Lead	200.7	200.7	1	**30.8**	3.0	ug/L
Mercury	245.1	245.1	1	ND	5.0	ug/L
Nickel	200.7	200.7	1	**207**	5.0	ug/L
Selenium	200.7	200.7	1	ND	5.0	ug/L
Silver	200.7	200.7	1	ND	5.0	ug/L
Thallium	200.7	200.7	1	ND	10.0	ug/L
Zinc	200.7	200.7	1	**462**	10.0	ug/L

Analytes reported as ND were not present above the stated limit of detection.
MDL: Method Detection Limit.

Reviewed By:

Lei Chen, Laboratory Manager

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Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-4, E5032904

Date Sampled: 03-27-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	1.5	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	ND	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	0.7	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

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Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-4, E5032904

Date Sampled: 03-27-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	1.0	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	6.9	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	2.6	0.3
p/m-xylene	1330-20-7	1.1	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	104	88-110
4-bromofluorobenzene	96	88-115
1,2-Dichloroethane-D4	106	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

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Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-5, E5032905

Date Sampled: 03-27-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	**290000**	5
benzene	71-43-2	**470**	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	**42000**	2
carbon disulfide	75-15-0	ND	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	**1300**	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	**39000**	2

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13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-5, E5032905

Date Sampled: 03-27-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	**92000**	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	**8.2**	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	**1300**	0.3
p/m-xylene	1330-20-7	**5500**	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	98	88-110
4-bromofluorobenzene	90	88-115
1,2-Dichloroethane-D4	96	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

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Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-3, E5032907

Date Sampled: 03-28-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	ND	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	14	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	ND	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

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Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-3, E5032907

Date Sampled: 03-28-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	ND	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	ND	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	ND	0.3
p/m-xylene	1330-20-7	ND	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	99	88-110
4-bromofluorobenzene	97	88-115
1,2-Dichloroethane-D4	102	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

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Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-2, E5032908

Date Sampled: 03-28-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	**16**	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	ND	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	**2.2**	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	ND	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

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EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-2, E5032908

Date Sampled: 03-28-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	1.1	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	0.9	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	0.9	0.3
p/m-xylene	1330-20-7	ND	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	96	88-110
4-bromofluorobenzene	94	88-115
1,2-Dichloroethane-D4	100	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
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California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

AMER
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EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-1, E5032909

Date Sampled: 03-28-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	**28**	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	**13**	2
carbon disulfide	75-15-0	**5.3**	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	**1.7**	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	**2.0**	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	**17**	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	**68**	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	**9.3**	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

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EPA METHODS 624 ANALYSIS REPORT
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Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: MW-1, E5032909

Date Sampled: 03-28-95
Date Received: 03-29-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E973

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	1.3	0.4
trans- 1,2-dichloroethlene	156-60-5	1.3	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	6.5	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	1.0	0.3
p/m-xylene	1330-20-7	1.5	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	5.0	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	97	88-110
4-bromofluorobenzene	98	88-115
1,2-Dichloroethane-D4	95	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E973

AMER I.D.	E5032803-SP	Analytical Method:	EPA M. 8015/8020
Project:	#1-15094	Analysis date:	03-29-95
Ext/Prep. Method:	EPA 5030	Analyst:	BK
Date:	03-29-95	Matrix:	Water
Analyst:	BK	Unit:	ug/l

Analyte	Sample Result	Spike Level	SP Result	SP %R	SPD Result	SPD %R	AVE. %R	LCL %R	UCL %R	RPD %	UCL %RPD
TPH-Gasoline	0.00	1000.00	1082.60	108	886.74	89	98	70	130	20	30

Notes:
Sample Result-Concentration of Sample which is to used for Sample Spike & Sample Spike Duplicate
Spike Level- Level of Concentration Added to the Sample
SP Result- Sample Spike Result
SP %R- Sample Spike Percent Recovery
SPD Result- Sample Spike Duplicate Result
SPD %R- Sample Spike Dublicate Percent Recovery
AVE. % R.- Average Percent Recovery for SP & SPD % Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

EPA M. 8015/8020 TEST QA/QC TABLE

AMER WORKORDER: E973

AMER I.D.	E973-MSP	Analytical Method:	EPA M. 8015/8020
Project:	#1-15094	Analysis date:	03-31-95
Ext/Prep. Method:	EPA 3510	Analyst:	LC
Date:	03-31-95	Matrix:	Water
Analyst:	JO	Unit:	ug/l

Analyte	Sample Result	Spike Level	SP Result	SP %R	SPD Result	SPD %R	AVE. %R	LCL %R	UCL %R	RPD %	UCL %RPD
TPH-Diesel	0.00	1000.00	1046.40	105	1095.46	110	107	70	130	5	30

Notes:
Sample Result-Concentration of Sample which is to used for Sample Spike & Sample Spike Duplicate
Spike Level- Level of Concentration Added to the Sample
SP Result- Sample Spike Result
SP %R- Sample Spike Percent Recovery
SPD Result- Sample Spike Duplicate Result
SPD %R- Sample Spike Dublicate Percent Recovery
AVE. % R.- Average Percent Recovery for SP & SPD % Recovery
LCL- Lower Criteria Level
UCL- Upper Criteria Level
RPD- Relative Percent Difference

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD Proirity Metals

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E980
Sample Name: RP-2, E5033027
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-29-95
Date Received 03-30-95
Date Analyzed: 04-03-95
Date Reported: 04-10-95
Matrix: Water

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Results	MDL	Units
Antimony	200.7	200.7	1	ND	10.0	ug/L
Arsenic	200.7	200.7	1	**17.5**	5.0	ug/L
Barium	200.7	200.7	1	**173**	20.0	ug/L
Beryllium	200.7	200.7	1	ND	10.0	ug/L
Cadmium	200.7	200.7	1	ND	5.0	ug/L
Chromium	200.7	200.7	1	**17.8**	5.0	ug/L
Copper	200.7	200.7	1	**25.2**	5.0	ug/L
Lead	200.7	200.7	1	**10.5**	5.0	ug/L
Mercury	245.1	245.1	1	ND	5.0	ug/L
Nickel	200.7	200.7	1	**24.6**	5.0	ug/L
Selenium	200.7	200.7	1	ND	5.0	ug/L
Silver	200.7	200.7	1	ND	5.0	ug/L
Thallium	200.7	200.7	1	ND	10.0	ug/L
Zinc	200.7	200.7	1	**334**	10.0	ug/L

Analytes reported as ND were not present above the stated limit of detection.
MDL: Method Detection Limit.

Reviewed By:

Lei Chen, Laboratory Manager

AMER
Advanced Materials Engineering Research, Inc.

ANALYSIS REPORT
(ELAP Certificate No. 1909)
EPA METHOD Proirity Metals

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94806
Project Manager: Tom Ghigliotto
Laboratory Report ID.: E980
Sample Name: RP-5, E5033030
Project Name: 4525-4563 Horton Street, #1-15094

Date Sampled: 03-29-95
Date Received 03-30-95
Date Analyzed: 04-03-95
Date Reported: 04-10-95
Matrix: Water

ANALYTES	Prep Method	Analytical Method	Dilution Factor	Results	MDL	Units
Antimony	200.7	200.7	1	ND	10.0	ug/L
Arsenic	200.7	200.7	1	**9.6**	5.0	ug/L
Barium	200.7	200.7	1	**97.3**	20.0	ug/L
Beryllium	200.7	200.7	1	ND	10.0	ug/L
Cadmium	200.7	200.7	1	ND	5.0	ug/L
Chromium	200.7	200.7	1	**8.6**	5.0	ug/L
Copper	200.7	200.7	1	**29.0**	5.0	ug/L
Lead	200.7	200.7	1	**25.9**	5.0	ug/L
Mercury	245.1	245.1	1	ND	5.0	ug/L
Nickel	200.7	200.7	1	**16.3**	5.0	ug/L
Selenium	200.7	200.7	1	ND	5.0	ug/L
Silver	200.7	200.7	1	ND	5.0	ug/L
Thallium	200.7	200.7	1	ND	10.0	ug/L
Zinc	200.7	200.7	1	**225**	10.0	ug/L

Analytes reported as ND were not present above the stated limit of detection.
MDL: Method Detection Limit.

Reviewed By:

Lei Chen, Laboratory Manager

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AMER
Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-1, E5033026

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	ND	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	ND	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	ND	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

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Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-1, E5033026

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	ND	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	ND	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	ND	0.3
p/m-xylene	1330-20-7	ND	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	97	86-110
4-bromofluorobenzene	80	86-115
1,2-Dichloroethane-D4	94	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

AMER
Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-2, E5033027

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
acetone	67-64-1	ND	5
benzene	71-43-2	ND	0.8
bromomethane	74-83-9	ND	2
bromodichloromethane	75-27-4	ND	0.7
bromoform (SPCC)	75-25-2	ND	2
2-butanone	78-93-3	ND	2
carbon disulfide	75-15-0	**5.1**	2
carbon tetrachloride	56-23-5	ND	2
chlorobenzene (SPCC)	108-90-7	ND	0.6
chlorodibromomethane	124-48-1	ND	2
chloroethane	75-00-3	ND	1
2-chloro-ethyl-vinyl ether	110-75-8	ND	2
chloroform (CCC)	67-66-3	ND	0.8
chloromethane	74-87-3	ND	2
1,2-dichlorobenzene	95-50-1	ND	0.6
1,3-dichlorobenzene	541-73-1	ND	0.5
1,4-dichlorobenzene	106-46-7	ND	0.5
dichlorodifluoromethane	75-71-8	ND	2
1,1 -dichloroethane (SPCC)	75-34-3	ND	2
1,2-dichloroethane	107-06-2	ND	0.9
1,1 -dichloroethene (CCC)	75-35-4	ND	0.7
1,2-dichloropropane	78-87-5	ND	3
cis-1,3-dichloropropene	10061-01-5	ND	0.8
trans-1,3-dichlorpropene	10061-02-6	ND	1
ethylbenzene	100-41-4	ND	0.4
2-hexanone	591-78-6	ND	2
4-methyl-2-pentanone	108-10-1	ND	2

AMER
Advanced Materials Engineering Research, Inc.

EPA METHODS 624 ANALYSIS REPORT
(ELAP CERTIFICATE NO. 1909)

Client: TMC Environmental, Inc.
13908 San Pablo Avenue, Suite 101
San Pablo, CA 94086
Project Manager: Tom Ghigliotto
Project: 4525-4563 Horton Street, #1-15094
Sample Name: RP-2, E5033027

Date Sampled: 03-29-95
Date Received: 03-30-95
Date Reported: 04-10-95
Sample Matrix: WATER
AMER Report #: E980

COMPOUND	CAS #	CONC. (ug/L)	DETECTION LIMIT (ug/L)
methylene dichloride	75-09-2	ND	7
styrene	100-42-5	ND	0.8
1,1,2,2-tetrachloroethane	79-34-5	ND	0.8
tetrachloroethylene	127-18-4	ND	2
toluene	108-88-3	ND	0.4
trans- 1,2-dichloroethlene	156-60-5	ND	2
1,1,1-trichloroethane	71-55-6	ND	0.8
1,1,2-trichloroethane	79-00-5	ND	2
trichloroethylene	79-01-6	ND	0.8
trichlorofluoromethane	75-69-4	ND	2
o-xylene	1330-20-7	ND	0.3
p/m-xylene	1330-20-7	ND	0.4
vinyl acetate	108-05-4	ND	3
vinyl chloride	75-01-4	ND	2

SURROGATE COMPOUNDS	% RECOVERY	% CONTROL LIMITS
Toluene-D8	95	86-110
4-bromofluorobenzene	78	86-115
1,2-Dichloroethane-D4	94	76-114

Notes
*Indicates extra compound requested by the client.
NR-Analysis not requested.
COC-Chain of Custody
ND-Analytes not detected at, or above the stated detection limit.
ppb-ug/l for waters; ug/kg for soils
DL-Detection Limit Factor
SDL-Sample Detection Limit-Multiply DL by the DL Factor to obtain the detection limit for a specific analyte
MDL- Method Detection Limit
Sample Detection Limit is equal to the MDL multiplied to the DF
California Department of Health Services ELAP Certificate #1909

Reviewed By:

Lei Chen, Laboratory Manager

ATTACHMENT 3

Records of Water Sample Collection

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
MW-1	3-28-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [ ] OTHER:

TIME	1220	1250				
MEASURED DEPTH TO WATER (MEASURE TO .01 FEET)	5.68'	5.68'				

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
16.10'	5.68'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 5.1 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1255	64.1	0.87	5.88	TURBID WITH BLACK SPECKS
1.5	1258	63.8	0.83	5.80	TURBID WITH BLACK SPECKS
3	1301	63.6	0.79	5.91	TURBID WITH BLACK SPECKS
5.5	1304	63.6	0.73	6.01	TURBID WITH BLACK SPECKS

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	>200	1333

PURGE WATER DESCRIPTION: [X] SHEEN [X] ODOR [X] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
MW-2	3-28-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [ ] OTHER:

TIME MEASURED						
DEPTH TO WATER (MEASURE TO .01 FEET)	1138					
	5.54'					

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
15.50'	5.54'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 4.8 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1201	68.1	0.69	6.22	CLEAR
1.5	1204	65.3	0.60	6.20	VERY TURBID
3	1208	64.1	0.61	6.38	TURBID
5	1213	64.3	0.63	6.40	TURBID

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	152.8	1235

PURGE WATER DESCRIPTION: [X] SHEEN [X] ODOR [X] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
MW-3	3-28-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [X] OTHER: **PRESSURE RELEASE UPON OPENING**

TIME MEASURED DEPTH TO WATER (MEASURE TO .01 FEET)						
	1020					
	7.43'					

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
18.86'	7.43'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 5.7 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1038	65.2	0.29	6.20	CLEAR
2	1043	63.5	0.29	6.60	SLIGHTLY TURBID
4	1048	63.5	0.30	6.63	SLIGHTLY TURBID
6					

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	80.4	1118

PURGE WATER DESCRIPTION: [X] SHEEN [X] ODOR [ ] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
MW-4	3-27-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [X] OTHER: SLIGHT PRESSURE RELEASE UPON OPENING

TIME MEASURED	1425					
DEPTH TO WATER (MEASURE TO .01 FEET)	7.17'					

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
16.07'	7.17'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 5 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1449	66.4	5.46	4.12	CLEAR
1.5	1452	65.0	5.37	3.98	SLIGHTLY TURBID, YELLOW
3	1455	64.6	5.38	4.05	SLIGHTLY TURBID, YELLOW
4.5	1459	64.1	5.46	4.20	VERY TURBID, YELLOW-BROWN
5	1502	64.0	5.64	4.31	VERY TURBID, YELLOW-BROWN

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	>200	1530

PURGE WATER DESCRIPTION: [ ] SHEEN [X] ODOR [X] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
MW-5	3-27-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [X] OTHER: **SLIGHT PRESSURE RELEASE UPON OPENING**

TIME MEASURED	1431					
DEPTH TO WATER (MEASURE TO .01 FEET)	5.92'					

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
16.36'	5.92'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 5.5 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH*	VISUAL TURBIDITY
0	1600	62.5	2.43	7.76	SLIGHTLY TURBID, BROWN-YELLOW
1.5	1603	62.5	2.38	7.88	TURBID, BROWN
3	1606	61.7	2.48	8.43	TURBID, BROWN
4.5	1610	61.7	2.57	9.30	VERY TURBID, BROWN
5.5	1613	61.4	2.63	10.00	TURBID, BROWN

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	196.3	1620

PURGE WATER DESCRIPTION: [ ] SHEEN [X] ODOR [X] SILTY [ ] OTHER:

* Data is suspect due to a possible pH meter malfunction

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
RP-1	**3-29-95**	**1-15095**

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	**D. CHUNG AND T. GHIGLIOTTO**

LOCATION: **4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA**

WELL HEAD CONDITIONS: [X] CAPPED [ ] LOCKED [ ] DRY [X] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [ ] OTHER:

TIME MEASURED	0936	1101				
DEPTH TO WATER (MEASURE TO .01 FEET)	7.98'	6.57'				

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
11.88'	**6.57'**	**2"**

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 3 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	**29 (SUBSEQUENT FLAME-OUT)**

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1222	61.1	1.02	6.60	CLEAR
1	1223	61.2	1.02	6.63	CLEAR
2	1225	61.3	1.02	6.62	CLEAR
3	1227	61.3	1.02	6.57	CLEAR

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	**17.4**	**1239**

PURGE WATER DESCRIPTION: [ ] SHEEN [X] ODOR [ ] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
RP-2	3-29-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [X] OTHER: **PRESSURE RELEASE UPON OPENING**

TIME MEASURED	0934	1056				
DEPTH TO WATER (MEASURE TO .01 FEET)	6.83'	6.83'				

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
14.41'	6.83'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 4 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	200

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1146	61.3	1.12	6.52	CLEAR
1	1147	61.9	1.10	6.45	TURBID, BROWN
2	1149	62.2	1.11	6.49	TURBID, BROWN
3	1151	62.2	1.12	6.49	TURBID, BROWN
4	1153	62.2	1.11	6.47	SLIGHTLY TURBID, BROWN

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	162.8	1200

PURGE WATER DESCRIPTION: [ ] SHEEN [ ] ODOR [X] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
RP-3	3-29-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [ ] OTHER:

TIME MEASURED	0940	1105				
DEPTH TO WATER (MEASURE TO .01 FEET)	7.87'	6.47'				

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
12.79'	6.47'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 4 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	>1000

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1253	61.2	2.86	6.40	CLEAR
1	1255	61.2	3.09	6.39	SLIGHTLY TURBID, GREY
2	1256	61.3	3.14	6.37	SLIGHTLY TURBID, GREY
3	1257	61.3	3.14	6.38	SLIGHTLY TURBID, GREY
4	1300	61.1	3.12	6.48	TURBID, GREY

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	51.8	1310

PURGE WATER DESCRIPTION: [ ] SHEEN [X] ODOR [ ] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
RP-4	3-29-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [ ] OTHER:

TIME MEASURED	0929	1050				
DEPTH TO WATER (MEASURE TO .01 FEET)	6.82'	6.82'				

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
16.08'	6.82'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 5 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	7

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1111	61.3	1.57	6.66	SLIGHTLY TURBID, GREY
1.5	1114	62.2	1.61	6.49	SLIGHTLY TURBID, GREY-YELLOW
3	1117	62.7	1.62	6.40	SLIGHTLY TURBID, GREY-YELLOW
4.5	1120	62.8	1.62	6.39	SLIGHTLY TURBID, GREY-YELLOW
5	1121	62.9	1.62	6.43	SLIGHTLY TURBID, GREY-YELLOW

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	73.3	1132

PURGE WATER DESCRIPTION: [ ] SHEEN [X] ODOR [ ] SILTY [ ] OTHER:

RECORD OF WATER SAMPLE COLLECTION

WELL LABEL:	DATE COLLECTED:	JOB NUMBER:
RP-5	3-29-95	1-15095

JOB NAME:	SAMPLER(S) NAME:
RIFKIN PROPERTY	D. CHUNG AND T. GHIGLIOTTO

LOCATION: 4525-4563 HORTON STREET, EMERYVILLE, CALIFORNIA

WELL HEAD CONDITIONS: [X] CAPPED [X] LOCKED [X] DRY [ ] WATER [ ] DEBRIS [ ] REPLACE CAP [ ] REPLACE LOCK [X] OTHER: **PRESSURE RELEASE UPON OPENING**

TIME MEASURED						
DEPTH TO WATER (MEASURE TO .01 FEET)	0931					
	7.12'					

WELL PURGING METHOD

TOTAL DEPTH OF WELL:	DEPTH TO WATER:	DIAMETER OF WELL:
14.90'	7.12'	2"

VOLUME FACTOR = 0.17 FOR 2" CASING; 0.65 FOR 4" CASING; 1.47 FOR 6" CASING

PURGE VOLUME = 4 GALLONS

PURGE METHOD:	OVA -FID VAPOR READING, ppm:
NEW DISPOSABLE BAILER	25

WELL PURGING PARAMETERS

GALLONS	TIME	TEMPERATURE degrees F	CONDUCTIVITY X 1000	pH	VISUAL TURBIDITY
0	1001	61.7	0.69	6.43	SLIGHTLY TURBID, YELLOW
1.5	1003	61.9	0.66	6.51	SLIGHTLY TURBID, YELLOW
3	1006	62.0	0.67	6.56	SLIGHTLY TURBID, YELLOW-BROWN
4	1009	61.8	0.67	6.59	SLIGHTLY TURBID, YELLOW-BROWN

SAMPLING METHOD:	SAMPLE TURBIDITY:	TIME COLLECTED:
NEW DISPOSABLE BAILER	58.6	1025

PURGE WATER DESCRIPTION: [ ] SHEEN [X] ODOR [X] SILTY [ ] OTHER: