



Ground Water

Engineering

Hydrocarbon

Remediation

Education

August 10, 1992
Project No. RC01905

Mr. Barney Chan
Division of Hazardous Materials
Department of Environmental Health
Alameda County Health Care Services Agency
80 Swan Way
Oakland, CA 94621

*Will need to define zero conc limit
of contamination prior to minimum
yearly monitoring
554*


SUBJECT: Results of Quarterly Ground-Water Monitoring, July 1992
Former Penske Truck Leasing Facility
725 Julie Ann Way, Oakland, California.

Dear Mr. Chan,

The above referenced report is being forwarded to you at the request of Penske Truck Leasing Co. The report details the results of the quarterly ground-water monitoring well sampling for July 1992 at the former Penske Truck Leasing Facility at 725 Julie Ann Way, Oakland. The quarterly sampling has been completed in response to the requirements for ground-water sampling contained in the Alameda County Health Care Services, Department of Environmental Health letter to Penske dated October 24, 1989.

If you have any questions, please do not hesitate to call.

Sincerely,
GERAGHTY & MILLER, INC.


Paul V. Hehn
Staff Geologist/Project Manager

CC: Mr. Marc Althen
Penske Truck Leasing Co.

92 AUG 10 1992

August 4, 1992
Project No. RC01905

Mr. Marc E. Althen
Manager, Environmental Services
Penske Truck Leasing Co.
Route 10, Green Hills
P.O. Box 563
Reading, PA 19603

SUBJECT: Results of Quarterly Ground-Water Monitoring, July 1992
Former Penske Truck Leasing Facility
725 Julie Ann Way, Oakland, California.

Dear Mr. Althen:

This report presents the results of the quarterly ground-water monitoring performed on July 20, 1992, at the former Penske Truck Leasing Co. (Penske) facility referenced above (Figure 1). The scope of work for this project was presented to Penske in a Geraghty & Miller, Inc. (Geraghty & Miller) letter dated July 2, 1991. The monitoring program consists of collecting quarterly depth-to-water measurements and water samples from the three monitor wells located at the project site for the period of July 1992 to April 1993.

FIELD PROCEDURES

The quarterly ground-water monitoring was performed on July 20, 1992. Ground-water samples were collected from Monitor Wells MW-1 through MW-3. The monitor-well locations are shown in Figure 2.

Prior to sampling, depth-to-water and total-well-depth measurements were obtained from each well. Additionally, the wells were checked for the presence of liquid-phase hydrocarbons. Liquid-phase hydrocarbons were not observed in any of the wells during this monitoring event. Each well was purged of a minimum of four casing volumes of water using a 1-inch diaphragm pump. All equipment that entered the well was washed in a solution of nonphosphate cleaner and water and then triple rinsed in deionized water prior to sampling each well. Purged water was

monitored for pH, temperature, and specific conductance. A summary of the field data is presented in Table 1. Following purging, ground-water samples were collected using a disposable polyethylene bailer, with a new bailer used for each well. The purged water was stored in 55-gallon drums and retained on-site for subsequent disposal by Penske.

A trip blank, consisting of a sample vial containing laboratory-grade water, accompanied the sample vials from the laboratory to the site and back to the laboratory, and was also submitted for analysis. The purpose of the trip blank is to assess whether any of the compounds analyzed for may have been imparted to the samples by air in the vicinity of the sample bottles during shipping, by the sample container, by the preservative, or by other exogenous sources.

Ground-water samples were put into the appropriate USEPA-approved containers, placed on ice, and transported to Superior Precision Analytical, Inc., located in San Francisco, California, along with appropriate chain-of-custody documentation. The water samples were analyzed for total petroleum hydrocarbons (TPH) as gasoline (USEPA Method 8015, modified), for TPH as diesel (USEPA Method 8015, modified), and for benzene, toluene, ethylbenzene, and total xylenes (BTEX) (USEPA Method 8020).

RESULTS

SHALLOW GROUND-WATER FLOW

A summary of the depth-to-water data is presented in Table 1. Depth to water ranged from 7.94 feet (Monitor Well MW-1) to 8.60 feet (Monitor Well MW-2) below the ground surface. A contour map based on the ground-water elevation data collected July 20, 1992, is presented in Figure 2. The maximum difference in the elevation of the ground-water surface between Wells MW-2 and MW-3 is 0.10 feet, producing a hydraulic gradient (slope of the ground-water surface) of approximately 0.002 ft/ft in a westerly direction.

GROUND-WATER ANALYTICAL RESULTS

A summary of the ground-water analytical results is presented in Table 2. Copies of the certified laboratory reports and chain-of-custody documentation are included in Attachment 1. TPH as gasoline was detected in the ground-water samples collected from Monitor Well MW-2 (73 micrograms per liter [$\mu\text{g/L}$]), and from Monitor Well MW-3 (66 $\mu\text{g/L}$). TPH as diesel was

detected in the ground-water samples collected from Monitor Well MW-1 (25,000 µg/L) and from Monitor Well MW-2 (120 µg/L). BTEX analysis showed detection of all compounds in the ground-water samples collected from each Monitor Well (MW-1, MW-2, and MW-3). TPH as gasoline and BTEX were not detected in the trip blank.

RECOMMENDATION

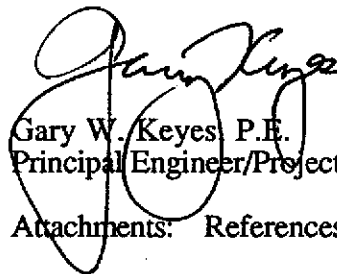
Geraghty & Miller recommends that a copy of this monthly ground-water monitoring report be forwarded to the Alameda County Health Care Services Agency, Department of Environmental Health in Oakland, California.

Geraghty & Miller appreciates the opportunity to be of service to Penske. If you have any questions regarding this report, please do not hesitate call us.

Sincerely,
GERAGHTY & MILLER, INC.



Paul V. Hehn
Staff Geologist/Project Manager



Gary W. Keyes, P.E.
Principal Engineer/Project Officer

Attachments: References

Table 1 - Summary of Field Sampling, Depth-to-Water, and Casing Elevation Data

Table 2 - Summary of Ground-Water Analytical Results

Figure 1 - Site Location Map

Figure 2 - Shallow Ground-Water Contours

Attachment 1 - Copies of Certified Laboratory Reports and Chain-of-Custody Documentation

REFERENCES

Geraghty & Miller, Inc. November 15, 1990. Results of Initial Soil and Ground-Water Assessment Activities, Former Penske Truck Leasing Co. Facility, 725 Julie Ann Way, Oakland, California.

———. February 7, 1991. Scope of Work and Project Budget Estimate for Ground-Water Monitoring Activities for the Period February 1991 through February 1992, Former Penske Truck Leasing Co. Facility, 725 Julie Ann Way, Oakland, California.

Table 1: Summary of Field Sampling, Depth-to-Water, and Casing Elevation Data
 Former Penske Truck Leasing Facility,
 725 Julie Ann Way, Oakland, California.

Well	Date	Depth to Water (a) (feet)	Top of Casing Elevation (feet)	Top of Water Elevation (feet)	Measured Depth of Well (a) (feet)	Calculated Purge Volume (b) (gallons)	Actual Purge Volume (gallons)	Field Measurements			Casing Diameter (inches)
								pH	Temp. (°F)	SC (µS/cm)	
MW-1	2-Oct-90	9.76	5.42	-4.34	37.28	58.56	47	6.71	87.5	536	4
	28-Feb-91	8.54	5.42	-3.12	33.58	65.00	70	6.30	66.0	970	
	25-Mar-91	7.35	5.42	-1.93	33.50	71.00	75	6.50	64.0	720	
	1-May-91	7.91	5.42	-2.49	33.70	67.00	51	6.20	65.0	350	
	5-Aug-91	8.63	5.42	-3.21	NM	51.00	68	NM	63.6	769	
	23-Oct-91	9.00	5.42	-3.58	33.77	67.00	67	9.40	64.2	747	
	6-Jan-92	8.52	5.42	-3.10	33.87	65.00	69	9.40	63.2	664	
	20-Jul-92	7.94	5.42	-2.52	33.95	65.02	66	7.20	65.7	641	
MW-2	2-Oct-90	10.38	6.21	-4.17	32.97	48.07	47	6.92	86.4	546	4
	28-Feb-91	9.19	6.21	-2.98	29.39	53.00	55	6.60	64.0	946	
	25-Mar-91	7.95	6.21	-1.74	29.39	57.00	70	6.60	63.0	640	
	1-May-91	8.58	6.21	-2.37	29.60	55.00	50	6.20	64.0	300	
	5-Aug-91	9.33	6.21	-3.12	NM	40.00	54	NM	65.1	568	
	23-Oct-91	9.57	6.21	-3.36	29.35	52.00	53	7.60	65.4	797	
	6-Jan-92	9.08	6.21	-2.87	29.50	53.00	53	9.18	62.8	699	
	20-Jul-92	8.60	6.21	-2.39	29.45	54.21	55	6.50	65.2	669	
MW-3	2-Oct-90	10.38	6.10	-4.28	37.08	56.82	54	6.89	88.4	639	4
	28-Feb-91	9.45	6.10	-3.35	31.61	58.00	60	6.10	66.0	1,020	
	25-Mar-91	7.98	6.10	-1.88	31.60	70.00	75	6.40	65.0	820	
	1-May-91	8.58	6.10	-2.48	33.70	65.00	50	6.40	67.0	410	
	5-Aug-91	9.26	6.10	-3.16	NM	50.00	67	NM	64.1	619	
	23-Oct-91	9.60	6.10	-3.50	33.48	66.00	66	7.30	67.3	843	
	6-Jan-92	9.08	6.10	-2.98	33.66	64.00	64	9.98	61.7	702	
	20-Jul-92	8.59	6.10	-2.49	33.76	65.44	66	6.80	66.0	754	

(a) Measured from top of PVC casing.

(b) Based on four casing volumes.

SC Specific Conductance

(µS/cm) Microsiemens per centimeter

NM Not measured

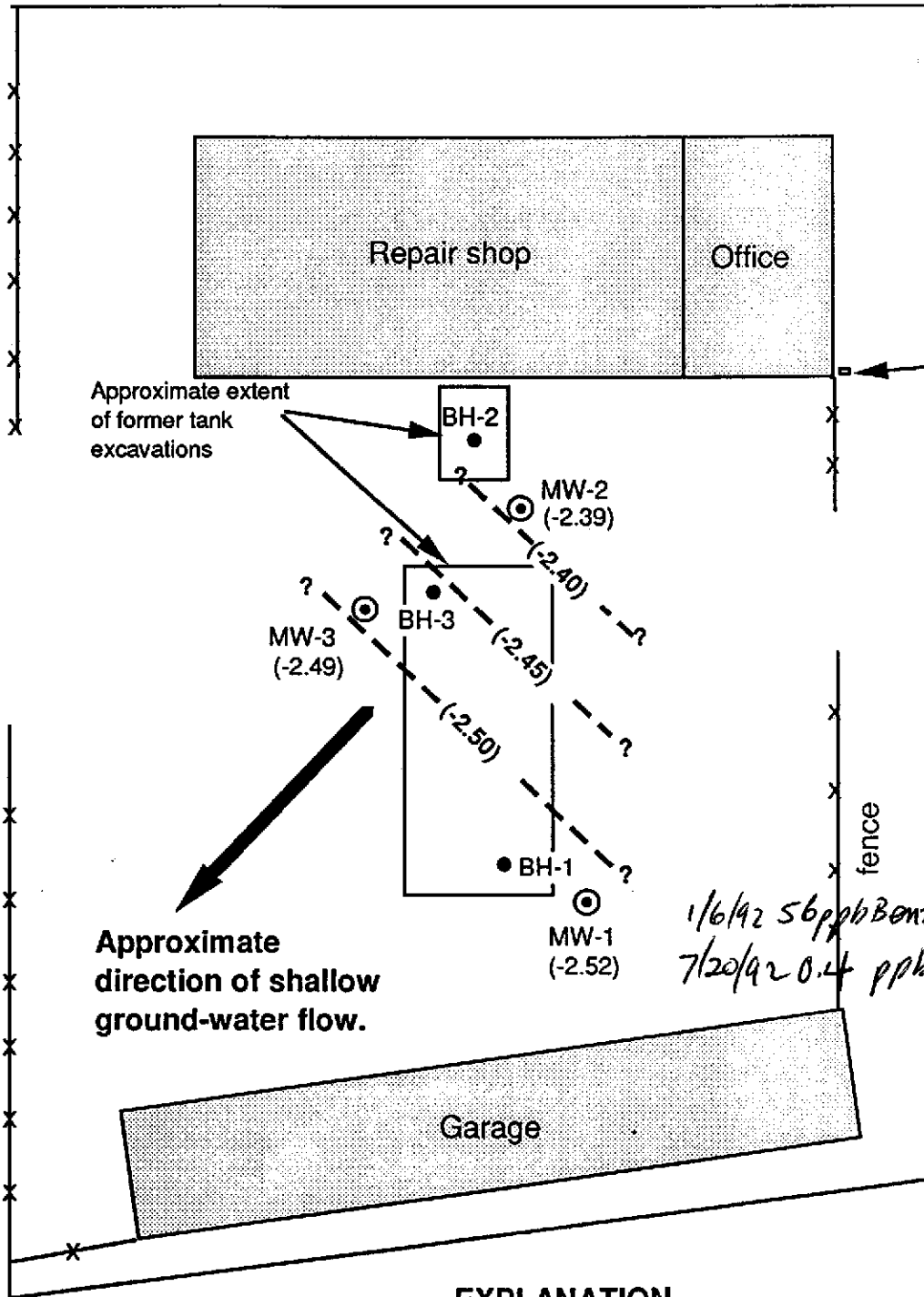
All elevations are measured relative to a site bench mark (elevation 6.62') based on the City of Oakland datum.

Table 2: Summary of Ground-Water Analytical Results - Monthly and Quarterly Sampling
 Former Penske Truck Leasing Facility,
 725 Julie Ann Way, Oakland, California.

Well	Date	TPH		Benzene (b)	Toluene (b)	Ethyl- benzene (b)	Xylenes (b)
		Gasoline (a)	Diesel (a)				
		(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)
MW-1	2-Oct-90	170.0	2,900.0	20.0	18.0	1.9	5.7
	28-Feb-91	260.0	550.0	43.0	1.0	7.0	1.0
	25-Mar-91	73.0	160.0	10.0	ND(<0.3)	0.5	ND(<0.3)
	1-May-91	ND(<50)	(c)	2.2	ND(<0.3)	ND(<0.3)	ND(<0.3)
	5-Aug-91	310.0	330.0	22.0	5.5	9.5	23.0
	23-Oct-91	440.0	1,800.0	23.0	21.0	6.2	35.0
	6-Jan-92	430.0	1,600.0	56.0	8.4	18.0	22.0
	20-Jul-92	ND(<50)	25,000.0	0.4	0.8	1.0	2.1
MW-2	2-Oct-90	ND(<50)	80.0	0.4	ND(<0.3)	ND(<0.3)	0.5
	28-Feb-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	25-Mar-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	1-May-91	ND(<50)	(c)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	5-Aug-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Oct-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	6-Jan-92	11,000.0	1200 (d)	ND(<0.3)	83.0	82.0	940.0
	20-Jul-92	73.0	120.0	1.7	3.3	1.1	9.6
MW-3	2-Oct-90	ND(<50)	90.0	28.0	3.1	0.6	1.5
	28-Feb-91	ND(<50)	ND(<50)	6.0	ND(<0.3)	ND(<0.3)	ND(<0.3)
	25-Mar-91	ND(<50)	ND(<50)	0.6	ND(<0.3)	ND(<0.3)	ND(<0.3)
	1-May-91	ND(<50)	(c)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	5-Aug-91	ND(<50)	ND(<50)	1.7	ND(<0.3)	ND(<0.3)	ND(<0.3)
	23-Oct-91	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	6-Jan-92	ND(<50)	ND(<50)	ND(<0.3)	ND(<0.3)	ND(<0.3)	ND(<0.3)
	20-Jul-92	66.0	ND(<50)	1.1	2.2	0.7	6.4

- (a) Analyzed by USEPA Method 8015, modified.
 (b) Analyzed by USEPA Method 8020.
 (c) No Results - Sample for TPH as diesel not collected.
 (d) Diesel range concentration reported. A nonstandard diesel pattern was observed in the chromatogram.
- () Reported detection limit
 ND Not detected
 µg/L Micrograms/liter

Analysis by Superior Analytical Laboratories, Inc., San Francisco and Martinez, California.



① What's going on?
 MW 1g amt of TPHd
 & B I went from 56 to
 0.4 ppb

1/6/92 56 ppb Benzene
 7/20/92 0.4 ppb Benzene, 25 ppm d

EXPLANATION

- BH-1 ● = Approximate location of soil borings.
- MW-1 ⊙ = Approximate location of ground-water monitor wells.
- BM = Survey Bench Mark (based on City of Oakland datum which is 3 feet lower than Mean Sea Level).
- (-2.52) = Ground-Water elevation (feet) relative to benchmark, measured July 20, 1992.
- ? - (-2.50) = Ground-water elevation contour (feet); dashed where inferred (contour interval equals 0.25 feet).



Proj. No. RC01905

Shallow Ground-Water Contours
July 20, 1992
 Former Penske Truck Leasing Co. Facility
 725 Julie Ann Way
 Oakland, California

FIGURE

2

ATTACHMENT 1

**COPIES OF CERTIFIED ANALYTICAL REPORTS
AND CHAIN-OF-CUSTODY DOCUMENTATION**



Superior Precision Analytical, Inc.

1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 55291
CLIENT: Geraghty & Miller Inc.
CLIENT JOB NO.: RC01905

DATE RECEIVED: 07/22/92
DATE REPORTED: 07/29/92

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS by Modified EPA SW-846 Method 8015

LAB #	Sample Identification	Concentration (ug/L) Diesel Range
1	MW-1	25000
2	MW-2	120
3	MW-3	ND<50

ug/L - parts per billion (ppb)

Minimum Detection Limit for Diesel in Water: 50ug/L

QAQC Summary:

Daily Standard run at 200mg/L: %DIFF Diesel = <15%
MS/MSD Average Recovery = 87%: Duplicate RPD = 2

Richard Srna, Ph.D.

Cecilia G. Joergin (for)
Laboratory Director



Superior Precision Analytical, Inc.

1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 55291
CLIENT: Geraghty & Miller Inc.
CLIENT JOB NO.: RC01905

DATE RECEIVED: 07/22/92
DATE REPORTED: 07/29/92

ANALYSIS FOR TOTAL PETROLEUM HYDROCARBONS by Modified EPA SW-846 Method 5030 and 8015

LAB #	Sample Identification	Concentration (ug/L) Gasoline Range
1	MW-1	ND<50
2	MW-2	73
3	MW-3	66
4	TRIP BLANK	ND<50

ug/L - parts per billion (ppb)

Method Detection Limit for Gasoline in Water: 50 ug/L

QAQC Summary:

Daily Standard run at 2mg/L: %Diff Gasoline = <15
MS/MSD Recovery = 99%: Duplicate RPD = 2

Richard Srna, Ph.D.

Cecilia G. Jorgensen (for)
Laboratory Manager



Superior Precision Analytical, Inc.

1555 Burke, Unit I • San Francisco, California 94124 • (415) 647-2081 / fax (415) 821-7123

C E R T I F I C A T E O F A N A L Y S I S

LABORATORY NO.: 55291
CLIENT: Geraghty & Miller Inc.
CLIENT JOB NO.: RC01905

DATE RECEIVED: 07/22/92
DATE REPORTED: 07/29/92

ANALYSIS FOR BENZENE, TOLUENE, ETHYL BENZENE & XYLENES by EPA SW-846 Methods 5030 and 8020

LAB #	Sample Identification	Concentration (ug/L)			
		Benzene	Toluene	Ethyl Benzene	Xylenes
1	MW-1	0.4	0.8	1.0	2.1
2	MW-2	1.7	3.3	1.1	9.6
3	MW-3	1.1	2.2	0.7	6.4
4	TRIP BLANK	ND<0.3	ND<0.3	ND<0.3	ND<0.3

ug/L - parts per billion (ppb)

Method Detection Limit in Water: 0.3 ug/L

QAQC Summary:

Daily Standard run at 20ug/L: %Diff 8020 = <15%
MS/MSD Average Recovery =95%: Duplicate RPD = 4

Richard Srna, Ph.D.

Cecilia G. Jaeger (for)
Laboratory Manager

55071

Project Number RC02403 RC01905
 Project Location Julien way, Oakland Ca
 Laboratory San Leandro Ca Superior Analytical
 Sampler(s)/Affiliation Ricky Spencer C+M Tech

SAMPLE BOTTLE / CONTAINER DESCRIPTION

SAMPLE IDENTITY	Code	Date/Time Sampled	Lab ID	TPH 16 USEPA METHOD 8015 MODIFIED	TPH (DIESEL) (USEPA METHOD 8015)	BTEX USEPA METHOD 8015 MODIFIED	USEPA Method 8020	TOTAL
MW-1	L	7-20-92 209		✓		✓		
MW-2		7-20-92 2000		✓		✓		
MW-3		7-20-92 2040		✓		✓		
TRIP BLANK				✓		✓		
MW-1		7-22-92 1900			✓			
MW-2		7-22-92 1900			✓			
MW-3		7-22-92 1900			✓			

Please initial: _____
 Samples Stored in ice. _____
 Appropriate containers. _____
 Samples preserved. _____
 VOA's without headspace. _____
 Comments: _____

Sample Code: L = Liquid; S = Solid; A = Air

Total No. of Bottles/ Containers

Relinquished by: Ricky Spencer Organization: Geraghty + Miller Date: 7/22/92 Time: 0925 Seal Intact? Yes
 Received by: Nancy Joff Organization: EXP-AT
 Relinquished by: Nancy Joff Organization: EXP-AT Date: 7/22/92 Time: 1005 Seal Intact? Yes
 Received by: Les North Organization: Express It

Special Instructions/Remarks: Mail results for Paul V. Mohr, Geraghty + Miller 1050 Marine way South Rich Ca 94804
Received by SPA.S.F. Tdotal 7/22/92 1300.

Delivery Method: In Person Common Carrier Lab Courier Other