Harding Lawson Associates

June 26, 1995

30615 002

Mr. Larry Hanna
U.S. Postal Service
Facilities Service Office
225 North Humphreys Boulevard
Memphis, Tennessee 38166-0300

Second Quarter 1995, Groundwater Monitoring
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

Dear Mr. Hanna.

This letter presents the results of Harding Lawson Associates' (HLA) second quarter 1995 groundwater monitoring at the U.S. Postal Service (USPS) facility, 1675 7th Street, Oakland, California, (Plate 1). HLA's work was performed in accordance with:

Contract No. 475450-94-B-0309
Work Order No. 5.00
Groundwater Monitoring, Project No. Y04728
Oakland, California - P&DC

In accordance with the Alameda County Department of Environmental Health (ACDEH) guidelines, water levels and groundwater samples were collected from monitoring Wells MW-1 through MW-4 on June 6, 1995 (Plate 2). Field work was performed using procedures outlined in the *Site Characterization Workplan*, dated August 26, 1993, prepared by Geo/Resource Consultants, Inc., (GRC) and approved by ACDEH. Groundwater samples were sent to National Environmental Testing Inc. (NET), Santa Rosa, California, a state certified laboratory for the analyses requested. Five groundwater samples collected were analyzed for total petroleum hydrocarbons as gasoline (TPHg) and diesel (TPHd) using EPA Test Method 8015 modified, and for benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Test Method 8020. Purge water was placed in 55-gallon drums that are stored onsite. Copies of the well sampling forms are attached in the appendix.

Groundwater elevation data for the June 6, 1995, sampling period are presented in Table 1. with previous water level information. Water elevations declined from 0.40 to 0.55 feet since the previous sampling event in February 1995. Groundwater flow direction during May was toward the southwest which is consistent with previous observations. Well locations and June 1995 groundwater elevations are shown on Plate 2.

Current and previous analytical results for groundwater samples collected are summarized in Table 2. Plate 3 presents the June 6, 1995, TPH and BTEX concentrations in groundwater. TPHd was detected in all samples at concentrations ranging between 380 and 19,000 micrograms per liter ($\mu g/l$). The laboratory interpreted these results to be a heavier hydrocarbon than diesel in Wells MW-1 and MW-2 and interpreted the detection in MW-3 as a non-standard diesel pattern. According to the laboratory, a single peak in the diesel range was detected in MW-3. TPHg was detected in Well MW-4 at a concentration of 1,400 $\mu g/l$. Ethylbenzene was also detected in well MW-4 at the detection limit of 0.5 $\mu g/l$. A copy of the laboratory analytical report and chain of custody form are attached in the appendix.

Groundwater results were similar to those reported for February 1995. The higher concentrations of petroleum hydrocarbons detected during February and June may be partially attributed to the increase in groundwater elevation. The rise in groundwater elevation since the beginning of the year may have mobilized residual petroleum hydrocarbons present in soil.

The next quarterly groundwater monitoring will be conducted in August 1995. Prior to the next quarterly sampling round, HLA recommends disposal of the drummed water at a proper disposal facility. Copies of this report should be submitted to the ACDEH.

If you should have any questions, please call Gary Lieberman at (415) 884-3158 or Cynthia Dahl at (415) 884-3133.

Yours very truly,

HARDING LAWSON ASSOCIATES

Cynthia A. Dahl

Gary A. Lieberman
Project Geologist

R. Bruce Scheibach

R. Bruce Scheibach R.G 5062
Principal Hydrogeologist

Attachments: Table 1 - Summary of Groundwater Elevations
Table 2 - Summary of Groundwater Analytical Results
Plate 1 - Vicinity Map
Plate 2 - Groundwater Contour Map
Plate 3 - TPH and BTEX Concentrations in Groundwater
Well Sampling Forms
Laboratory Analytical Report
Chain of Custody Document

cc: Cynthia Dahl, HLA
Steve Wake, USPS, 1675 7th Street BMF, Oakland, CA 94615-9357

REFERENCE:

Geo Resources Consultants, Inc., 1993. *Site Characterization Workplan, U.S. Postal Service Vehicle Maintenance Facility, 1675 7th Street, Oakland, California.* August 26.

GAL/RBS:mh/MH41110.ltr-M

Table 1. Summary of Groundwater Elevations
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

Well Name	Date	Top of Well Casing Elevation (ft MSL)*	Depth to Water (ft BTOC)**	Groundwater Elevation (ft MSL)*
MW-1	9/93	8.30	3.90	4.40
	1/26/94		3.64	4.66
	2/94		3.37	4.93
	3/94		7.51	0.79
	4/94		10.74	-2.44
	5/94		12.98	-4.68
	6/94		15.55	-7.25
	2/22/95		6.98	1.32
	6/6/95		7.51	0.79
MW-2	9/93	8.86	4.55	4.31
	1/26/94		4.69	4.17
	2/94		3.98	4.88
	3/94		8.14	0.72
	4/94		10.60	-1.74
	5/94		13.47	-4.61
	6/94		15.50	-6.64
	2/22/95		7.66	1.20
	6/6/95		8.06	0.80
MW-3	9/93	9.28	5.00	4.28
	1/26/94		5.04	4.24
	2/94		4.62	4.66
	3/94		9.54	-0.26
	4/94		11.69	-2.41
	5/94		14.85	-5.57
	6/94		17.30	-8.02
	2/22/95		8.64	0.64
	6/6/95		9.07	0.21
MW-4	9/93	8.73	4.55	4.18
	1/26/94		4.60	4.13
	2/94		3.95	4.78
	3/94		8.96	-0.23
	4/94		8.96	-0.23
	5/94		14.24	-5.51
	6/94		17.28	-8.55
	2/22/95		7.93	0.80
	6/6/95		8.48	0.25

Table 1. Summary of Groundwater Elevations
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

Well Name	Date	Top of Well Casing Elevation (ft MSL)*	Depth to Water (ft BTOC)**	Groundwater Elevation (ft MSL)*
MW-5	9/93	8.23	3.63	4.60
	1/26/94		3.70	4.53
	2/94		3.23	5.00
	3/94		7.76	0.47
	4/94		10.19	-1.96
	5/94		11.46	-3.23
	6/94		14.25	-6.02
		Well Abandoned - January 1995		

Notes:

* Feet above mean sea level

** Feet below top of casing

Table 2. Summary of Analytical Results of Groundwater Samples
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

Well Name	Sample Date	Total Petroleum Hydrocarbons as Gasoline µg/l	Total Petroleum Hydrocarbons as Diesel µg/l	Benzene µg/l	Toluene µg/l	Ethyl-Benzene µg/l	Xylenes µg/l
MW-1	9/93	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	9/93 (Dup)	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	1/26/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	3/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	6/94	< 50	73	< 0.5	< 0.5	<0.5	< 0.5
	2/22/95	< 50	600 *	< 0.5	< 0.5	<0.5	< 0.5
	6/6/95	< 50	900 *	< 0.5	< 0.5	<0.5	< 0.5
MW-2	9/93	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	1/26/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	3/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	6/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	2/22/95	< 50	280 *	< 0.5	< 0.5	<0.5	< 0.5
	6/6/95	< 50	570 *	< 0.5	< 0.5	<0.5	< 0.5
MW-3	9/93	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	1/26/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	3/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	3/94 (Dup)	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	6/94	Insufficent water - No sample collected					
	2/22/95	50	350 *	< 0.5	< 0.5	<0.5	< 0.5
	6/6/95	< 50	380 **	< 0.5	< 0.5	<0.5	< 0.5
MW-4	9/93	< 50	580	< 0.5	< 0.5	<0.5	< 0.5
	1/26/94	< 50	850	0.7	<0.5	<0.5	< 0.5
	1/26/94	< 50	450	0.8	<0.5	<0.5	< 0.5
	3/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	6/94	< 50	250	1.6	< 0.5	<0.5	< 0.5
	6/94	< 50	260	1.7	< 0.5	<0.5	< 0.5
	2/22/95	140 ***	1,100 *	1.4	< 0.5	<0.5	< 0.5
	2/22/95 (Dup)	130 ***	1,000 *	1.1	< 0.5	<0.5	< 0.5
	6/6/95	1,400 ****	19,000	<0.5	< 0.5	0.5	< 0.5
	6/6/95 (Dup)	24,000****	23,000	<0.5	< 0.5	<0.5	< 0.5

Table 2. Summary of Analytical Results of Groundwater Samples
United States Postal Service - GMF/VMF
1675 7th Street
Oakland, California

Well Name	Sample Date	Total Petroleum Hydrocarbons as Gasoline µg/l	Total Petroleum Hydrocarbons as Diesel µg/l	Benzene µg/l	Toluene µg/l	Ethyl-Benzene µg/l	Xylenes µg/l
MW-5	9/93	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	1/26/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	3/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
	6/94	< 50	< 50	< 0.5	< 0.5	<0.5	< 0.5
		Well Abandoned - January 1995					

Notes:

µg/l	Micrograms per liter (equivalent to parts per billion)
< 1.0	Not detected at indicated reporting limit
*	The laboratory interpreted the result as a heavier hydrocarbon than diesel
**	A non-standard diesel pattern was observed
***	A non-standard gasoline pattern was observed
****	The laboratory interpreted the result as a heavier hydrocarbon than gasoline
Dup	Duplicate sample

43425

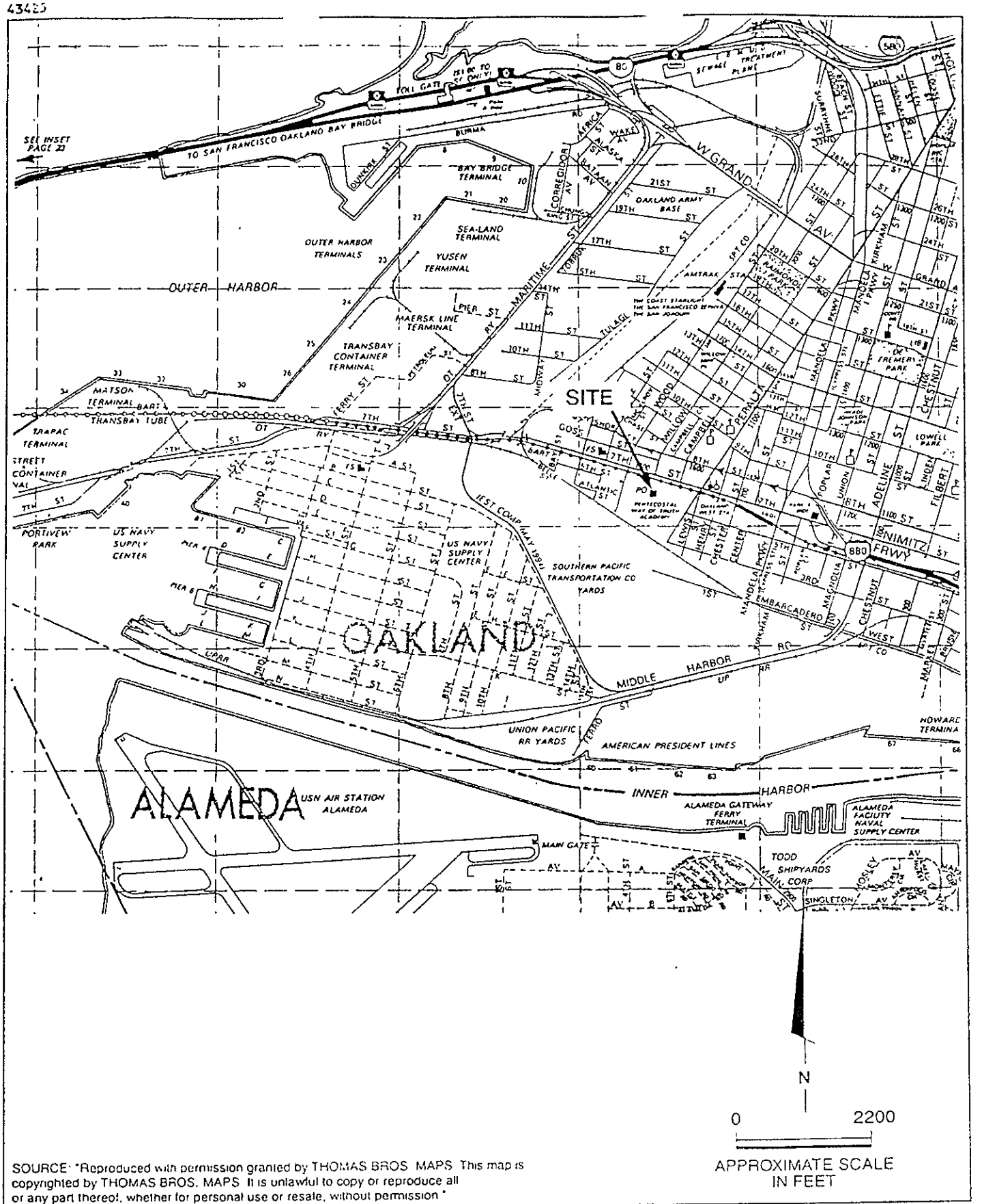
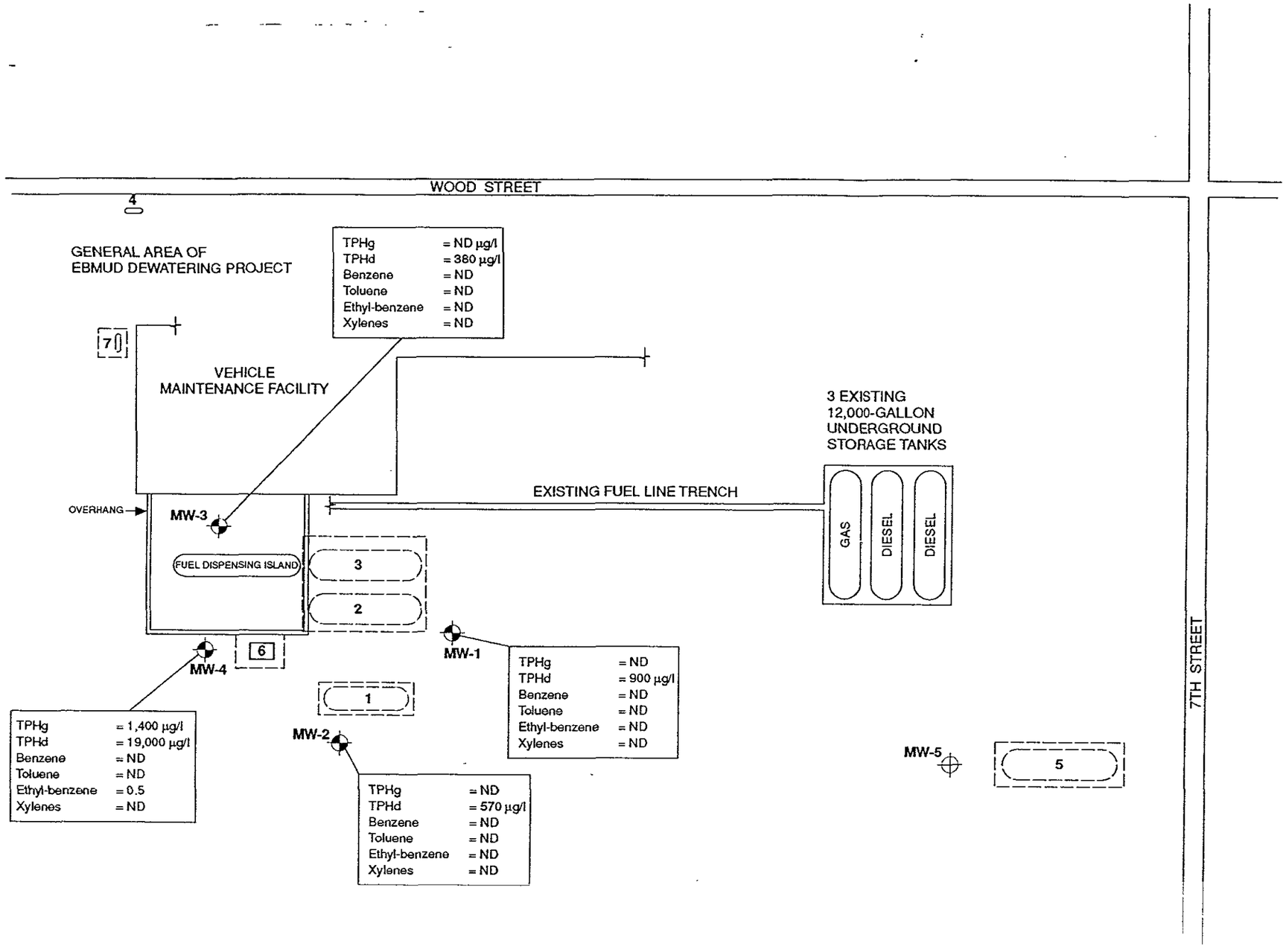


FIGURE 1

Harding Lawson Associates
Engineering and Environmental Services

Vicinity Map
USPS Oakland GMF/VMF
Oakland, California

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
LFD	30615 002	GAL	3/95	



EXPLANATION

- MW-1 — Monitoring Well Location
- MW-5 — Abandoned Monitoring Well
- µg/l — Micrograms Per Liter (Equivalent to Parts Per Billion)
- 5 — Limit of Excavation; Removed Underground Storage Tank; Tank No.
- Existing Tank (See Designation Below)

1	5,000-Gallon Gasoline
2	10,000-Gallon Diesel
3	10,000-Gallon Diesel
4	750-Gallon Waste Oil
5	10,000-Gallon Diesel
6	Former Diesel Fuel Dispensing Island
7	750-Gallon Waste Oil Tank

N

NOT TO SCALE

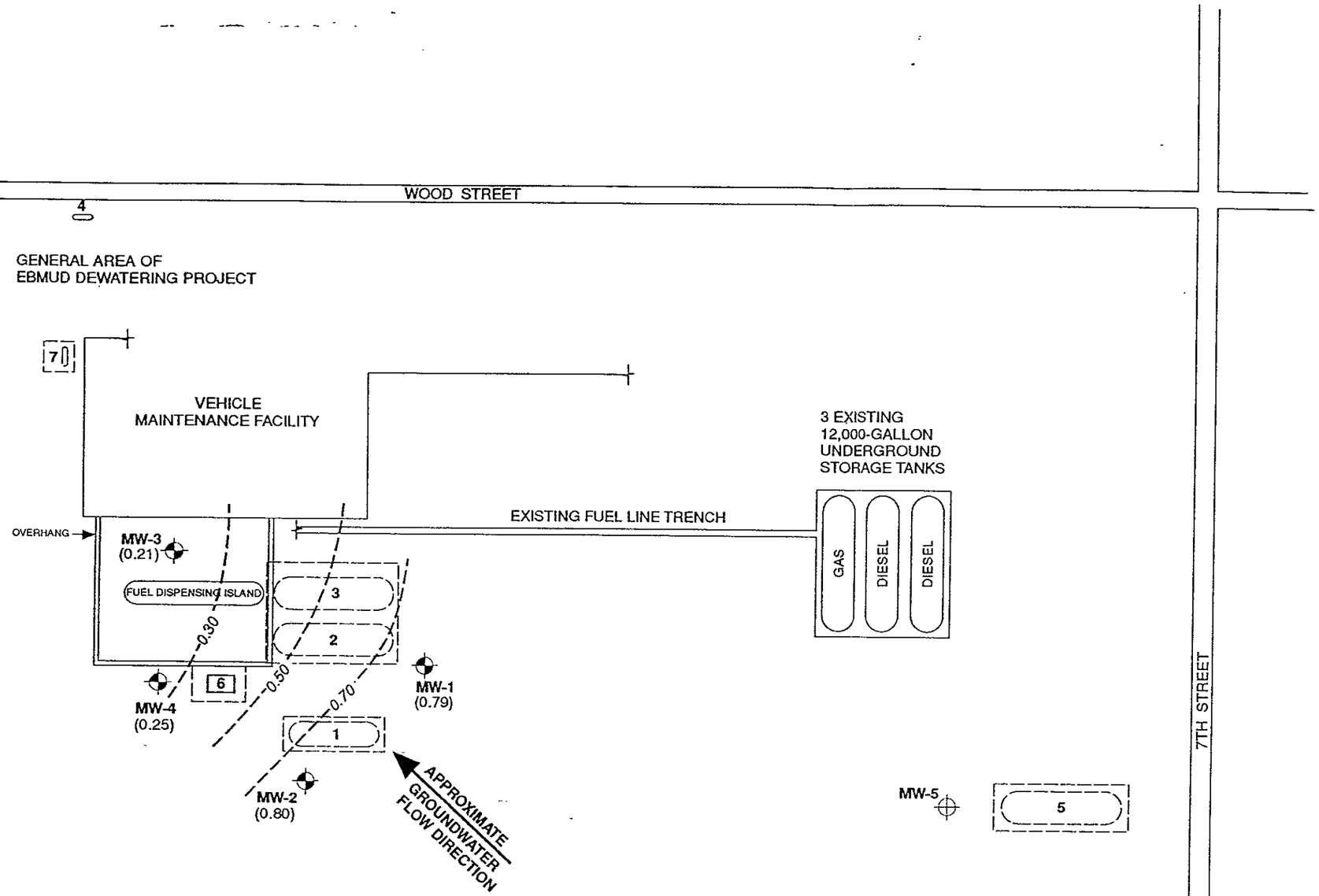
062795LZ

Harding Lawson Associates
Engineering and
Environmental Services

TPH and BTEX Concentrations in Groundwater-
June 6, 1995
USPS Oakland GMF/VMF
Oakland, California

PLATE 3

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
LFDc	30615 002		3/95	



EXPLANATION

- MW-1 (1.32) — Monitoring Well Location; Groundwater Elevation Above Mean Sea Level
- MW-5 — Abandoned Monitoring Well
- 1.10 — Groundwater Elevation Contour (feet MSL)
- 5 — Limit of Excavation; Removed Underground Storage Tank; Tank No.
- Existing Tank (See Designation Below)

1	5,000-Gallon Gasoline
2	10,000-Gallon Diesel
3	10,000-Gallon Diesel
4	750-Gallon Waste Oil
5	10,000-Gallon Diesel
6	Former Diesel Fuel Dispensing Island
7	750-Gallon Waste Oil Tank

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NOT TO SCALE

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Environmental Services

Groundwater Contour Map-June 6, 1995
USPS Oakland GMF/VMF
Oakland, California

PLATE 2

DRAWN	JOB NUMBER	APPROVED	DATE	REVISED DATE
LFDc	30615 002		3/95	