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HAZMAT
94 AUG 15 PM 3:40 /

August 5, 1994
1708-004-00

Mr. Larry Hanna, Project Manager
UNITED STATES POSTAL SERVICE
Major Facilities Office
1407 Union Avenue
Memphis, Tennessee 38166-0340

**RE: QUARTERLY GROUNDWATER MONITORING PROGRESS REPORT
APRIL, MAY, JUNE - 1994
USPS CONTRACT NO. 059984-89-J-0053; W.O. NO. 23.01
OAKLAND, CA - P&DC/VMF**

Dear Mr. Hanna:

Geo/Resource Consultants, Inc. (GRC) is pleased to submit to the United States Postal Service (USPS) this report which presents the Fourth Quarter fluid-level monitoring and groundwater sampling for the above-referenced USPS facility. In accordance with the Alameda County Department of Environmental Health (ACDEH), monthly fluid levels were measured and groundwater samples were collected from monitoring wells MW-1, MW-2, MW-3, MW-4, and MW-5. Groundwater samples were sent to a state-certified laboratory for analyses. All field work was completed in accordance with the ACDEH-accepted "Site Characterization Workplan," prepared by GRC, dated August 26, 1993. Purged groundwater recovered during sampling was drummed pending proper disposal based on the analytical data. The results are attached.

Analytical results for wells MW-2 and MW-5 remained at or near reported laboratory detection limits. MW-4 results indicated diesel at 250 micrograms per Liter (ug/L; approximates parts per billion (ppb)) and benzene at 1.6 ppb. A blind duplicate quality control sample (MW-6) was collected and analyzed from MW-4. The results indicated diesel at 260 ppb and benzene at 1.7 ppb. For the first time in the 1994 monitoring program, MW-1 results indicated diesel at 73 ppb. According to laboratory, sample MW-1 was reanalyzed twice. In both analyses, the surrogate recovery was low. Due to the low amount of water in sample MW-1, the extraction was not possible. Dewatering in the immediate area precluded collection of a sample from MW-3.

Groundwater continued to flow in a general southerly direction across the site.

East Bay Municipal Utilities District (EBMUD) is currently extracting groundwater in a California Department of Transportation (Cal-Trans) right-of-way located approximately 150 feet southwest and hydraulically upgradient of MW-4. The dewatering project, which is part of EBMUD's South Interceptor

Project for the Cypress Freeway Reconstruction, was expected to lower the water table approximately 20 feet by the end of May 1994. This was to facilitate the excavation and relocation of an EBMUD sewer line which is the deepest subsurface utility in the area.

According to EBMUD (personal conversation, Mr. Al Weitz, July 13, 1994, (510) 287-1624), other utilities will also dewater the area to accommodate various construction phases following EBMUD's project. However, due to the more shallow installation requirements, the other utilities are expected to only lower the water table by approximately 10 feet. EBMUD reported that groundwater samples are periodically collected from the dewatering system and tested, and that no contaminants of concern have been detected. EBMUD stated that the dewatering system pumping rate has been decreased to approximately 40 percent (%) of its approximate maximum capacity of 500 gallons per hour which was pumped in June 1994 using 16 pumps in the immediate vicinity. The pumping volumes will be decreasing until the end of September 1994 when the sewer line construction will be completed.

The Fourth Quarter decrease in groundwater elevations, and the slight increases in the diesel and benzene concentrations at MW-4, may be partially attributable to the adjacent EBMUD dewatering project. The remaining monthly groundwater elevation measurements may also be affected by the dewatering project.

GRC recommends continuing this monitoring program to assess detected concentrations of diesel and benzene, and the affects of dewatering at adjacent sites.

ATTACHMENTS:

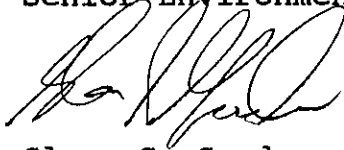
- o Figure 1: Vicinity Map
- o Figure 2: Groundwater Elevation Contour Map, April 15, 1994
- o Figure 3: Groundwater Elevation Contour Map, May 17, 1994
- o Figure 4: Groundwater Elevation Contour Map, June 24, 1994
- o Figure 5: Dissolved-Phase Hydrocarbon Concentrations
- o Table 1: Groundwater Sampling and Analyses Summary
- o Appendix 1: Laboratory Reports, Chain of Custody Records

Please feel free to contact us at (415) 775-3177, if you have any questions regarding this project.

Sincerely,
GEO/RESOURCE CONSULTANTS, INC.



Gary A. Floyd
Senior Environmental Scientist



Glenn S. Goodman
Program Manager, Remediation Services
Vice President

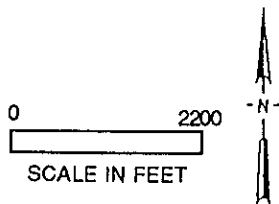
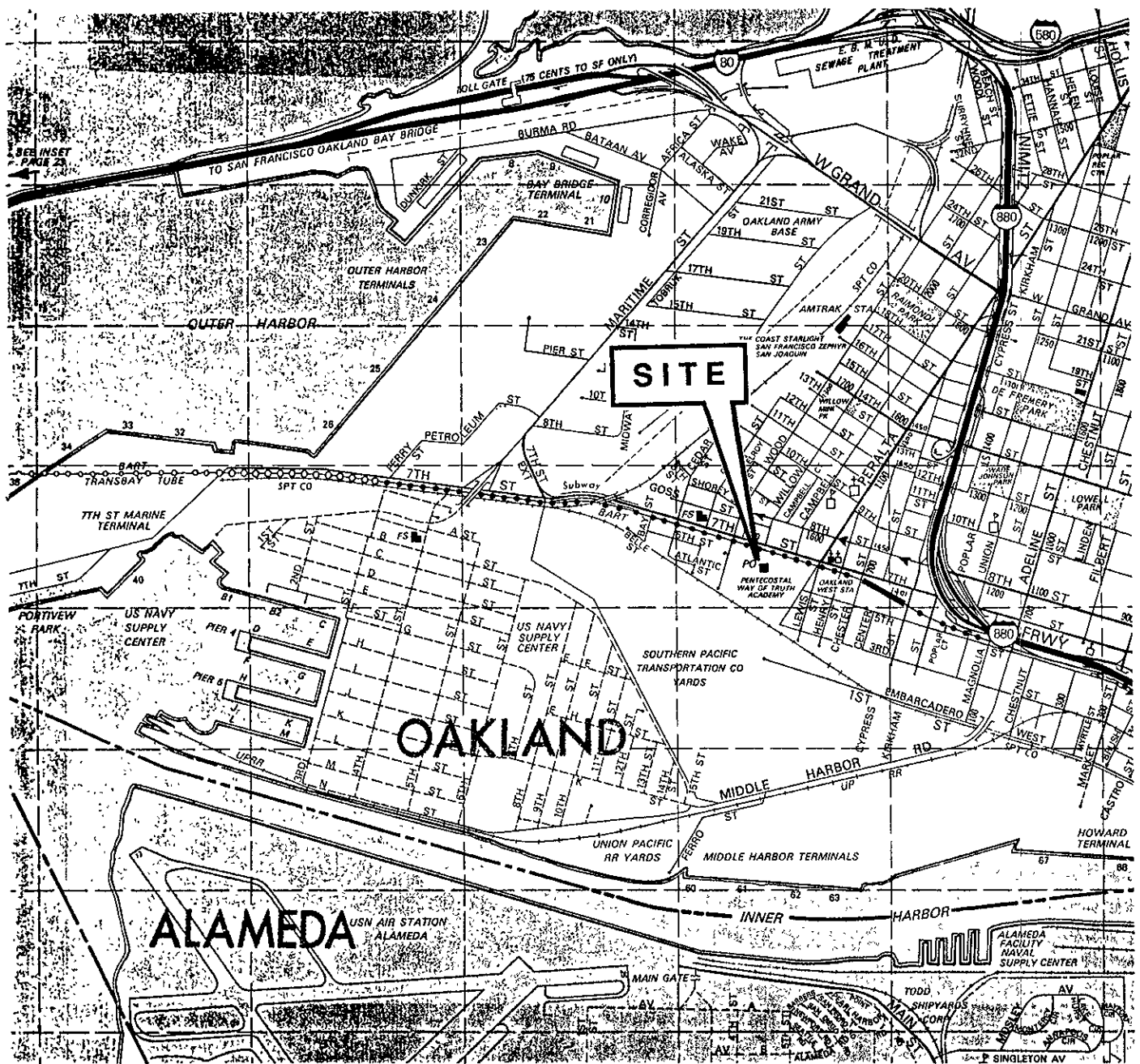


Alvin K. Joe, Jr., C.E.G.
President and CEO


cc: Jennifer Eberle, ACDEH, 80 Swan Way, Room 350,
Oakland, CA, 94621, (510) 271-4530
Scott Ross, USPS, 850 Cherry Ave., San Bruno, CA, 94099-0311
Steve Wake, USPS, 1675 7th St., Oakland, CA, 94615
GRC Project File 1708-004-00

ATTACHMENTS





REFERENCE : Thomas Bros Maps, 1989

 **Geo/Resource Consultants, Inc.**
 GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133

Job No. 1708-003-00 Appr. *[Signature]* Date 10/19/93

VICINITY MAP
 SUBSURFACE SITE INVESTIGATION
 USPS - OAKLAND GMF/VMF
 OAKLAND, CALIFORNIA

FIGURE
 1

WOOD STREET

EXPLANATION

- MONITORING WELL LOCATION
- GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
- GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL

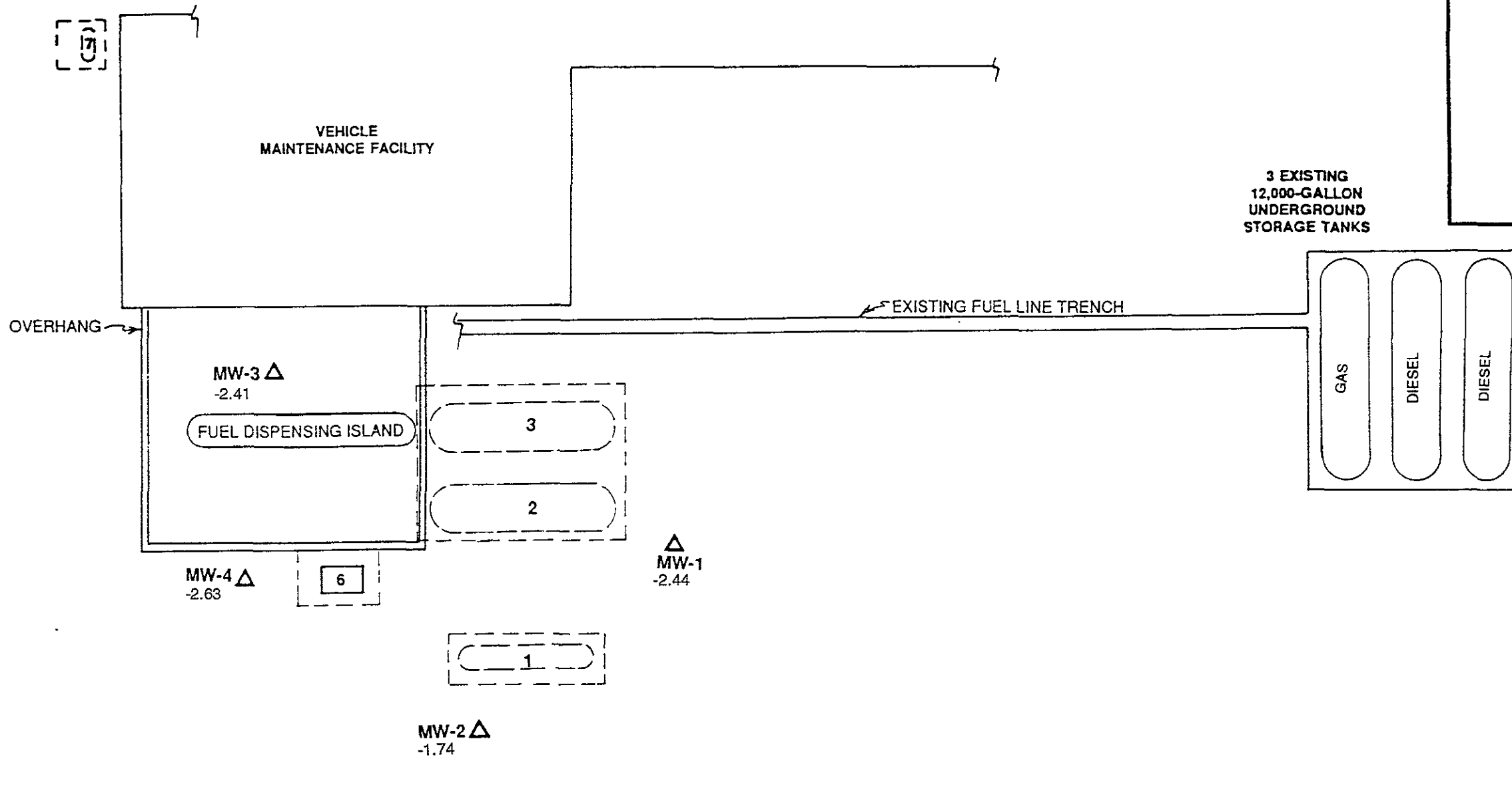
- LIMIT OF EXCAVATION
- REMOVED UNDERGROUND STORAGE TANK TANK No.
- EXISTING TANK (SEE DESIGNATION BELOW)

- 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

NOTES :
 GROUNDWATER CONTOURS BASED ON GROUNDWATER LEVEL MEASUREMENTS OF 2/15/94.
 AVERAGE HYDRAULIC GRADIENT EQUALS 0.002 FOOT/FOOT ACROSS THE SITE.

GENERAL AREA OF EBMUD DEWATERING PROJECT

4



7TH STREET

Geo/Resource Consultants, Inc.
 GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133

Job No. 1708-004-00 Appr. Date 8/1/94

GROUNDWATER ELEVATION CONTOUR MAP
 APRIL 15, 1994
 SUBSURFACE SITE INVESTIGATION
 USPS - OAKLAND GMF/VMF
 OAKLAND, CALIFORNIA

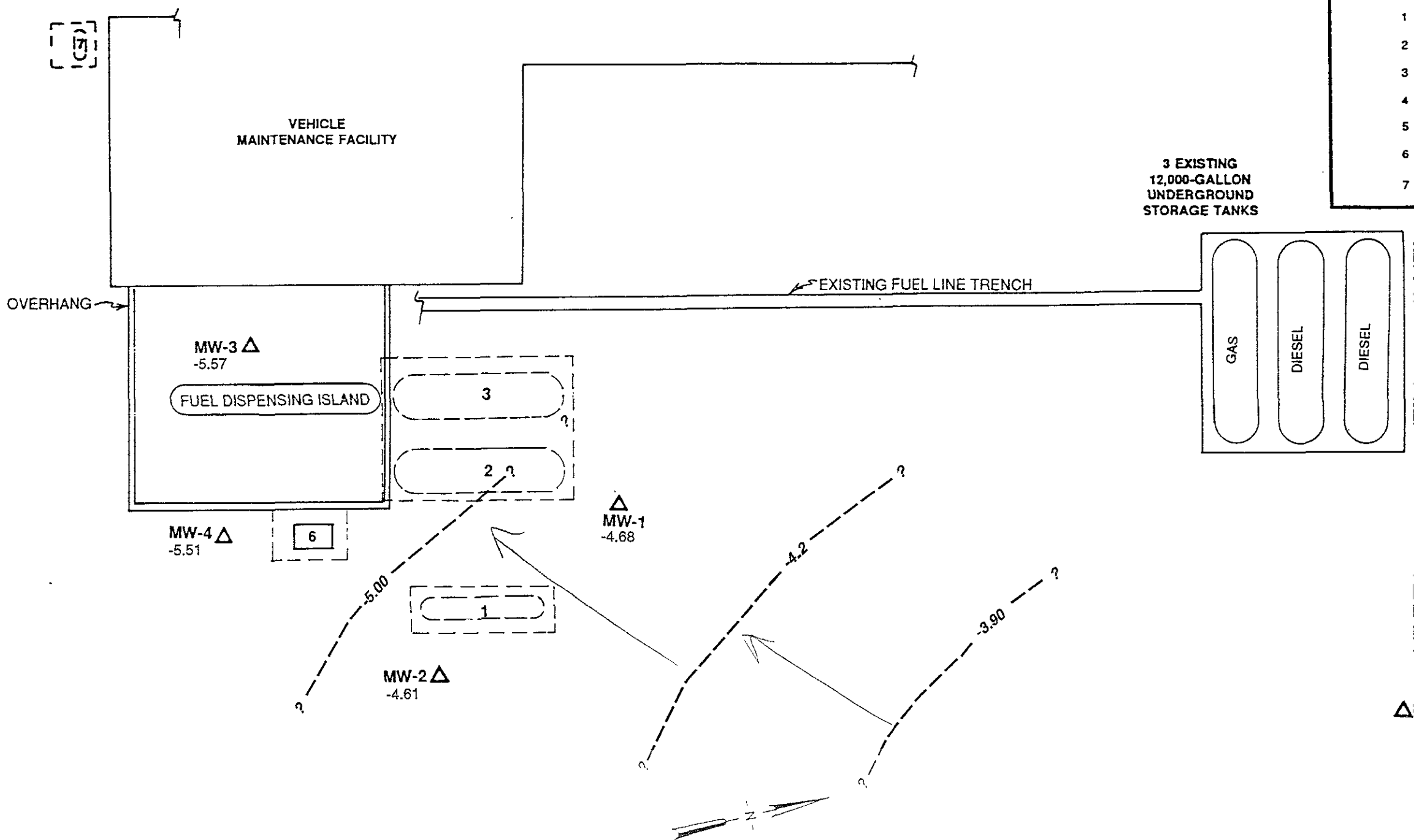
FIGURE
2

WOOD STREET

EXPLANATION	
	MONITORING WELL LOCATION
	GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
	GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL
	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

GENERAL AREA OF EBMUD DEWATERING PROJECT

4



NOTES:
 GROUNDWATER CONTOURS BASED ON GROUNDWATER LEVEL MEASUREMENTS OF 2/15/94.
 AVERAGE HYDRAULIC GRADIENT EQUALS 0.002 FOOT/FOOT ACROSS THE SITE.

NOT TO SCALE

Geo/Resource Consultants, Inc.
 GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133

Job No. 1708-004-00 Appr. Date 8/1/94

GROUNDWATER ELEVATION CONTOUR MAP
 MAY 17, 1994
 SUBSURFACE SITE INVESTIGATION
 USPS - OAKLAND GMF/VMF
 OAKLAND, CALIFORNIA

FIGURE
3

WOOD STREET

EXPLANATION

- MONITORING WELL LOCATION
- GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
- GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL

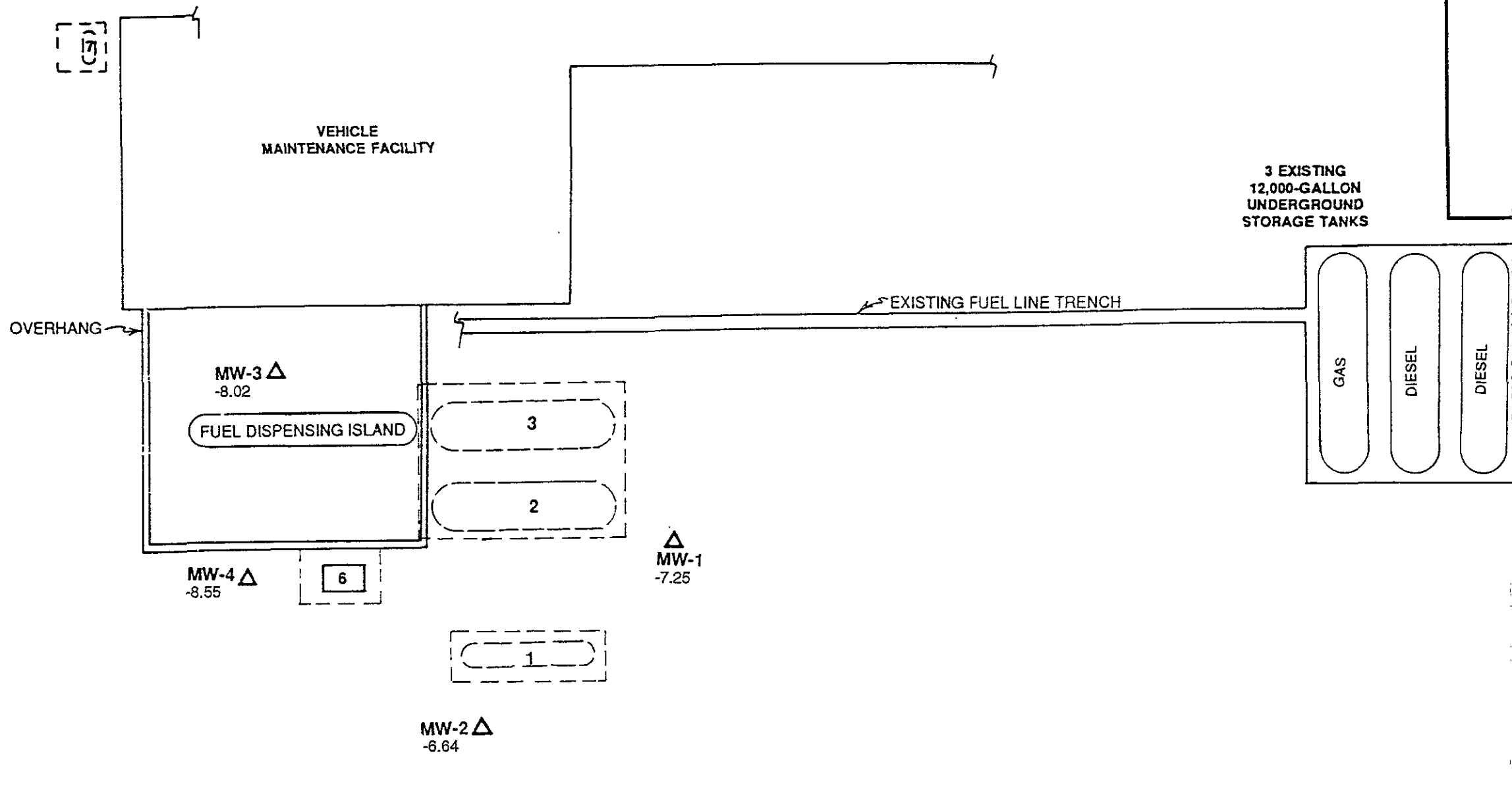
- LIMIT OF EXCAVATION
- REMOVED UNDERGROUND STORAGE TANK TANK No.
- EXISTING TANK (SEE DESIGNATION BELOW)

- 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

NOTES:
 GROUNDWATER CONTOURS BASED ON GROUNDWATER LEVEL MEASUREMENTS OF 3/31/94.
 AVERAGE HYDRAULIC GRADIENT EQUALS 0.002 FOOT/FOOT ACROSS THE SITE.

GENERAL AREA OF EBMUD DEWATERING PROJECT

4

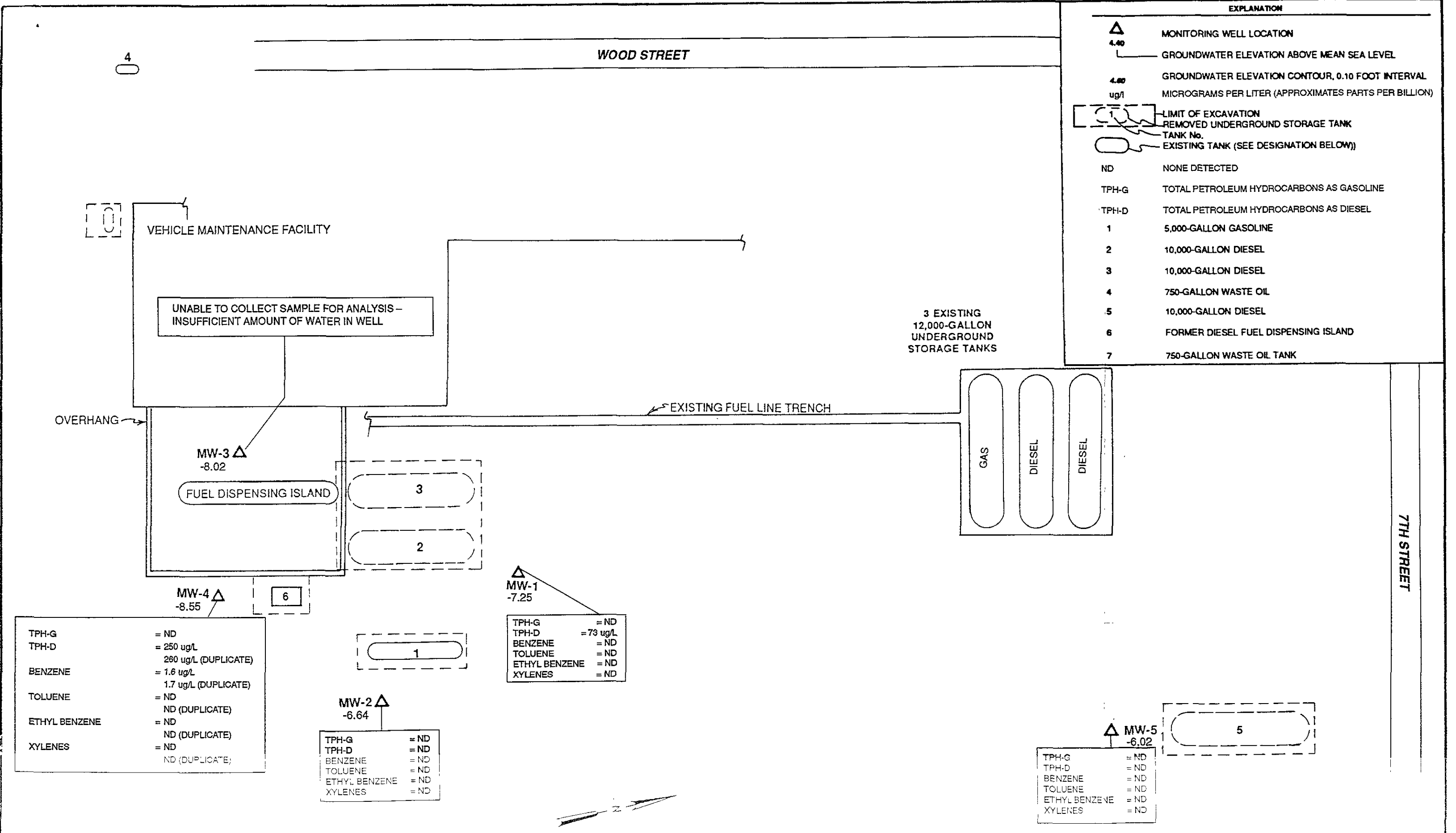


7TH STREET

<p>Geo/Resource Consultants, Inc. GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133</p>	<p>GROUNDWATER ELEVATION CONTOUR MAP JUNE 24, 1994 SUBSURFACE SITE INVESTIGATION USPS - OAKLAND GMFVMF OAKLAND, CALIFORNIA</p>		<p>FIGURE 4</p>
	<p>Job No. 1708-004-00 Appr. Date 7/15/94</p>		

EXPLANATION

- MONITORING WELL LOCATION
- GROUNDWATER ELEVATION ABOVE MEAN SEA LEVEL
- GROUNDWATER ELEVATION CONTOUR, 0.10 FOOT INTERVAL
- MICROGRAMS PER LITER (APPROXIMATES PARTS PER BILLION)
- LIMIT OF EXCAVATION
- REMOVED UNDERGROUND STORAGE TANK TANK No. 1
- EXISTING TANK (SEE DESIGNATION BELOW)
- ND NONE DETECTED
- TPH-G TOTAL PETROLEUM HYDROCARBONS AS GASOLINE
- TPH-D TOTAL PETROLEUM HYDROCARBONS AS DIESEL
- 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



TPH-G	= ND
TPH-D	= 250 ug/L
	250 ug/L (DUPLICATE)
BENZENE	= 1.6 ug/L
	1.7 ug/L (DUPLICATE)
TOLUENE	= ND
	ND (DUPLICATE)
ETHYL BENZENE	= ND
	ND (DUPLICATE)
XYLENES	= ND
	ND (DUPLICATE)

TPH-G	= ND
TPH-D	= 73 ug/L
BENZENE	= ND
TOLUENE	= ND
ETHYL BENZENE	= ND
XYLENES	= ND

TPH-G	= ND
TPH-D	= ND
BENZENE	= ND
TOLUENE	= ND
ETHYL BENZENE	= ND
XYLENES	= ND

TPH-G	= ND
TPH-D	= ND
BENZENE	= ND
TOLUENE	= ND
ETHYL BENZENE	= ND
XYLENES	= ND

NOT TO SCALE

Geo/Resource Consultants, Inc.
 GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
 505 BEACH STREET, SAN FRANCISCO, CALIFORNIA 94133

Job No. 1708-004-00 Appr. Date 7/15/94

DISSOLVED PHASE HYDROCARBON
 CONCENTRATIONS - JUNE 24, 1994
 SUBSURFACE SITE INVESTIGATION
 USPS - OAKLAND GMF/VMF
 OAKLAND, CALIFORNIA

FIGURE
5

**QUARTERLY GROUNDWATER MONITORING PROGRAM
DATA SUMMARY TABLE***
UNITED STATES POSTAL SERVICE - GENERAL MAIL FACILITY/VEHICLE MAINTENANCE FACILITY
1675 - 7TH STREET, OAKLAND, CALIFORNIA 94165

WELL NUMBER	MONTHLY GROUNDWATER MEASUREMENT DATES	MONTHLY GROUNDWATER LEVELS (Ft. AMSL)	QUARTERLY GROUNDWATER SAMPLING DATES	TPH-G (ug/L)	TPH-D (ug/L)	B (ug/L)	T (ug/L)	E (ug/L)	X (ug/L)	
MW-1***	9/93	4.40	9/93	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	
	1/26/94	4.66	1/94	ND	ND	ND	ND	ND	ND	
	2/94	4.93								
	3/94	0.79		3/94	ND	ND	ND	ND	ND	ND
	4/94	-2.44	6/94							
	5/94	-4.68								
6/94	-7.25	6/94		ND	73	ND	ND	ND	ND	
MW-2	9/93	4.31	9/93	ND	ND	ND	ND	ND	ND	
	1/94	4.17	1/94	ND	ND	ND	ND	ND	ND	
	2/94	4.88	3/94							
	3/94	0.72		3/94	ND	ND	ND	ND	ND	ND
	4/94	-1.74								
	5/94	-4.61	6/94							
6/94	-6.64	6/94		ND	ND	ND	ND	ND	ND	
MW-3	9/93	4.28	9/93	ND	ND	ND	ND	ND	ND	
	1/94	4.24	1/94	ND	ND	ND	ND	ND	ND	
	2/94	4.66	3/94							
	3/94	-0.26		3/94	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND	ND/ND
	4/94	-2.41								
	5/94	-5.57	6/94							
6/94	-8.02	6/94		INSUFFICIENT WATER - NO SAMPLE COLLECTED						
MW-4***	9/93	4.18	9/93	ND	580	ND	ND	ND	ND	
	1/94	4.13	1/94	ND/ND	850/450	0.7/0.8	ND/ND	ND/ND	ND/ND	
	2/94	4.78	3/94							
	3/94	-0.23		3/94	ND	86	ND	ND	ND	ND
	4/94	-0.23								
	5/94	-5.51	6/94							
6/94	-8.55	6/94		ND	250/260	1.6/1.7	ND	ND	ND	
MW-5	9/93	4.60	9/93	ND	ND	ND	ND	ND	ND	
	1/94	4.53	1/94	ND	ND	ND	ND	ND	ND	
	2/94	5.00	3/94							
	3/94	0.47		3/94	ND	ND	ND	ND	ND	ND
	4/94	-1.96								
	5/94	-3.23	6/94							
6/94	-6.02	6/94		ND	ND	ND	ND	ND	ND	
Detection Limit				50	50	0.5	0.5	0.5	0.5	
Test Method				8015M	8015M	8020	8020	8020	8020	
Regulatory Criteria				**	**	**	**	**	**	

NOTES:

- | | |
|--|-----|
| TPH-G :Total Petroleum Hydrocarbons as Gasoline | --- |
| TPH-D :Total Petroleum Hydrocarbons as Diesel | NA |
| B :Benzene | ND |
| T :Toluene | * |
| E :Ethyl Benzene | ** |
| X :Total Xylenes | *** |
| Ft. AMSL :Feet Above Mean Sea Level | |
| ug/L :Micrograms per liter (approximates parts per billion (ppb)). | |

CHROMALAB, INC.

Environmental Services (SDB)

July 5, 1994

Submission #: 9406316

GEO/RESOURCE CONSULTANTS, INC.

Atten: GARY FLOYD

Project: USPS-OAKLAND
Received: June 27, 1994

Project #: 1708-004-00

re: 5 samples for Diesel analysis

Matrix: WATER
Sampled: June 24, 1994

Analyzed: July 1, 1994

RESULTS:

<u>Sample I.D.</u>	<u>Diesel ($\mu\text{g/L}$)</u>
MW-1	73*
MW-2	N.D.
MW-4	250
MW-5	N.D.
MW-6	260

* The sample was reanalyzed twice. In both analysis, the surrogate recovery was low. Due to low amount of sample, the extraction was not possible.

BLANK	N.D.
SPIKE RECOVERY	88%
DUP SPIKE RECOVERY	86%
DETECTION LIMIT	50
METHOD OF ANALYSIS	3510/8015

ChromaLab, Inc.

Sirirat Chullakorn

Sirirat Chullakorn
Analytical Chemist

Ali Kharrazi

Ali Kharrazi
Organic Manager

gg

CHROMALAB, INC.

Environmental Services (SDB)

July 5, 1994

Submission #: 9406316

GEO/RESOURCE CONSULTANTS, INC.

Atten: GARY FLOYD

Project: USPS-OAKLAND

Project#: 1708-004-00

Received: June 27, 1994

re: 5 samples for Gasoline and BTEX analysis.

Matrix: WATER

Sampled: June 24, 1994

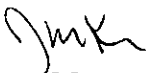
Lab Run#: 3263

Analyzed: July 1, 1994

Method: EPA 5030/8015M/602

Lab #	SAMPLE ID	Gasoline (mg/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl Benzene (ug/L)	Total Xylenes (ug/L)
55789	MW-1	N.D.	N.D.	N.D.	N.D.	N.D.
55790	MW-2	N.D.	N.D.	N.D.	N.D.	N.D.
55792	MW-4	N.D.	1.6 ✓	N.D.	N.D.	N.D.
55793	MW-5	N.D.	N.D. ✓	N.D.	N.D.	N.D.
55794	MW-6	N.D.	1.7 ✓	N.D.	N.D.	N.D.
DETECTION LIMITS		0.05	0.5	0.5	0.5	0.5
BLANK		N.D.	N.D.	N.D.	N.D.	N.D.
BLANK SPIKE RECOVERY(%)		110	94	96	89	98

ChromaLab, Inc.


Jack Kelly
Chemist


Ali Kharrazi
Organic Manager



Geo/Resource Consultants, Inc.

GEOLOGISTS / ENGINEERS / ENVIRONMENTAL SCIENTISTS
854 HARRISON STREET, SAN FRANCISCO, CALIFORNIA 94102

SOS Beach

53

SUBM #: 9406316

CLIENT: KJ

DUE: 07/05/94

REF: 17025

order # 17025
316

PROJECT NO. 1708-004-00
DATE 6/24/94 PAGE 1 OF 1

PROJECT NAME <u>USPS-OAKLAND</u>				ANALYSIS REQUESTED												COMMENTS/ CONTAINER TYPE *		
Client Address				EPA NO. GAS/BTEX EPA NO. DIESEL EPA NO. EPA NO. EPA NO.														
SAMPLERS (SIGNATURE) <u>[Signature]</u>				5-DAY TAT												NO. OF CONTAINERS		
LABORATORY <u>CHROMLABS</u>																		
SAMPLE NO.	DATE	TIME	LOCATION															
MW-1	6/24/94	1350	MW-1	✓	✓												4	2 VOAs, 2 AMBER
MW-2	"	1500	MW-2	✓	✓												4	" "
MW-3	"	1800	MW-3	✓	✓	UNABLE TO COLLECT										4	" "	
MW-4	"	1600	MW-4	✓	✓												4	" "
MW-5	"	1245	MW-5	✓	✓												4	" "
MW-6	"	1700	MW-6	✓	✓												4	" "
																		*3 VOAs + 1 AMBER COLLECTED FOR EA. SAMPLE.

1 RELINQUISHED BY: <u>[Signature]</u> Signature <u>GARY FLOYD</u> Printed Name <u>Geo/Resource Consultants</u> Company	DATE <u>6/24/94</u> TIME <u>1540</u>	3 RELINQUISHED BY: Signature Printed Name Company	DATE TIME	5 RELINQUISHED BY: Signature Printed Name Company	DATE TIME	24 TOTAL NUMBER OF CONTAINERS
2 RECEIVED BY: <u>[Signature]</u> Signature <u>B. Wilson</u> Printed Name <u>Chromlabs</u> Company	DATE <u>6/27/94</u> TIME <u>1544</u>	4 RECEIVED BY: Signature Printed Name Company	DATE TIME	6 RECEIVED BY (LAB): Signature Printed Name Company	DATE TIME	SAMPLE CONDITIONS SEALED <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO RECEIVED ON ICE <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO SPECIAL SHIPMENT/HANDLING OR STORAGE REQUIREMENTS: <u>Please provide data to:</u> <u>Gary Floyd % GRC</u> <u>415 775-3177</u> SHIPPING TICKET NO.:

SAMPLER-GOLD
TRANSPORTER-PINK
LAB-YELLOW
GRC-WHITE AND GREEN