W. A. CRAIG, INC.

Environmental Consulting and Contracting
P. O. Box 448
Napa, California 94559-0448
Contractor and Hazardous Substances License #455752
Cal/OSHA Statewide Annual Excavation Permit #559351
(800) 522-7244
Phone: (510) 525-2780 Berkeley **Napa (707) 252-3353**
Fax: (707) 252-33852

October 2, 1995

Mr. Dennis Buran
Glascock Street Properties
436 14th Street, Room 305
Oakland, CA 94612
(510) 444-1391
(510) 444-1394 FAX

PROJECT NO: 3406D

SUBJECT: THIRD QUARTER GROUNDWATER SAMPLING RESULTS FOR 2901 GLASCOCK STREET, OAKLAND, CALIFORNIA.

Dear Mr. Buran:

Enclosed is a copy of the third quarter groundwater monitoring results from the August 28, 1995 sampling event located at 2901 Glascock Street, Oakland, California. Seven wells were sampled and analyzed for TPH-d, TPH-g, and BTEX. The laboratory results revealed elevated levels of TPH-d (310 to 4,100 ppb) in MW-1, MW-2, MW-3, MW-5, and MW-6. Elevated levels of TPH-g (250 to 320 ppb) were found in MW-1, MW-2, and MW-6. Low levels of benzene (2.9 to 6.1 ppb) were found in MW-1, MW-2, and MW-6.

The next quarterly sampling is scheduled for November 28, 1995.

If you have any questions in regard to this report, please call me at (707) 252-3353.

Sincerely,

W. A. CRAIG, INC.

Rafael L. Gallardo
Project Manager/Geologist

W. A. CRAIG, INC.

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Phone: (510) 525-2780 Berkeley **Napa (707) 252-3353**
Fax: (707) 252-3385

THIRD QUARTERLY MONITORING REPORT

Located at:
2901 GLASCOCK STREET
OAKLAND, CALIFORNIA

Prepared for:
MR. DENNIS BURAN
GLASCOCK STREET PROPERTIES
436 14TH STREET, ROOM 305
OAKLAND, CA 94612

By:
RAFAEL L. GALLARDO
PROJECT MANAGER
W. A. CRAIG, INC.

REGISTERED ENVIRONMENTAL ASSESSOR
WILLIAM A. CRAIG, II
No. 01414
Expires 6-96
STATE OF CALIFORNIA

W. A. Craig II, R.E.A. 01414

REGISTERED GEOLOGIST
FRANKLIN JEROME GOLDMAN
5557
STATE OF CALIFORNIA

Frank Goldman, R.G. 5557

Rafael L. Gallardo, Project Geologist

W. A. Craig, Inc. Job No. 3406
October 2, 1995

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1.0 INTRODUCTION

1.1 Site location and description

Glascock Street Properties is located on the south side of Glascock Street, Oakland, California (See attached **Figure 1**). The site is relatively flat and contains a large building that covers most of the property. The Oakland Estuary is adjacent to the south side of the property. The western half of the existing building is currently leased to the Stan Flowers Company (See attached **Figure 2**).

1.2 Site History

The warehouse was built in the 1920's. The property was used by Oliver United Filters for the manufacturing of water filters for oil field applications.

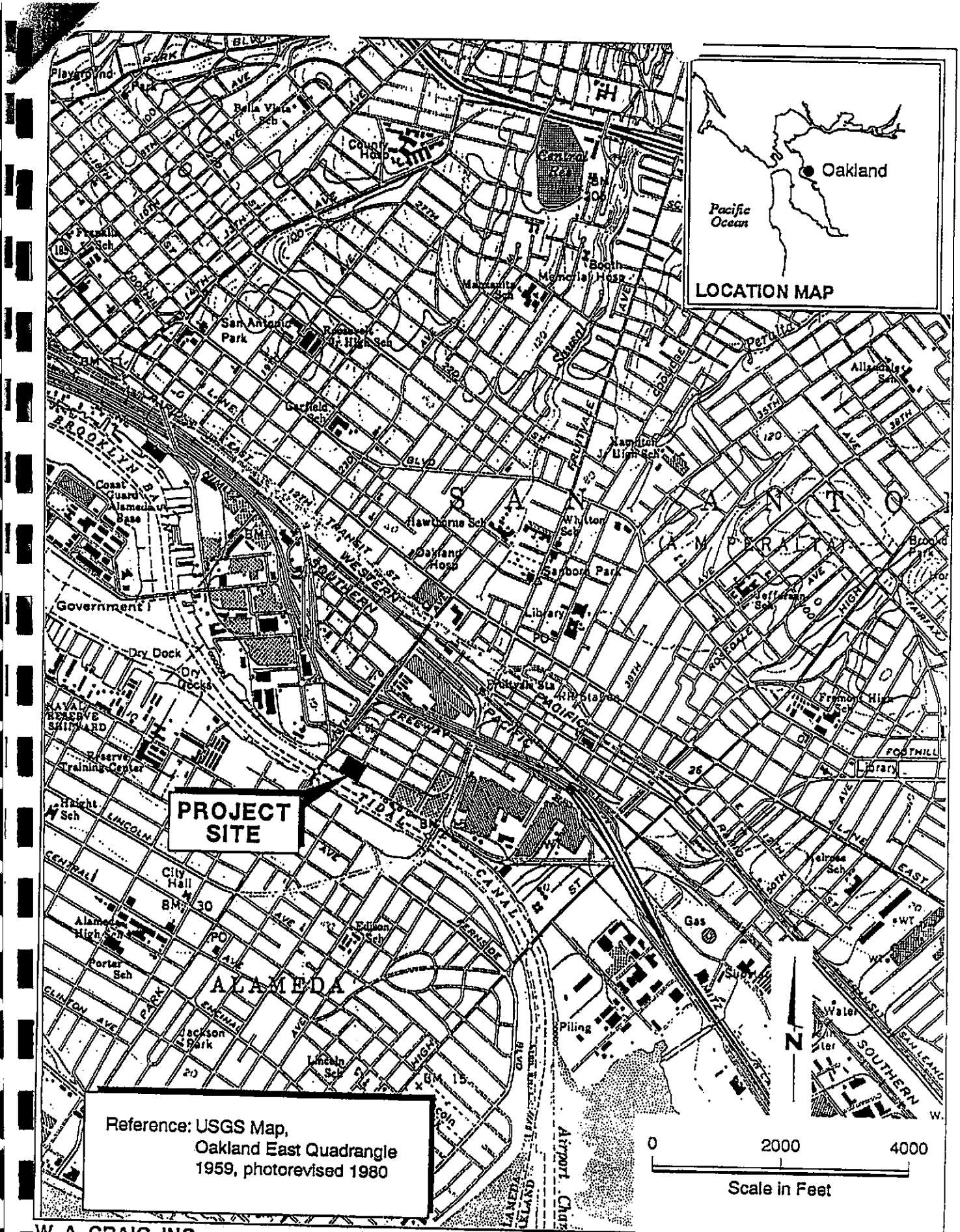
In February of 1993, two underground fuel oil storage tanks were removed from the warehouse. The tanks had been out of operation for approximately thirty years.

On February 23, 1993, Pacific Rim Environmental removed and disposed of a 4,000 gallon underground fuel tank (Tank No. 1). The tank showed signs of corrosion but was free of punctures. A soil sample was collected from each end of the excavation at a depth of eighteen inches below the bottom of the tank excavation. The analytical results revealed 1,400 ppm of total petroleum hydrocabons as diesel (TPH-D) and 1 ppm of total petroleum hydrocabons as gasoline (TPH-G).

On February 26, 1993, Pacific Rim Environmental removed and disposed of a 20,000 gallon underground fuel tank (Tank No. 2). The tank showed signs of corrosion but was intact. Four soil samples were collected from the excavation pit and tested for Oil and Grease (O&G), TPH-D, TPH-G, and BTEX. The analytical results revealed O&G levels between 390 and 1,900 ppm, TPH-D levels between 1,200 to 3,800 ppm, and minor amounts of Ethylbenzene and Xylenes.

Pacific Rim Environmental subsequently performed overexcavation remediation at both tank site locations. However, the extent of the contamination was never defined.

On July 17, 1995, W. A. Craig, Inc.'s Consulting Division submitted a second quarter groundwater monitoring report.



W. A. CRAIG, INC.

INDUSTRIAL AND ENVIRONMENTAL CONTRACTOR

Site Location Map
2901 Glascock Street
Oakland, California

PLATE
1

JOB NUMBER	REVIEWED BY	DATE	REVISED DATE
3406	JRD	8/94	

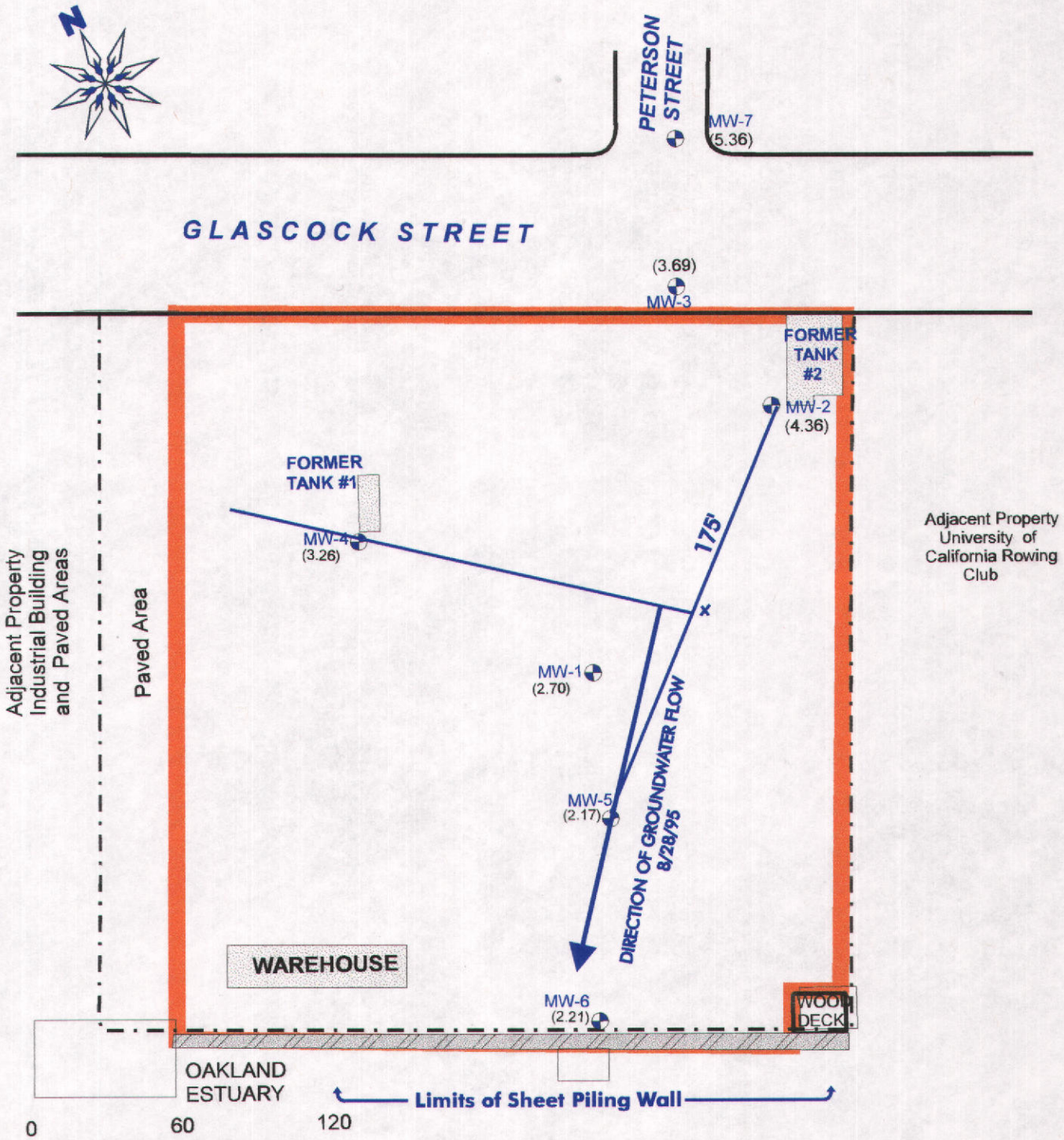


FIGURE 2

LEGEND

⊗ GROUNDWATER MONITORING WELL

W.A. CRAIG, INC.

P.O. BOX 448, NAPA, CALIFORNIA 94559-0448

2901 GLASCOCK STREET
OAKLAND, CALIFORNIA
JOB # 3518

GROUNDWATER GRADIENT MAP

SEPTEMBER 28, 1995

1.3 GEOLOGY AND HYDROGEOLOGY

Geology

The site is located on the East Bay Plain adjacent to the Tidal Canal and across from Alameda and the San Francisco Bay. The property is relatively flat.

The site is underlain by Undivided Quaternary Deposits (Qu). The predominant formation is the Temescal Formation consisting of contemporaneous alluvial units of different origin, lithology, and physical properties. The material ranges from irregularly bedded clay, silt, sand and gravel to lenses of clay, silt, sand, and gravel with Claremont Chart.

The Hayward Fault is approximately 3.25 miles northeast of the site and is an active historic Fault. The Hayward Fault is the only active fault in the Oakland East Quadrangle.

Hydrogeology

The site is located within the East Bay Plain which makes up the ground water reservoir in the area. The water bearing capacity varies within the area due to the juxtaposed positions of the various types of soils and strata encountered underneath the East Bay Plain.

In general, the water bearing capacities of the Younger Alluvium range from moderately permeable to low permeable soils. Below the Younger Alluvium at a depth of approximately 70 feet lies the Older Alluvium, which yields large to small quantities of water.

References:

Radbruch, Dorothy H., Areal and Engineering Geology of the Oakland West Quadrangle, California, Map I-239, 1957.

Bulletin No. 118 California's Ground water.
State of California. Department of Water Resources, September 1975.

Bulletin 118-80, Ground Water Basins in California.
State of California. Department of Water Resources, January 1980.

2.0 GROUNDWATER SAMPLING

2.1 GROUNDWATER ELEVATION MEASUREMENTS

The groundwater elevation was measured for monitoring wells MW-1 through MW-7 on August 28, 1995. The static groundwater elevation was recorded on a Sample Event Data Sheets for the August quarterly sampling and are presented in **Appendix A**.

The groundwater flow direction was calculated from the August 28, 1995 reading. Groundwater elevation data is shown on **Figure 2**. The groundwater flow direction is toward the southwest. The hydraulic gradient was .012 ft/ft. The water level rose approximately .92 feet since the last measurement taken in May of 1995.

Table 1 contains the monitor well elevation, static water level and groundwater surface elevation.

2.2 MONITORING WELL SAMPLING

Monitoring Wells MW-1 through MW-7 were sampled on August 28, 1995. Each well was sampled after purging at least three casing volumes and allowing the water level to recover to at least 80% of the original, static level. Temperature, turbidity, electrical conductivity, and pH were monitored during each purging. The data was used to verify that water had been removed from well casing storage and that well water was representative of the aquifer. The sampling event data sheets are presented in **Appendix A**.

Water samples were collected using disposable Teflon bailers. Each water sample was contained in three 40-milliliter VOA vials and a 1-liter amber bottle. The samples were labeled and stored on ice until delivered, under chain-of-custody procedures, to McCampbell Analytical, Inc. of Pacheco, California, a State-Certified analytical laboratory. The Samples were analyzed for total petroleum hydrocarbons in the diesel range (TPH-d) using GCFID 3550/EPA modified Method 8015, total petroleum hydrocarbons in the gasoline range (TPH-g) and benzene, toluene, ethylbenzene, and xylenes (BTEX) using GCFID 5030/EPA Method 8015/8020.

TABLE 1
Groundwater Elevation Data
August 28, 1995
2901 Glascock Street, Oakland, California

WELL	WELL DIAMETER (Inches)	TOP OF CASING *(Feet)	DEPTH TO WATER (Feet)	STATIC WATER LEVEL (Feet)
MW-1	2	10.76	8.06	2.70
MW-2	2	10.62	6.26	4.36
MW-3	2	9.87	6.18	3.69
MW-4	2	10.64	7.38	3.26
MW-5	2	10.61	8.44	2.17
MW-6	2	10.27	8.06	2.21
MW-7	2	9.85	4.49	5.36

* Datum point, corner of Glascock and Peterson Streets, city of Oakland = 10.296 Mean Sea Level, (MSL).

3.0 ANALYTICAL RESULTS

3.1 MONITORING WELL SAMPLING ANALYTICAL RESULTS

The analytical results of the August 1995 sampling and historical results of previous sampling rounds can be found in **Table 2**. The laboratory analytical data sheets and chain-of-custody records for the May sampling are included as Appendix A. The detection limits for the TPH-g and TPH-d analyses are 50 ug/L and for the BTEX analysis 0.5 ug/L.

The analytical results revealed elevated levels of TPH-d (1,800, 4,100, 310, 170, and 2,100 ppb) in monitoring wells MW-1, MW-2, MW-3, MW-5, and MW-6, respectfully. MW-4, and MW-7 were non-detect. Elevated levels of TPH-g (250, 320, and 140 ppb) were found in MW-1, MW-2, and MW-6, respectfully. MW-3, MW-4, MW-5, and MW-7 were non-detect. Low levels of Benzene (5.4, 2.9, and 6.1 ppb) were found in MW-1, MW-2, and MW-6, respectfully. MW-3, MW-4, MW-5, and MW-7 were non-detect.

TABLE 2
Historical and Current sampling results for Glascock Site

WELL NUMBER	SAMPLE DATE	TPH-Diesel ug/L	TPH-Gas ug/L	Benzene ug/L	Toluene ug/L	Ethyl Benzene ug/L	Xylenes ug/L
MW-1	10/06/94	NT	NT	NT	NT	NT	NT
	01/20/95	1,900	670	5.3	ND	ND	1.1
	05/15/95	3,400	290	7.9	ND	ND	1.4
	08/28/95	**1,800**	**250**	**5.4**	**ND**	**ND**	**1.1**
MW-2	10/06/94	NT	NT	NT	NT	NT	NT
	01/20/95	4,000	520	2.2	1.9	ND	1.3
	05/15/95	5,100	310	2.3	1.9	ND	1.4
	08/28/95	**4,100**	**320**	**2.9**	**2.9**	**ND**	**2.6**
MW-3	10/06/94	320	NT	ND	ND	ND	ND
	01/20/95	460	86	ND	ND	ND	ND
	05/15/95	310	60	ND	ND	ND	ND
	08/28/95	**310**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-4	10/06/94	ND	NT	ND	ND	ND	ND
	01/20/95	ND	ND	ND	ND	ND	ND
	05/15/95	ND	ND	ND	ND	ND	ND
	08/28/95	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-5	**05/15/95**	90	ND	ND	ND	ND	ND
	08/28/95	**170**	**ND**	**ND**	**ND**	**ND**	**ND**
MW-6	05/15/95	1,100	120	5.6	0.88	ND	2.1
	08/28/95	**2,100**	**140**	**6.1**	**0.77**	**ND**	**2.3**
MW-7	05/15/95	ND	110	ND	ND	ND	ND
	08/28/95	**ND**	**ND**	**ND**	**ND**	**ND**	**ND**
*California Department of Health Services primary maximum contamination level for drinking water.		None Listed	None Listed	1.0	1000	680	1750

* Marshall, J.B., 1989, A Compilation of Water Quality Goals, Staff Report of the California Regional Water Quality Control Board, Central Valley Region, 15 p.

ND = Non-detectable levels
NT = Not Tested

4.0 CONCLUSIONS

Analytical results for monitoring wells MW-1, and MW-2 exhibit decreasing amounts of TPH-d while MW-5 and MW-6 exhibit an increase in TPH-d. MW-3 concentrations remained the same as the last sampling event (310 ppb). No amounts were detected in MW-4, or MW-7. Concentrations of TPH-g (>100 ppb), and Benzene (>2.5 ppb) were detected in MW-1, MW-2, and MW-6. MW-3, MW-4, MW-5, and MW-7 were non-detect. The diesel and gasoline groundwater plumes appear to be migrating toward the Oakland Estuary. This is supported by the increased concentrations of TPH-d, TPH-g and Benzene detected in MW-5, and MW-6.

Because of the close proximity to the bay, and the high conductivity readings, the wells may be subject to tidal influence.

5.0 RECOMMENDATIONS

W.A. Craig, Inc. recommends continued monitoring for another quarter. In addition, we recommend that the monitoring wells be measured hourly for one day. By performing this task, we will be able to determine if there is a tidal connection with the groundwater beneath the site.

6.0 SCHEDULE OF ACTIVITIES FOR NEXT QUARTER

6.1 GROUNDWATER ELEVATION MEASUREMENT

The on-site wells will be sounded and the groundwater level will be measured for each quarter. Water samples will again be collected along with water level measurements. The direction of groundwater flow and the hydraulic gradient will be calculated.

6.2 QUARTERLY SAMPLING

The next quarterly sampling event will occur the last week in November, 1995. The quarterly report will present the results of the November sampling.

7.0 LIMITATIONS

This report has been prepared in accordance with generally accepted environmental, geological and engineering practices. No warranty, either expressed or implied, is made as to the professional advice presented herein. The analysis, conclusions and recommendations contained in this report are based upon site conditions as they existed at the time of the investigation and they are subject to change.

The conclusions presented in this report are professional opinions based solely upon visual observations of the site and vicinity, and interpretation of available information as described in this report. W.A. Craig, Inc., recognizes that the limited scope of services performed in execution of this investigation may not be appropriate to satisfy the needs, or requirements of other state agencies, or of other users. Any use or reuse of this document or its findings, conclusions or recommendations presented herein is at the sole risk of said user.

APPENDIX A

ANALYTICAL DATA SHEETS
AND
CHAIN-OF-CUSTODY RECORD
FOR MONITORING WELL SAMPLING
August 28, 1995

W. A. CRAIG, INC.

CHAIN-OF-CUSTODY RECORD

AWPCX435 Paid # 7315

PROJECT NO.	PROJECT NAME
3406	Glascock
PURCHASE ORDER NO.	SIGNATURE OF SAMPLER
	Russell Gusty

DATE 1995	TIME	W. A. CRAIG, INC.'S SAMPLE IDENTIFICATION	MATRIX: Soil, Water, Air, Sludge, Other	ANALYSIS: TPHgasoline (8015)	BTEX (602/8020)	TPHdiesel (8015)	TPHg & BTEX	Preserved? ICE / HCl	REMARKS	LABORATORY I. D. NUMBER
8/25	10:18	MW-7 (2 VOA, 1 Ltr.)	W			✓	✓	✓		55811
"	12:05	MW-3	W			✓	✓	✓		55812
"	12:44	MW-2	W			✓	✓	—		55813
"	14:09	MW-1	W			✓	✓	—		55814
"	14:46	MW-5	W			✓	✓	✓		55815
"	15:18	MW-6	W			✓	✓	✓		55816
"	15:55	MW-4	W			✓	✓	✓		55817

VOAs Broken [illegible]

ICE* ✓ PRESERVATIVE ✓
CODE CONDITION* ✓ APPROPRIATE
HEAD SPACE ABSENT ✓ CONTAINERS ✓

RELINQUISHED BY (Signature):	DATE/TIME	RECEIVED BY (Signature):
Russell Gusty	8/25/95 17:20	[signature]
RELINQUISHED BY (Signature):	DATE/TIME	RECEIVED BY (Signature):
RELINQUISHED BY (Signature):	DATE/TIME	RECEIVED BY (Signature):

LABORATORY: McCampbell Analytical

TURNAROUND TIME: Paid # 7315 Stnd. 10D

PLEASE SEND RESULTS TO:
W. A. CRAIG, INC.
P.O. BOX 448
NAPA, CA 94559-0448
(707) 252-3353

ATTN:

Lines w/ cap.

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

W.A. Craig, Inc. P.O. Box 448 Napa, CA 94559-0448	Client Project ID: # 3406; Glascock	Date Sampled: 08/28/95
		Date Received: 08/28/95
	Client Contact: Bill Craig	Date Extracted: 08/28/95
	Client P.O:	Date Analyzed: 08/28-08/29/95

Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel *

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d)+	% Recovery Surrogate
55811	MW-7	W	ND	98
55812	MW-3	W	310,a	98
55813	MW-2	W	4100,a,h	100
55814	MW-1	W	1800,a	100
55815	MW-5	W	170,a	103
55816	MW-6	W	2100,a	107
55817	MW-4	W	ND	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	
		S	1.0 mg/kg	

* water samples are reported in ug/L, soil samples in mg/kg, and all TCLP and STLC extracts in mg/L

cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant); d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

DHS Certification No. 1644

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC. | 110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

W.A. Craig, Inc. P.O. Box 448 Napa, CA 94559-0448	Client Project ID: # 3406; Glascock	Date Sampled: 08/28/95
		Date Received: 08/28/95
	Client Contact: Bill Craig	Date Extracted: 08/28-08/30/95
	Client P.O:	Date Analyzed: 08/28-08/30/95

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with BTEX*
EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	Benzene	Toluene	Ethylben-zene	Xylenes	% Rec. Surrogate
55811	MW-7	W	ND	ND	ND	ND	ND	102
55812	MW-3	W	ND	ND	ND	ND	ND	87
55813	MW-2	W	320,b,d,h	2.9	2.9	ND	2.6	99
55814	MW-1	W	250,b,d	5.4	ND	ND	1.1	95
55815	MW-5	W	ND	ND	ND	ND	ND	99
55816	MW-6	W	140,b,d	6.1	0.77	ND	2.3	95
55817	MW-4	W	ND	ND	ND	ND	ND	103
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L

cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

GROUNDWATER SAMPLING DATA

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	ELECTRICAL CONDUCTIVITY (µmhos/cm)	pH	TEMPERATURE (°C)	TURBIDITY (NTU)
10:04	2.25	10.17	6.28	69.3	Clear
10:09	4.50	10.29	6.68	69.4	"
10:13	6.50	10.29	6.73	69.3	"
		No Sheen or odor			

DEPTH TO BOTTOM OR CASING LENGTH

TOTAL DEPTH TO BOTTOM 17.70 — DEPTH TO WATER = 4.49 = ΔH (FT) 13.21

ΔH (FT) 13.21 x (V.F.) = 0.163 = WELL CASING VOLUME (GAL) 2.15

DATE (S) PURGED 8/28/95

PURGE METHOD Disp. Hand bailer

INITIAL DEPTH TO WATER 4.49

TOTAL VOLUME REMOVED (GAL) 6.5

CASING VOLUMES REMOVED 3+

PURGE RATE (GPM)

DEPTH TO WATER AFTER RECOVERY 4.96 (FT) = 96 % RECOVERED PRIOR TO SAMPLING

WELL INSIDE DIAMETER

VOLUME FACTOR V. F. = GAL/FT			
	2" = 0.163	5" = 1.02	10" = 4.08
	3" = 0.367	6" = 1.47	12" = 5.87
	4" = 0.653	8" = 2.61	

WELL DEWATERED ☐ YES ☑ NO

DATE SAMPLED 8/28/95

TIME SAMPLED 10:18

SAMPLING METHOD bailer

WEATHER CONDITIONS Sun/warm

PURGED / SAMPLED BY R. Gurley

NOTES

DATE	
JOB NO.	
DWG NO.	MW-7
DRAWN	WELL PURGING AND SAMPLING FIELD DATA
CHK'D	Glascock #3406
APP'D	

PLATE NO.

GROUNDWATER SAMPLING DATA

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	ELECTRICAL CONDUCTIVITY (µmhos/cm)	pH	TEMPERATURE (° C)	TURBIDITY (NTU)
11:12	2.25	10.51	6.73	67.1	Clear
11:17	4.50	10.00	6.78	65.5	"
11:22	6.75	9.46	6.75	65.0	"
		Slight to med odor			
		no sheen			

DEPTH TO BOTTOM OR CASING LENGTH

TOTAL DEPTH TO BOTTOM 20.00' — DEPTH TO WATER = 6.18 = ΔH (FT) 13.82

ΔH (FT) 13.82 x (V.F.) = 0.163 = WELL CASING VOLUME (GAL) 2.25

WELL INSIDE DIAMETER

VOLUME FACTOR V. F. = GAL / FT	2" = 0.163	5" = 1.02	10" = 4.08
	3" = 0.367	6" = 1.47	12" = 5.87
	4" = 0.653	8" = 2.61	

DATE (S) PURGED 8/28/95

PURGE METHOD Disp Hand Bailer

INITIAL DEPTH TO WATER 6.18

TOTAL VOLUME REMOVED (GAL) 6.75

CASING VOLUMES REMOVED 3+

PURGE RATE (GPM)

WELL DEWATERED ☐ YES ☑ NO

DATE SAMPLED 8/28/95

TIME SAMPLED 12:05

SAMPLING METHOD bailer

WEATHER CONDITIONS Sun / warm

PURGED / SAMPLED BY R. Gantz

DEPTH TO WATER AFTER RECOVERY 7.06 (FT) = 95 % RECOVERED PRIOR TO SAMPLING

NOTES

DATE

JOB NO.

DWG NO.

DRAWN

CHK'D

APP'D

MW-3

WELL PURGING AND SAMPLING FIELD DATA

Glascock #3406

PLATE NO.

GROUNDWATER SAMPLING DATA

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	ELECTRICAL CONDUCTIVITY (µmhos/cm)	pH	TEMPERATURE (°C)	TURBIDITY (NTU)
11:44	2.25	18.14	6.63	66.5	Slight
11:49	4.50	18.28	6.54	65.3	"
11:55	6.75	19.19	6.46	65.4	"
		Heavy sheen and Heavy odor			
		some sporatic droplets of			
		floating product.			

DEPTH TO BOTTOM OR CASING LENGTH

TOTAL DEPTH TO BOTTOM 20.00 − DEPTH TO WATER = 6.26 = ΔH (FT) 13.74

ΔH (FT) 13.74 x (V.F.) = 0.163 = WELL CASING VOLUME (GAL) 2.24

DATE (S) PURGED 8/28/95

PURGE METHOD Disp. Hand Bailer

INITIAL DEPTH TO WATER 6.26

TOTAL VOLUME REMOVED (GAL) 6.75

CASING VOLUMES REMOVED 3+

PURGE RATE (GPM)

DEPTH TO WATER AFTER RECOVERY 8.30 (FT) = 85 % RECOVERED PRIOR TO SAMPLING

WELL INSIDE DIAMETER

VOLUME FACTOR V. F. = GAL / FT			
	2" = 0.163	5" = 1.02	10" = 4.08
	3" = 0.367	6" = 1.47	12" = 5.87
	4" = 0.653	8" = 2.61	

WELL DEWATERED ☐ YES ☑ NO

DATE SAMPLED 8/28/95

TIME SAMPLED 12:14

SAMPLING METHOD bailer

WEATHER CONDITIONS Sun / warm

PURGED / SAMPLED BY R. [illegible]

NOTES

DATE

JOB NO.

DWG NO.

DRAWN

CHK'D

APP'D

MW-2

WELL PURGING AND SAMPLING FIELD DATA Glascock #3406

PLATE NO.

GROUNDWATER SAMPLING DATA

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	ELECTRICAL CONDUCTIVITY (µmhos/cm)	pH	TEMPERATURE (°C)	TURBIDITY (NTU)
13:50	2.0	9.96	5.53	66.3	Clear
13:55	4.0	9.30	5.86	65.5	"
13:58	6.0	8.78	5.94	65.6	Slight
		Med to strong odor + sheen detected			

DEPTH TO BOTTOM OR CASING LENGTH

TOTAL DEPTH TO BOTTOM 19.50' — DEPTH TO WATER 8.06 = ΔH (FT) 11.44

ΔH (FT) 11.44 x (V.F.) 0.163 = WELL CASING VOLUME (GAL) 1.86

DATE(S) PURGED 8/28/95

PURGE METHOD Disp. Hand Bailer

INITIAL DEPTH TO WATER 8.06

TOTAL VOLUME REMOVED (GAL) 6.0

CASING VOLUMES REMOVED 3+

PURGE RATE (GPM)

DEPTH TO WATER AFTER RECOVERY _____ (FT) = _____ % RECOVERED PRIOR TO SAMPLING

WELL INSIDE DIAMETER

VOLUME FACTOR V. F. = GAL / FT			
	2" = 0.163	5" = 1.02	10" = 4.08
	3" = 0.367	6" = 1.47	12" = 5.87
	4" = 0.653	8" = 2.61	

WELL DEWATERED ☐ YES ☑ NO

DATE SAMPLED 8/29/95

TIME SAMPLED 14:04

SAMPLING METHOD Bailer

WEATHER CONDITIONS Sun/warm

PURGED / SAMPLED BY R Betts

NOTES

DATE

JOB NO.

DWG NO.

DRAWN

CHK'D

APP'D

MW-1

WELL PURGING AND SAMPLING FIELD DATA

Glascock #3406

PLATE NO.

GROUNDWATER SAMPLING DATA

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	ELECTRICAL CONDUCTIVITY (µmhos/cm)	pH	TEMPERATURE (°C)	TURBIDITY (NTU)
14:29	2.00	8.61	6.70	66.0	Slight
14:33	4.00	8.85	6.54	65.3	"
14:35	6.00	8.68	6.48	65.0	"
		Slight odor	no sheen		

DEPTH TO BOTTOM OR CASING LENGTH

TOTAL DEPTH TO BOTTOM 20.00' — DEPTH TO WATER = 8.44 = ΔH (FT) 11.56

ΔH (FT) 11.56 x (V.F.) = 0.163 = WELL CASING VOLUME (GAL) 1.88

WELL INSIDE DIAMETER

VOLUME FACTOR V. F. = GAL/FT			
	2" = 0.163	5" = 1.02	10" = 4.08
	3" = 0.367	6" = 1.47	12" = 5.87
	4" = 0.653	8" = 2.61	

DATE (S) PURGED 8/28/95

WELL DEWATERED ☐ YES ☑ NO

PURGE METHOD Disp. Hand Bailer

DATE SAMPLED 8/28/95

INITIAL DEPTH TO WATER 8.44

TIME SAMPLED 14:40

TOTAL VOLUME REMOVED (GAL) 6

SAMPLING METHOD bailer

CASING VOLUMES REMOVED 3+

WEATHER CONDITIONS Sun/warm

PURGE RATE (GPM)

PURGED / SAMPLED BY R. Gerdts

DEPTH TO WATER AFTER RECOVERY 8.80 (FT) = 96 % RECOVERED PRIOR TO SAMPLING

NOTES

DATE

JOB NO.

DWG NO.

DRAWN

CHK'D

APP'D

MW-5

WELL PURGING AND SAMPLING FIELD DATA

Glascock #3406

PLATE NO.

GROUNDWATER SAMPLING DATA

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	ELECTRICAL CONDUCTIVITY (µmhos/cm)	pH	TEMPERATURE (°C)	TURBIDITY (NTU)
15:05	2.00	11.17	6.48	63.9	Slight
15:09	4.00	11.29	6.38	63.5	"
15:12	6.00	11.18	6.38	63.7	"
		Strong odor & sheen,			

DEPTH TO BOTTOM OR CASING LENGTH

TOTAL DEPTH TO BOTTOM 20.00 — DEPTH TO WATER 8.06 = ΔH (FT) 11.94

ΔH (FT) 11.94 x (V.F.) 0.163 = WELL CASING VOLUME (GAL) 1.94

WELL INSIDE DIAMETER

VOLUME FACTOR V. F. = GAL/FT	2" = 0.163	3" = 0.367	4" = 0.653	5" = 1.02	6" = 1.47	8" = 2.61	10" = 4.08	12" = 5.87

DATE(S) PURGED 8/28/95

PURGE METHOD Disp Hand Bailer

INITIAL DEPTH TO WATER 8.06

TOTAL VOLUME REMOVED (GAL) 6

CASING VOLUMES REMOVED 3+

PURGE RATE (GPM)

WELL DEWATERED ☐ YES ☑ NO

DATE SAMPLED 8/28/95

TIME SAMPLED 15:18

SAMPLING METHOD Bailer

WEATHER CONDITIONS Sunny

PURGED / SAMPLED BY R. Jenkins

DEPTH TO WATER AFTER RECOVERY 10.00 (FT) = 83 % RECOVERED PRIOR TO SAMPLING

NOTES

DATE

JOB NO.

DWG NO.

DRAWN

CHK'D

APP'D

MW-6

WELL PURGING AND SAMPLING FIELD DATA

Glascock #3406

PLATE NO.

GROUNDWATER SAMPLING DATA

TIME (24 HR CLOCK)	VOLUME REMOVED (GAL)	ELECTRICAL CONDUCTIVITY (µmhos/cm)	pH	TEMPERATURE (° C)	TURBIDITY (NTU)
15:40	2.00	6.52	6.73	66.4	Clear
15:43	4.00	6.52	6.73	65.2	"
15:46	6.00	5.57	6.77	65.0	Slight
		No Sheen or odor		detected	

DEPTH TO BOTTOM OR CASING LENGTH

TOTAL DEPTH TO BOTTOM 20.00 — DEPTH TO WATER = 7.38 = ΔH (FT) 12.62

ΔH (FT) 12.62 x (V.F.) = 0.163 = WELL CASING VOLUME (GAL) 2.06

WELL INSIDE DIAMETER

VOLUME FACTOR V. F. = GAL/FT			
	2" = 0.163	5" = 1.02	10" = 4.08
	3" = 0.367	6" = 1.47	12" = 5.87
	4" = 0.653	8" = 2.61	

DATE (S) PURGED 8/28/95

PURGE METHOD Disp. Hand Bailer

INITIAL DEPTH TO WATER 7.38

TOTAL VOLUME REMOVED (GAL) 6

CASING VOLUMES REMOVED 3

PURGE RATE (GPM)

WELL DEWATERED ☐ YES ☑ NO

DATE SAMPLED 8/28/95

TIME SAMPLED 15:55

SAMPLING METHOD Bailer

WEATHER CONDITIONS Sun/warm

PURGED / SAMPLED BY R. Gearhart

DEPTH TO WATER AFTER RECOVERY 8.32 (FT) = 92 % RECOVERED PRIOR TO SAMPLING

NOTES

DATE

JOB NO.

DWG NO.

DRAWN

CHK'D

APP'D

MW-4

WELL PURGING AND SAMPLING FIELD DATA

Glascock #3406

PLATE NO.