

U S.Department
of Transportation

United States
Coast Guard



ENVIRONMENTAL
Commanding Officer
U. S. Coast Guard
Civil Engineering Unit Oakland
95 MAR 23 PM 1:44

2000 Embarcadero
Suite 200
Oakland, CA 94606-5337
(510) 535-7200

5090
22 March 1995

Ms. Juliet Shin
Alameda County
UST Local Oversight Program
1131 Harbor Bay Pkwy
Alameda, CA 94502

Dear Ms. Shin:

Find enclosed, for your review and comments, the second Quarterly Monitoring Well Sampling and Analysis for the Exchange Center and Swimming Pool locations at the U.S. Coast Guard Support Center Alameda, Coast Guard Island, Alameda, CA.

The enclosed report includes the well located next to the swimming pool and identified as MW-6. This submittal is the continuation of the extended site investigation to determine level of contaminants in the ground water as requested in your letter of 23 March 1994.

The point of contact for this matter is Mr. Louis Rivero at (510) 535-7275.

Sincerely,

A handwritten signature in cursive script that reads "Louis Rivero".

for DAVE STALTERS
Chief Environmental Division
U.S. Coast Guard
By direction of the Commanding Officer

Encl: (1) Quarterly Monitoring Well Sampling and
Analysis First Quarter 1995.

ENVIRONMENTAL
PROTECTION

95 MAR 23 PM 1:44



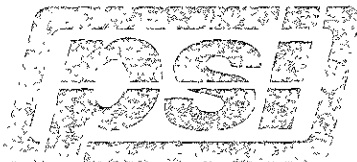
Professional Service Industries, Inc.

**QUARTERLY MONITORING WELL
SAMPLING AND ANALYSIS
FIRST QUARTER 1995**

U.S. Coast Guard Support Center
Exchange Center Location
Coast Guard Island
Alameda, California

PSI Project No. 582-34006

FEBRUARY 28, 1995



Professional Service Industries, Inc.



Professional Service Industries, Inc.

February 28, 1995

United States Coast Guard Support Center
Civil Engineering Unit
2000 Embarcadero, Suite 200
Oakland, CA 94606-5000

Attention: Mr. Louis Rivero

Subject: QUARTERLY MONITORING WELL SAMPLING & ANALYSIS
FIRST QUARTER 1995

Project: Exchange Center Location
Coast Guard Island
Alameda, California 94606
Project # 582-34006

Dear Mr. Rivero:

Professional Service Industries, Inc. (PSI) is pleased to present the results of groundwater sampling for the first quarter of 1995. A description of the sampling and laboratory analysis for the six monitoring wells located at the Exchange Center Location (see Vicinity Map, Site Plan, and Monitoring Well Location Map) are contained herein.

This is the second of four quarterly sampling events, authorized by Ms. Evelyn E. Navarro, contracting officer with the U.S. Coast Guard, on August 31, 1994

Field activities were conducted on January 31, 1995. The purpose of this program is to monitor hydrocarbon concentrations in the groundwater below the Site.

SAMPLING METHOD

Prior to purging and sampling the six monitoring wells, the ground water in each well was measured, and elevation was then calculated. The monitoring wells were purged in order to establish a flow of groundwater into the wells and to remove any longstanding water. Well purging was accomplished by means of a bailer. Approximately 5 to 9 gallons of water (3 casing volumes) were removed from each well prior to sampling. The purged groundwater from the wells was contained in six labeled 55-gallon drums and left on-site for future storage for additional sampling. After allowing the wells to recharge to a minimum of 80% of the original well volume, groundwater samples were collected.

Prior to sampling from the wells, the bailer was cleaned using trisodium phosphate solution and triple-rinsed with potable water. Water samples were drained from the bailer into certified clean, 40 ml vials, with care being taken to eliminate headspace. The vials were labeled and placed into cold storage and delivered to the American Environmental Network laboratory (California certified) for analysis. Proper chain-of-custody procedures were observed. Chain-of-custody is included with the attached analytical results

OBSERVATION

The ground water in wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 appeared clear with no determinable odors. Note: see Appendix, Groundwater Elevation Data.

LABORATORY ANALYSES

The groundwater samples were submitted to the American Environmental Network laboratory (California certified) and analyzed for Aromatic Volatile Organics by EPA method 8020 and Total Petroleum Hydrocarbons for Gasoline (TPHG), method 8015, using gas chromatography with photoionization detection. The analytical results are summarized below. The complete laboratory report, including analytical results, and chain-of-custody is attached.

SUMMARY OF ANALYTICAL RESULTS
FIRST QUARTER 1995 GROUNDWATER MONITORING

Well Number	Date of Sample	Benzene	Toluene	Ethylbenzene	Xylenes	Purgeable Hydrocarbons
MW-1	4/8/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-1	7/8/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-1	10/20/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-1	10/20/94	N.D.	N.D.	N.D.	N.D.	N.D.
MW-1	1/31/95	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	4/8/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	7/8/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	10/20/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	10/20/94	N.D.	N.D.	N.D.	N.D.	N.D.
MW-2	1/31/95	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3	4/8/93	30	N.D.	N.D.	N.D.	6,000
MW-3	7/8/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3	10/20/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3	10/20/94	N.D.	N.D.	N.D.	N.D.	N.D.
MW-3	1/31/95	N.D.	N.D.	N.D.	N.D.	N.D.
MW-4	4/8/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-4	7/8/93	8.8	N.D.	N.D.	N.D.	N.D.
MW-4	10/20/93	N.D.	N.D.	N.D.	N.D.	2,700
MW-4	10/20/94	N.D.	N.D.	N.D.	N.D.	N.D.
MW-4	1/31/95	N.D.	N.D.	N.D.	N.D.	N.D.
MW-5	4/8/93	14.0	0.63	N.D.	1.5	170
MW-5	7/8/93	3.7	0.46	N.D.	170	4,300
MW-5	10/20/93	N.D.	N.D.	N.D.	N.D.	N.D.
MW-5	10/20/94	N.D.	N.D.	N.D.	N.D.	N.D.
MW-5	1/31/95	N.D.	N.D.	N.D.	N.D.	N.D.

MW-6	4/8/93	7.4	1.2	20	20	720
MW-6	7/8/93	N.A.	N.D.	N.D.	N.D.	610
MW-6	10/20/93	N.D.	N.D.	N.D.	N.D.	660
MW-6	10/20/94	N.D.	N.D.	N.D.	N.D.	200
MW-6	1/31/95	N.D.	N.D.	N.D.	N.D.	N.D.

Notes: All concentrations are in parts per billion (micrograms per liter, ug/l).

N.D. = Analytes reported as not detected above the analytical reporting limit.

The well referred to as MW-1 in the report dated December 16, 1993, is referred to as MW-6 in this report.

DISCUSSION OF RESULTS

Based on the analytical results for this sampling event, it appears that purgeable hydrocarbons in groundwater samples taken from MW-1, MW-2, MW-3, MW-4 and MW-5 are not above the analytical reporting limits. Hydrocarbon concentrations in MW-6 have diminished from 200 ppb to Non-Detectable.

A decrease in benzene levels was detected in both MW-4 and MW-5 from July 8, 1993 readings. Benzene levels in MW-4 dropped from 8.8 ug/L to non-detectable and in MW-5 dropped from 3.7 ug/L to non-detectable.

Groundwater has increased in elevation in all of the monitoring wells from the previous monitoring episode, due to recent rains. Groundwater was determined to flow in a westerly direction. Due to its close proximity to the San Francisco Bay, groundwater may be influenced by tidal action.

The next quarterly groundwater sampling event for the site is scheduled for the month of April, 1995.

LIMITATIONS OF INVESTIGATION

Our investigation was performed using the degree of care and skill ordinarily exercised under similar circumstances by reputable environmental consultants practicing at this or similar localities. The samples collected and used for testing and observations are believed representative of Site conditions. No other warranty, expressed or implied, is made to conclusions and professional advice included in this report.

This report is issued with the understanding that it is the responsibility of the owner, or of his representative, to ensure that the information and recommendations contained herein are brought to the attention of the proper authorities and/or regulating agencies.

The findings of this report reflect the conditions of the Site during the time of the Site visit. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties.

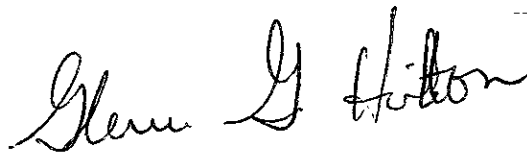
In addition, changes in applicable or appropriate standards may occur from legislation or the broadening of knowledge. Accordingly, the findings of this report may be invalidated wholly or partially by changes outside our control. Therefore, this report is subject to review and should be updated as changes may occur.

The opportunity to be of service is appreciated. Should you have any questions regarding the content of this report, or we can be of further assistance, please do not hesitate to contact us.

Sincerely,

Professional Service Industries, Inc.

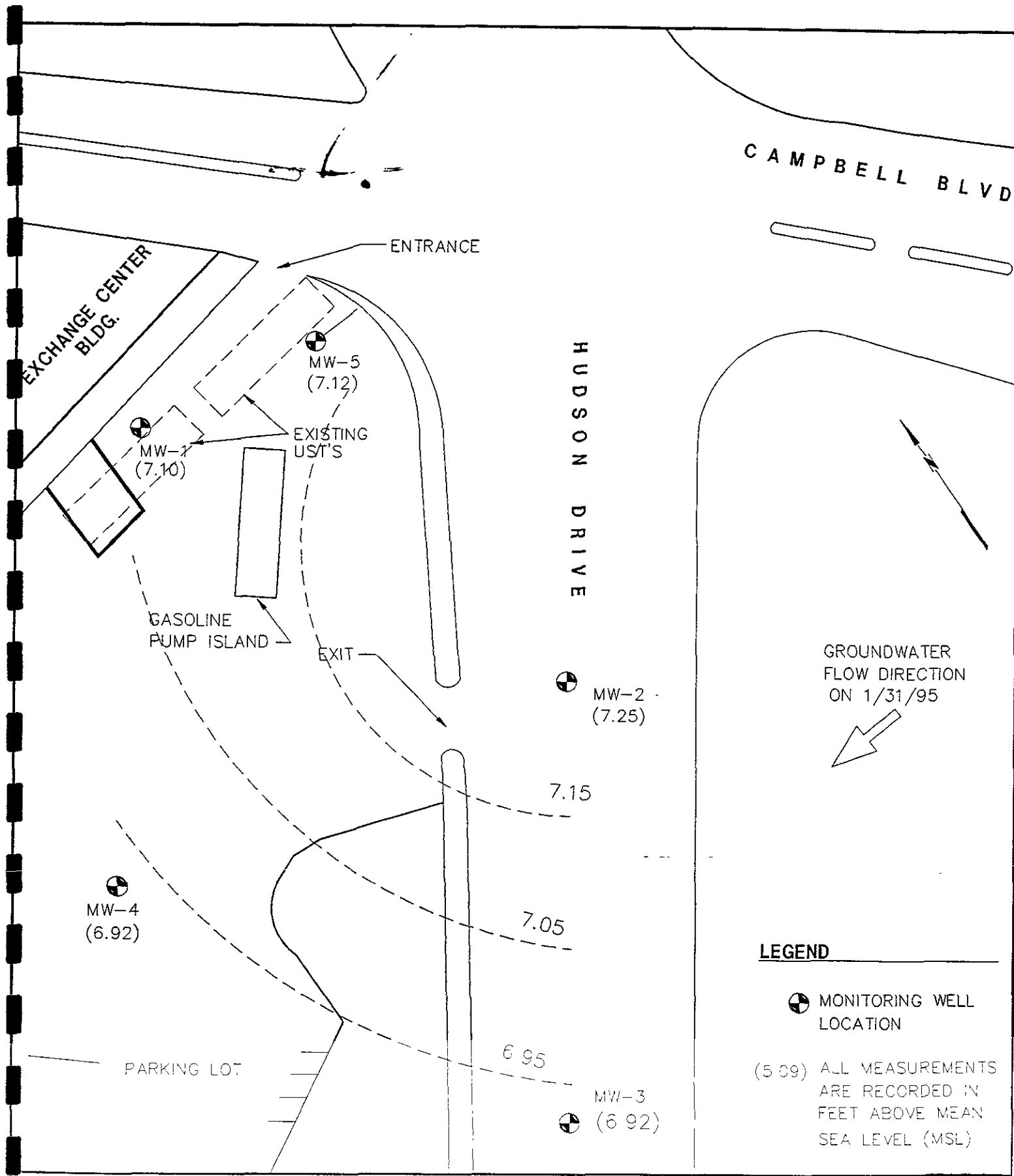

Beverly Jones
Environmental Specialist


Glenn G. Hilton
Geologist RG #5318

BJ/pj

APPENDICES


FIGURES



GROUNDWATER FLOW DIRECTION ON 1/31/95



LEGEND

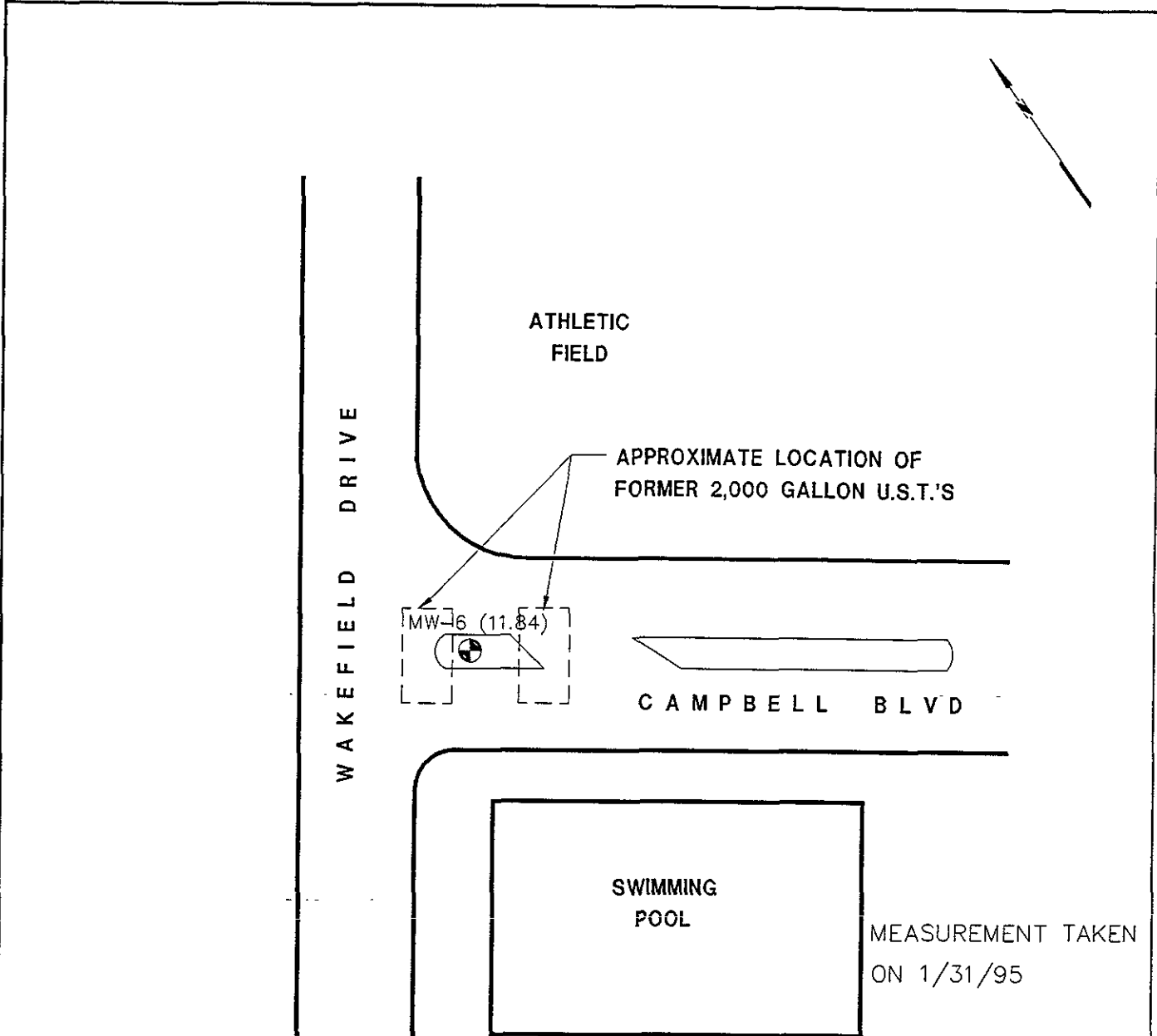
 MONITORING WELL LOCATION

(5.09) ALL MEASUREMENTS ARE RECORDED IN FEET ABOVE MEAN SEA LEVEL (MSL)




PROFESSIONAL SERVICE INDUSTRIES, INC.
 3730 MT. DIABLO BLVD., SUITE 345 LAFAYETTE, CA 94549
 (510) 284-3070

PROJECT NAME:	U.S. COAST GUARD ALAMEDA, CA	DATE:	2/23/95
TITLE:	GROUNDWATER CONTOUR MAP	DWG NO.:	34006-7
		PROJ NO.:	582-34006
		DRAWN BY:	NIMAN
		APP'D BY:	B. JONES
		SCALE:	NOT TO SCALE



LEGEND

 MONITORING WELL LOCATION

(10.00) ALL MEASUREMENTS ARE RECORDED IN FEET ABOVE MEAN SEA LEVEL (MSL)

\\DWG\34006-7A



PROFESSIONAL SERVICE INDUSTRIES, INC.
 3730 MT. DIABLO BLVD., SUITE 345 LAFAYETTE, CA 94549
 (510) 284-3070

PROJECT NAME		DATE	2/23/94
U.S. COAST GUARD ALAMEDA, CA		DWG NO	34006-8
TITLE		PROJ NO:	582-34006
GROUNDWATER ELEVATION MAP		DRAWN BY:	N TOOR
		APP'D BY:	B JONES
		SCALE	NOT TO SCALE

GROUNDWATER SAMPLING DATA

GROUNDWATER SAMPLING DATA

Well No. MW-1
Project No. 582-34006

Time (24 Hr. Clock)	Volume Removed (gal)	Electrical Conductivity (umhos/cm)x100	Temperature (F)	pH	Turbidity
11:55	begin purging				
12:00	1.00	1.04	66.70		Clear/None
12:05	2.00	1.03	66.40		Clear/None
12:10	3.00	1.02	65.30		Clear/None
12:15	4.00	1.03	64.10		Clear/None
12:20	5.00	1.04	63.40		Clear/None
12:25	6.00	1.03	64.20		Clear/None
12:30	Collect Sample	1.03	63.20		Clear/None
Total Depth to Bottom	Depth to - Water =	Water Column (ft.)		Well Inside Diameter (in.) 2.00	
18.2	6.62	11.58			
Volume Factor	x Water Column =	Well Casing Vol. (gal)		Volume 2"=0.163 5"=1.02 10"=4.08	
0.163	11.58	1.89	5.67	Factor 3"=0.367 6"=1.47 12"=4.08 V.F.=gal/ft. 4"=0.653 8"=2.61	
Date (s) Purged			1/31/95	Well Dewatered Yes No X	
Purge Method			bailer	Date Sampled 1/31/95	
Total Volume Removed (gal)			6	Time Sampled 12:30	
Casing Volumes Removed (gal)			3.17	Sample Method Bailer	
Purge Rate (GPM)			0.23	Weather Conditio Cloudy	
				Purged / Sampled by Beverly Jones	
Depth to Water After Recovery (ft.) =				99% Recovered Prior to Sampling	
Notes			Professional Service Industries, Inc WELL PURGING AND SAMPLING FIELD DATA Monitoring Well MW-1		

GROUNDWATER SAMPLING DATA

Well No. MW-4
Project No. 582-34006

Time (24 Hr. Clock)	Volume Removed (gal)	Electrical Conductivity (umhos/cm)x100	Temperature (F)	pH	Turbidity
14:30	begin purging				
14:35	1.00	1.44	69.10		Clear/None
14:40	2.00	1.43	68.70		Clear/None
14:45	3.00	1.45	69.10		Clear/None
14:50	4.00	1.43	68.20		Clear/None
14:55	5.00	1.44	67.30		Clear/None
15:00	6.00	1.45	68.40		Clear/None
15:05	7.00	1.46	67.30		Clear/None
15:10	Collect Sample	1.55	67.10		Clear/None
Total Depth to Bottom	Depth to - Water =	Water Column (ft.)	Well Inside Diameter (in.) 2.00		
19.49	6.46	13.03	Volume 2"=0.163 5"=1.02 10"=4.08 Factor 3"=0.367 6"=1.47 12"=4.08		
Volume Factor	x Water Column =	Well Casing Vol. (gal)	6.36	V.F. = gal/ft. 4"=0.653 8"=2.61	
0.163	13.03	2.12			
Date (s) Purged			1/31/95	Well Dewatered	Yes No X
Purge Method			bailer	Date Sampled	1/31/95
Total Volume Removed (gal)			7	Time Sampled	15:10
Casing Volumes Removed (gal)			3.33	Sample Method	Bailer
Purge Rate (GPM)			0.23	Weather Conditio	Cloudy
Depth to Water After Recovery (ft.) =				Purged / Sampled by Beverly Jones	
				99% Recovered Prior to Sampling	
Notes			Professional Service Industries, Inc WELL PURGING AND SAMPLING FIELD DATA Monitoring Well MW-4		

GROUNDWATER SAMPLING DATA

Well No. MW-6
Project No. 582-34006

Time (24 Hr. Clock)	Volume Removed (gal)	Electrical Conductivity (umhos/cm)x100	Temperature (F)	pH	Turbidity
16:25	begin purging				
16:30	1.00	1.03	65.40		Clear/None
16:35	2.00	1.04	64.30		Clear/None
16:40	3.00	1.03	65.30		Clear/None
16:45	4.00	1.05	64.10		Clear/None
16:50	5.00	1.04	65.10		Clear/None
16:55	6.00	1.03	65.20		Clear/None
17:00	7.00	1.03	64.10		Clear/None
17:05	8.00	1.04	65.10		Clear/None
17:10	9.00	1.05	64.20		Clear/None
17:15	Collect Sample	1.04	65.30		Clear/None
Total Depth to Bottom	Depth to - Water =	Water Column (ft.)		Well Inside Diameter (in.) 2.00	
19.31	2.46	16.85		Volume 2"=0.163 5"=1.02 10"=4.08 Factor 3"=0.367 6"=1.47 12"=4.08 V.F. = gal/ft. 4"=0.653 8"=2.61	
Volume Factor	x Water Columnn =	Well Casing Vol. (gal)			
0.0163	16.85	2.75	8.25		
Date (s) Purged			1/31/95	Well Dewatered Yes No X	
Purge Method			bailer	Date Sampled 1/31/95	
Total Volume Removed (gal)			9	Time Sampled 17:15	
Casing Volumes Removed (gal)			3.27	Sample Method Bailer	
Purge Rate (GPM)			0.24	Weather Conditio Cloudy	
Depth to Water After Recovery (ft.) =				Purged / Sampled by Beverly Jones	
				99% Recovered Prior to Sampling	
Notes			Professional Service Industries, Inc WELL PURGING AND SAMPLING FIELD DATA Monitoring Well MW-6		

DAILY FIELD RECORD

DATE: 1/31/95

PAGE 1 of 2

Project No: 582-34006

Project Name: Coast Guard Alameda

Location: Alameda, CA

Time on Job: 8:00

 AM

AM

PM to: 18:00

 PM

Weather Conditions: Overcast

Activity: Quarterly Groundwater Sampling

PERSONNEL ON SITE

Name	Company	Time In	Time Out
Beverly Jones	PSI	8:00	18:00

VISITORS ON SITE

Name	Company/Agency	Time In	Time Out

PERSONAL SAFETY

<input checked="" type="checkbox"/>	Protective Gloves	<input checked="" type="checkbox"/>	Hard hat	<input type="checkbox"/>	Tyvek Coveralls (W/Y)
<input checked="" type="checkbox"/>	Protective Boots	<input checked="" type="checkbox"/>	Safety Goggles/Glasses	<input checked="" type="checkbox"/>	1/2 - Mask Respirator

Other Safety Equipment (describe):

Monitoring Equipment: Hy Pac combination pH/temperature/condition meter

Field Calibration: _____

WASTE STORAGE INVENTORY

Container Type	Container I.D.	Description of Contents and Quantity	Location
6-55 gallon	purge	water MW-1, MW-2, MW-3, MW-4, MW-5, MW-6	
drums		10/20/94, 1/31/95	on site

Signature of Field Representative.

Date: 1/31/95

Notes: _____

PROFESSIONAL SERVICE INDUSTRIES, INC.
3730 MT. DIABLO BLVD., SUITE 345
LAFAYETTE, CA 94549
(510) 284-3070

DAILY FIELD RECORD

DATE: 1/31/95

PAGE 2 of 2

(continued)

TIME	DESCRIPTION OF DAILY ACTIVITIES & EVENTS
8:00	Arrive at site, set up equipment
12:30	Purge and sample MW-1
13:15	Purge and sample MW-2
14:10	Purge and sample MW-3
15:10	Purge and sample MW-4
16:15	Purge and sample MW-5
17:15	Purge and sample MW-6
18:00	Put away equipment and leave site

COMMENTS & CHANGES FROM WORK PLAN

TIME	TELEPHONE CONVERSATION RECORD

<i>Signature of Field Representative</i> _____	Date: 1/31/95
PROFESSIONAL SERVICE INDUSTRIES, INC 3730 MT. DIABLO BLVD., SUITE 345 LAFAYETTE, CA 94549 (510) 284-3070	

**LABORATORY RESULTS AND
CHAIN OF CUSTODY RECORD**

American Environmental Network

Certificate of Analysis

DOHS Certification: 1172

AIHA Accreditation: 11134

PAGE 1

PROFESSIONAL SERVICE IND.
3730 MT. DIABLO BLVD.
SUITE 345
LAFAYETTE, CA 94549

ATTN: BEVERLY JONES
CLIENT PROJ. ID: 582-34006
CLIENT PROJ. NAME: USCG ALAMEDA

REPORT DATE: 02/12/95
DATE(S) SAMPLED: 01/31/95
DATE RECEIVED: 01/31/95
AEN WORK ORDER: 9501361

PROJECT SUMMARY:

On January 31, 1995, this laboratory received 6 water sample(s).

Client requested sample(s) be analyzed for organic parameters. Results of analysis are summarized on the following page(s). Please see quality control report for a summary of QC data pertaining to this project.

Samples will be stored for 30 days after completion of analysis, then disposed of in accordance with State and Federal regulations. Samples may be archived by prior arrangement.

If you have any questions, please contact Client Services at (510) 930-9090.


Larry Klein
Laboratory Director

PROFESSIONAL SERVICE IND.

SAMPLE ID: A20-1
 AEN LAB NO: 9501361-01
 AEN WORK ORDER: 9501361
 CLIENT PROJ. ID: 582-34006

DATE SAMPLED: 01/31/95
 DATE RECEIVED: 01/31/95
 REPORT DATE: 02/12/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	02/06/95
Toluene	108-88-3	ND	0.5	ug/L	02/06/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	02/06/95
Xylenes, Total	1330-20-7	ND	2	ug/L	02/06/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	02/06/95

ND = Not detected at or above the reporting limit
 * = Value at or above reporting limit

PROFESSIONAL SERVICE IND.

SAMPLE ID: A2Q-2
 AEN LAB NO: 9501361-02
 AEN WORK ORDER: 9501361
 CLIENT PROJ. ID: 582-34006

DATE SAMPLED: 01/31/95
 DATE RECEIVED: 01/31/95
 REPORT DATE: 02/12/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	02/06/95
Toluene	108-88-3	ND	0.5	ug/L	02/06/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	02/06/95
Xylenes, Total	1330-20-7	ND	2	ug/L	02/06/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	02/06/95

ND = Not detected at or above the reporting limit
 * = Value at or above reporting limit

PROFESSIONAL SERVICE IND.

SAMPLE ID: A2Q-3
AEN LAB NO: 9501361-03
AEN WORK ORDER: 9501361
CLIENT PROJ. ID: 582-34006

DATE SAMPLED: 01/31/95
DATE RECEIVED: 01/31/95
REPORT DATE: 02/12/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	02/06/95
Toluene	108-88-3	ND	0.5	ug/L	02/06/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	02/06/95
Xylenes, Total	1330-20-7	ND	2	ug/L	02/06/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	02/06/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PROFESSIONAL SERVICE IND.

SAMPLE ID: A2Q-4
AEN LAB NO: 9501361-04
AEN WORK ORDER: 9501361
CLIENT PROJ. ID: 582-34006

DATE SAMPLED: 01/31/95
DATE RECEIVED: 01/31/95
REPORT DATE: 02/12/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	02/06/95
Toluene	108-88-3	ND	0.5	ug/L	02/06/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	02/06/95
Xylenes, Total	1330-20-7	ND	2	ug/L	02/06/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	02/06/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PROFESSIONAL SERVICE IND.

SAMPLE ID: A20-5
AEN LAB NO: 9501361-05
AEN WORK ORDER: 9501361
CLIENT PROJ. ID: 582-34006

DATE SAMPLED: 01/31/95
DATE RECEIVED: 01/31/95
REPORT DATE: 02/12/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	02/06/95
Toluene	108-88-3	ND	0.5	ug/L	02/06/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	02/06/95
Xylenes, Total	1330-20-7	ND	2	ug/L	02/06/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	02/06/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

PROFESSIONAL SERVICE IND.

SAMPLE ID: A2Q-6
AEN LAB NO: 9501361-06
AEN WORK ORDER: 9501361
CLIENT PROJ. ID: 582-34006

DATE SAMPLED: 01/31/95
DATE RECEIVED: 01/31/95
REPORT DATE: 02/12/95

ANALYTE	METHOD/ CAS#	RESULT	REPORTING LIMIT	UNITS	DATE ANALYZED
BTEX & Gasoline HCs	EPA 8020				
Benzene	71-43-2	ND	0.5	ug/L	02/06/95
Toluene	108-88-3	ND	0.5	ug/L	02/06/95
Ethylbenzene	100-41-4	ND	0.5	ug/L	02/06/95
Xylenes, Total	1330-20-7	ND	2	ug/L	02/06/95
Purgeable HCs as Gasoline	5030/GCFID	ND	0.05	mg/L	02/06/95

ND = Not detected at or above the reporting limit
* = Value at or above reporting limit

AEN (CALIFORNIA)
QUALITY CONTROL REPORT

AEN JOB NUMBER: 9501361

CLIENT PROJECT ID: 582-34006

Quality Control and Project Summary

All laboratory quality control parameters were found to be within established limits.

Definitions

Laboratory Control Sample (LCS)/Method Spike(s): Control samples of known composition. LCS and Method Spike data are used to validate batch analytical results.

Matrix Spike(s): Aliquot of a sample (aqueous or solid) with added quantities of specific compounds and subjected to the entire analytical procedure. Matrix spike and matrix spike duplicate QC data are advisory.

Method Blank: An analytical control consisting of all reagents, internal standards, and surrogate standards carried through the entire analytical process. Used to monitor laboratory background and reagent contamination.

Not Detected (ND): Not detected at or above the reporting limit.

Relative Percent Difference (RPD): An indication of method precision based on duplicate analysis.

Reporting Limit (RL): The lowest concentration routinely determined during laboratory operations. The RL is generally 1 to 10 times the Method Detection Limit (MDL). Reporting limits are matrix, method, and analyte dependent and take into account any dilutions performed as part of the analysis.

Surrogates: Organic compounds which are similar to analytes of interest in chemical behavior, but are not found in environmental samples. Surrogates are added to all blanks, calibration and check standards, samples, and spiked samples. Surrogate recovery is monitored as an indication of acceptable sample preparation and instrumental performance.

D: Surrogates diluted out.

#: Indicates result outside of established laboratory QC limits.

QUALITY CONTROL DATA

METHOD: EPA 8020, 5030 GCFID

AEN JOB NO: 9501361
 INSTRUMENT: H
 MATRIX: WATER

Surrogate Standard Recovery Summary

Date Analyzed	Client Id.	Lab Id.	Percent Recovery Fluorobenzene
02/06/95	A2Q-1	01	100
02/06/95	A2Q-2	02	100
02/06/95	A2Q-3	03	100
02/06/95	A2Q-4	04	100
02/06/95	A2Q-5	05	101
02/06/95	A2Q-6	06	101
QC Limits:			92-109

DATE ANALYZED: 02/06/95
 SAMPLE SPIKED: 9501361-01
 INSTRUMENT: H

Matrix Spike Recovery Summary

Analyte	Spike Added (ug/L)	Average Percent Recovery	RPD	QC Limits	
				Percent Recovery	RPD
Benzene	36.4	93	16	85-109	17
Toluene	106	92	16	87-111	16
Hydrocarbons as Gasoline	1000	90	17	66-117	19

Daily method blanks for all associated analytical runs showed no contamination over the reporting limit

*** END OF REPORT ***

CHAIN OF CUSTODY RECORD



Professional Service Industries, Inc.

PROJECT NAME <i>Alameda</i> USCG Coast Guard	REPORT TO <i>Beverly Jones</i>	INVOICE TO	
PROJECT NUMBER <i>582-34006</i>	PROJECT MANAGER <i>Beverly Jones</i>	ADDRESS	
P.O. NUMBER	ADDRESS <i>3730 Mt Diablo Blvd</i>	CITY / STATE / ZIP <i>Suit 345 94504</i>	
REQUIRED DUE DATE <i>7 days</i> <i>Standard Turnaround</i>	CITY / STATE / ZIP <i>La Jolla, Ca</i>	ATTENTION	
SAMPLES TO LAB VIA	TELEPHONE <i>510-284-3154</i>	TELEPHONE <i>510-284-3670</i>	
	FAX		

LABORATORY SUBMITTED TO:

<input type="checkbox"/> 6913 Hwy. 225 Dear Park, TX 77536 (713) 479-8307	<input type="checkbox"/> 4820 W. 15th Street Lawrence, KS 66049 (800) 648-7901
<input type="checkbox"/> 6056 Ulmerton Road Clearwater, FL 34620 (813) 531-1448	<input type="checkbox"/> 850 Poplar Street Pittsburgh, PA 15220 (412) 922-4000

NUMBER OF COOLERS		REPORT VIA <i>U.S. MAIL/OVERNIGHT</i>	
TRANSFER NUMBER	RELINQUISHED BY DATE / TIME	ACCEPTED BY DATE / TIME	SEAL NUMBER
	<i>Beverly Jones 3:30</i>	<i>Jim Gillespie 1:30</i>	
LABORATORY USE ONLY		LABORATORY USE ONLY	
FIELD SERVICES		REPORT DUE DATE	
Y/N \$		INORGANIC Sect _____ Row _____	
SHIPPING		ORGANIC Sect _____ Row _____	
Y/N \$		PSI PROJECT NAME	
		PSI PROJECT #	
		PSI BATCH #	

LABORATORY USE ONLY		LABORATORY USE ONLY		LABORATORY USE ONLY	
SAMPLE CUSTODIAN		DATE / TIME		LAB NUMBER	
SAMPLE IDENTIFICATION	DATE / TIME	COMP-C GRAB-B	SOIL-S WATER-W WASTE-Y	LAB NUMBER	LAB NUMBER
<i>A20-1</i>	<i>01/31/95/12:30</i>	<i>B</i>	<i>W</i>	<i>3</i>	<i>X</i>
<i>A20-2</i>	<i>01/31/95/1:15</i>	<i>B</i>	<i>W</i>	<i>3</i>	<i>X</i>
<i>A20-3</i>	<i>01/31/95/2:10</i>	<i>B</i>	<i>W</i>	<i>3</i>	<i>X</i>
<i>A20-4</i>	<i>01/31/95/3:10</i>	<i>B</i>	<i>W</i>	<i>3</i>	<i>X</i>
<i>A20-5</i>	<i>01/31/95/4:15</i>	<i>B</i>	<i>W</i>	<i>3</i>	<i>X</i>
<i>A20-6</i>	<i>01/31/95/5:25</i>	<i>B</i>	<i>W</i>	<i>3</i>	<i>X</i>

NUMBER OF CONTAINERS	PARAMETER LIST									
	<i>INDEX-TPAG</i>									
<i>3</i>	<i>X</i>									
<i>3</i>	<i>X</i>									
<i>3</i>	<i>X</i>									
<i>3</i>	<i>X</i>									
<i>3</i>	<i>X</i>									
<i>3</i>	<i>X</i>									

ADDITIONAL REMARKS _____

SAMPLER'S SIGNATURE _____

GROUNDWATER ELEVATION DATA

GROUNDWATER ELEVATION DATA

<u>Well Number</u>	<u>Measuring Point Elevations</u>	<u>Date of Measurement</u>	<u>Depth to Water (feet)</u>	<u>Water Level Elevations</u>
MW-1	13.72	4/5/93	7.95	5.77
MW-1		7/8/93	8.20	5.52
MW-1		10/20/93	8.60	5.12
MW-1		10/20/94	8.02	5.70
MW-1		1/31/95	6.62	7.10
MW-2	13.74	4/5/93	8.00	5.74
MW-2		7/8/93	8.20	5.54
MW-2		10/20/93	8.65	5.09
MW-2		10/20/94	7.86	5.88
MW-2		1/31/95	6.49	7.25
MW-3	13.50	4/8/93	8.00	5.74
MW-3		7/8/93	8.10	5.40
MW-3		10/20/93	8.50	5.00
MW-3		10/20/94	7.74	5.76
MW-3		1/31/95	6.58	6.92
MW-4	13.38	4/8/93	8.20	5.43
MW-4		7/8/93	8.00	5.38
MW-4		10/20/93	8.35	5.03
MW-4		10/20/94	7.69	5.69
MW-4		1/31/95	6.46	6.92
MW-5	13.98	4/8/93	8.00	5.98
MW-5		7/8/93	8.55	5.43
MW-5		10/20/93	8.85	5.13
MW-5		10/20/94	8.25	5.73
MW-5		1/31/95	6.86	7.12
MW-6	14.30	4/8/93	4.50	9.85
MW-6		7/8/93	4.90	9.40
MW-6		10/20/93	5.95	8.35
MW-6		10/20/94	3.41	10.89
MW-6		1/31/95	2.46	11.84

1 Elevations in feet above Mean Sea Level.