PORT OF OAKLAND

3899

June 14, 1995

Jennifer Eberle
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, CA 94502

Dear Ms. Eberle:

SUBJECT: GROUNDWATER MONITORING AND SAMPLING REPORT, BUILDING C401, 2277 7TH ST. (Port Contract # 94265)

Enclosed please find the groundwater monitoring and sampling report for the first quarter for Building C-401, 2277 7th St. Alisto Engineering Group prepared the report on behalf of the Port.

A summary of free product removal is also included in the report.

If you have any questions, please feel free to contact me at 272-1220.

Sincerely,

Dan Schoenholz
Associate Environmental Scientist

Enclosure

cc(w/enclosure): Don Ringsby, Dongary Investments
Rich Hiett, RWQCB

(w/o enclosure): Brady Nagle, Alisto Engineering

ds\wp51\files\anr\shipper11.ltr

95 JUN 16 PM 1:40

530 Water Street ■ Jack London's Waterfront ■ P O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland

GROUNDWATER MONITORING AND SAMPLING REPORT

Port of Oakland
Building C-401
2277 Seventh Street
Oakland, California

Project No. 10-270-03-001

Prepared for:

Port of Oakland
530 Water Street
Oakland, California

Prepared by:

Alisto Engineering Group
1575 Treat Boulevard, Suite 201
Walnut Creek, California

June 2, 1995

Brady Nagle
Project Manager

Al Sevilla, P.E.
Principal

REGISTERED PROFESSIONAL ENGINEER
ALBERTO SANCHEZ SEVILLA
26392
Exp. Date 3/31/96
CIVIL
STATE OF CALIFORNIA

GROUNDWATER MONITORING AND SAMPLING REPORT

Port of Oakland
Building C-401
2277 Seventh Street
Oakland, California

Project No. 10-270-03-001

June 2, 1995

INTRODUCTION

This report presents the results and findings of the March 29, 1995 groundwater monitoring and sampling conducted by Alisto Engineering Group at the Port of Oakland, Building C-401, 2277 Seventh Street, Oakland, California. A site vicinity map is shown in Figure 1.

FIELD PROCEDURES

Field activities were performed in accordance with the procedures and guidelines of the Alameda County Health Care Services Agency and the California Regional Water Quality Control Board, San Francisco Bay Region.

Before purging and sampling, the groundwater level in each well was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The depth to groundwater and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean lower low water. The survey data and groundwater elevation measurements collected to date are presented in Table 1. Data collected during joint monitoring at the Dongary Investments property, 2225 Seventh Street, Oakland, California are presented in Table 2. A summary of the free product removed from Monitoring Wells MW-1 and MW-3 is presented in Table 3.

Before sample collection, each well was purged of 3 casing volumes while recording field readings of pH, temperature, and electrical conductivity. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in each well. The samples were transferred from the bailer into laboratory-supplied containers. The field procedures for groundwater monitoring well sampling and the water sampling field survey forms are presented in Appendix A.

SAMPLING AND ANALYTICAL RESULTS

The groundwater samples were analyzed by Clayton Environmental Consultants, Inc., a state-certified laboratory, for the following:

- Total petroleum hydrocarbons as diesel (TPH-D) using EPA Method 8015 modified
- Total petroleum hydrocarbons as oil (TPH-O) using EPA Method 8015 modified
- Total petroleum hydrocarbons as gasoline (TPH-G) using EPA Method 8015
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) using EPA Method 8020

After review of initial laboratory reports, Alisto requested Clayton Environmental to quantify the petroleum hydrocarbons reported as TPH-D separately as diesel and as oil using the chromatogram of the original analysis.

The results of monitoring and laboratory analysis of the groundwater samples for this and previous events are summarized in Table 1. The potentiometric groundwater elevations as interpreted from the results of this monitoring event are shown in Figure 2. The field procedures for chain of custody documentation, laboratory report, chain of custody record, and chromatograms are presented in Appendix B.

SUMMARY OF FINDINGS

The findings of the March 29, 1995 groundwater monitoring and sampling event are summarized as follows:

- Free product was observed in Monitoring Wells MW-1 and MW-3 at thicknesses of 0.17 and 2.93 feet, respectively.
- Groundwater elevation data indicate a gradient of approximately 0.08 foot per foot in a northerly direction across the site.
- Analysis of the sample collected from Monitoring Well MW-2 detected TPH-D at a concentration of 1600 ug/l based on a hydrocarbon range of C10 to C42. Subsequently, the laboratory was requested to separately quantify TPH-D based on a hydrocarbon range of C-10 to C-20 and TPH-O based on a hydrocarbon range of C-20 to C-42. From this quantification, TPH-D was reported at a concentration of 110 ug/l and TPH-O at 1400 ug/l. so it's mostly oil range.
- TPH-G and BTEX were not detected above reported detection limits in the sample collected from MW-2.

TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
PORT OF OAKLAND, BUILDING C-401
2277 SEVENTH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-270

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (feet)	DEPTH TO WATER (feet)	PRODUCT THICKNESS (Feet)	GROUNDWATER ELEVATION (b) (Feet)	TPH-G (ug/l)	TPH-D (ug/l)	TPH-O (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	LAB
MW-1	03/29/95	14.17	7.67	0.17	6.63	—	—	—	—	—	—	—	—
MW-2	05/27/94	14.38	8.01	—	6.37	87	470	—	ND<0.50	ND<0.50	ND<0.50	ND<0.50	D&M
MW-2	03/29/95	14.38	7.47	—	6.91	ND<50	110	1400	ND<0.4	ND<0.3	ND<0.3	ND<0.4	CEC
QC-1 (c)	03/29/95	—	—	—	—	ND<50	—	—	ND<0.4	ND<0.3	ND<0.3	ND<0.4	CEC
MW-3	03/29/95	14.24	9.59	2.93	6.85	—	—	—	—	—	—	—	—
QC-2 (d)	03/29/95	—	—	—	—	ND<50	—	—	ND<0.4	ND<0.3	ND<0.3	ND<0.4	CEC

ABBREVIATIONS:

TPH-G	Total petroleum hydrocarbons as gasoline
TPH-D	Total petroleum hydrocarbons as diesel (C10 to C20)
TPH-O	Total petroleum hydrocarbons as oil (C20 to C42)
B	Benzene
T	Toluene
E	Ethylbenzene
X	Total xylenes
ug/L	Micrograms per liter
—	Not analyzed/applicable
ND	Not detected above reported detection limit
D&M	D&M Laboratories
CEC	Clayton Environmental Consultants, Inc.

NOTES:

(a) Top of casing elevations surveyed to the nearest 0.01 foot relative to mean lower low water (3.2 feet below mean sea level, port of Oakland datum).

(b) Groundwater elevations expressed in feet above mean lower low water.

(c) Blind duplicate sample.

(d) Travel blank

E0\10-270\270-3-1.WQ1

TABLE 2 - SUMMARY OF RESULTS OF GROUNDWATER SAMPLING
DONGARY INVESTMENTS
2225 SEVENTH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO 10-270

WELL ID	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (Feet)	DEPTH TO WATER (Feet)	GROUNDWATER ELEVATION (b) (Feet)
MW-1	01/15/93	13.72	5.21	8.51
MW-1	09/12/94	13.72	6.37	7.35
MW-1	11/30/94	13.72	5.76	7.96
MW-1	03/29/95	13.72	4.57	9.15
MW-2	01/15/93	13.80	6.21	7.59
MW-2	09/12/94	13.80	6.47	7.33
MW-2	11/30/94	13.80	6.34	7.46
MW-2	03/29/95	13.80	5.51	8.29
MW-3	01/15/93	15.06	6.44	8.62
MW-3	09/12/94	15.06	7.35	7.71
MW-3	11/30/94	15.06	7.12	7.94
MW-3	03/29/95	15.06	6.31	8.75

NOTES:

(a) Casing elevations surveyed to the nearest 0.01 foot relative to mean lower low water (3.2 feet below mean sea level, Port of Oakland datum)

(b) Groundwater elevations in feet above mean lower low water.

Source: Groundwater Monitoring and Sampling Report, Groundwater Technology, Inc., April 26, 1995

E:\0\10-270\270-3-1B

TABLE 3 - PRODUCT REMOVAL STATUS
PORT OF OAKLAND, BUILDING C-401
2277 SEVENTH STREET, OAKLAND, CALIFORNIA

ALISTO PROJECT NO. 10-270

WELL ID	DATE	CASING ELEVATION (a) (feet)	DEPTH TO WATER (feet)	DEPTH TO PRODUCT	PRODUCT THICKNESS	GROUNDWATER ELEVATION (b) (Feet)	PRODUCT REMOVED (Gallons)	PRODUCT REMOVED CUMULATIVE (Gallons)	
MW-1	06/30/94	14.17	9.75	9.20	0.55	4.83	1 5	1.5	(c)
	07/08/94	14.17	9.88	9.12	0.76	4 86	1.5	3 0	(c)
	07/14/94	14 17	9.90	9.12	0.78	4.86	1.5	4.5	(c)
	7/21-22/94	14.17	9.78	9.16	0.62	4.86	1.5	6 0	(c)
	07/29/94	14.17	10.00	9.13	0.87	4.82	3.0	9 0	(c)
	08/03/94	14.17	10.3	9.19	1.11	4.70	3.0	12.0	(c)
	08/11/94	14.17	10.51	9.24	1.27	4.61	3 0	15.0	(c)
	08/18/94	14 17	10.38	9.25	1.13	4.64	3.0	18.0	(c)
	09/29/94	14.17	10.5	9.30	1 20	4.57	3.0	21.0	(c)
	10/04/94	14.17	9.75	9.30	0.45	4.76	1.5	22.5	(c)
	10/14/94	14.17	10.05	9.25	0.80	4.72	1.5	24.0	(c)
	10/21/94	14.17	10.84	9.49	1.35	4 34	---	24 0	(c)
	11/02/94	14.17	10.26	9.44	0.82	4 53	2.5	26.5	(c)
	11/10/94	14.17	9.80	8.45	1.35	5 38	3.0	29.5	(c)
	11/18/94	14.17	9.76	8.78	0 98	5.15	3.0	32.5	(c)
	12/08/94	14.17	9.46	8 69	0.77	5.29	3.0	35.5	(c)
	01/20/95	14.17	8.01	7.73	0.28	6.37	2.0	37 5	(c)
	01/27/95	14.17	7.54	7.52	0.02	6 65	2.0	39.5	(c)
	02/10/95	14.17	8.15	7.92	0 23	6.19	2.0	41.5	(c)
	02/16/95	14.17	8.40	8.18	0.23	5.94	1.0	42.5	(c)
	02/23/95	14.17	8.46	8 21	0 25	5.90	2.0	44.5	(c)
	03/03/95	14.17	8.25	8.15	0.10	6.00	2.0	46.5	(c)
	03/10/95	14.17	7 63	7.53	0.10	6.62	2.0	48.5	(c)
	03/17/95	14.17	8.00	7.80	0 20	6.32	2.0	50.5	(c)
	04/07/95	14.17	---	---	---	14 17	2.0	52.5	
	04/14/95	14.17	---	---	---	14.17	3.0	55.5	
	04/19/95	14 17	8 34	7.10	0.24	6.01	0.5	56.0	
	04/26/95	14 17	8.26	7.98	0.28	6 12	1.0	57.0	
	05/03/95	14.17	8.77	8.47	0 30	5.63	0 5	57 5	
MW-3	06/30/94	14 24	14.97	8.83	6.14	3.88	45.0	45.0	
	07/08/94	14 24	14 85	8.34	6.51	4.27	45.0	90.0	
	07/14/94	14.24	14.41	8.35	6.06	4.38	45 0	135.0	
	7/21-22/94	14 24	14.32	8.45	5 87	4.32	45 0	180.0	
	07/29/94	14.24	14.45	8.90	5.55	3.95	18.0	198.0	
	08/03/94	14 24	14 45	8.45	6.00	4.29	30.0	228.0	
	08/11/94	14.24	14.45	9 52	4.93	3.49	30.0	258.0	
	08/18/94	14 24	14.38	9.48	4.90	3.54	45.0	303.0	
	09/23/94	14 24	14.45	8.75	5.70	4.07	100.0	403.0	
	09/29/94	14 24	14.45	8.85	5.60	3.99	165.0	568.0	
	10/04/94	14 24	14.50	8.65	5.85	4 13	165.0	733.0	
	10/14/94	14 24	14.50	9.60	4.90	3.42	165.0	898.0	
	10/21/94	14 24	14.50	8.88	5.62	3 96	90.0	988.0	
	11/02/94	14 24	14.50	8.79	5.71	4 02	50.0	1038.0	
	11/10/94	14.24	13.12	8.07	5.05	4.91	---	1038.0	
	11/18/94	14 24	13.10	7.91	5.19	5 03	90.0	1128.0	
	12/08/94	14.24	13.58	7.95	5 63	4.88	50.0	1178.0	
	01/20/95	14.24	10.11	7.09	3.02	6.40	40.0	1218.0	
	01/27/95	14.24	11.09	7.15	3,94	6.11	20.0	1238 0	
	02/10/95	14.24	11.05	7.05	4,00	6.19	0.0	1238.0	
	02/16/95	14.24	12.10	7.20	4,90	5.82	140.0	1378.0	
	02/23/95	14.24	12.00	7.33	4.67	5.74	100 0	1478.0	
	03/03/95	14.24	12.25	7.40	4.85	5.63	150.0	1628.0	
	03/10/95	14.24	10.40	7.10	3.30	6.32	150.0	1778.0	
	03/17/95	14.24	9.80	6.90	2.90	6.62	165.0	1943.0	
	03/31/95	14.24	---	6.60	---	---	100.0	2043.0	
	04/07/95	14.24	---	6.80	---	---	160.0	2203.0	
	04/14/95	14 24	---	6.90	---	---	160.0	2363.0	
	04/19/95	14.24	11.30	4.26	7.04	8.22	110.0	2473.0	
	04/26/95	14.24	11.11	4.83	6.28	7.84	125.0	2598.0	
	05/03/95	14.24	10.84	4.89	5.95	7.86	130.0	2728.0	

NOTES.

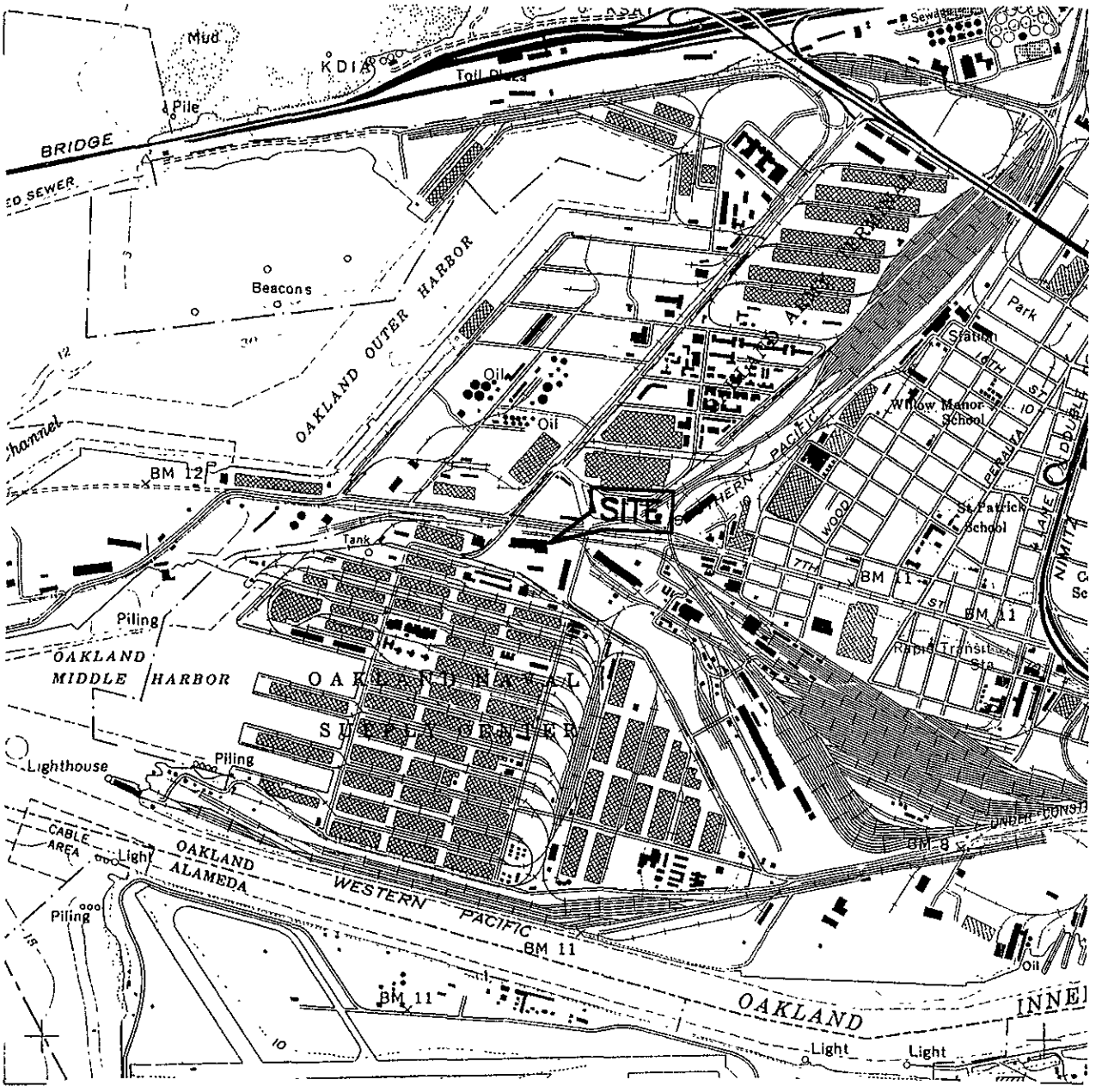
(a) Casing elevations surveyed to the nearest 0.01 foot relative to mean lower low water (3.2 feet below mean sea level, Port of Oakland datum)

(b) Groundwater elevation adjusted assuming a specific gravity of 0.75 for the separate-phase product.

(c) The estimated amount bailed is approximately 75% product and 25% water.

E:\0\10-270\PRODUCT

E:\0\10-270\PRODUCT



SOURCE:
USGS MAP, OAKLAND WEST QUADRANGLE,
7.5 MINUTE SERIES. 1959.
PHOTOREVISED 1980.

N

0 1000' 2000'

FIGURE 1

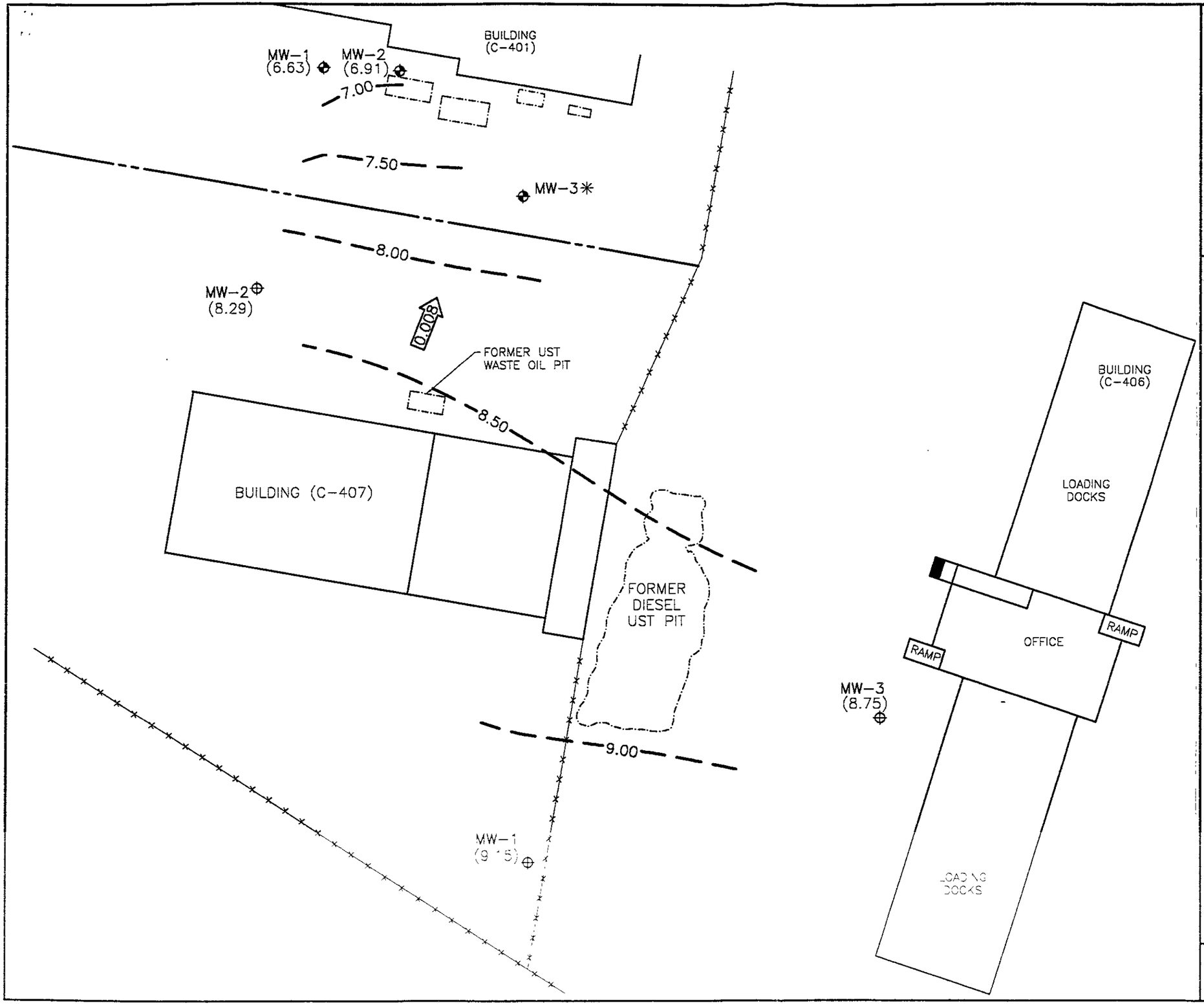
SITE VICINITY MAP

PORT OF OAKLAND
BUILDING C-401
2277 SEVENTH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 10-270

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10270B -- DWG 3-9-95 RKW 1=1



N

0 50 100

SCALE IN FEET

LEGEND

- ◆ GROUNDWATER MONITORING WELL
- ⊕ DONGARY INVESTMENTS MONITORING WELL
- (6.85) GROUNDWATER ELEVATION IN FEET ABOVE MEAN SEA LEVEL
- 7.50 GROUNDWATER ELEVATION CONTOUR IN FEET ABOVE MEAN SEA LEVEL (CONTOUR INTERVAL–0.50 FOOT)
- 0.008 CALCULATED GROUNDWATER GRADIENT DIRECTION AND MAGNITUDE IN FOOT PER FOOT
- * GROUNDWATER ELEVATION NOT USED IN PREPARING CONTOURS DUE TO 2.93 FEET OF SEPARATE-PHASE FLOATING PRODUCT

FIGURE 2

POTENTIOMETRIC GROUNDWATER ELEVATION CONTOUR MAP

MARCH 29, 1995

PORT OF OAKLAND
BUILDING C–401
2277 SEVENTH STREET
OAKLAND, CALIFORNIA

PROJECT NO. 10–270

ALISTO ENGINEERING GROUP
WALNUT CREEK, CALIFORNIA

10/270 4 DWG 5 24 95 JKW 1=50

APPENDIX A

FIELD PROCEDURES FOR GROUNDWATER MONITORING WELL SAMPLING AND WATER SAMPLING FIELD SURVEY FORMS

FIELD PROCEDURES
FOR
GROUNDWATER MONITORING WELL SAMPLING

Groundwater Level Measurement

Before commencing groundwater sampling, the groundwater level in each well was measured from a marked survey reference point at the top of the well casing. Groundwater in each well was monitored for free-floating product or sheen. The depth to groundwater was measured to an accuracy of 0.01 foot from the top of the PVC well casing using an electronic sounder.

Groundwater Monitoring Well Sampling

To ensure that the groundwater samples were representative of the aquifer, the wells were purged of 3 well casing volumes before sample collection. This purging was accomplished using a clean bailer or pump.

The groundwater samples were collected using a disposable bailer, and then transferred into laboratory-supplied containers. Care was taken to avoid turbulence when transferring the water samples, and all volatile analysis vials were filled so that no air bubbles were trapped. The sampling technician wore nitrile gloves at all times during purging and well sampling. The samples were labeled with the well number, site identification, date and time of sample collection, and sampler's initials, and transported in an iced cooler maintained at 4 degrees Centigrade to Clayton Environmental Consultants, a state-certified laboratory, following preservation and chain of custody protocol.

ALISTO ENGINEERING GROUP
GROUNDWATER MONITORING

Client: Port of Oakland
Alisto Project No: 10-270-03
Service Station No: _____

Date: 3/29/95
Field Personnel: DS
Site Address: C-401, 2277 7th

FIELD ACTIVITY:

X Groundwater Monitoring
X Groundwater Sampling
___ Well Development

QUALITY CONTROL SAMPLES:

X QC-1 Sample Duplicate (Well ID)
X QC-2 Trip Blank
___ QC-3 Rinsate Blank

Well ID	Well Diam	Order Measured/ Sampled	Total Depth	Depth to Water	Depth to Product	Product Thick-ness	Comments Top of Casing Elev. *
MW-1	2	2	15.4	7.67	7.50	0.17	14.17
MW-2	2	1	15.2	7.47	—	—	clear 14.38
MW-3	2	3	15.3	9.59	6.66	2.93	14.24

Notes:

* Relative to MSL

FORM: FS2/121592

ALISTO

ENGINEERING GROUP

1777 OAKLAND BLVD, STE 200

WALNUT CREEK CA 94596 (510) 295-1650 FAX 295-1823

Field Report / Sampling Data Sheet

O Groundwater Sampling

Barometric pres._____

Date: 3/29/95 Project No. 10-270-03

Day: M T (W) Th F Facility No. C-407

Temp. _____ Address 2277 Seventh Street

SAMPLER: OS

Well ID	SAMPLE #	WATER time	Well ID	SAMPLE #	WATER/ time	Well ID	SAMPLE	WATER / time
MW-1	—	12:05						
MW-2	MW-2	11:53						
MW-3	—	12:18						

FIELD INSTRUMENT CALIBRATION DATA

Ph METER ✓ 4.00 X 7.00 X 10.00 _____ TIME 8:45 TEMPERATURE COMPENSATED (Y) N

TURBIDI METER ✓ 5.0 NTU STANDARD ✓ OTHER _____

CONDUCTIVITY METER ✓ 10,000 _____ OTHER _____

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence Y N
MW-2	7.47	2		—	

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.

15.20 − 7.47 = 7.73 x .16 = 1.24 x 3 = 3.72

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments: QC-1 (Good Recharge)

Gal.	Time	Temp °F	pH	E.C.	D.O.
1.25	12:25	72.6	7.79	3.85	
2.50	12:34	69.3	7.55	2.44	
3.75	12:41	68.7	7.56	2.36	

O EPA 601_____
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___
Time/Sample
12:54 / MW-2

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence Y N

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.

O EPA 601_____
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___
Time/ Sample

Well ID	Depth to Water	Diam	Cap/Lock	Depth to prod.	Iridescence Y N

Total Depth - Water Level = x Well Vol. Factor = x#vol. to Purge = PurgeVol.

Purge Method: OSurface Pump ODisp.Tube OWinch ODisp. Bailer(s) OSys Port

Comments:

Gal.	Time	Temp °F	pH	E.C.	D.O.

O EPA 601_____
O TPH-G/BTEX___
O TPH Diesel____
O TOG 5520 ___
Time /Sample

APPENDIX B

FIELD PROCEDURES FOR CHAIN OF CUSTODY DOCUMENTATION, LABORATORY REPORT, AND CHAIN OF CUSTODY RECORD

FIELD PROCEDURES
FOR
CHAIN OF CUSTODY DOCUMENTATION

All samples were handled in accordance with the California Department of Health Services guidelines. Samples were labeled in the field and immediately stored in coolers and preserved with blue ice for transport to a state-certified laboratory for analysis.

A chain of custody record accompanied the samples, and included the site and sample identification, date and time of collection, analysis requested, and the name and signature of the sampling technician. When transferring possession of the samples, the transferee signed and dated the chain of custody record.

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

April 12, 1995

Mr. Brady Nagle
ALISTO ENGINEERING GROUP
1777 Oakland Blvd. #200
Walnut Creek, CA 94596

Client Ref.: 10-270
Clayton Project No.: 95034.40

Dear Mr. Nagle:

Attached is our analytical laboratory report for the samples received on March 30, 1995. Also enclosed is a copy of the Chain-of-Custody record acknowledging receipt of these samples.

Please note that any unused portion of the samples will be discarded after May 12, 1995, unless you have requested otherwise.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/caa

Attachments

Analytical Results
for
Alisto Engineering Group
Client Reference: 10-270
Clayton Project No. 95034.40

Sample Identification:	MW-2	Date Sampled:	03/29/95
Lab Number:	9503440-01A	Date Received:	03/30/95
Sample Matrix/Media:	WATER	Date Prepared:	04/03/95
Preparation Method:	EPA 5030	Date Analyzed:	04/03/95
Method Reference:	EPA 8015/8020	Analyst:	WAS

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	99	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Alisto Engineering Group
Client Reference: 10-270
Clayton Project No. 95034.40

Sample Identification:	QC-1	Date Sampled:	03/29/95
Lab Number:	9503440-02A	Date Received:	03/30/95
Sample Matrix/Media:	WATER	Date Prepared:	04/03/95
Preparation Method:	EPA 5030	Date Analyzed:	04/04/95
Method Reference:	EPA 8015/8020	Analyst:	WAS

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	95	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Alisto Engineering Group
Client Reference: 10-270
Clayton Project No. 95034.40

Sample Identification:	QC-2	Date Sampled:	03/29/95
Lab Number:	9503440-03A	Date Received:	03/30/95
Sample Matrix/Media:	WATER	Date Prepared:	04/04/95
Preparation Method:	EPA 5030	Date Analyzed:	04/04/95
Method Reference:	EPA 8015/8020	Analyst:	WAS

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	95	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Alisto Engineering Group
Client Reference: 10-270
Clayton Project No. 95034.40

Sample Identification:	METHOD BLANK	Date Sampled:	--
Lab Number:	9503440-04A	Date Received:	--
Sample Matrix/Media:	WATER	Date Prepared:	04/03/95
Preparation Method:	EPA 5030	Date Analyzed:	04/03/95
Method Reference:	EPA 8015/8020	Analyst:	WAS

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Ethylbenzene	100-41-4	ND	0.3
Toluene	108-88-3	ND	0.3
o-Xylene	95-47-6	ND	0.4
p,m-Xylenes	--	ND	0.4
Gasoline	--	ND	50
Surrogates		Recovery (%)	QC Limits (%)
a,a,a-Trifluorotoluene	98-08-8	97	50 - 150

ND: Not detected at or above limit of detection
--: Information not available or not applicable

Analytical Results
for
Alisto Engineering Group
Client Reference: 10-270
Clayton Project No. 95034.40

Sample Identification: See Below
Lab Number: 9503440
Sample Matrix/Media: WATER
Extraction Method: EPA 3510
Method Reference: EPA 8015 (Modified)

Date Received: 03/30/95
Date Extracted: 04/03/95
Date Analyzed: 04/09/95

Lab Number	Sample Identification	Date Sampled	TPH-D (ug/L)	Method Detection Limit (ug/L)
-01	MW-2	03/29/95	1600 a	50
-04	METHOD BLANK	--	ND	50

ND: Not detected at or above limit of detection
--: Information not available or not applicable

TPH-D = Extractable petroleum hydrocarbons from C10 to C42 quantitated as diesel.
a Sample does not match the typical diesel pattern.
Sample appears to be oil.

Clayton
ENVIRONMENTAL
CONSULTANTS

Quality Assurance Results Summary

Matrix Spike/Matrix Spike Duplicate Results

for

Clayton Project No. 95034.40

Quality Assurance Results Summary
for
Clayton Project No. 95034.40

Clayton Lab Number:	9503440-LCS	Analytical Method:	EPA8015
Ext./Prep. Method:	EPA3510	Instrument ID:	02893
Date:	04/03/95	Date:	04/09/95
Analyst:	FHK	Time:	09:31
Std. Source:	E950323-01W	Analyst:	GUD
Sample Matrix/Media:	WATER	Units:	UG/L

Analyte	Sample Result	Spike Level	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
DIESEL	ND	1,000	1,210	121	1,320	132	126	56	137	9.4	25

LCS = Laboratory Control Sample
ND = Not detected at or above limit of detection
LCL = Lower Control Limit
UCL = Upper Control Limit
SOR = Spike out of range due to high sample concentration.

Quality Assurance Results Summary
for
Clayton Project No. 95034.40

Clayton Lab Number:	9503440-02B	Analytical Method:	EPA8015_8020
Ext./Prep. Method:	EPA 5030	Instrument ID:	05587
Date:	04/04/95	Date:	04/04/95
Analyst:	WAS	Time:	11:05
Std. Source:	V950301-02W	Analyst:	WAS
Sample Matrix/Media:	WATER	Units:	UG/L

Analyte		Sample Result	Spike Level	Matrix Spike Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE	(PID)	ND	10.2	11.1	109	10.4	102	105	81	118	6.5	20
ETHYLBENZENE	(PID)	ND	8.67	9.29	107	8.96	103	105	81	114	3.6	20
GASOLINE	(FID)	ND	500	534	107	511	102	105	80	150	4.4	25
TOLUENE	(PID)	ND	42.2	45.5	108	43.3	103	105	84	118	5.0	20
TOTAL XYLENE	(PID)	ND	48.9	53.5	109	50.3	103	106	85	115	6.2	20

LCS = Laboratory Control Sample
ND = Not detected at or above limit of detection
LCL = Lower Control Limit
UCL = Upper Control Limit
SOR = Spike out of range due to high sample concentration.

Western Operations

1252 Quarry Lane
P.O. Box 9019
Pleasanton, CA 94566
(510) 426-2600
Fax (510) 426-0106

Clayton
ENVIRONMENTAL
CONSULTANTS

May 15, 1995

Mr. Dale Swain
ALISTO ENGINEERING GROUP
1575 Treat Blvd., Suite 201
Walnut Creek, CA 94588

ADDITIONAL REPORT
Client Ref.: 10-270
Clayton Project No.: 95034.40

Dear Mr. Swain:

Attached is our additional analytical laboratory report for the samples received on March 30, 1995 and originally reported on April 12, 1995. As requested on April 27, 1995, we have quantitated Sample MW-2 as TPH-Diesel and TPH-Oil. The diesel chromatogram for this sample is also attached.

We appreciate the opportunity to assist you. If you have any questions concerning this report, please contact Suzanne Haus, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Harriotte A. Hurley, CIH
Director, Laboratory Services
San Francisco Regional Office

HAH/caa

Attachments

Analytical Results
for
Alisto Engineering Group
Client Reference: 10-270
Clayton Project No. 95034.40

Sample Identification:	See Below	Date Received:	03/30/95
Lab Number:	9503440	Date Extracted:	04/03/95
Sample Matrix/Media:	WATER	Date Analyzed:	04/09/95
Extraction Method:	EPA 3510		
Method Reference:	EPA 8015 (Modified)		

Lab Number	Sample Identification	Date Sampled	TPH-D (ug/L)	Method Detection Limit (ug/L)
-01	MW-2	03/29/95	110	50
-04	METHOD BLANK	--	ND	50

ND: Not detected at or above limit of detection
--: Information not available or not applicable

TPH-D = Extractable petroleum hydrocarbons from C10 to C20 quantitated as diesel.

Analytical Results
for
Alisto Engineering Group
Client Reference: 10-270
Clayton Project No. 95034.40

Sample Identification: See Below
Lab Number: 9503440
Sample Matrix/Media: WATER
Extraction Method: EPA 3510
Method Reference: EPA 8015 (Modified)

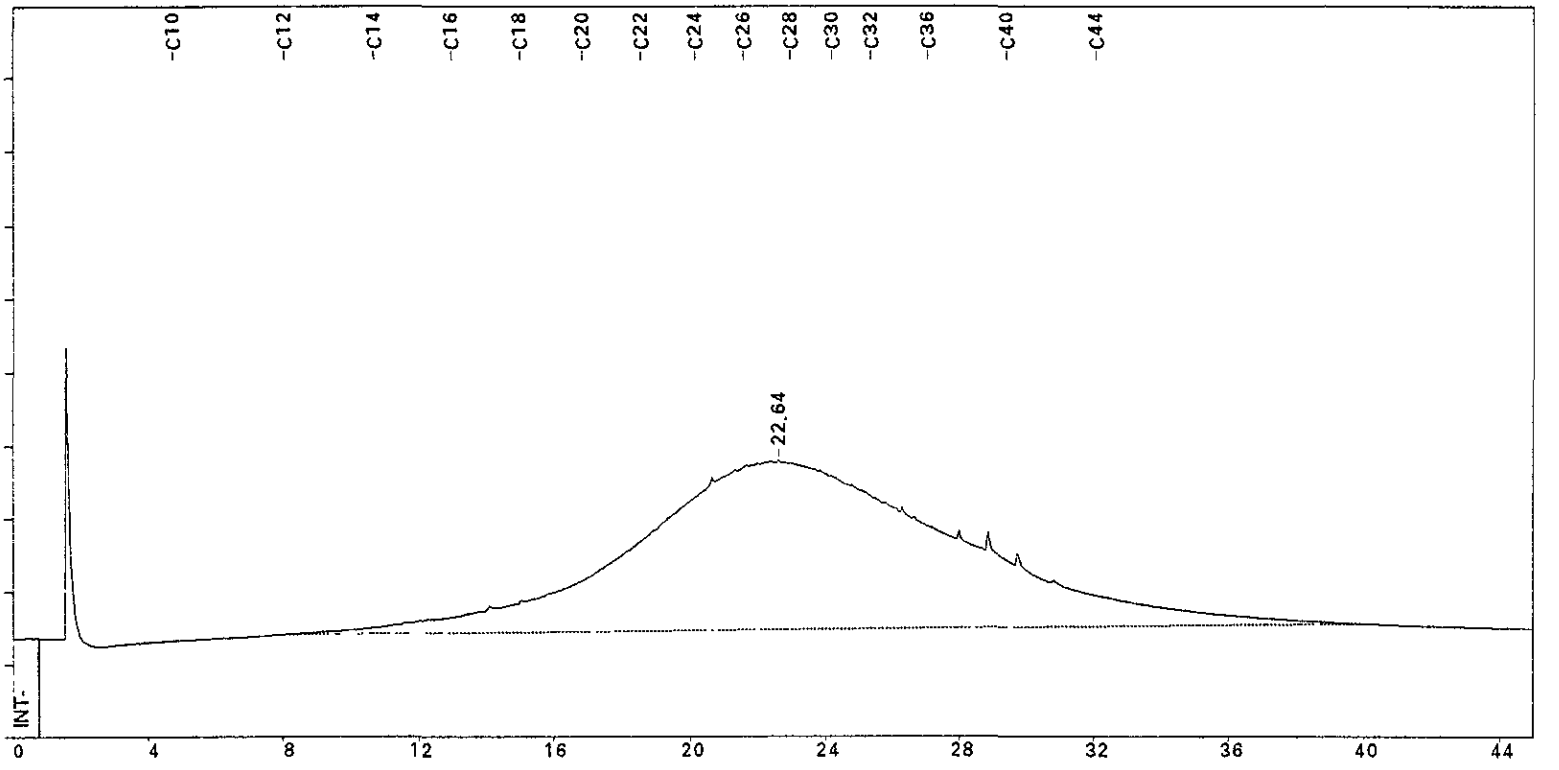
Date Received: 03/30/95
Date Extracted: 04/03/95
Date Analyzed: 04/09/95

Lab Number	Sample Identification	Date Sampled	TPH-O (ug/L)	Method Detection Limit (ug/L)
-01	MW-2	03/29/95	1400	200
-04	METHOD BLANK	--	ND	200

ND: Not detected at or above limit of detection
--: Information not available or not applicable

TPH-O = Extractable petroleum hydrocarbons from C20 to C42 quantitated as motor oil.

File=M:\CP\GC-6\T08D$.36R Date printed=04-10-1995 Time= 12:48:36
Sample Name=9503440-01C
0.0 to 45.0 min. Low Y=-50.0 High Y=320.0 mv Span=370.0



Clayton Environmental Consultants, Pleasanton, California

Printed: 04-10-1995_12:48:41

Sample Name: **9503440-01C**

Date: 04-09-1995 23:04:40

Dilution Factor: 1
Operator: FK

Sample Weight: 1051

Instrument:HP5890 #02893

Area Rejected: 100
EXTERNAL_STD Calibrated

Data File: **M:\CP\GC-6\T08D$.36R** Cycle# **36**
Method File: !M:\CP\GC-6\TD2.MET..ver# -7 . 03/01/95 09:42:38
Calibr File: !M:\CP\GC-6\TDIESEL$.CAL..ver# -97.
Analysis: **TPH EXT TEMP 50C(3') 10C/M 310C(10') 2UL**
Miscl.

Pk#	Ret time (min)	Peak Name	Amount PPM	Peak Area	Peak Type	Peak Height	Ref Pk	Amount /Area
1	22.640		1.6278	56976040	BB	86081		0.2857E-07

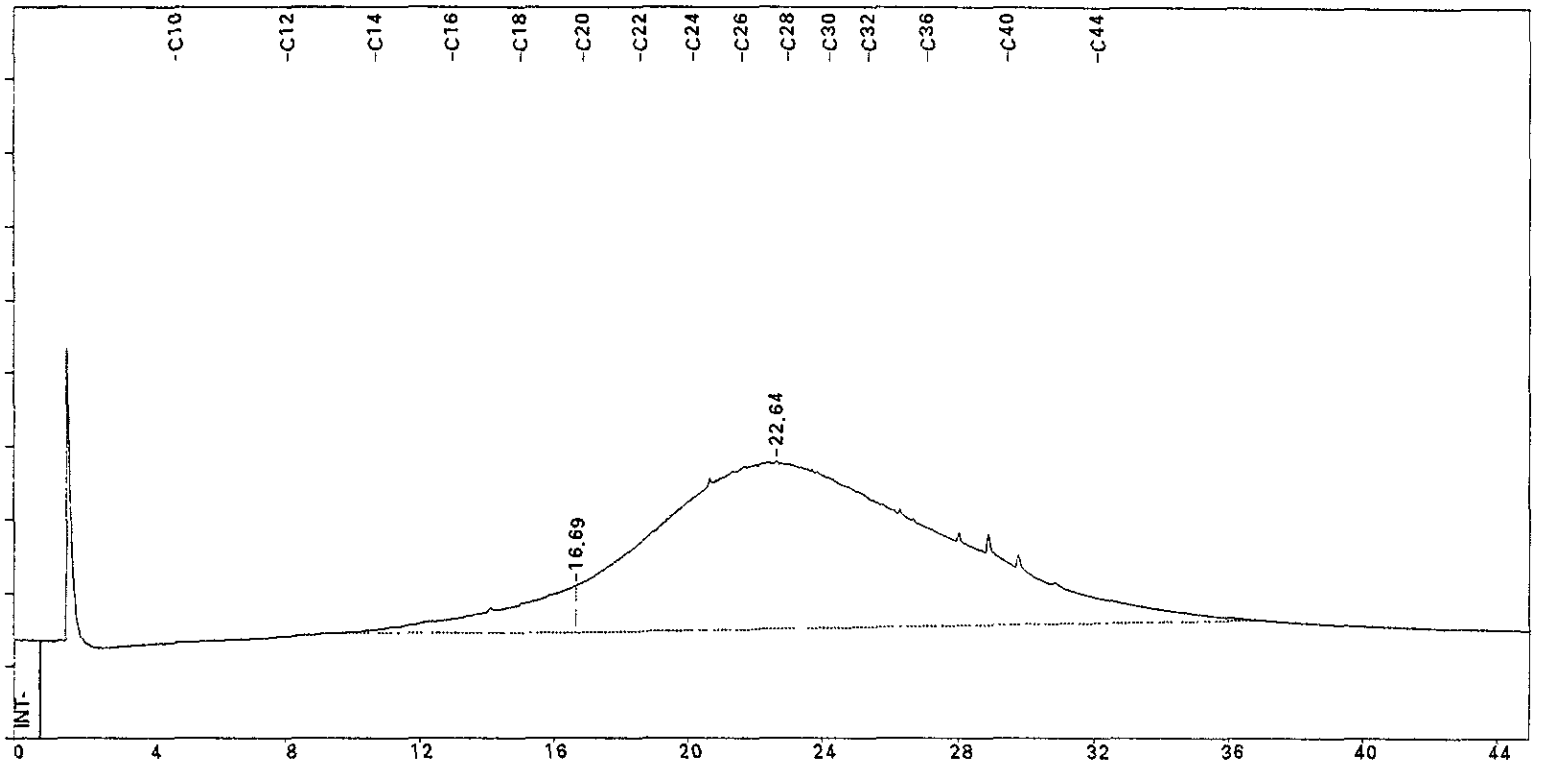
Total Area = 5.697604E+07; Instrument Actual Amount = 1710.848 PPM

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS = 1.627829mg/kg (ppm)

OR 1627.829 ug/L (ppb)

File: M:\CP\GC-6\T08D$.36R

File=M:\CP\GC-6\T08D$.36R Date printed=05-09-1995 Time= 20:15:00
Sample Name=9503440-01C
0.0 to 45.0 min. Low Y=-50.0 High Y=320.0 mv Span=370.0



Clayton Environmental Consultants, Pleasanton, California

==========

Printed: 05-09-1995_20:15:04

Sample Name: **9503440-01C**

Date: 04-09-1995 23:04:40

Dilution Factor: 1
Operator: FK

Sample Weight: 1051

Instrument:HP5890 #02893

Area Rejected: 100
EXTERNAL_STD Calibrated

Data File: **M:\CP\GC-6\T08D$.36R** Cycle# **36**
Method File: !!M:\CP\GC-6\TD2.MET..ver# -7 . 03/01/95 09:42:38
Calibr File: !!M:\CP\GC-6\TDIESEL$.CAL..ver# -97.
Analysis: **TPH EXT TEMP 50C(3') 10C/M 310C(10') 2UL**
Miscl.

==========

Pk#	Ret time (min)	Peak Name	Amount PPM	Peak Area	Peak Type	Peak Height	Ref Pk	Amount /Area
1	16.687		0.1089	3810698	BB	24168		0.2857E-07
2	22.640		1.4356	50247900	BB	84896		0.2857E-07

Total Area = 5.40586E+07; Instrument Actual Amount = 1623.245 PPM

TOTAL EXTRACTABLE PETROLEUM HYDROCARBONS = 1.544476mg/kg (ppm)

OR 1544.476 ug/L (ppb)

File: M:\CP\GC-6\T08D$.36R

Clayton ENVIRONMENTAL CONSULTANTS

REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use Only	Page 1 of 1
Project No.	
Batch No.	9503440
Ind. Code	W.P.
Date Logged In 3/31/95	By JJ

REPORT RESULTS TO

Name: Brady Nagle — Title: Project Manager
Company: Alisto Engineering — Dept.:
Mailing Address: 1777 Oakland Blvd, Suite 200
City, State, Zip: Walnut Creek, CA 94596
Telephone No.: (510) 295-1650 — Telefax No.: (510) 295-1823

Purchase Order No.: — Client Job No.: 10-270

SEND INVOICE TO

Name: Dan Schoenholz
Company: Port of Oakland — Dept.: Envir.
Address: 530 Water Street
City, State, Zip: Oakland, CA.

Date Results Req.: — Rush Charges Authorized? ☐ Yes ☒ No — Phone / Fax Results ☐ ☒

Special Instructions: (method, limit of detection, etc.)

* Explanation of Preservative: P - HCl

Samples are: (check if applicable)
☐ Drinking Water
☐ Collected in the State of New York

ANALYSIS REQUESTED (Enter an 'X' in the box below to indicate request; Enter a 'P' if Preservative added. *)

CLIENT SAMPLE IDENTIFICATION	DATE SAMPLED	MATRIX/ MEDIA	AIR VOLUME (specify units)	Number of Containers	TPH-G/BTEX	DIESEL									FOR LAB USE ONLY
MW-2	3/29/95	H_2O	2 x 1 L & 2 x 40 mL	4	X	X									P -01 A-D
QC-1	"	"	2 x 40 mL	2	"										P -02 A,B
QC-2	"	"	"	2	"										-03 A,B

CHAIN OF CUSTODY

Collected by: Dale Swain (print) — Collector's Signature: Dale Swain
Relinquished by: Dale Swain — Date/Time 3/29/95 2145
Relinquished by: Ann Mitchell — Date/Time 3/30/95 1640
Received by: Ann Mitchell — Date/Time 3/30/95 1326
Received at Lab by: Carol Hemmerberg — Date/Time 3/30/95 4:40
Method of Shipment: CEC Courier
Sample Condition Upon Receipt: ☒ Acceptable ☐ Other (explain)

Authorized by: [signature] — Date 3/30/95
(Client Signature Must Accompany Request)

QC-2 NO PRES. — 3/31

Please return completed form and samples to one of the Clayton Environmental Consultants, Inc. labs listed below:

22345 Roethel Drive, Novi, MI 48375, (313) 344-1770
Raritan Center, 160 Fieldcrest Ave., Edison, NJ 08837, (908) 225-6040
400 Chastain Center Blvd., N.W., Suite 490, Kennesaw, GA 30144, (404) 499-7500
1252 Quarry Lane, Pleasanton, CA 94566, (510) 426-2657

2/92

DISTRIBUTION:
WHITE - Clayton Laboratory
YELLOW - Clayton Accounting
PINK - Client Retains

Please contact me at 510-567-6761 should you have any questions. For your information, our agency facsimile number is now 510-337-9335.

Sincerely,

Jennifer Eberle
Hazardous Materials Specialist

cc: Don Ringsby, Dongary Investments, PO Box 7240, Denver CO 80207
Neil Werner, Port of Oakland, 530 WAter St., Oakland CA 94607
Brady Nagle, Alisto Engineering Group, 1575 Treat Blvd, suite 201, Walnut Creek CA 94598
Jaff Auchterlonie, Groundwater Technology Inc., 1401 Halyard Dr., Ste 140, W. Sacramento CA 94591
Kevin Graves, RWQCB
Gil Jensen, Alameda County District Attorney's Office
Bill Raynolds/file

je 3899-C

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

RAFAT A. SHAHID, DIRECTOR

DEPARTMENT OF ENVIRONMENTAL HEALTH
State Water Resources Control Board
Division of Clean Water Programs
UST Local Oversight Program
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700

May 10, 1995
STID 3899

Dan Schoenholz
Port of Oakland
Environmental Department
530 Water Street, 5th Floor
Oakland, CA 94607

RE: 2277-7TH STREET, BUILDING C-401, OAKLAND CA 94607

Dear Mr. Schoenholz:

I am in receipt of the "Work Plan for Supplemental Site Investigation," prepared by Alisto Engineering Group, dated 3/30/95. As you know, this workplan involves approximately 10 soil borings, located to the north, south, and west of Building C-401. **This workplan is acceptable for implementation, with the understanding that a separate workplan will be subsequently submitted to this office for monitoring well (MW) installation.**

The MW workplan can be brief, since some of the standard operating procedures have already been specified in Alisto's 3/30/95 workplan. Please include a site map with MW locations, a site map including boring locations from the current phase of work, as well as the corresponding tabulated data. Please note that **well development should occur a minimum of 72 hours after well construction,** as per Section 2649 of 23 CCR (the UST regulations).

I am also in receipt of the free product removal update, sent under your cover letter dated 3/8/95. I assume that free product removal continues on a weekly basis. **Please continue to submit bi-monthly (every other month) updates on free product removal. The next update is therefore due.**

Lastly, I am in receipt of your letter dated 1/30/95, with the attached documentation of offhauling of recovered "free product," dated 10/20/94. You indicated that another pickup of product occurred on 1/19/95. **Please forward this documentation, as well as subsequent *documentation of product offhauling.***

PORT OF OAKLAND

April 18, 1995

Jennifer Eberle
Hazardous Materials Specialist
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda CA 94502

Dear Ms. Eberle:

SUBJECT: WORK PLAN FOR SUPPLEMENTAL SITE INVESTIGATION AT BUILDING C-401 (Port Contract # 94265)

The purpose of this letter is to transmit the Port's proposed work plan for additional investigation at Port Building C-401. The work plan was prepared by Alisto Engineering, the Port's consultant on the project.

If you have any questions or comments on the work plan, please feel free to contact me at 272-1220.

Sincerely,

Dan Schoenholz

Dan Schoenholz
Associate Environmental Scientist

Attachment

cc(w/attachment): Don Ringsby, Dongary Investments, PO Box 7240, Denver CO 80207
Jaff Auchterlonie, GTI, 1401 Halyard Dr., Ste 140, W. Sacramento CA 94591

(w/o attachment): Terry O'Rourke
Brady Nagle, Alisto Engineering

530 Water Street ■ Jack London's Waterfront ■ P.O. Box 2064 ■ Oakland, California 94604-2064
Telephone (510) 272-1100 ■ Fax (510) 272-1172 ■ TDD (510) 763-5703 ■ Cable address, PORTOFOAK, Oakland