

February 20, 1996

3982

Ms. Jennifer Eberle Hazardous Materails Specialist Hazardous Materails Division Alameda County Health Care Services Agency 1131 Harbor Bay Parkway Alameda, CA 94502

SUBJECT: GROUNDWATER MONITORING AND SAMPLING REPORT,

TRANSBAY CONTAINER TERMINAL (TBCT),
707 FERRY STREET, OAKLAND, CALIFORNIA,

STID # 3982

Dear Jennifer:

Enclosed you will find a copy of the Groundwater Monitoring and Sampling Report for a UST site located at TransBay Container Terminal (TBCT), 707 Ferry Street, Oakland, California. The Third Quarter 1995 Report was prepared on the behalf of the Port of Oakland by Alisto Engineering Group. The report address groundwater monitoring and sampling in the vicinity of Port tank site CF-04.

If you have any questions or comments, please call me at 272-1373.

Jan / Not

Associate Environmental Scientist

Enclosed

cc: Neil Werner

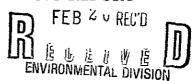
Dave Adams

2011 NG 22 634 CS



### GROUNDWATER MONITORING AND SAMPLING REPORT

Port of Oakland Berth 25 707 Ferry Street Oakland, California



Project No. 10-255-01-002

Prepared for:

Port of Oakland 530 Water Street Oakland, California

Prepared by:

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

February 13, 1996

Dale Swain

Project Manager

Al Sevilla, P.E.

Principal



#### GROUNDWATER MONITORING AND SAMPLING REPORT

Port of Oakland Berth 25 707 Ferry Street Oakland, California

Project No. 10-255-01-003

February 13, 1996

### INTRODUCTION

This report presents the results and findings of the August 24, 1995 groundwater monitoring and sampling conducted by Alisto Engineering Group at the Port of Oakland, Berth 25, 707 Ferry 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 Well MW-1 was measured from a permanent mark on top of the casing to the nearest 0.01 foot using an electronic sounder. The survey data and groundwater elevation measurements collected to date are presented in Table 1.

Before sample collection, Well MW-1 was purged of 3 casing volumes while recording field readings of pH, temperature, and electrical conductivity. The groundwater sample was collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The sample was 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 sample was analyzed by Clayton Environmental Consultants, a state-certified laboratory, for the following:

- Total petroleum hydrocarbons as diesel (TPH-D) using EPA Method 8015 (modified)
- Total petroleum hydrocarbons as motor oil (TPH-MO) using EPA Method 8015 (modified)



1

- Benzene, toluene, ethylbenzene, and total xylenes using EPA Method 8020
- Total dissolved solids using EPA Method 160.1

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 interpreted from MW-1 and from monitoring wells at the neighboring former Mobil Oil Bulk Terminal site at 909 Ferry Street are shown in Figure 2. The field procedures for chain of custody documentation and the laboratory report and chain of custody record are presented in Appendix B.

#### SUMMARY OF FINDINGS

The findings of the August 24, 1995 groundwater monitoring and sampling event are summarized as follows:

- Free product or sheen was not observed in Monitoring Well MW-1.
- Groundwater elevation data from the one well onsite and the wells at the neighboring former Mobil Oil Bulk Terminal site indicate a westerly gradient direction at the site.
- Analysis of the groundwater sample collected from MW-1 did not detect TPH-D above
  the reported detection limit, however, TPH-MO was detected at a concentration of 400
  micrograms per liter. Benzene, toluene, ethylbenzene, and total xylenes were not
  detected above the reported detection limits.
- Total dissolved solids was detected at a concentration of 1300 milligrams per liter in the sample collected from MW-1.

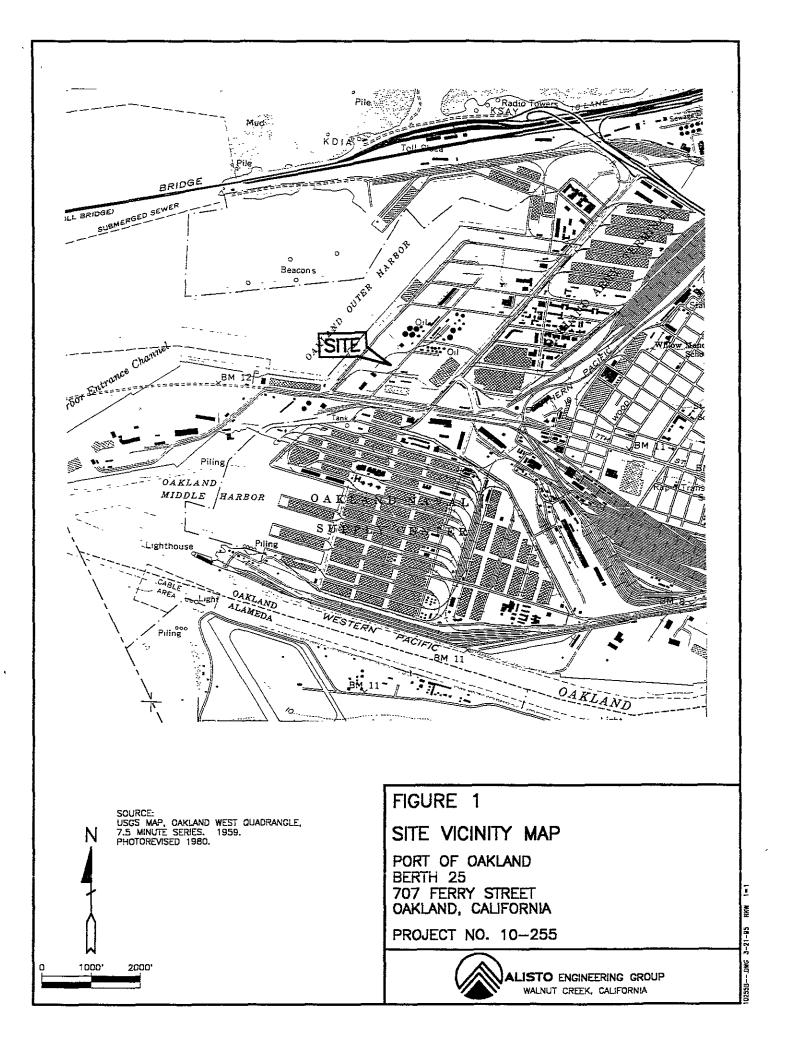


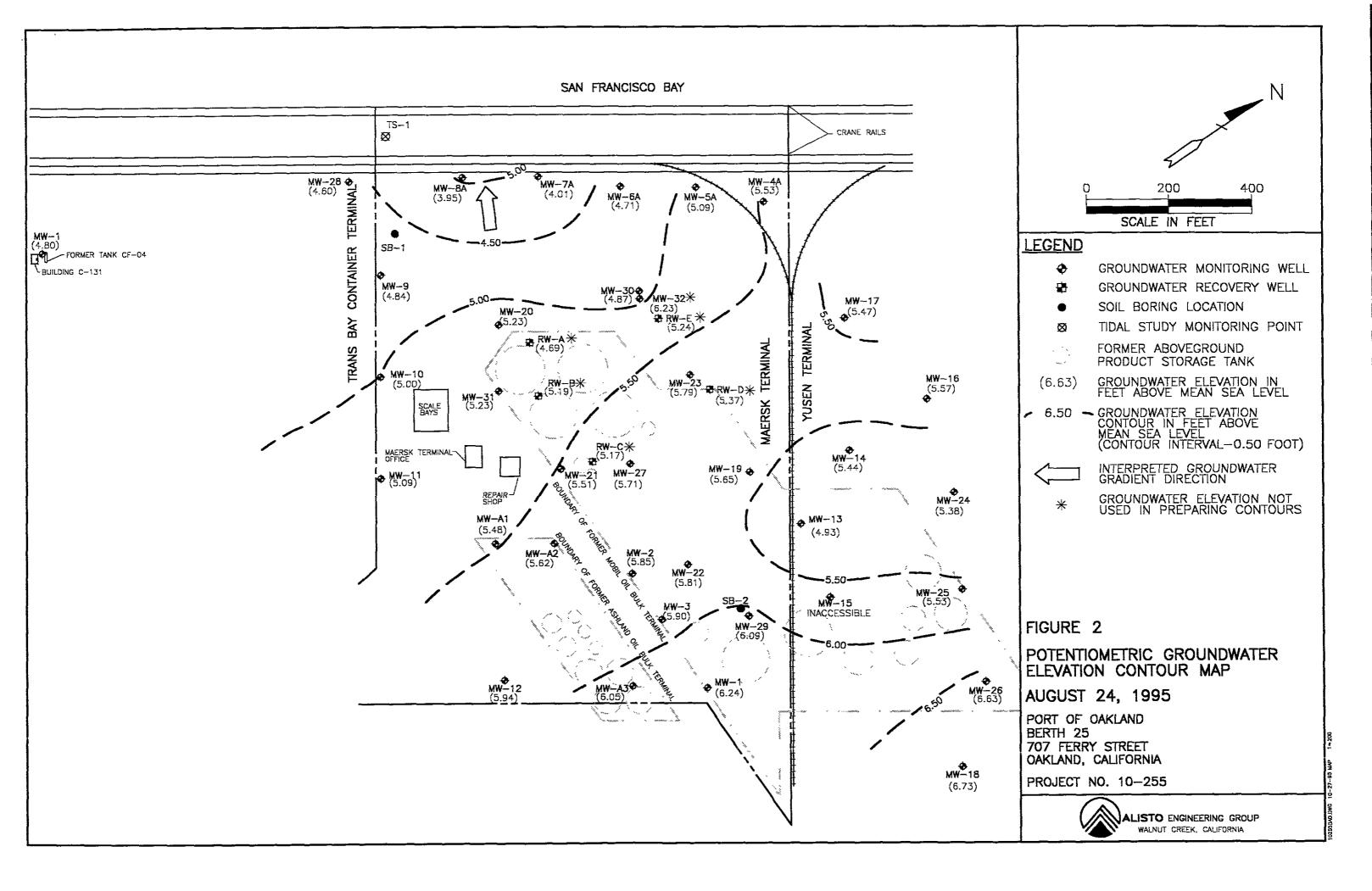
# TABLE 1 - SUMMARY OF RESULTS OF GROUNDWATER MONITORING AND SAMPLING PORT OF OAKLAND, BERTH 25 707 FERRY STREET, OAKLAND, CALIFORNIA

### ALISTO PROJECT NO. 10-255

WELL	DATE OF SAMPLING/ MONITORING	CASING ELEVATION (a) (feet)	DEPTH TO WATER (feet)	GROUNDWATER ELEVATION (b) (feet)	TPH-D (ug/l)	TPH-MO (ug/l)	B (ug/l)	T (ug/l)	E (ug/l)	X (ug/l)	TDS (mg/l)	LAB
MW-1 MW-1 QC-1 (c) MW-1 QC-1 (c) MW-1 QC-1 (c) QC-2 (d) QC-2 (d) QC-2 (d)	06/09/94 02/22/95 02/22/95 05/24/95 08/24/95 08/24/95 02/22/95 05/24/95 08/24/95	14.65 14.65 14.65 14.65 14.65 14.65	9.88 9.66  9.71  9.85 	4.77 4.99  4.94  4.80 	410 990  180  ND<80 	120  600  400 	ND<0.50 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4	ND<0.50 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3	ND<0.50 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3 ND<0.3	ND<0.50 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4 ND<0.4	1900 1100  1200  1300 	D&M CEC CEC CEC CEC CEC CEC CEC
ABBREVIA	TIONS:			NOTES:	· · · · · · · · · · · · · · · · · · ·							
TPH-D TPH-MO B T		hydrocarbons as d hydrocarbons as n		(a)	relative to	~	r low water (3	to the neare 3.2 feet below	st 0.01 foot / mean sea le	vel)		
E X TDS	Ethylbenzene Total xylenes Total dissolved :	solide		(b)	Groundw low water		ns expressed	d in feet abov	e mean lowe	•		
ug/l mg/l	Micrograms per Milligrams per lit	liter		(c)	Blind dup	dicate.						
ND D&M CEC	Not analyzed/ap Not detected ab D&M Laboratori	plicable ove reported detec		(d)	Travel bla	ank.						

E:\0\10-255\255-1-3.WQ2





### 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**

## Field Report / Sampling Data Sheet

ERING					Proje	ct No.	10-255	-01-00	3	Date:	8/24/95
					Ad	dress	707 Fer	ry Stre	et	-	M T W (TH)F
					Contrac	t No.	201597	· - / - ·		•	Oakland
CREEK CA	94598 (51	0) 295-16	50 FAX 295-1	823	Statio	n No.	Port Of Oa	kland	Sampler:		
SAMPLE ID	WELL DIAM	TOTAL DEPTH	DEPTH TO WATER	PRODUCT THICKNESS	TIME SAMPLED		ENTS:				
	2''	14.85	9.85'	P	1045					<del></del>	
RHydre "	4.00	7.00	10.00	FIELD INSTRU	IMENT CALII ATURE COM	BRATION I PENSATED	DATA (Y)N		TIME_10.5	4 N	/EATHER DOWAST
TER		ZER	o d.o. soll	NOITL		_ BARON	TETRIC PRE	SSURE			TEMP 709
CTIVITY METE	R. Hyde	۹۲	10,000		JRBIDITY MET	ER					OTHER
Depth to Wo	itei Dlam	Cap/Lock	Product Dept	Irldescence (		<del></del>		E.C.	D.O.	Ø	TDS 7 8022
9.951	21	lox	9	Y (N)						_	_
	x well vi	oi. Factor= 	X#VOI. to Purg			739	7.12			200	TPH Diesel-Motor Oil
nod: OSurface	Pump ODIs	WO edul.q	inch 💓 isp. Ba	iller(s) OSys Po	110-	73.8	7.09	2.33			TIME/SAMPLE ID
nts: 🔾	1-from	tnis w	e1(		<del></del>		†			· · · · · · · · · · · · · · · · · · ·	1110
	EAT BOULEY CREEK CA SAMPLE ID CIVITY METE Depth to Wo G. 951 T-Water Levels Tood: OSurface	EAT BOULEVARD, SUIT CREEK CA 94598 (51  SAMPLE WELL ID DIAM  Z''  R LANC 4.00  TER  CTIVITY METER AND DIAM  9.35' Z'I  1 - Water Level= x Well V  S - 9.85 = 5 x  Tood: Osurface Pump ODIs	EAT BOULEVARD, SUITE 201  CREEK CA 94598 (510) 295-168  SAMPLE WELL TOTAL DIAM DEPTH  2'' /4.85  CTIVITY METER FOR ZERO  Depth to Water Diam Cap/Lock  9.85' 2'' 0'V  1-Water Level= x Well Vol. Factor=  S -9.85=5x.16=2  Total Conditions of Cap/Lock  10 OSurface Pump ODIsp.Tube OW	EAT BOULEVARD, SUITE 201  CREEK CA 94598 (510) 295-1650 FAX 295-1  SAMPLE WELL TOTAL DEPTH TO WATER  7.10 JAN DEPTH WATER  7.10 JAN DEPTH WATER  ER ZERO d.O. SOLUTIVITY METER JAC 10,000 Depth to Water Dlam Cap/Lock Product Depth G. 351 Z11 OX G. Water Levels x Well Vol. Factors x#vol. to Purg S.	FIELD INSTRUCTIVITY METER  Depth to Water Diam Cap/Lock Product Dept Iridescence G. 9.85; 21 0.8 3 = 2.4 100; OSurface Pump ODisp.Tube OWinch Water B23  EAT BOULEVARD, SUITE 201  FOR CREEK CA 94598 (510) 295-1650 FAX 295-1823  PRODUCT THICKNESS  FIELD INSTRUCTIVITY METER  FIELD INSTRUCTIVITY METER  10,000 TEMPER  10,000 TU  10,000 TO  10,0	CONTROL  CAT BOULEVARD, SUITE 201  COREEK CA 94598 (510) 295-1650 FAX 295-1823  SAMPLE ID DIAM DEPTH WATER THICKNESS FIELD INSTRUMENT CALIF  FIELD INS	Address EAT BOULEVARD, SUITE 201  CREEK CA 94598 (510) 295-1650 FAX 295-1823  Station No.  SAMPLE WELL TOTAL DEPTH TO PRODUCT TIME COMM ID DIAM DEPTH WATER THICKNESS  FIELD INSTRUMENT CALIBRATION IN TEMPERATURE COMPENSATED  FIELD INSTRUMENT CALIBRATION IN TEMPERATURE COMPENSATED  FIELD INSTRUMENT CALIBRATION IN TEMPERATURE COMPENSATED  TOTAL A.00 7.00 10.00 TURBIDITY METER  Depth to Water Diam Cap/Lock Product Dept Iridescence Gal. Time Temp*  10.35 21 0 0 7.00 Y N 1 10.03 75.00 Y N 1 10.05 73.90 Y N 1 10.05 73	Address 707 Fei 201597  CREEK CA 94598 (510) 295-1650 FAX 295-1823  Station No. Port Of Oa SAMPLE WELL TOTAL DEPTH TO PRODUCT TIME COMMENTS:  DIAM DEPTH WATER THICKNESS FAMELER:  FIELD INSTRUMENT CALIBRATION DATA  FIELD INSTRUMENT CALIBRATION DATA  FIELD INSTRUMENT CALIBRATION DATA  FIELD INSTRUMENT CALIBRATION DATA  TEMPERATURE COMPENSATED  TURBIDITY METER  Depth to Water Dlam Cap/Lock Product Dept Iridescence Gal. Time Temp F pH  19.85 7.18  19.205  TURBIDITY METER  PH  19.85 7.18  19.205  TURBIDITY METER  TOTAL DEPTH TO PRODUCT TIME COMMENTS:  FIELD INSTRUMENT CALIBRATION DATA  TURBIDITY METER  TURBIDITY METER  TOTAL DEPTH TO PRODUCT THIME COMMENTS:  TURBIDITY METER  TOTAL DEPTH TO POINT METER  TURBIDITY METER  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 7.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 8.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 8.18  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85 9.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL DEPTH TO PRODUCT THIME TEMP F pH  19.85 9.85  TOTAL D	Address 707 Ferry Stre Contract No. SAMPLE ID DIAM DEPTH WATER THICKNESS FIELD INSTRUMENT CALIBRATION DATA TEMPERATURE COMPENSATED  TURBIDITY METER TOTAL DEPTH WATER THICKNESS FIELD INSTRUMENT CALIBRATION DATA TEMPERATURE COMPENSATED TURBIDITY METER TOTAL DEPTH WATER THICKNESS FIELD INSTRUMENT CALIBRATION DATA TEMPERATURE COMPENSATED TURBIDITY METER TOTAL DEPTH TOTAL DEPTH WATER THICKNESS FIELD INSTRUMENT CALIBRATION DATA TEMPERATURE COMPENSATED TURBIDITY METER TOTAL TOTAL DEPTH TIME COMMENTS:  TIME TOTAL TIME TOTAL DEPTH TIME TOTAL TIME TOTAL DEPTH TIME TOTAL TIME TOTAL DEPTH TOTAL DEPT	Address 707 Ferry Street  EAT BOULEVARD, SUITE 201  CONTract No. 201597  FOREEK CA 94598 (510) 295-1650 FAX 295-1823  SAMPLE ID DIAM DEPTH WATER THICKNESS T	Address 707 Ferry Street Day:  Contract No. 201597 City:  CREEK CA 94598 (510) 295-1650 FAX 295-1823 Station No. Port Of Ookland Sampler:  SAMPLE WELL TOTAL DEPTH TO PRODUCT TIME COMMENTS:  ID DIAM DEPTH WATER THICKNESS SAMPLED.  FIELD INSTRUMENT CALIBRATION DATA  FIELD INSTRUMENT CALIBRATION DATA  TEMPERATURE COMPENSATED (Y) N TIME 10.54 W  TER ZERO d.O. SOLUTION BAROMETRIC PRESSURE  CTIVITY METER HALL 10,000 TURBIDITY METER 5.0 NTU  Depth to Water Diam Cap/Lock Product Dept Indescence Gal. Time Temp F pH E.C. D.O.  10.4351 21 0) Y N 1 1103 75.0 7.18 2.17  November 10.54 Well Vol. Factore xifvol. to Purge PurgeVol. Z 1106 73.9 7.12 2.31  The Water Levels x Well Vol. Factore xifvol. to Purge PurgeVol. Z 1106 73.9 7.12 2.31  The Contract No. 201597  City: Contract No. 201597  Fort of Ookland Sampler: XIVITY METER TOTAL DEPTH TO PRODUCT TIME COMMENTS:  TIME 10.54 W  TIME 10.54 W  TIME 10.55 W  TIME 10

### 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.

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



September 13, 1995

Mr. Brady Nagle ALISTO ENGINEERING GROUP 1575 Treat Blvd., Suite 201 Walnut Creek, CA 94598

> Client Ref.: 10-255-01-003 Clayton Project No.: 95083.51

Dear Mr. Nagle:

Attached is our analytical laboratory report for the samples received on August 29, 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 October 13, 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

rehard Lynch for

San Francisco Regional Office

HAH/tjb

Attachments



Page 2 of 8

### Analytical Results for

Alisto Engineering Group

Client Reference: 10-255-01-003 Clayton Project No. 95083.51

Sample Identification: MW-1

Lab Number:

9508351-01A

Sample Matrix/Media: Preparation Method: WATER

EPA 5030

Method Reference:

Ethylbenzene

p,m-Xylenes

Toluene

o-Xylene

EPA 8020

Date Sampled:

08/24/95

Date Received: Date Prepared:

08/29/95 08/30/95

Date Analyzed:

08/30/95

0.3

0.3

0.4

0.4

Analyst:

ND

ND

ND

ND

WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene	71-43-2	ND	0.4

100-41-4

108-88-3

95-47-6

11-57-4

Surrogates		Recovery (%)	QC Limits (%)
1,4-Difluorobenzene	540-36-3	92	50 - 150

Page 3 of 8

### Analytical Results for

Alisto Engineering Group

Client Reference: 10-255-01-003 Clayton Project No. 95083.51

Sample Identification: QC-1

Lab Number:

9508351-02A

Sample Matrix/Media:

WATER

Preparation Method: Method Reference:

EPA 5030 FPA 8020 Date Sampled:

08/24/95 Date Received: 08/29/95

Date Prepared: Date Analyzed:

08/30/95 08/30/95

method Reference:	EPA 8020		Analyst:	WGK
Analyte		CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX				
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		11-57-4	ND	0.4
<u>Surrogates</u>			Recovery (%)	QC Limits (%)
1,4-Difluorobenzene		540-36-3	93	50 - 150



Page 4 of 8

### Analytical Results for

Alisto Engineering Group

Client Reference: 10-255-01-003 Clayton Project No. 95083.51

Sample Identification: QC-2

Lab Number:

9508351-03A

Sample Matrix/Media:

WATER

Preparation Method: Method Reference:

EPA 5030

EPA 8020

Date Sampled:

08/24/95

Date Received: Date Prepared:

08/29/95 08/30/95

Date Analyzed:

08/30/95

Analyst:

WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
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	11-57-4	ND	0.4
Surrogates		Recovery (%)	OC Limits (%)
1,4-Difluorobenzene	540-36-3	90	50 - 150

Page 5 of 8

### Analytical Results for

Alisto Engineering Group

Client Reference: 10-255-01-003 Clayton Project No. 95083.51

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9508351-04A

Sample Matrix/Media:

WATER

Date Received:

Preparation Method:

EPA 5030

Date Prepared: Date Analyzed:

08/30/95 08/30/95

Method Reference:

EPA 8020

Analyst:

WGK

Analyte	CAS #	Concentration (ug/L)	Method Detection Limit (ug/L)
BTEX			
Benzene Ethylbenzene Toluene o-Xylene p,m-Xylenes	71-43-2 100-41-4 108-88-3 95-47-6 11-57-4	ND ND ND ND ND	0.4 0.3 0.3 0.4 0.4
Surrogates		Recovery (%)	OC Limits (%)
1,4-Difluorobenzene	540-36-3	85	50 - 150



Date Received: 08/29/95

Date Extracted: 08/31/95

Date Analyzed: 09/06/95

Page 6 of 8

### Analytical Results

for

Alisto Engineering Group

Client Reference: 10-255-01-003 Clayton Project No. 95083.51

Sample Identification: See Below

Lab Number:

9508351

Sample Matrix/Media:

WATER

Extraction Method: Method Reference:

EPA 3510

8015	(Modified)		
			Method
			Detection
	Date	TPH-D	Limit
	8015	8015 (Modified)  Date	

Lab	Sample	Date	TPH-D	Limit
Number	Identification	Sampled	(ug/L)	(ug/L)
-01	MW-1	08/24/95	ND	80 a
-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.

a Detection limit increased due to presence of heavier hydrocarbons.

Page 7 of 8

### Analytical Results for

Alisto Engineering Group

Client Reference: 10-255-01-003 Clayton Project No. 95083.51

Sample Identification: See Below

Date Received: 08/29/95

Lab Number:

9508351

Date Extracted: 08/31/95

Sample Matrix/Media:

WATER

Date Analyzed: 09/06/95

Preparation Method:

EPA 3510

Method Reference:

EPA 8015 (Modified)

Lab Number	Sample Identification	Date Sampled	TPH-O (ug/L)	Method Detection Limit (ug/L)
-01	MW-1	08/24/95	400	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.



Page 8 of 8

Analytical Results for

Alisto Engineering Group Client Reference: 10-255-01-003

Clayton Project No. 95083.51

Sample Identification: See Below

Date Received: 08/29/95

Date Analyzed: 08/30/95

Lab Number:

9508351

WATER

Sample Matrix/Media: Method Reference:

EPA 160.1

Lab Number	Sample Identification	Date Tota Sampled	l Dissolved Solids (mg/L)	Method Detection Limit (mg/L)
-01	MW - 1	08/24/95	1300	10
-04	METHOD BLANK		<10	10



Quality Assurance Results Summary

Matrix Spike/Matrix Spike Duplicate Results

for

Clayton Project No. 95083.51

Clayton Project No. 95083.51

Clayton Lab Number: Ext./Prep. Method: Date: 9508351-LCS EPA 3510 08/31/95

Analyst: HYT
Std. Source: E95070
Sample Matrix/Media: WATER

08/31/95 HYT E950706-01W ctayton Project No. 7

Analytical Method:
Instrument 1D:
Date:
Time:
Analyst:
Units:
QC Batch No:

EPA 8015 02893 09/06/95 01:51 GUD MG/L 95083178

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	968	97	1,010	101	99	56	137	3.8	25

Clayton Project No. 95083.51

Clayton Lab Number: Ext./Prep. Method: Date: Analyst:

Sample Matrix/Media:

Std. Source:

9508351-LCS EPA 3510 09/11/95

WATER

HYT G950425-01W

Analytical Method: Instrument ID: Date:

EPA 8015 02893 09/12/95 01:59 GUD

Analyst: Units: QC Batch No:

Time:

UG/L 95091105

			MS			MSD	Average				
			Matrix	Recovery	Matrix Spike	Recovery	Recovery	LCL	UCL	RPD	UCL
Analyte	Sample Result	Spike Level	Spike Result	(%)	Duplicate Result	(%)	(% R)	(% R)	(% R)	(%)	(%RPD)
	<del></del>	<del></del>									
			_								
OIL	ND	1,000	896	90	896	90	90	30	130	0.0	40

Clayton Project No. 95083.51

Clayton Lab Number: Ext./Prep. Method: Date:

Sample Matrix/Media:

Analyst:

Std. Source:

9508351-01A EPA-5030 08/30/95

WG

WGK V950829-01W

WATER

Analytical Method: EPA8015\_8020
Instrument ID: 05587
Date: 08/30/95
Time: 13:53
Analyst: WGK
Units: ug/L
QC Batch No: 95083021

Analyte		Sample Result	Spike Level	Matrix Spìke Result	MS Recovery (%)	Matrix Spike Duplicate Result	MSD Recovery (%)	Average Recovery (% R)	LCL (% R)	UCL (% R)	RPD (%)	UCL (%RPD)
BENZENE	(PID)	ND	6.37	6,67	105	6.64	104	104	81	118	0.5	20
ETHYLBENZENE	(PID)	ND	6.89	7.24	105	7.36	107	106	81	114	1.6	20
GASOLINE	(FID)	ND	500	503	101	508	102	101	80	150	1.0	25
TOLUENE	(PID)	ND	43.6	42.7	98	43.4	100	99	84	118	1,6	20
TOTAL XYLENE	(PID)	ND	40.5	41.7	103	41.6	103	103	85	115	0.2	20



# REQUEST FOR LABORATORY ANALYTICAL SERVICES

For Clayton Use	Only Page_	of
Project No.	n - 255 - 1	01-00-3
Batch No.	950833	
Ind. Code		W.P.
Date Logged In	8/29	By Lense

<i>•</i>							Date	Logge	ed In	31	29	By The	mse
p Name A Breda Nayla Title P	myert v	CANGIDE	Purch	ase Order	No. 2	015	97		Clien	t Job t	۱٥،		1
LA COmpany A LOTA ENTON	υθρι.	4=	щ	Name Compa Addres City, St	3	US4	(OA	40.5					
用当 Mailing Address 15年ラ Trank Bwd	모음	Compa	ny Pi	×4 6	3 7·c	Sac	100	2		Dept.			
出版 City, State, Zip wayn Crosse Ca QL	S≥	Addres	<del>ک</del> s		12 12 N		7						
Telephone No. (50) 3C-5 1650 Telefax No. (5		25		City, St	ate, Zìp	C ,A-	<u> ۷۷</u>		<u></u>				
Date Results Req.: Rush Charges Authorized? Phone / Fax	- Janpico	are:		I ANALYSIS REQUESTED									
Special Instructions: (method, limit of detection, etc.)		applicable)	Containers	(21114)		7		7	7	<del></del>		///	
opecial instructions, (method, milit of detection, etc.)	☐ Drinkir		) Jitis		ASO	/ .	[30]		/	/ /			
	☐ Collect			٠,	<b>/</b> 8//								
* Explanation of Preservative:	State o	of New York	Number of			Lang .	//		/ ,	/ ,	/ /	'	<i></i>
	DATE MATRIX/	AIR VOLUME	ďμ	8	15	£5/							FOR LAB
	3 1	(specify units)	Ž					/ ,	/ .		/ /		ISE ONLY
		3xuoni		> <pr></pr>	(X							01 8	·-F
QC-1	7-1-1	HOMI	Z			1				····		02 F	
AU-2 - 1		yalmi	2									03	
		100[1/1]		<u> </u>	1	<del>                                     </del>						<u></u>	
					_	<u> </u>							
						<del>                                     </del>				<del> </del>			<del>, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>
			<b></b>	<del></del>	_	<del> </del>							
				-									
		<del>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</del>		<del> </del> -				-					
		· · · · · · · · · · · · · · · · · · ·		-	_			-					·
L Callanda Lun				<u> </u>			<u> </u>						
Collected by: David CoSacu		(print)	Colle	ctor's Sign	ature/		205	44	<u> </u>				
CHAIN Relinquished by: Date/Time					XII	12	and	he_			D	ate/Time	- Sins
CUSTODY Relinquished by: Date Date Date Date Date Date Date Date					by S	on	W	DV	ru	U	D	ate/Time\$	7/95 1013
Method of Shipment: CFC Country					n Upon	Receip	t: [	Acc	eptab	e		Other (expla	aln)
Authorized by:	Date							,					
(Client Signature Must Accompany Request		······································											i
Please return completed form and samples to one of the Clayto	on Environmental C	onsultants, Inc	labs	listed belov	v:	·····		<del></del>		$\neg$		· · · · · · · · · · · · · · · · · · ·	
0004F Death-I Date: Death-Out to 00001 at 10001			<i>'</i>					l D	ISTRIBL	JTION:	İ		

22345 Roethel Drive Raritan Center Novi, MI 48375 (810) 344-1770

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

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

2/92