

REPORT OF MONITORING WELL INSTALLATION

1100 AIRPORT DRIVE, METROPOLITAN OAKLAND INTERNATIONAL AIRPORT

JUNE 22, 1992

Reviewed 9/8/92

Prepared For:
Port of Oakland
Oakland, California

Prepared By: Uribe & Associates Oakland, California

REPORT OF MONITORING WELL INSTALLATION

1100 AIRPORT DRIVE, METROPOLITAN OAKLAND INTERNATIONAL AIRPORT

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Summary

This report documents the installation on May 13, 1992, of two monitoring wells (MW-1-2 and MW-1-3) at 1100 Airport Drive (George P. Miller Aviation Hangar at the Metropolitan Oakland International Airport), Oakland, California. Monitoring well MW-1-2 was installed within ten feet down-gradient of the excavated underground storage tanks MF-23 and MF-24. Monitoring well MW-1-3 was installed within ten feet down-gradient of the excavated underground storage tanks MF-25 and MF-26. Advance Drilling Company performed all drilling activities. Uribe & Associates (U&A) supervised the drilling activities and completed all borehole logs.

A report of tank removal (for tanks MF-23 and MF-24 near monitoring well MW-1-2) was prepared by Baseline Environmental Consulting and submitted to the Alameda County Health Care Services Agency (ACHCSA) in July, 1991. An additional report of tank removal (for tanks MF-25 and MF-26 near monitoring well MW-1-3) was prepared by U&A and submitted to ACHCSA in May, 1992. Based on these reports, the groundwater gradient was estimated to flow toward the southwest for both locations. Soil samples collected during the well drilling activities at MW-1-3 contained 100 mg/kg oil and grease. Water samples collected during completion activities for MW-1-2 contained a maximum of 7 ug/l benzene, toluene, ethylbenzene, and xylenes (BTEX). All other soil and water samples were below the detection limit for total petroleum hydrocarbons-gasoline (TPH-G) and BTEX (see Tables 1 and 2).

Site location maps (Figures 1 and 2), well bore profiles (Figures 3 and 4), borehole logs, and approved permit applications are included in this report.

Permits and Licenses

A permit application for the installation of one monitoring well was sent to the Alameda County Flood Control and Water Conservation District (ACFCWCD) on April 29, 1992. The project was approved by Wyman Hong and assigned drilling permit number 92212. A second application was submitted on May 8, 1992, for an additional well installation at the same address. Per conversation with Craig Mayfield of the ACFCWCD, the additional well was incorporated into the existing permit. Although West HazMat Drilling (license number C57-554979) was listed on the application as the driller, Advance Drilling (license number but gumbe C57-607458) replaced them as the drilling contractor.

Construction Details

The groundwater monitoring wells were completed at a depth of 12 feet using a CME-45B hollow stem auger drill rig equipped with an eight-inch auger. Two-inch screens, five feet in length with a 0.020-inch slot size, were placed in the boreholes. Two-inch PVC casing was installed to surface in both wells, and a sand pack of Number 3 gravel was placed from Total Depth to one foot above the top of the screens. Next, one-foot bentonite seals were placed in the annuli. Cement with 4% bentonite was placed in the annuli above the bentonite seal to the surface. The individual well profiles are attached along with the borehole logs.

Elevation Survey

Bissel and Karn, Inc. surveyed the well elevations on May 18, 1992. The elevation for well MW-1-3 was 6.97 feet. The elevation for well MW-1-2 was 7.43 feet. A Port of Oakland benchmark (SAM D) located on Airport Drive was used as the control point for both wells. The Port of Oakland Datum references Mean Low Low Sea Level.

Development Procedures

The monitoring wells were developed by West HazMat Drilling Corporation on May 15, 1992; U&A supervised the procedures. Approximately 23 gallons were bailed from MW-1-3; the well recharged at a rate of approximately one foot per minute. A surge block was run down the well after 12 gallons had been bailed. Temperature, pH, and conductivity readings were taken periodically. Water samples were taken when the water began to clear and the pH, conductivity, and temperature readings stabilized.

Approximately 27 gallons of water were bailed from MW-1-2. The well contained sand from 12 feet (Total Depth) to 9 feet. Sand continued to enter the well during bailing activities, and remained in the well at the 9-foot level, indicating that the screen may be damaged at or below 9 feet in this well. Water samples were taken, as well as conductivity, pH, and temperature readings, when the water above the sand began to clear.

The Monitoring Well Sampling Forms used by U&A to record well development and sampling activities are attached.

Soil and Groundwater Sampling

Core soil samples were collected during drilling activities. The samples were sent to Clayton Environmental Laboratories to be analyzed for total petroleum hydrocarbons as gasoline (TPH-G), and benzene, toluene, ethylbenzene, and xylenes (BTEX). In addition, MW-1-3-1 was analyzed for Oil and Grease. This sample contained 100 mg/kg Oil and Grease. The remaining results were below the detection limit for all analyzed constituents (see Table 2).

U&A collected water samples from the wells after completing the development procedures. The samples were also sent to Clayton Environmental Laboratories to be analyzed for BTEX, chlorides, and total dissolved solids. In addition, sample MW-1-2 was analyzed for TPH-Jet Fuel, and sample MW-1-3 was analyzed for oil and grease and TPH-G. Laboratory data sheets and chain of custody forms for both soil and water samples are included in this report. Analysis result summaries for soil and water samples are included in Tables 1 and 2.

Summary of V	Table 1 Vater Sample Analysis	n vote or	70 volables
Sample ID	MW-1-2	MW-1-3	
TPH-G (ug/l)		<50	
Benzene (ug/l)	1	<0.4	
Toluene (ug/l)	1	<0.3	
Ethylbenzene (ug/l)	2	<0.3	•
p,m-Xylenes (ug/l)	· 1	<0.4	
o-Xylene (ug/l)	7	<0.4	
TDS (mg/l)	2,200	5,900	
Chlorides (mg/l)	730	3,100	
Total Oil and Grease (mg/l)		<5	
Total Jet Fuel (ug/l)	4,900		

	Table 2 Soil Sample Analysis	should 7pt
Sample ID	MW-1-2-1	MW-1-3-1
TPH-G (mg/kg)		<0.3
Benzene (mg/kg)	< 0.005	<0.005
Toluene (mg/kg)	< 0.005	<0.005
Ethylbenzene (mg/kg)	< 0.005	<0.005
p,m-Xylenes (mg/kg)	<0.005	<0.005
o-Xylene (mg/kg)	< 0.005	< 0.005
Total Oil and Grease (mg/kg)		100
Total Jet Fuel (mg/kg)	<1	

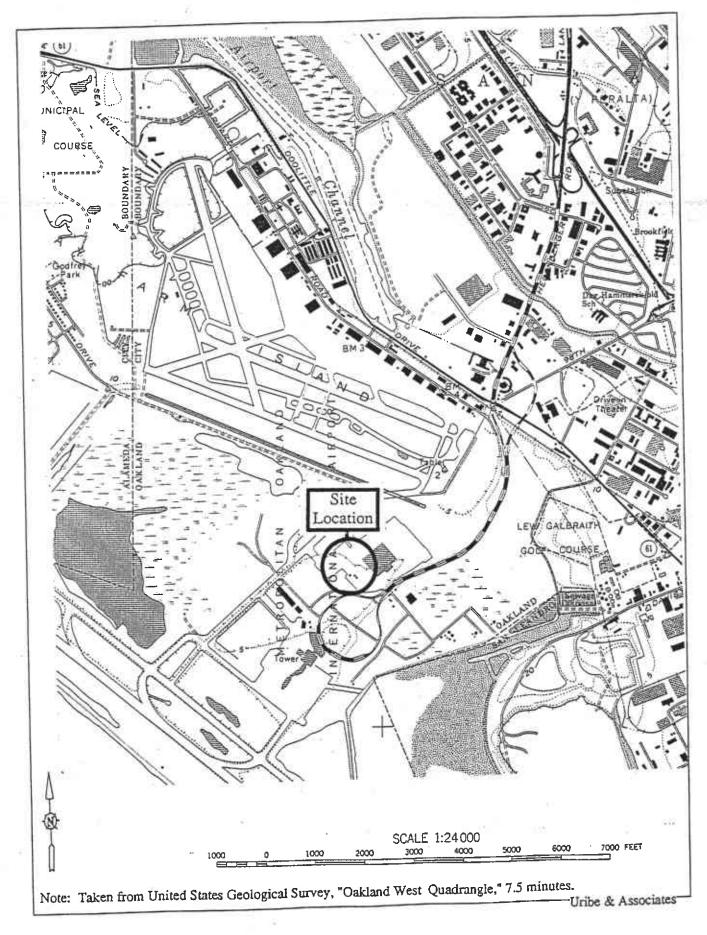


Figure 1: Site Location Map

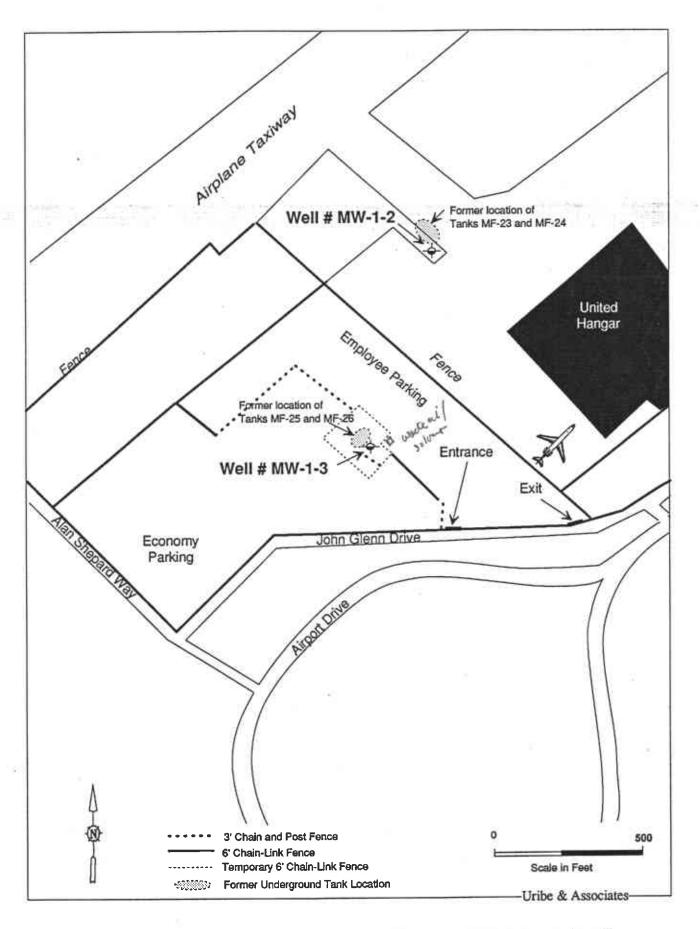


Figure 2: Site Plan Map of Monitoring Wells MW-1-2 and MW-1-3 at United Hangar

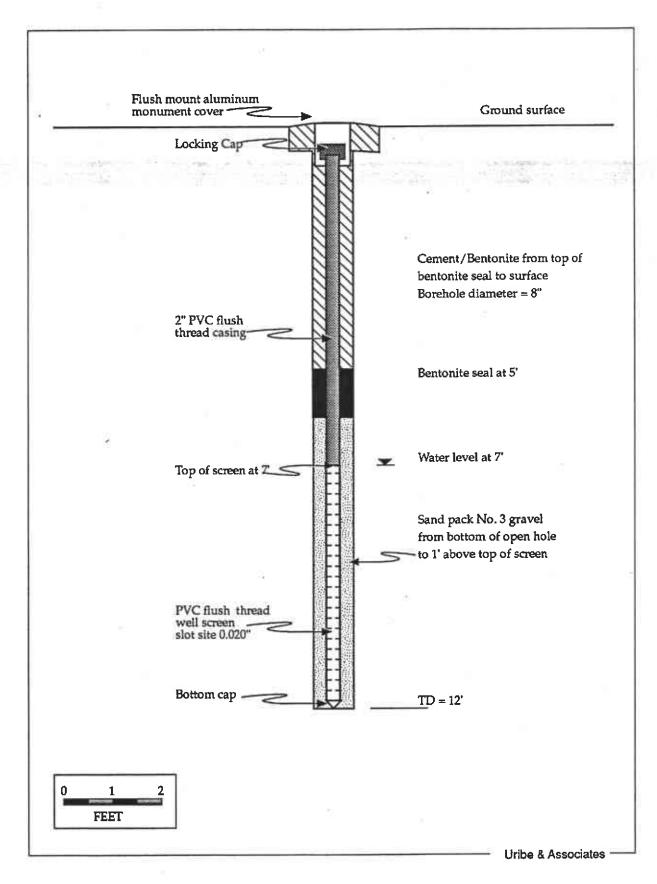


Figure 3: Monitoring Well MW-1-2 Construction Details

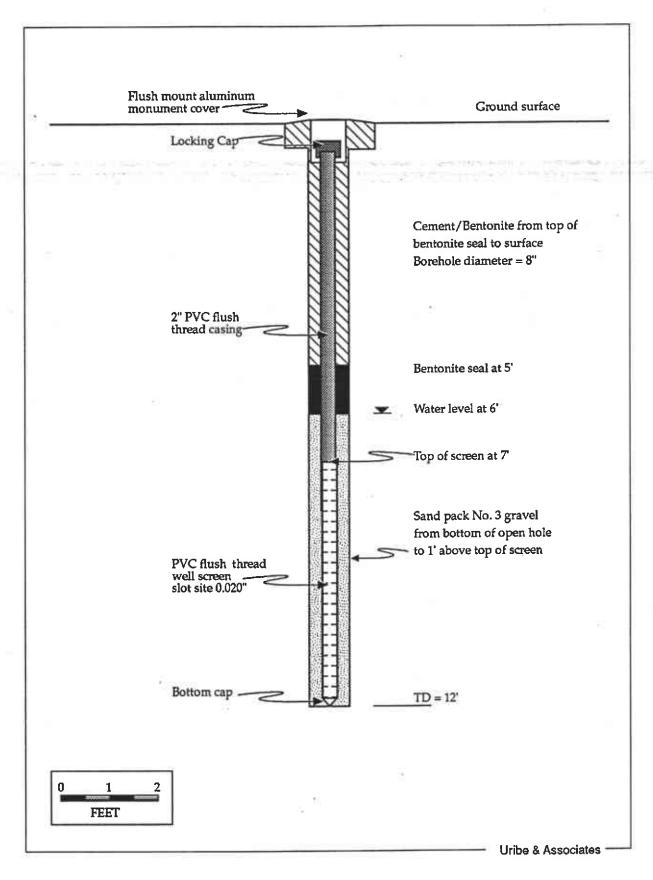


Figure 4: Monitoring Well MW-1-3 Construction Details

CLIEN	T: Port	of Oak	dand	JOB NO: 96	BOREHOLE NUMBER: MW-1-	2		
PROJE			(10)14		LOCATION: 1100 Airport Drive, Tanks MF 23 and MF 24			
		· Adva	nce Drillin	g Company	HOLE DIAMETER: 8" ELEVATION: 7.43'			
			Hollow-st		DATE: 5/13/92			
): Split-sp		RECORDED BY: S. Baehr	PROJECT R.G.:	K. Koford	
			MOISTURE			SAMPLE	SAMPLE	
			CONTENT		ESCRIPTIONS / REMARKS	I.D. #	TIME	
1,000	17	100%		Fill, sand, rocks, pebbles			1	
1 1	12			V				
	14		М	Fine grained sand, slightly moist,	greenish gray, no odor			
2	10			<u> </u>				
	13			As above, increasing moisture				
3	13							
	9							
4	10			Fine grained sand, this tube has y	wet sand, no odor			
	12			Fine grained sand, blackish greer				
5	7		\overline{V}	As above				
	12		W					
6	13						<u> </u>	
	8							
7	18			Encountered water		MW-1-2-1	12:35	
	12		W					
8	6			As above			<u> </u>	
	4						1	
9	5			As above			<u>.</u>	
	2					<u>.</u>		
10	1			As above				
1)	1							
11	push							
	push			As above			 	
12	push	$\perp $		Clay streaks - greenish gray in m		MW-1-2-2	1:00	
 		ļ <u>.</u>		why not verify	(by agritand of	 	<u> </u>	
13				> 00.51	- v V		 _	
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19			-					
		<u> </u>	<u> </u>				 	
20	L	İ	<u> </u>	1				

CLIENT: Port of Oakland JOB NO: 96 BOREHOLE NUMBE						-3		
	JECT:				LOCATION: 1100 Airport Drive, Tanks MF 25 and MF 26			
DRII	LING CO): Adva	nce Drillin	g Company	HOLE DIAMETER: 8" ELEVATION: 6.97'			
				em Auger	DATE: 5/13/92	<u></u>		
SAN	IPLING N	ETHOD	: Split-sp	oon	RECORDED BY: S. Baehr	PROJECT R.G.:	K. Koford	
			MOISTURE			SAMPLE	SAMPLE	
(Fee	t) 6 INCH	RECOV	CONTENT	LITHOLOGIC DI	ESCRIPTIONS / REMARKS	1,D. #	TIME	
	7	100%	D	4" asphalt cover		·		
1	10			Fine grained sand, moist, no odor	r, brown, very well sorted			
	14		М	unconsolidated				
2	10							
	13			Increasing moisture, grayish gree	n			
3	14			As above, increased moisture cor	···			
	8		<u> </u>	As above, increased moisture cor			<u> </u>	
4	10			As above, increased moisture cor	ntent			
	12			As above		MW-1-3-1	15:30	
5	10	$\perp \perp$	1.	Sand as above			 	
	16		<u> </u>	Sand as above	· · · · · · · · · · · · · · · · · · ·			
6	20		_	saturated with water (last brass to	saturated with water (last brass tube only)			
	13		W			 		
7	15							
	17		_	As above, saturated with water		 		
. 8	8	-				<u> </u>		
	4			Greenish brown, pebbly			 	
9	push						-	
	1				-1 -1 d			
10			 	Bay mud, gray black with abunda	nt shell tragments			
	1		-					
11		 	 				1	
4.0	3	 		TD = 12'		MW-1-3-2	16:15	
12	3	 	 	10 = 12	· · · · · · · · · · · · · · · · · · ·	14141-1-0-2	10.10	
10	-	1	1					
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14	 		 	1				
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15		1	1			·		
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16			 					
	1	,	1	·				
17		1						
			1					
18								
19								
20								

Monitoring Well Sampling Form

Site Location:		Port of Oaklan	d, 1100 Airport	Drive	_	Date:		5/15/92
Well Location:		See attached site plan			Project Reference #:			96
					_			
	Time of	Water	Free Product	Total	Total Bailed			Electric
Well #	Sampling	Level	Thickness	Depth	Volume	Temperature	pΗ	Conductivity ug/cn
MW-1-3	7	3.16'	i					
(elev. =	11:40	(elev. =	0	12'				
6.97' MLLSL)		3.81' MLLSL)	PID = 0.0	-		_		
	1:30	(Turbidity = 70.4)			20 gal	77.8	6.94	6.47E+03
	1:50				23 gal	70.4	7.24	9.23E+03
	2:03	(Turbidity = 7.4)			23 gal (Sample taken)	70.4	7	9.77E+03
, -								
	ļ. -			<u> </u>	<u> </u>			
MLLSL = N	lean Low l	.ow Sea Level =	3.0' below Me	an Sea Leve	el (MSL)			
Water Lev		ment Method: conductance m	eter			,		
Free Produ	ıct Thickne N/A	ss Measureme	nt Method:					
Well Purgi		res: I performed by ¹	West HazMat					
Well-Purge	Water Ch 55-gailon	aracterization a drum	nd Disposal Me	ethods:				
Comments	, .							
Comments	PVC sha	vings floating or ok temp/pH/con	n water. 12 gal d./turbidity.	llons sandy v	vater purged.	Surged, bailed	f, read rech	arge

Sampling Performed by:

Monitoring Well Sampling Form

Site Location:		Port of Oaklan	d, 1100 Airport	Drive	Date: 5/15/92			
Well Locati	on:	See attached			Project Reference #:			
Well #	Time of Sampling	Water Level	Free Product Thickness	Total Depth	Total Bailed Volume	Temperature	рН	Electric Conductivity ug/cm
MW-1-2 elev. = 7.43 MLLSL)	2:45	3.16' (elev. = 4.27' MLLSL)	0 PID = 0.0	12'				
	4:45				25 gal	66.7	7.85	2.75E+03
	5:00				27 gal (Sample Taken)	63.8	7.38	2.63E+03
<u> </u>								
		<u></u>						
MLLSL = N	lean Low L	ow Sea Level =	3.0' below Me	an Sea Leve	(MSL)	•	•	
Vater Leve		ment Method: conductance me	eter					,
ree Produ	ct Thicknes N/A	ss Measuremer	nt Method:					
Well Purgir	g Procedu Hand bail	res: performed by V	Vest HazMat					
Well-Purge	Water Cha 55-gallon	aracterization a drum	nd Disposal Me	thods:				

Bailed well with hand bailer for 2 hours. Bailed approx. 23 gal (half of which was sand). Sand in well at 9'. Sand recharging. Bailed water off top of sand without hitting sand. Took 5 bails and then collected samples.

TCB

Comments:

Sampling Performed by:



ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588

(510) 484-2600

DRILLING PERMIT APPLICATION

1000	
•	FOR OFFICE USE
FOR APPLICANT TO COMPLETE	port or production
George P. Miller	02212
George 2	PERMIT NUMBER 92212
TION OF PROJECT Aviation Hangar O Pirport Dr., Oakland Intern'l Airpor	CT LOCATION NUMBER
0 irport Dr., Oakland 2	
land, Ca.	
	·
NT 🖪 C. C. Z. J. a.m. d.	PERMIT CONDITIONS
Port of Cakland	
F20 Water St. Phone (510)272-1176	Circled Permit Requirements Apply
Oakland, Ca. Zip 94610	
ariana,	
ICANT	A.) GENERAL
Uribe & Associates	the state of the s
	1. A permit application smooth to arrive at the Zone 7 office five days prior to
2930 Lakeshore Phone (510) 832-2233	· · · · · · · · · · · · · · · · · · ·
ess-2000 man	proposed the solution of days after completion
Oakland Zip 94010	2. Submit to Zone / William of permitted work the original Department of of permitted work the original Department of
•	of permitted work the original notices Report or
E COMPROJECT Geotechnical investigation	of permitted work in original Report or Water Resources Water Well Drillers Report or Water Water Well Drillers Report or Water Water Well Drillers Report or Water Wa
(CONSTRUCTION .	
General General	
SUDDIY CONTAINING	Remit is void if project not began at
onitoring X Well Destruction	days of approval date.
Office the second secon	
POSO WATER SUPPLY WELL USE	B.) WATER WELLS, INCLUDING FIELD IN the Inches of I. Minimum surface seal thickness is two inches of
lestic	1) = 4 10 100 100 100 100 100 100 100 100 10
icipal irrigation	
	unite uniess à lesson de l'
ILLES METHOD: Air Rotary Auger X	
Rotary Air Rotary	specially approved. Attitude depth practicable monitoring wells is the maximum depth practicable
Other	monitoring waits is
ATT KEU 979	or 20 feet. C. GEOTECHNICAL. Backfill bore hole with compacted cut-
ILLER'S LICENSE NO. 657-554979	C. GEOTECHNICAL. Backfill bore note that feet with com- tings or heavy bentonite and upper two feet with com-
	tings or heavy bentonite and opposite or suspected pacted material. In areas of known or suspected
LL COJECTS Maximum	pacted material. In areas of known be used in contamination, tramied cament grout shall be used in
Della Role Diamotol neeth 20 ft.	contamination, tramed comon s
Casing Otalie 191	place of compacted cuttings. D. CATHODIC. Fill hole above ande zone with concrete
face Seal Depth ft. Number 1	D. CATHODIC. FIII hote above these
	1
OTECHNICAL PROJECTS	E. WELL DESTRUCTION. See attached.
Number of Borings,	
le Olameter in. Depth it.	·
STIMATED STARTING DATE May 14. 1992	Warman Hona Date 4 May 92
STILL TED COMPLETION DATE May 14. 1992	Approved Myman Hong Date 4 Hay Ja
hereby agree to comply with all requirements of t	mis // " / " / / / / / / / / / / / / / / /
erm and Alemeda County Ordinance No. 73-68.	·
erm and Alemena Coulty State	
	5 199
PPLICANT'S CLC 1 What Date 4/29/	92
IGNETURE	<u>-</u>

PLEASANTON, CALIFORNIA 94588 VOICE (510) 484-2600

FAX (510) 462-3914



APPLICANTS SICHATURE DRILLING PERMIT APPLICATION

	FOR OFFICE USE
FOR APPLICANT TO COMPLETE	FORGITISE
FOR APPLICANT TO GERMAN	PERMIT NUMBER
TION OF PROJECT	LOCATION NUMBER
1100 Air port Rd	
Oakland, CA	
NT L a a ul-	PERMIT CONDITIONS
e Port of Oak (210) 272-1178	Circled Permit Requirements Apply
ess 536 6376 3 Zp 44607	
- C - Files	
LICANT + A SSOCIZIES	A. GENERAL A permit application should be submitted so as to arrive at the A. A permit application should be submitted so as to arrive at the
18	A permit application should be proposed starting date. Zone 7 office five days prior to proposed starting date. Zone 7 office five days prior to proposed starting date.
Phone (5/0) 832-223	Zone 7 office five days prior to proposed status Zone 7 office five days prior to proposed status Submit to Zone 7 within 60 days after completion of permitted Submit to Zone 7 within 60 days after completion of permitted
710 94610	Submit to Zone 7 within 60 days after completed. Submit to Zone 7 within 60 days after completed. Work the original Department of Water Resources Water Well work the original Department for well Projects, or drilling logs.
Cakland	Drillers Report or equivalent for the projects.
PROJECT Geotechnical Investigation	Drillers Report of equivalent and location sketch for geotechnical projects. and location sketch for geotechnical projects. 3. Permit is void if project not begun within 90 days of approval
Il Construction George	
Cate dic Protection Contamination	date. B. WATER WELLS, INCLUDING PIEZOMETERS is two inches of cement grout
Wall Destruction	resigned states searched
Monitoring Well Destruction	placed by tremie.
OP SED WATER SUPPLY WELL USE	
mestic Industrial Other NA	or 20 feet for domestic and impairs seal depth for
Iniagal Irrigation	depth is specially approved. Ministern 332 of the depth practicable or 20 feet. monitoring wells is the maximum depth practicable or 20 feet.
	monitoring wells is the maximum deput present of cuttings or C. GEOTECHNICAL. Backfill bore hole with compacted cuttings or
RILLEG METHOD: Auger X	C. GEOTECHNICAL. Backfill bore hote with compacted material. In heavy bentonite and upper two feet with compacted material. In
ud RotaryAir Hotary	
able Other	areas of known or suspected cuttings. shall be used in place of compacted cuttings.
RILLER'S LICENSE NO. 657: 607438	shall be used in place of compacted cuttings: D. CATHODIC. Fill hole above anode zone with concrete placed by
/ELL PROJECTS S in Maximum.	tremie. E. WELL DESTRUCTION. See attached.
Drill Hole Diameter 6 in. Depth 20 ft.	
Casing Diameter Number f	
urface Seal Depth ft.	
BEOTECHNICAL PROJECTS Maximum	
- has of Rodous	
umber of Borings in. Depth ft.	
· · · · · · · · · · · · · · · · · · ·	
EST ATED STARTING DATE May 14, 1992	Oate
EST ATED COMPLETION DATE TO THE TOTAL TO THE TOTAL TOT	Approved
I herapy agree to comply with all requirements of this permit and Alame	da
Coulty Ordinance No. 70-04-7	31992

1. 1hh Date 3/8/42

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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92052.26

05/15/92 Date Sampled: Sample Identification: MW-1-3 05/18/92 Date Received: 9205226-02A Lab Number: 05/22/92 Date Prepared: WATER Sample Matrix/Media: 05/22/92 Date Analyzed: Preparation Method: EPA 5030 Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX/Gasoline			
Benzene	71-43-2	ND	0.4
Toluene	108-88-3	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
p,m-Xylenes		ND	0.4
o-Xylane	95-4 7- 6	ND	0.4
Gasoline		ND	50
SURROGATE		RECOVERY (%)	LIMITS (%)
a,a,a-Trifluorotoluens	98-08-8	106	50 - 150

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

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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92052.26

Sample Identification: METHOD BLANK

Lab Number: 9205226-04A
Sample Matrix/Media: WATER
Preparation Method: EPA 5030
Analytical Method: EPA 8015/8020

Date Received: --Date Prepared: 05/22/92

Date Sampled:

Date Analyzed: 05/22/92

Analyte	Concentration te CAS # (ug/L)		Limit of Detection (ug/L)	
BTEX/Gasoline				
Benzene	71-43-2	ND	0.4	
Toluene	108-88-3	ND	0.3	
Ethvlbenzene	100-41-4	ND	0,3	
p,m~Xylenes		ND	0.4	
o-Xylene	95-47-6	ND	0.4	
Gasoline		ND	50	
SURROGATE		RECOVERY (%)	LIMITS (%)	
a,a,a-Trifluorotoluene	98-08-5	105	50 - 150	

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

Page 5 of 9

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92052,26

Sample Identification: MW-1-2

05/15/92

Lab Number:

9205226-03A

Date Sampled: Date Received: 05/18/92

|Sample Matrix/Media:

WATER

Date Analyzed: 05/29/92

Analytical Method:

EPA 8020

Analyte	CAS #	Concentration (ug/L)	Limit of Detection (ug/L)
BTEX			
Benzene Toluene Ethylbenzene p,m-Xylenes o-Xylene	71-43-2 108-88-3 100-41-4 95-47-6	0.7 0.6 2.1 0.7 6.9	0.4 0.3 0.3 0.4 0.4
Surrogates	•	Recovery (%)	QC Limits (%) LCL UCL
a,a,a-Trifluorotoluene	98-08-8	107	50 - 150

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

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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92052.26

Sample Identification: MW-1-3

Lab Number:

9205226-02

Sample Matrix/Madia: WATER

Data Sampled: 05/15/92

are Received: 05/18/9	Į,
	×

		•	Analyzed	Method	Method
			ns /2n /92		EPA 325.2
1	-		•		EPA 160.1
5	mg/L				8M 5520B
•	1 10 5		10 mg/L —	10 mg/L — 05/20/92	10 mg/L — 05/20/92 —

Not detected at or above limit of detection ND

Not detected at or above limit of detection

Information not available or not applicable

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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92052.26

sample Identification: MW-1-2

Lab Number:

9205226-03

mple Matrix/Media:

WATER

Date Sampled: 05/15/92 Date Received: 05/18/92

Malyte	Concentration	Detection Limit	Units	Date Prepared	Date Analyzed	Prep Method	Analysis Method
Chloride	730	1	mg/L		05/20/92	EPA 3510	EPA 325.2
st Fuel	4,900	50	ug/L	05/22/92	05/27/92		EPA 8015
Total Dissolved Solids	2,200	10	mg/L		05/20/92		EPA 160.1

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

of 9 Page 9

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92052,26

ample Identification: METHOD BLANK 9205226-04 Lab Number:

WATER

Date Sampled: Date Received:

ample Matrix/Media: Analysis Date Prap Date Detection Prepared Analyzed Method Method Units . Limit Concentration nalyte EPA 325.2 05/20/92 mg/L <1 1 Chloride 05/22/92 05/27/92 EPA 3510 EPA 8015 ug/L 50 ND at Fuel **BPA 160.1** 05/20/92 mg/L<10 10 rotal Dissolved Solids SM 5520B 05/26/92 --5 mg/L <5 Total Oil and Greese

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

Page 3 of 7

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92051.89

05/13/92 Date Sampled: Sample Identification: MW-1-3-1 05/14/92 Date Received: 9205189-05A Lab Number: 05/20/92 Date Prepared: Sample Matrix/Media: SOIL 05/20/92 Date Analyzed: EPA 5030 Preparation Method: EPA 8015/8020 Analytical Method:

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline			
Benzene Toluene Ethylbenzene p,m-Xylenes o-Xylene Gasoline	71-43-2 108-88-3 100-41-4 95-47-6	ND ND ND ND ND ND	0.005 0.005 0.005 0.005 0.005 0.3
Surrogates a,a,a-Trifluorotoluene	98-08-8	Recovery (%)	QC Limits (%) LCL UCL 50 - 150

ND Not detected at or above limit of detection
-- Information not available or not applicable
Results are reported on a wet weight basis, as received



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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92051.89

Sample Identification: METHOD BLANK Date Sampled: -Lab Number: 9205189-07A Date Received: --

Sample Matrix/Media: SOIL Date Prepared: 05/20/92 Preparation Method: EPA 5030 Date Analyzed: 05/20/92

Analytical Method: EPA 8015/8020

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX/Gasoline		•	
Benzene	71-43-2	ND	0.005
Toluene	108-88-3	ND	0.005
	100-41-4	ND	0.005
Ethylbenzene p,m-Xylenes		ND	0.005
o-Xylene	95-47-6	ND	0.005
en a colonia de la colonia		ND	0.3
Gasoline			QC Limits (%)
Surrogates		Recovery (%)	LCL UCL
a,a,a-Trifluorotoluene	98-08-8	103	50 - 150

ND Not detected at or above limit of detection -- Information not available or not applicable Results are reported on a wet weight basis, as received

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Date Sampled: Date Received:

05/13/92

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92051.89

Lab Number: Sample Matrix/Media: Extraction Method:	9205189-03A SOIL EPA 5030 EPA 8020	Date Received: Date Extracted Date Analyzed:	: 05/20/92
Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
BTEX			
Benzene Toluene Ethylbenzene p,m-Xylenes o-Xylene	71-43-2 108-88-3 100-41-4 95-47-6	ND ND ND ND ND	0.005 0.005 0.005 0.005 0.005
Surrogates		QC Recovery (%)	Limits (%)
a,a,a-Trifluorotoluer	ne 98-08-8	96	50 - 150

Not detected at or above limit of detection Information not available or not applicable Results are reported on a wet weight basis, as received

Sample Identification: MW-1-2-1

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Results of Analysis for Uribe & Associates/ Port of Oakland

> Client Reference: 96 Clayton Project No. 92051.89

Sample Matrix/Media: SOIL

Preparation Method: EPA 3550

Analysis Method:

EPA 8015

Date Received:

05/14/92

Date Prepared:

05/15/92

Date Analyzed: 05/16/92

Lab No.	Sample ID	Date Sampled	TPH as Jet Fuel (mg/kg)	Detection Limit (mg/kg)
03A 07A	MW-1-2-1 METHOD BLANK	05/13/92	ND ND	1 1

ND Not detected at or above limit of detection

Not detected at or above limit of detection

-- Information not available or not applicable

Results are reported on a wet weight basis, as received

Page 7 of 7

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 96 Clayton Project No. 92051.89

Sample Matrix/Media: SOIL

Analysis Method:

SM 5520E

Date Received:

05/14/92

Date Analyzed: 05/19/92

Lab No.	Sample ID	Date Sampled	Total Oil & Grease (mg/kg)	Detectior Limit (mg/kg)		
05A	MW-1-3-1	05/13/92	100	50		
07A	METHOD BLANK		ND	50		

Not detected at or above limit of detection ND Not detected at or above limit of detection

Information not available or not applicable

Results are reported on a wet weight basis, as received



2930 LAKESHORE AVENUE SULTE TWO HUNDRED OAKLAND, CALIJORNIA 94610 415-832-2233 FAX 415-832-2237

920522

CHAIN OF CUSTODY RECORD PROI HO PROJECT NAME 96 Port of Oakland SAMPLEAS: (Synatura) NC. OF. CONTANIERS **CHECK IF TRUSH** COMP SAMPLE LD. NO. DATE THAE REMARKS 3 240 M(res) 10:30 mw-1-1 1x p1 // 2:15 MW-1-3 H 5:00 Ч mw-1-2

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2030 LAKESHORE AVENUE STATE H UNDER ED OAKLAND, CALIFORNIA 94610 415 - 832 - 2233 FAX 415 - 832 - 2237

CHAIN OF CUSTODY RECORD

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