REPORT OF REMOVAL OF INACTIVE TANKS MF-25 AND MF-26 1100 AIRPORT DRIVE, OAKLAND

May 1992

Prepared for

PORT OF OAKLAND

530 Water Street Oakland, California

Prepared by
Uribe & Associates
Oakland, California

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I certify that the removal of the underground storage tanks and remediation activities described in this report were performed in accordance with generally accepted industry practices and procedures.

Kenneth H. Koford

California Certified Engineering Geologist 505

Date

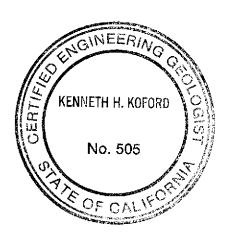


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INTRODUCTION

This report provides documentation on the removal of two tanks and the soil sampling conducted near Building M-110, 1100 Airport Drive, Oakland (Figures 1 and 2). One 3,000-gallon underground storage tank (MF-25), one 1,000-gallon underground storage tank (MF-26), and the associated piping were removed on March 19, 1992 by Tank Protect Engineering of Union City. The tanks are owned by the Port of Oakland (PORT) and were utilized by a previous tenant of Building M-110. The PORT retained the services of Uribe & Associates (U&A) to supervise the excavation, soil sampling, and report preparation to document the site activities.

Soil samples were collected from the tank excavation and stockpiled soils in accordance with requirements established by Alameda County Health Care Services Agency (ACHCSA) and the San Francisco Bay Regional Water Quality Control Board (RWQCB). The samples were analyzed for the presence of gasoline, diesel, oil, volatile and semi-volatile organic compounds, and metals (nickel, cadmium, chromium, zinc, and lead). After removal of the tank and sample collection, the excavation was back-filled with pea gravel, a geomembrane liner, and aggregate base rock. Approximately 700 cubic yards of soil excavated during the tank removal activities are stockpiled on-site. The soil stockpile lies on and is covered by 10-mil plastic sheeting.

This report also provides recommendations for an initial groundwater investigation to be performed at the site. The recommendations are in accordance with the RWQCB guidelines for preliminary site assessments (June 1988).

BACKGROUND

The site is located in the economy parking lot at the Metropolitan Oakland International Airport (MOIA), 1100 Airport Drive, Oakland (Figure 2). The site is owned by the PORT and lies adjacent to Building M-110, which is currently occupied by United Airlines and is used as an aircraft maintenance facility. The underground storage tanks were reportedly installed more than 14 years ago by R.J. Miller Company and are suspected by the PORT to have been used for the storage of gasoline, diesel, solvents, and waste oil. No documentation exists on the use of the two tanks. An assessment of the site was conducted in 1988 by Baseline Engineering (Baseline, 1988). The assessment found soil contamination near the tanks indicating that they had leaked. An Unauthorized Release Report Form was prepared and submitted to ACHCSA in October, 1988 (Appendix A).

The shallow subsurface geology consists of bay sediments and sand fill. This sand fill comprises the uppermost geologic unit, extending from the surface to a depth of approximately 13 feet. At 13 feet, there is a clay layer. The thickness of this clay layer is unknown since no site-specific geologic information was obtained below 13 feet. Water collected in the excavation on March 19, 1992, and this water appeared to be surface runnoff. This water was removed on March 19 and 24. No water reentered the excavation after this. The piezometric surface and depth to groundwater are not known, no groundwater samples were collected as a part of this project.

The site is located on a peninsula of fill material extending into the San Francisco Bay, south of Alameda. The northern tip of the peninsula is separated from Alameda by San Leandro Bay. There are 33 wells listed with the

Alameda County Flood Control District within a one-mile radius of the site; three of the wells are abandoned; seven of the wells are deep irrigation water source wells (depth greater than 150 feet); and the remaining wells are shallow groundwater monitoring wells (depth less than 50 feet).

FIELD ACTIVITIES

Tank Removals

The tanks were removed on March 19, by Tank Protection Engineering. An inspector from the City of Oakland Fire Department and ACHCSA, along with a representative from the PORT and U&A, witnessed the removal of the tanks. Prior to removal, the liquid in the excavation and tanks was removed, dry ice was placed in the tanks to displace any vapors, and the atmosphere in the tanks was checked to assure that the lower explosive limit (LEL) inside the tank was less than the required 10 percent. The tanks along with the associated vent and fill piping were removed. No other piping existed with the tanks.

Permits to remove the tanks were acquired from ACHCSA by Tank Protection Engineering. In addition, the Bay Area Air Quality Management District was notified of the tank excavation work prior to starting the project. The liquid contents of the tanks were manifested and disposed as hazardous waste by Romic Chemical. The tank was manifested and transported as hazardous waste by Erikson, Inc. to their facility in Richmond where the tank was steam-cleaned and cut into pieces. The metal was then disposed of as scrap metal. All agency notifications and Uniform Hazardous Waste Manifests for the tank removal project are in Appendix A.

After the tanks were removed, the U&A geologist collected an initial four samples of soil (one at each end of the two tanks) from the excavation walls. These samples were collected in clean brass sleeves from the excavation sidewalls when possible, or using the backhoe bucket. The ends of the brass sleeves were covered with 3-mil TeflonTM sheets and plastic caps. After the sample tubes were labelled they were stored in an ice-chest cooled to 4°C. The samples were submitted under chain-of-custody to BC Analytical laboratory. Chain-of-custody forms are provided with the sampling results in Appendix B.

Figure 3 shows a plot plan of the excavation and the soil pile. Figure 4 shows the sampling locations relative to the original tank locations. The first four samples were 96401E-1, 96401E-2, 96401E-3, and 96401E-4 ("E" stands for "excavation" and in the remainder of the report excavation samples are abbreviated as E-1, E-2, E-3, E-4 and so on). The following analytical tests were performed on the four samples: oil and grease (Standard Method 5520 D&F), total petroleum hydrocarbons (TPH) as gasoline and diesel (EPA Method 8015-modified), and volatile and semi-volatile hydrocarbons (EPA Methods 8240 and 8270). A maximum of 19,000 milligrams per kilogram (mg/kg) for oil and grease, 11,000 mg/kg for TPH as gasoline, 1,000 mg/kg for TPH as diesel, and 700 mg/kg of total xylenes were detected in sample E-1. In addition, all four samples contained chlorinated hydrocarbons as measured by EPA Methods 8240 and 8270. Sample E-4 contained dibenzofurans (1.7 mg/kg), which are often found in crankcase oil and can be formed as the result of incomplete combustion of hydrocarbons. Most of the compounds detected by EPA Method 8270 are found in asphalt and tar, and may have originated from the tanks tar wrap coating.

Soil Excavation

On March 24 and 25, 1992, soils in the former tank area were excavated under the supervision of the PORT and U&A. Approximately 700 cubic yards of soil were removed and stockpiled on 10-mil plastic sheeting at the site. The soils consisted of sandy fill material to a depth of 13 feet; the sand fill was underlain by clay. A noticeable hydrocarbon odor was emitted during the excavation work. The excavated soils were screened using a HNU photoionization device. Based on the response of the HNU, excavated soils were divided into four separate stockpiles. No visibly discolored soils were observed during the excavation operations. The approximate dimensions of the excavation were 50 feet by 50 feet; the maximum depth was 13 feet (Figure 3), where the top of the underlying clay layer was encountered.

Upon completion of the excavation, eight additional soil samples were collected by the U&A site geologist (E-5 to E-12). Six of the samples were taken from approximately 6 feet below the ground surface around the periphery of the excavation. At two of the sampling locations (E-8 and E-10), additional samples were taken at 11 feet below the ground surface (E9 and E-11) to determine whether the contamination varied with depth. Sampling procedures were identical to those followed for E-1 through E-4, and the samples were submitted to the laboratory of Clayton Environmental Consultants for analysis by the following methods:

- TPH as Gasoline (E-5, E-6, E-10, E-11, and E-12)

• Volatile Organic Compounds (E-5, E-7, E-10, E-11, and E-12)

One sample (E-6) detected 0.3 mg/kg TPH as gasoline; two samples (E-6 and E-8) detected 7 mg/kg and 3 mg/kg TPH as diesel, respectively; and three samples detected traces of the following volatile organic compounds:

• E-5 - 0.03 mg/kg 2-hexanone

(-0-0-0-0

- E-7 0.02 mg/kg benzene and o-xylene 0.04 mg/kg toluene and p,m-xylene
- E-12 -0.005 mg/kg p,m-xylene

The results from analytical tests on excavation samples are summarized in Table 1. Appendix B contain all of the excavation sampling results.

Soil Stockpile

The approximately 700 cubic yards of soil removed during excavation activities were stockpiled on-site. All excavated soils were placed on 10-mil plastic sheeting and covered and secured as required by BAAQMD Regulation 8, Rule 40-303. Sixteen soil samples collected from the stockpile were analyzed to determine the available disposal alternatives and to subdivide the stockpile based on levels of contamination (soil stockpile samples are indicated as 94601S-1 to 94601S-16 and are abbreviated as S-1 through S-16). The following analytical procedures were performed on all sixteen samples:

- TPH as gasoline
- · Oil & grease
- Volatile organic hydrocarbons

A sample from the center of the excavation (S-1), where the highest concentrations of contaminants were expected, was also analyzed for hazardous waste characteristics using the following analyses:

- Corrosivity (pH)
- · Ignitability
- · Toxicity (bioassay)
- · CCR Title 22 metals

The results of the sampling analysis indicate that the soil pile is non-hazardous. The analytical results of samples from the soil piles are presented in Tables 2 and 3. All stockpile samples, except for S-1, were analyzed by Clayton Laboratories. Sample S-1 was analyzed by BC Analytical.

CONCLUSIONS

1. The two underground storage tanks formerly located at the site released hydrocarbon compounds.

Laboratory analyses of soil samples collected from the tank and subsequent soil excavation area indicate low levels of residual concentrations of hydrocarbon compounds. The concentrations are a maximum of 7 mg/kg

TPH as diesel, 0.03 mg/kg TPH as gasoline, 0.04 mg/kg toluene, 0.03 mg/kg 2-hexanone, and 0.06 mg/kg

xylenes. Therefore, no additional soil investigation is necessary at this site. — SVOCs not you on overex sample.

Recec

2. Prior to final disposal, the soil stockpile will require treatment to remove the low levels of chlorinated hydrocarbons and the higher levels of other hydrocarbons. The results of the sampling and analysis indicate that the soil pile is non-hazardous.

RECOMMENDATIONS

1. Since no groundwater was available to sample during the tank removal and soil excavation, and the analytical sample results from the excavated soils indicate an unauthorized release of hydrocarbons occurred from these tanks, we recommend that the PORT install one groundwater monitoring well approximately 10 feet downgradient of the former tank site. The groundwater gradient is estimated to be towards the Bay in a southwesterly direction, and the proposed location of this well is illustrated in Figure 3.

The well will be constructed using 2-inch PVC casing and screen. The well screen slot size will depend on site lithology. A typical well construction profile (not to scale) is shown in Figure 5. The depths of the screened intervals in the well will depend on field conditions. Two soil samples will be collected in the unsaturated zone at depths of six and eleven feet below ground surface (groundwater is expected to be below the clay layer at thirteen feet). Samples will be collected with a California modified sampler; the boring will be advanced using a hollow stem auger drill rig. Soil sampling methods are described in Appendix D. The sand pack bentonite seal and cement grout will be tremied into the drill hole through the hollow stem auger.

All augers and sampling equipment will be decontaminated by steam-cleaning prior to mobilization onto the site. All sampling equipment will be decontaminated with TSP and deionized water between each sampling event. All drill cuttings will be stored on-site in labelled, 55-gallon drums until analytical results from these soil samples have been received, at which time disposal options will be determined.

The well will be developed with a power pump until sediments are removed from the development water and until pH, temperature and electrical conductivity have stabilized. Well development will occur 24 hours after grout installation. After 24 hours, the well will be checked for floating product and water levels, with a dual-interface probe. Before the well is purged and sampled, water levels will be measured. The well will be sampled after purging of a minimum of four well volumes of water. Development and purged water will be stored in labeled, secured 55-gallon drums until analytical results are obtained to determine disposal options.

The well water sample will be submitted under chain-of-custody procedures to a California-certified laboratory for analysis. The samples will be analyzed for gasoline (EPA Method 8015-modified), volatile organics (EPA Method 624), and semi-volatile organics (EPA Method 625). For quality control purposes, one duplicate sample will also be submitted to the laboratory for analysis. Groundwater samples will be examined for sheen, odor, and floating products. If products are observed in a well, the thickness will be measured using a dual interface probe. Soil samples collected during well bore drilling will be analyzed for gasoline hydrocarbons (EPA Method 8015-modified), for BTXE (EPA Method 8240), and for semi-volatile organics (EPA Method 8270).

A well permit will be obtained from the Alameda County Flood Control District (Zone 7), and a log of the well will be submitted to the California Department of Water Resources for their files. The well will be surveyed to determine the elevation with respect to mean sea level. A report will be prepared for submittal to the Alameda County Department of Environmental Health, Hazardous Materials Division. The report will delineate the methods used and the results of the well installation and sampling. The report will also include recommendations for additional activities to either further delineate potential groundwater contamination, remediation, or future monitoring activities.

A site safety plan will be developed and implemented at the site to protect workers involved in the drilling, well installation, and sampling activities (and the community).

2. After approvals are obtained from ACHCSA and BAAQMD, we recommend that the soil stockpile be treated on-site to remove detectable levels of chlorinated hydrocarbons. Treatment of the stockpile for TPH as gasoline and oil & grease can continue on-site, or alternatively, the stockpile can be transported to the PORT biorememediation site in Oakland (corner of Langley and Doolittle streets).

LIMITATIONS

The conclusions presented are professional opinions based on the indicated data in this report and are applicable only to this site. These opinions are based on the site conditions existing at the time the work presented in this

report was performed. Changes in the conditions at the site can occur over time because of natural processes or other work performed at the site or on adjacent sites. In addition, regulations and standards may change over time as a result of legislation or technology. Therefore, the findings presented in this report may become invalid by changes beyond U&A's control.

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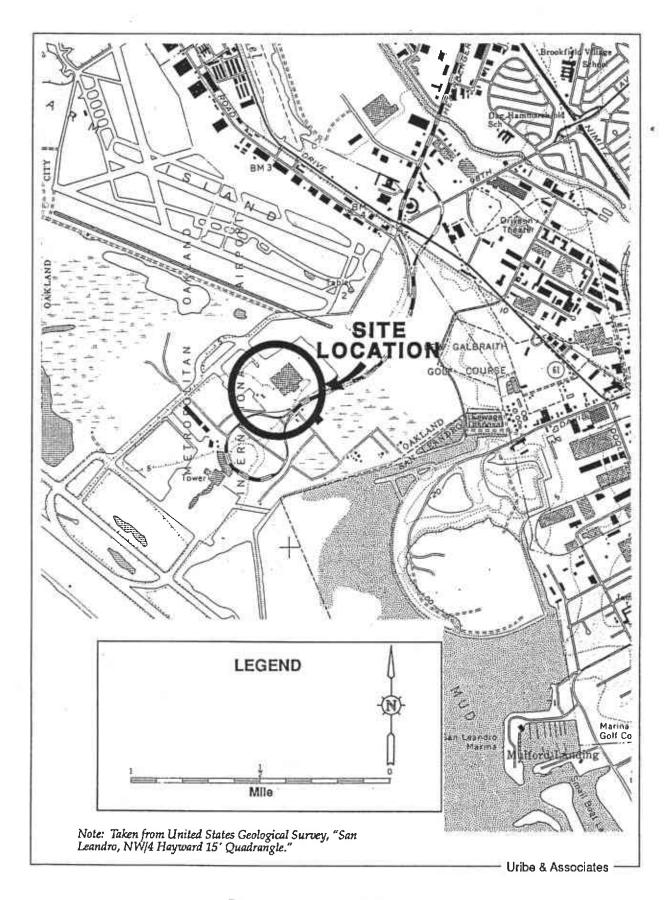


Figure 1: Location of Study Area

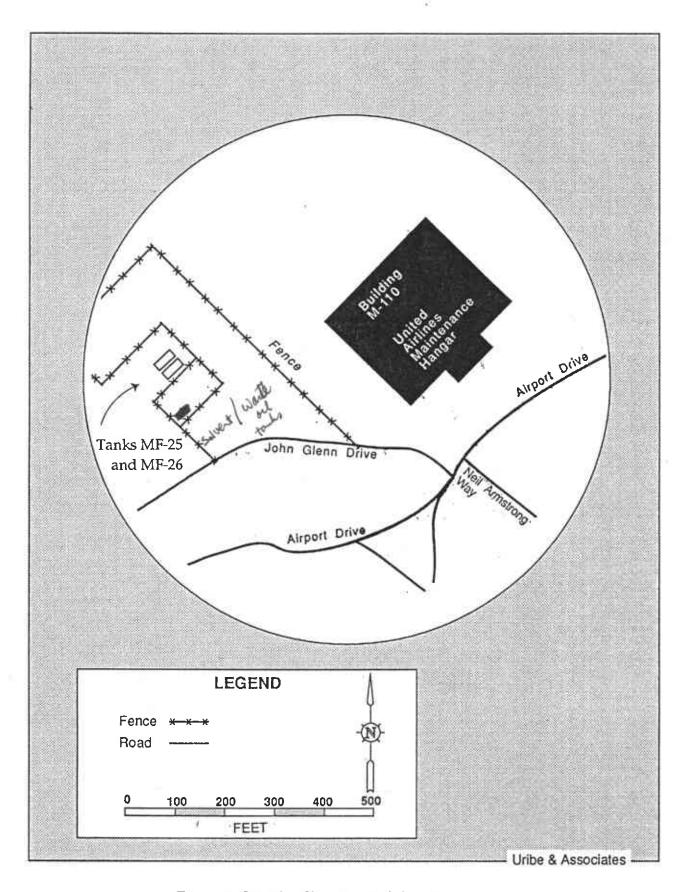


Figure 2: Site Plan Showing Tank Locations

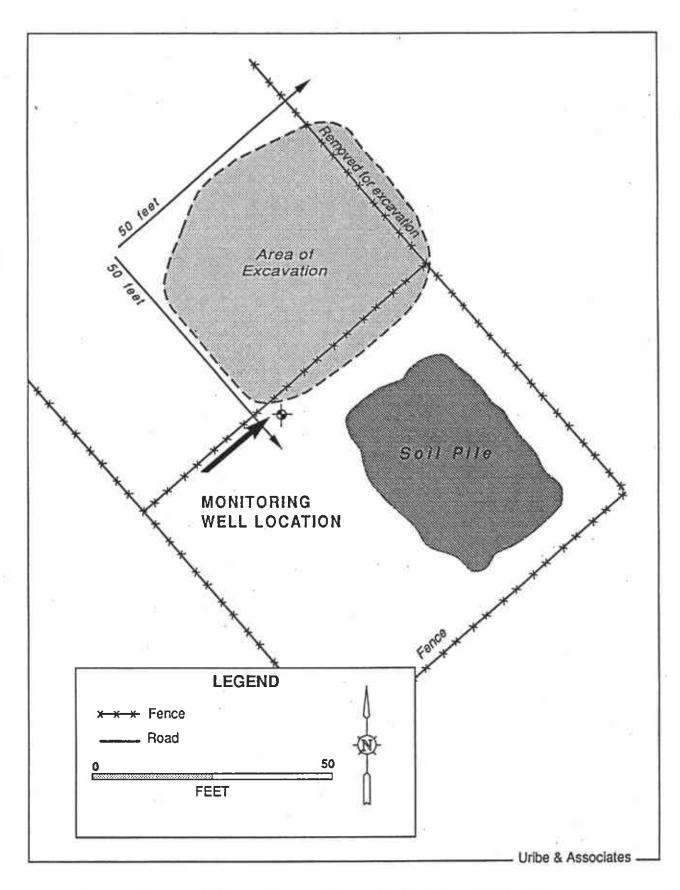


Figure 3: Excavated Pit, Soil Pile, and Proposed Monitoring Well Locations

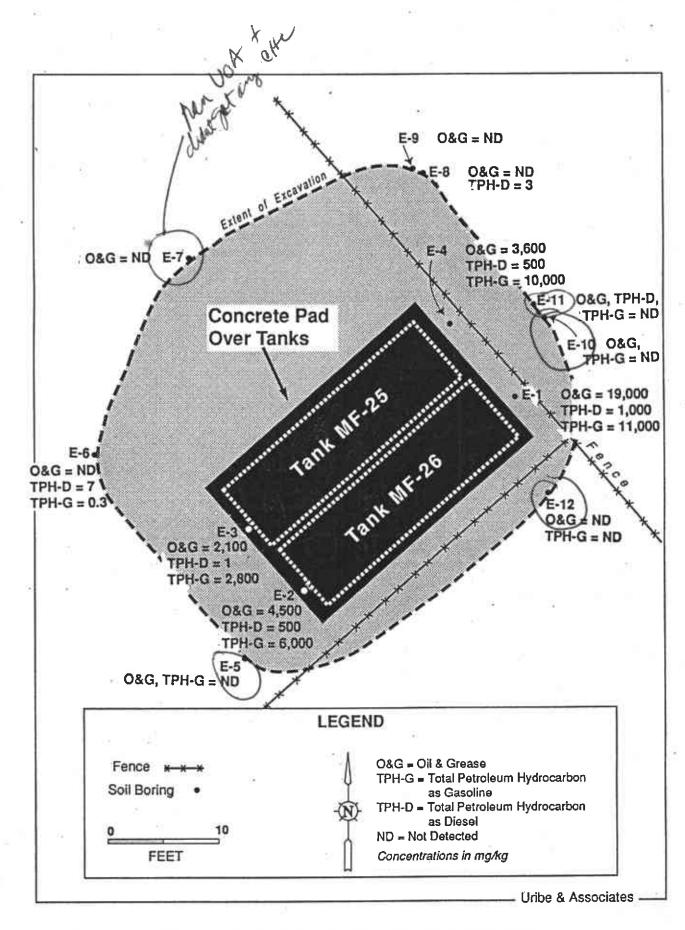


Figure 4: Soil Sampling Locations Near Excavated Tanks

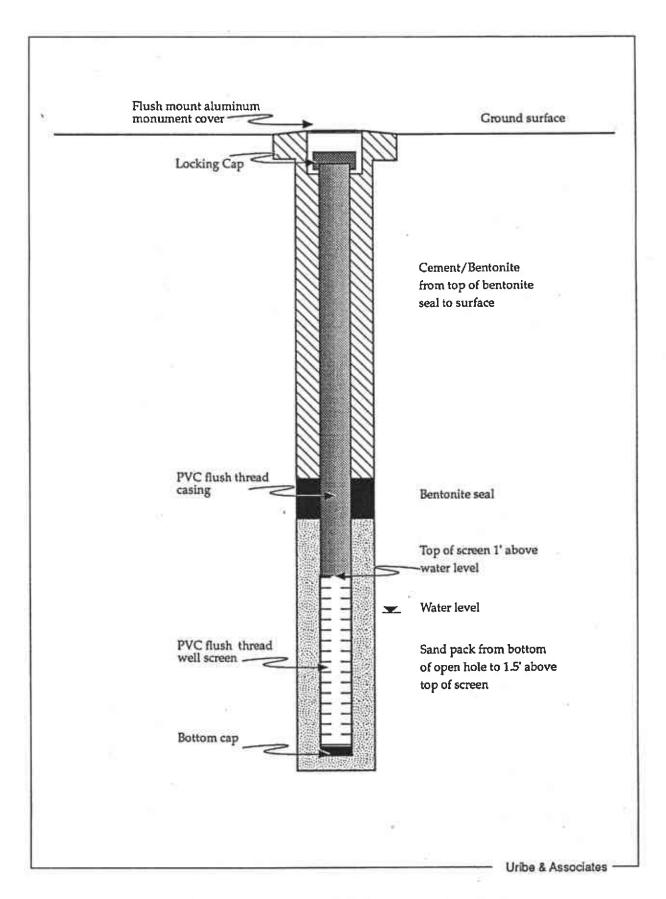


Figure 5: Monitoring Well Construction Details

Table 1

SUMMARY OF ANALYTICAL RESULTS — SOIL EXCAVATION
HYDROCARBONS (Methods Modified EPA 8015, SM 5520 D&F, and EPA 8240)

Tanks MF-25 amd MF-26
(in mg/kg)

Sample I.D,	Depth (feet)	Diesel	Gasoline	Oil & Grease	Benzene	Toluene	Total Xylenes	Ethyl- benzene
Excavation Int	erior				,			
E - 1	6	1,000	11,000	19,000	190	580	700	150
E-2	6 .	500	6,000	4,500	170	530	630	130
E - 3	6	1	2,800	2,100	100	340	420	100
E - 4	6	500	10,000	3,600	40	170	250	50
Shallow Excav	ation Peripher	y						
E - 5	6		<0.3	< 50	< 0.005	<0.005		<0.005
E - 6	6	. 7	0.3	< 50		_	_	
E - 7	6			< 50	0.02	0.04	_	< 0.02
E-8	6	3 ·	_	< 50				_
E - 10	6		<0.3	< 50	< 0.005	< 0.005	_	< 0.005
E - 12	6	www	<0.3	< 50	< 0.005	< 0.005	. -	< 0.005
Deep Excavati	on Periphery							
E-9	11	_		< 50				
E - 11	11	< 1	< 0.3	< 50	< 0.005	< 0.005		< 0.005

Table 1 Continued

SUMMARY OF ANALYTICAL RESULTS — SOIL EXCAVATION METALS (Method EPA 6010) Tanks MF-25 amd MF-26 (in mg/kg)

Sample I.D.	Depth (feet)	Cadmium	Chromium	Nickel	Lead	Zinc
Excavation In	terior					
E - 1	6	<0.2	21	20	2.6	14
E - 2	6	< 0.2	25	23	2.9	16
E-3	6	< 0.2	21	19	2.1	.13
E-4	6	<0.2	31	29	3.7	20

Shallow and excavation periphery samples were not analyzed for metals.

Table 1 Continued

SUMMARY OF ANALYTICAL RESULTS — SOIL EXCAVATION CHLORINATED VOLATILE ORGANICS (Methods 8240)

Tanks MF-25 amd MF-26

(in mg/kg)

Sample I.D.	Depth (feet)	1,1,1-Trichloroethane	1,1-Dichlororethane	Dichloroethane*	Tetrachloroethene
Excavation In	terior	UNITCA	1,1-DCA	MĆ	Perc
E - 1	6	140	30	450	100
E - 2	6	140	30	380	80
E - 3	6	80	< 20	< 20	60
E - 4	6	30	< 20	< 20	30
Shallow Exca	vation Peripher	y		,	
E - 5	6	<0.005	<0.005	<0.005	<0.005
E - 6	6			_	_
E - 7	6	< 0.02	< 0.02	< 0.05	< 0.02
E - 8	6	_	·		_
E - 10	6	<0.005	<0.005	<0.005	< 0.005
E - 12	6	<0.005	<0.005	< 0.005	<0.005
Deep Excavat	ion Periphery				
E - 9	11		_	_	· —
E - 11	11	< 0.005	< 0.005	<0.005	< 0.005

^{*} Dichloroethane is also known as Methylene Chloride.

Table 1 Continued

SUMMARY OF ANALYTICAL RESULTS — SOIL EXCAVATION SEMI-VOLATILE ORGANICS (Methods EPA 8270) Tanks MF-25 amd MF-26 (in mg/kg)

Constituent	E-1 (6 feet)	E-2 (6 feet)	E-3 (6 feet)	E-4 (6 feet)
2-Methylnaphthalene	53	6.9	7.6	35
Acenaphthene	1.7	<2	<0.4	2.8
Benzo(a)anthracene	<1	<1	<0.2	4.9
Benzo(a)pyrene	<1	<1	<0.2	2
Chrysene	<1	<1	<0.2	4.3
Dibenzofuran	<1	<1	<0.2	107
Fluoranthene	<1	<1	<0.2	13
Fluorene	1.6	<1	<0.2	2.2
Naphthalene	34	2.7	3.2	14
Phenanthrene	1	<2	0.24	16
Phenol	<2	<2	9.2	<2
Pyrene	<1	<1	0.19	14
Bis(2-ethylhexyl)phthalate	3.9	5.5	<0.4	<2
C7-C35 HC Matrix	40,000	500	5,000	20,000

Table 2

SUMMARY OF ANALYTICAL RESULTS — SOIL STOCKPILE
HYDROCARBONS (EPA Method 8015, SM 5520E, and EPA 8240)
Tanks MF-25 amd MF-26
(in mg/kg)

Sample I.D.	Gasoline	Oil & Grease	Benzene	Toluene	Total Xylenes	Ethyl- benzene
Sub-pile 1			·			
964015-2	1,300	10,000	<0.5	<0.5	6.9	<0.5
Sub-pile 1						
964015-3	370	1,000	<0.1	1	8.4	0.5
964015-4	250	1,900	<0.3	0.8	4.1	0.8
964015-5	900	3,800	<0.5	2.6	23.7	1.7
Sub-pile 1	•					
964015-6	980	8,100	<0.3	0.8	10.1	<0.3
964015-7	370	1,900	<0.1	< 0.1	2.9	<0.1
964015-8	910	5,300	<0.3	0.8	9.7	1.6
964015-9	2,400	9,200	<0.5	2	29	1.7
964015-10	1,400	7,400	<0.5	2.9	17.3	3.4
964015-11	80	540	<0.1	0.2	0	<0.1
964015-12	930	4,000	<0.3	0.6	4.2	<0.3
964015-13	670	670	<0.3	0.6	0.9	<0.3
964015-14	450	2,000	<0.3	< 0.3	1.4	<0.3
964015-15	390	2,200	<0.1	0.3	0.8	<0.1
Sub-pile 1						
964015-16	2,100	4,400	<0.5	4.7	33	5.6

Table 2 Continued

SUMMARY OF ANALYTICAL RESULTS — SOIL STOCKPILE VOLATILE ORGANICS (EPA Method 8240) Tanks MF-25 amd MF-26

(in mg/kg)

Constituent									•					·		
· ·	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
Methylene chloride	<0.5	<0.1	<0.3	<0.5	<0.3	<0.1	<0.3	<0.5	<0.5	<0.1	<0.3	<0.3	<0.3	<0.1	<0.5	
1,1,1-Trichloroethane	< 0.5	< 0.1	< 0.3	0.6	<0.3	< 0.1	< 0.3	< 0.5	< 0.5	< 0.1	< 0.3	<0.3	< 0.3	< 0.1	<0.5	
Tetrachloroethene	0.6	<0.1	< 0.3	7.4	<0.3	< 0.1	< 0.3	0.8	< 0.5	<0.1	< 0.3	< 0.3	< 0.3	< 0.1	0.8	
Chloromethane	<0.5	0.7	< 0.3	< 0.5	<0.3	< 0.1	< 0.3	< 0.5	<0.5	<0.1	< 0.3	< 0.3	< 0.3	< 0.1	<0.5	
Bromomethane	< 0.5	0.1	< 0.3	< 0.5	<0.3	< 0.1	< 0.3	< 0.5	< 0.5	< 0.1	<0.3	< 0.3	< 0.3	< 0.1	<0.5	
Vinyl chloride	< 0.5	0.8	< 0.3	< 0.5	<0.3	< 0.1	< 0.3	< 0.5	<0.5	< 0.1	< 0.3	< 0.3	< 0.3	< 0.1	<0.5	
Chloroethane	<0.5	0.3	< 0.3	< 0.5	<0.3	< 0.1	< 0.3	< 0.5	< 0.5	< 0.1	< 0.3	< 0.3	< 0.3	< 0.1	<0.5	
Trichlorofloromethane	<0.5	0.3	< 0.3	< 0.5	<0.3	< 0.1	< 0.3	< 0.5	< 0.5	< 0.1	< 0.3	< 0.3	< 0.3	<0.1	<0.5	
4-Methyl-2-pentanone	<2	<0.5	<1	<2	<1	< 0.5	1	<2	<2	< 0.5	<1	<1	<1	< 0.5	<2	

Table 3
Hazardous Characteristics of Soil Stockpile
(mg/kg unless otherwise noted)

Characteristic/	Sample	Regulatory
Constituent	96401S-1	Threshold
Bio Assay	>750 mg/l	LC ₅₀ <500 mg/l
Corrosivity (pH)	8.4	<2.5,>12
Ignitability	Not Ignitable	Ignitable
Antimony	<4	500
Arsenic	1.2	500
Barium	37	10,000
Beryllium	<0.2	. 75
Cadmium	3	100
Chromium (Total)	27	500
Cobalt	4	8,000
Copper	10	2,500
Lead	4	1,000
Mercury	<0.02	20
Molybdenum	<4	3,500
Nickel	- 21	2,000
Selenium	<0.4	100
Silver	<1	500
Thallium	<4	700
Vanadium	. 18	2,400
Zinc	24	5,000

Appendix A

Agency Notifications

- BAAQMD Notification Form
- Unauthorized Release Report Form
- Underground Tank Closure Plan
- Uniform Hazardous Waste Manifests



Removal	Cī	undergr	GUNG	alataña	j	Çij	ir).
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A MINISTER OF THE PARTY OF THE	UBITIONAL CLICAGE A. A. C.
939 ELLIS STREET SAN FRANCISCO, CALIFORNIA 94109	NOTIFICATION FORM
14151771-6000	P Removal or Replacement of Tanks
-	Excavation of Contaminated Soil
<u>\$</u>	ITE INFORMATION //
Airost 1	Drive
SITE ADDRESS 1100 Airport &	
CITY, STATE, ZIP Oakland, CA, 99	minissioners of the City of Bakland
OWNER NAME The Board of Bent Co	mini sacenera d
SPECIFIC LOCATION OF PROJECT	
TANK REMOVAL	CONTAMINATED SOIL EXCAVATION
SCHEDULED STARTUP DATE 2/10/92	SCHEDULED STARTUP DATE
VAPORS REMOVED BY:	STOCKPILES WILL BE COVERED? YES NO
[] WATER WASH	ALTERNATIVE METHOD OF AERATION (DESCRIBE BELOW):
VAPOR FREEING (CO ²)	(MAY REQUIRE PERMIT)
[] VENTILATION	(MAT DESCRIPTION)
CONT	TRACTOR INFORMATION
NAME Taux Protect Engineering ADDRESS 231 Whipple Rd.	CONTACT Late Trains
somes 2321 whipple Rd.	PHONE (5/0) 489- 8088
CITY, STATE, ZIP Union City CA 94	15.87
CITY, STATE, LIP VALLE	
	manus incomedation
CON	SULTANT INFORMATION (IF APPLICABLE)
	VIII - VI
NAME	CONTACT
ADORESS	PHONE ()
CITY, STATE, 2IP	
Citt, Sixit, C.	
CAR OFFICE USE ON V	
FOR OFFICE USE ONLY	W 42
DATE RECEIVED 2/6/92	BY (INIT.)
cc: INSPECTOR NO. 553	DATE 2/10/92 BY (INV.)
	/ · · · · · · · · · · · · · · · · · · ·

_CHANGE MADE

TELEPHONE UPDATE: CALLER___

BAAGMD N #_____

A MEDA COUNTY HEALTH CARE S 'ICES AGENCY DEPARTMENT OF ENVIRONMENTAL HEALTH HAZARDOUS MATERIALS DIVISION 80 SWAN WAY, ROOM 200 OAKLAND, CA 94621 PHONE NO. 415/271-4320

UNDERGROUND TANK CLOSURE PLAN * * * Complete according to attached instructions * * *

1.	Business Name _	Port of Oakland
	Pusines OWNET	Board of Port Commissioners of the City of Oakland
2	cita Address	1100 Airport Drive (MF25 and MF26)
۷٠	city	Oakland, CA Zip 94621 Phone
3.	watilam laares	530 Water Street, Environmental Department
	city	Oakland, CA Zip 94607 Phone (510) 272-1178
4.	Land Owner	Port of Oakland
	Address	530 Water St. City, State Oakland, CA Zip 94607
5.	Generator name	under which tank will be manifested
		Port of Oakland
	EPA I.D. No. U	under which tank will be manifested CAC000664576

Project Specialist (print)

14. Describe methods to be used for rendering tank inert

Use 151bs, of dry ice per each 1,000 gallon capacity for each tank.

Verify with on-site LEL meter.

Before tanks are pumped out and inerted, all associated piping must be flushed out into the tanks. All accessible associated piping must then be removed. Inaccessible piping must be plugged.

The Bay Area Air Quality Management District (771-6000), along with local Fire and Building Departments, must also be contacted for tank removal permits. Fire departments typically require the use of explosion proof combustible gas meters to verify tank inertness. It is the contractor's responsibility to bring a working combustible gas meter on site to verify tank inertness.

15. Tank History and Sampling Information

Tan	k	Material to	Location and
Capacity	Use History (see instructions)	be sampled (tank contents, soil, ground- water, etc.)	Depth of Samples
1,000 gallon	Solvent	Soil	One sample at each end of the tank pi max. of 2 ft. below the tank pit.
500 gallon	Waste Oil	Soil	One sample at fill or pump end of the tank.
	Piping	Soil	One sample every 20 lineal ft., or under swing joint dispenser.
	Groundwater to be	sampled if encountered.	

One soil sample must be collected for every 20 feet of piping that is removed. A ground water sample must be collected should any ground water be present in the excavation.

Stockpiled Soil Volume (Estimated) One sample for every 20 cubic yards maximum of sample every 50 cubic yards minimum.
Volume One sample for every 20 cubic yards maximum
00 cubic yards

Stockpiled soil must be placed on bermed plastic and must be completely covered by plastic sheeting.

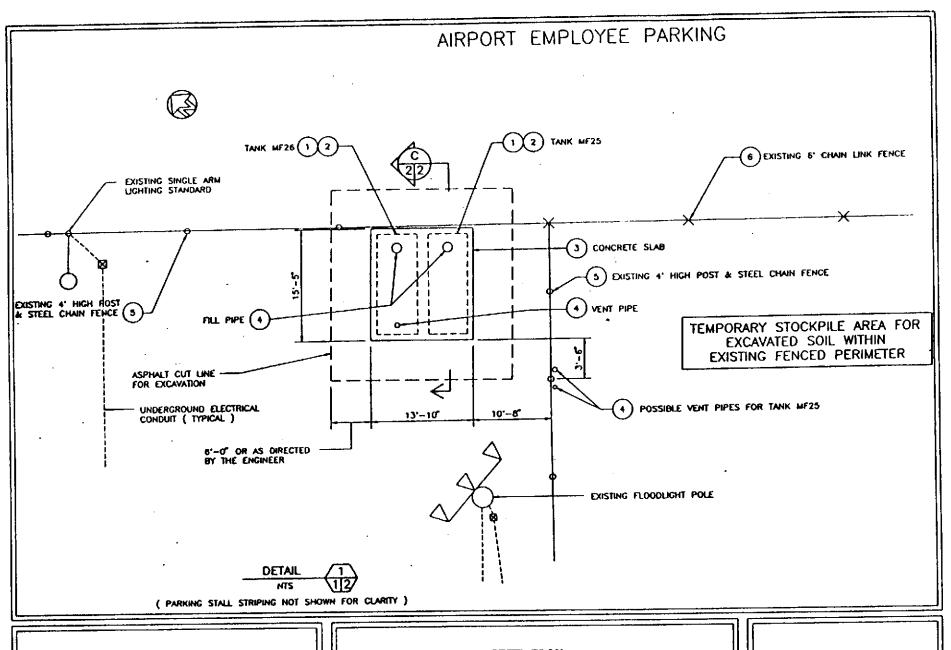
16. Chemical methods and associated detection limits to be used for analyzing samples

The Tri-Regional Board recommended minimum verification analyses and practical quantitation reporting limits should be followed. See attached Table 2.

Contaminant Sought	EPA, DHS, or Other Sample Preparation Method Number	EPA, DHS, or Other Analysis Method Number	Method Detection Limit
Waste Oil: TPHG TPHD BTEX O & G CL HC METALS PCB,PCP, PNA, Creosot	EPA 5030 EPA 3550 EPA 5030 EPA SM 5520 E & F (Gravime) EPA 5030 Cd, Cr, Ni, Zn, Pb	8020/8240	1 ppm 1 ppm . 005 ppm
Solvent: CL HC BTEX CL HC and B'	EPA 8010 or 8240 EPA 8020 or 8240 FEX 8260 ter encountered: TPHG 5030/G BTEX 5030/G TPHD 3550/G O & G	ds or osa	

17. Submit Site Health and Safety Plan (See Instructions)

13. Submit Worker's pensation Certificate Co. Name of Insurer State Compensation Insurance Fund 19. Submit Plot Plan (See Instructions) 20. Enclose Deposit (See Instructions) 21. Report any leaks or contamination to this office within 5 days of discovery. The report shall be made on an Underground Storage Tank Unauthorized Leak/Contamination Site Report form. (see Instructions) 22. Submit a closure report to this office within 60 days of the tank removal. This report must contain all the information listed in item 22 of the instructions. I declare that to the best of my knowledge and belief the statements and information provided above are correct and true. I understand that information in addition to that provided above may be needed in order to obtain an approval from the Department of Environmental Health and that no work is to begin on this project until this plan is approved. I understand that any changes in design, materials or equipment will void this plan if prior approval is not obtained. I understand that all work performed during this project will be done in compliance with all applicable OSHA (Occupational Safety and Health Administration) requirements concerning personnel health and safety. I understand that site and worker safety are solely the responsibility of the property owner or his agent and that this responsibility is not shared nor assumed by the County of Alameda. Once I have received my stamped, accepted closure plan, I will contact the project Hazardous Materials Specialist at least three working days in advance of site work to schedule the required inspections. Signature of Contractor Signature Office From Contraction Date <u>Jan. 13, 1992</u> Signature of Site Owner or Operator Name (please type) Andrew Clark-Clough Date _____ Jan. 28, 1992



SITE PLAN
PORT OF CAKLAND
1100 AIRPORT DRIVE
CAKLAND, CA 94621



P.O. BOX 807, SAN FRANCISCO, CA 94101-0807

CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

SEPT. 26, 1991

POLICY NUMBER:

1145921-91

CERTIFICATE EXPIRES:

9-1-92

ALAMEDA COUNTY
HEALTH CARE SERVICES AGENCY
80 SWAN WAY, RM. #200
OAKLAND, CA. 94621

_

This is to certify that we have issued a valid Workers' Compensation insurance policy in a form approved by the California Insurance Commissioner to the employer named below for the policy period indicated.

This policy is not subject to cancellation by the Fund except upon ten days' advance written notice to the employer.

We will also give you TEN days' advance notice should this policy be cancelled prior to its normal expiration.

This certificate of insurance is not an insurance policy and does not amend, extend or alter the coverage afforded by the policies ilisted herein. Notwithstanding any requirement, term, or condition of any contract or other document with respect to which this certificate of insurance may be issued or may pertain, the insurance afforded by the policies described herein is subject to all the terms, exclusions and conditions of such policies.

PRESIDENT

EMPLOYER

TANK PROTECT ENGINEERING C. NO CALIFORNIA, INC. 2821 WHIPPLE RD. UNION CITY, CA. 94587

OLD 262A

TANK PROTECT ENGINEERING OF NORTHERN CALIFORNIA, INC. SITE SAFETY PLAN

Site: Port of Oakland

Project Number:

1100 Airport Drive Oakland, CA

Original Site Safety Plan: Yes (X) No () Plan Prepared by Tank Protect Engineering Revision Number: 01-21-92 Date:

01-21-92 Date:

Plan Approved by Ahmad Shah

not

Please respond to each item as completely as possible. Where an item is applicable, please mark "N/A".

1. KEY PERSONNEL AND RESPONSIBILITIES

(Include name, telephone number and health and safety responsibilities; i.e., project manager - Joe Smith - responsible for supervision of all site activities.)

Project Manager:

Lyle Travis, (510) 429-8088

Site Safety Manager:

Ahmad Shah, (510) 429-8088

Alternate Site Safety Manager:

Lyle Travis

Field Team Members:

Lyle Travis

Ahmad Shah Allen Kafai

Agency Reps:

[Please specify by one of the following symbols: Federal:

(F), State: (S), Local: (L), Contractor(s): (C)

(L) Oakland Fire Department Rep.: Steve Hallert (510) 273-3851

(L) Alameda County Health Care Services Agency Rep.: Barney Chan (415) 271-4320

		_	•			
2. JOB HAZARD	ANALYSIS					
2.1 OVERALL	HAZARD E	VALU	ATION			
Hazard Level:	High ()	Мо	derate (X) Low ()	Unknown	()
	_		Solid () Sludge (
Know	m or suspected	i hazaı	rdous materials preser	it on	site	
See b	oelow: 1 - Sol	vent; 2	- Waste oil			
	cteristics of hical presents):	azardou	s materials included	above	(complete i	for each
MATERIAL #1						
Corrosive ()	•		•	•	Reactive	()
			Biological Agent (
Exposure Routes:	Inhalation	(X)			Contact	
			SI	in &	Mucous Me	mbran
MATERIAL #2						
Corrosive ()	Ignitable	(X)	Toxic (X)	Reactive	()
Semi-Volatile ()	Radioactive	()	Biological Agent ()		
Exposure Routes:	Inhalation	()	Ingestion ()	Contact	(X)
MATERIAL #3					····	
Corrosive ()	Ignitabl e	()	Toxic ()	Reactive	()
Volatile ()	Radioactive	()	Biological Agent ()		
Exposure Routes:	Inhalation	()	Ingestion ()	Contact	()
MATERIAL #4						
Corrosive ()	Ignitable	()	Toxic ()	Reactive	()
Volatile ()	Radioactive	()	Biological Agent ()		
Exposure Routes:	Inhalation	()	Ingestion ()	Contact	()

2.2 JOB-SPECIFIC HAZARDS

For each labor category specify the possible hazards based on information available (i.e., Task-driller, Hazards-trauma from drill rig accidents, etc.) For each hazard, indicate steps to be taken to minimize the hazard.

Task - Tank Removal; Hazard - Gasoline Vapor Explosion To minimize - use 15 lb of dry ice per each 1,000 gallon capacity to inert vapor present in tank.

The following additional hazards are expected on site (i.e., snake infested area, extreme heat, etc.):

N/A

Measures to minimize the effects of the additional hazards are: N/A

3. MONITORING PLAN

The project manager or a designated field technician (either a Geologist/Civil Engineer) will conduct air monitoring using direct reading sampling equipment. At a minimum the following monitoring will be performed.

A. Combustible Gases and Vapors

Potentially explosive concentrations of gases and vapors within the tanks(s) will be monitored by inserting the probe of the Gastechtor (model 1314) Hydrocarbon Super surveyor inside the tank(s) to monitor the oxygen (% oxygen) vapor concentration (ppm) and lower explosive limit (LEL). Once the indicators of the instrument show levels below that required by the HMD (i.e. 20% LEL, 5% O_2), the tank(s) will be considered inerted and safe for removal.

B. Total Organic Vapors

A portable Trace-techtor meter will be used to monitor work zone concentrations of organic vapors in the work area. Measurements will be

taken at least once every 15 minutes while on site. The meter will be calibrated with hexane.

Breathing zone concentrations in excess of 500 ppm will stop the on-site work until the work zone concentrations are reduced to below 500 ppm.

C. Respiratory Protection

- Personnel inerting the tank(s) with dry ice will use NIOSH approved halfface air purifying respirators with dual organic vapor cartridges.
- . If the total organic vapors exceed 300 ppm in the workers breathing zone, personnel will be required to use NIOSH approved respirator.3.

 MONITORING PLAN
- 3.1 Personnel Monitoring
 (Include hierarchy of responsibilities decision making on the site)

Safety officer advises field manager who delegates responsibilities to individual team workers.

3.2 Sampling Monitoring

(a) Techniques used for sampling

Insert a probe inside the tank to determine LEL and oxygen levels.

(b) Equipments used for sampling

Gastech Model 1314

- 1 Hydrocarbon Super Surveyor
- 2 Brass Sleeve and Sampler With Hammer
- (c) Maintenance and calibration of equipments

Use hexane for calibration. Equipment will be calibrated prior to operation.

4. PERSONAL PROTECTIVE EQUIPMENT

A minimum of US EPA level D protection will be required within the work zone for any workers engaged in sample collection or other activities on this site. Level D protection will include:

- Disposable Tyvek coverall (T 104)
- Steel toe boots
- . Splash goggles or safety glasses
- Chemical resistant disposable gloves (when in contact with contaminated material)

Level C protection will be required if trace-techtor measurements exceed 300 ppm in the workers breathing zone. Level C protection will consist of:

- Disposable Tyvek coverall (T 204)
- Steel toe boots
- . Chemical resistant boot covers
- Splash goggles
- · Chemical resistant disposable gloves (inner and outer)
- NIOSH approved half-face air purifying respirator with dual organic vapor cartridge.

Additional protective equipment on work site(s) will consist of:

- . Hard hat
- Protective gloves
- . Hearing protection (ear plugs)
- Back support lifting belts (when attempting to lift heavy loads)

5. SITE CONTROL AND SECURITY MEASURES

The following general work zone security guidelines will be implemented on each site:

6. FIELD EQUIPMENT CALIBRATION AND MAINTENANCE

The following equipment may be used during the remedial investigation. Equipment calibration procedures and frequency are listed for each piece.

- 1. Name: Gastechtor Hydrocarbon Super Surveyor (model 1314)

 Calibration: Factory calibrated, field calibrated with hexane monthly (by a Registered Geologist) and prior to each operation according to manufacturers instructions by designated field personnel (Geologist/Civil Engineer). Zeroed daily.
- 2. Name: Trace-Techtor Portable Hydrocarbon Vapor Tester Calibration: Factory calibrated, field calibrated monthly (by a Registered Geologist) zeroed daily according to manufacturers instructions. Calibrated with hexane gas prior to each operation by field personnel (Geologist/Civil Engineer).
- * Hexane is the recommended calibration gas for the Gastech (model 1314) and Trace-Techtor, since it provides a conservative response representative of the total petroleum hydrocarbon vapors present.

7. DECONTAMINATION

During all field operations, care will be taken to minimize contact with contaminated soils and groundwater (not anticipated). Waste materials (rinse water) generated on site(s) will be collected and stored in drums and will be stored on-site for proper disposal. This will minimize contact and dispensing of potentially contaminated materials.

7.1 Decontamination Procedures Protocol

Loose debris will be removed from protective clothing by brushing or rinsing with trisodium phosphate (TSP).

- . Ensure that workers are aware of potential hazards they may encounter.
- . Provide the knowledge and skills necessary to perform the work with minimal risk to workers health and safety.
- . Familiarization with the site safety plan and site-specific requirements.

The training plan for this site will include:

- . A 40 hour Hazardous Waste Operation and Emergency Response Course
- . Emergency response
- . Entry, exit and decontamination procedures
- . Protective clothing, use and maintenance
- . Respiratory protection, rational use, maintenance and fit testing
- . Potential physical and chemical health hazards.

11. MEDICAL SURVEILLANCE REQUIREMENTS

If any task requires a very high personnel protection level, personnel shall provide assurances that they have received a physical examination and they are fit to do the task. Also personnel will be instructed to look for any symptom of heat stress, heat stroke, heat exhaustion or any other unusual symptom. If there is any report of that kind it will be immediately followed through, and appropriate action will be taken.

12. STANDARD OPERATION PROCEDURES

Tank Protect Engineering of Northern California, Inc. (TPE) is responsible for the safety of all TPE employees on site. Each contractor shall provide all the equipment necessary to meet safe operation practices and procedures for their personnel on site and be responsible for the safety of their workers.

A "Three Warning" system is utilized to enforce compliance with Health and Safety procedures practices which will be implemented at the site for worker safety:

- Eating, drinking, chewing gum or tobacco, and 'smoking will be allowed only in designated areas.
- * Wash facilities will be utilized by workers in the work areas before eating, drinking, or use of the toilet facilities.
- Containers will be labeled identifying them as waste, debris or contaminated clothing.
- All Excavation/drilling work will comply with all applicable regulatory agencies requirements.
- * All site personnel will be required to wear hard hats and advised to take adequate measures for self protection.
- Any other action which is determined to be unsafe by the site safety officer.

13. Emergency Response Plan

Fire extinguisher(s) will be on site prior to excavation. Relevant phone numbers:

Person	Title	Phone No.		
Lyle Travis	Project Manager	(510) 429-8088		
-	Fire	911 or		
	Police	911 or		
	Ambulance	911 or		
	Poison Control Cent	ter (800) 523-2222		
	Site Phone	(510)		
4.4	Nearest off-site no.			
Dr. Kenneth Zelinger	Medical Advisor	(510) 357-6500		
Jill Brown	Client Contact	(510) 577-4162		

U.S EPA - ERT		(201) 321-6660
Chemtrec		(800) 424-9300
Centers for Disease Control	Day	(404) 329-3311
	Night	(404) 329-2888
National Response Center		(800) 424-8802
Superfund/RCRA Hotline		(800) 424-8802
TSCA Hotline		(800) 424-9065
National Pesticide Information Services		(800) 845-7633
Bureau of Alcohol, Tobacco, and Firearms		(800) 424-9555

HEALTH AND SAFETY COMPLIANCE STATEMENT

I, Ahmad Shah, have received and read a copy of the project Health and Safety Plan.

I understand that I am required to have read the aforementioned document and have received proper training under the occupational Safety and Health Act (29 CFR, Part 1910.120) prior to conducting site activities at the site.

Ahmad Dlah	01-21-92
Signature	Date

Nearest Hospital:

Humana Hospital

13855 E. 14th Street

San Leandro, CA (510) 357-6500

Directions From Site:

Go 880 N. exit on Marina East go straight until you see San Leandro Blvd. make a right onto San Leandro Blvd. go straight until you see Rose Drive make a right onto Rose Drive it will lead you into the emergency room.

14. SHORING AND RIGGING

- A. Shoring is not required for this project.
- B. A backhoe will be used to lift the 1,000-gallon and 500-gallon tanks. All rigging and hoisting equipment and their operations shall comply with CAL/OSHA regulations.

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9-86) Previous éditions are obsolete.

See Instructions on back of page 6. Department of Health Service Toxic Substances Control Program

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		 GERERATORE CERTIFICATIONs²t hereby decide that the contents pocked, maked, and labeled, and are in all respects in proper co 	of this consignment are fully and	occurately o	sescribed a	bove by proper s	hipping name and are classified,
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EPA 8700—22

See Instructions on Back of Page 6 and Front of Page 7 Department of Health Services Tixic Substances Control Division

Please P	rint or type. Form designed for use on elite (12-pitch typewriter).	210110	HIL OF PAS	,		Sacramento, California
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Ř	C					State
} __						EPA/Other
	d.					State
	•					EPA/Other by
	J. Additional Descriptions for Materials Listed Above	The second region is the second region of the second region region of the second region of the second region regio		- IC: Hendling	Code (Sr W	stee Listed Above 15 July 20
	90% Mater			6	<u>C</u> L	d.
	5% Chlorinated Solver					
<u> </u>	15. Special Handling Instructions and Additional Information Weav Gloves Goccles and appropri	had Devad	mal P	rotecti	ve eq	in it went to your
124	mean dienes idiodices mus abbubble	inic form	, , ,		,	•
	HANDING PYOLICH ZODGOOD		h .	A .	5 510	-577-4082
		: mah mood	<u> </u>	C 1	1 2m	211-1006
3	16. GENERATOR'S CERTIFICATION: I hereby declare that the content and are classified, packed, marked, and labeled, and are in all respondational government regulations.	s of this consignment are lets in proper condition to	of transport	courately desc by highway ac	de ci g libros	r proper chipping name dicable international and
	Ida I	age to reduce the volume	e and toxicit	y o! waste ger	erate 1 to the	degree I have determined
M CASE OF AN EMERGENCY OF	If i an a large quantity generator, I certify that I have a program in problem in the practical present and lutiful threat to human health and the environment; OR, generation and select the best waste management method that is an experience.	die method of treatment. If I am a amaii quentily q	araraga, or enerator, i h			
	Printed / Typed Name	Signature				Month Day Year
ጀ ♥	Mahmoud Saad	1/4		<u> </u>	≥	101311919
	17. Transporter 1 Acknowledgement of Receipt of Materials		,			**************************************
Z	Printed/Typed Name	Signature		11		Month Day Year
5 8	Steve Fleming		<u> </u>	Alme	25/	<u> </u>
No.	18. Transporter 2 Acknowledgement of Receipt of Materials	T-51-2-		 	<u> </u>	Month Day Year
3 7	Printed/Typed Name	Signature	_			1 1 1 1 1 1
2 5	C Discourse Indication Comme					
	19. Discrepancy indication Space					
, ,			1	•		
ļĢ				44		
	20. Facility Owner or Operator Certification of receipt of hezerdous mate	risis covered by this ma	inifest excep	n de noted in i	tem - 3.	
Ť	Rripfied/Typed Name	Signature	المدر)		72	Month Day Year
'	MRISTING WORDS	Dest				<u>\</u> \
DHS 8022	A Do Not	Write Below This Lir	ne	•		المحرين الم

Appendix B

Excavation Laboratory Results

ANALYTICAL REPORT

1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-472

Received: 20 MAR 92

Mailed: APR 2 1 1992

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SA	MPLES		DA	TE SAMPLED
03-472-1	96401E-1				19 MAR 92
03-472-2	96401E-2				19 MAR 92
03-472-3	96401E-3				19 MAR 92
03-472-4	96401E-4				19 MAR 92
PARAMETER		03-472-1	03-472-2	03-472-3	03-472-4
Oil and Gre	ease, gravimetric, mg/kg	19000	4500	2100	3600
Cadmium, mg	g/kg	<0.2	<0.2	<0.2	<0.2
Chromium, n	ng/kg	21	25	21	31
Lead, mg/kg	7	2.6	2.9	2.1	3.7
Nickel, mg/	¹ kg	20	23	19	29
Zinc, mg/kg		14	16	13	20
Nitric Acid	l Digestion, Date	03/26/92	03/26/92	03/26/92	03/26/92

1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-472

Received: 20 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SA	MPLES		DA	TE SAMPLED
03-472-1	96401E-1				19 MAR 92
03-472-2	96401E-2				19 MAR 92
03-472-3	96401E-3				19 MAR 92
03-472-4	96401E-4				19 MAR 92
PARAMETER		03-472-1	03-472-2	03-472-3	03-472-4
B/N,A Ext.	Priority Pollutants				
Date Anal	yzed	04.04.92	04.04.92	04.04.92	04.04.92
Date Extr		03.24.92	03.24.92	03.24.92	
	Factor, Times	10	10	2	10
	chlorobenzene, mg/kg	<2	<2	<0.4	<2
	lorobenzene, mg/kg	<2	<2	<0.4	<2
1,2-Diphe	enylhydrazine, mg/kg	<2	<2	<0.4	<2
	lorobenzene, mg/kg	<1	<1	<0.2	<1
	lorobenzene, mg/kg	<1	<1	<0.2	<1
	chlorophenol, mg/kg	<2	<2	<0.4	<2
	chlorophenol, mg/kg	<1	<1	<0.2	<1
	orophenol, mg/kg	<1	<1	<0.2	<1
	hylphenol, mg/kg	<2	<2	<0.4	<2
	rophenol, mg/kg	<3	<3	<0.6	<3
	rotoluene, mg/kg	<3	<3	<0.6	<3
	rotoluene, mg/kg	<1	<1	<0.2	<1
	uaphthalene, mg/kg	<1	<1	<0.2	<1
	bhenol, mg/kg	<2	<2	<0.4	<2
	4,6-dinitrophenol, mg/kg	<1	<1	<0.2	<1
	aphthalene, mg/kg	53	6.9	7.6	35
2-Methylp	henol (o-Cresol), mg/kg	<1	<1	<0.2	<1
	uiline, mg/kg	<3	<3	<0.6	<3
	enol, mg/kg	<1	<1	<0.2	<1
3,3'-Dicb	lorobenzidine, mg/kg	<5	<5	<1	<5



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LOG NO: E92-03-472

Received: 20 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES			DATE SAMPLE		
03-472-1	96401E-1				19 MAR 92	
03-472-2	96401E-2				19 MAR 92	
03-472-3	96401E-3				19 MAR 92	
03-472-4	96401E-4				19 MAR 92	
PARAMETER		03-472-1	03-472-2	03-472-3	03-472-4	
3-Nitroan	niline, mg/kg	<3	<3	<0.6	<3	
4-Bromoph	nenylphenylether, mg/kg	<2	<2	<0.4	<2	
4-Chloro-	-3-methylphenol, mg/kg	<2	<2	<0.4	<2	
4-Chloroa	niline, mg/kg	<3	<3	<0.6	<3	
	henylphenylether, mg/kg	<2	<2	<0.4	<2	
4-Methylp	phenol (p-Cresol), mg/kg	<2	<2	<0.4	<2	
4-Nitroar	niline, mg/kg	<3	<3	<0.6	<3	
_	nenol, mg/kg	<10	<10	<2	<10	
Acenaphth	nene, mg/kg	1.7	<2	<0.4	2.8	
_	nylene, mg/kg	<1	<1	<0.2	<1	
Aniline,	5 • 5	<4	<4	<0.8	<4	
Anthracer		<2	<2	<0.4	4	
Benzidine	e, mg/kg	<20	<20	<4	<20	
Benzo(a)a	inthracene, mg/kg	<1	<1	<0.2	4.9	
Benzo(a)p	oyrene, mg/kg	<1	<1	<0.2	2.0	
	luoranthene, mg/kg	<3	<3	<0.6	<3	
Benzo(g,h	ı,i)perylene, mg/kg	<1	<1	<0.2	<1	
Benzo(k)f	luoranthene, mg/kg	<3	<3	<0.6	<3	
Benzyl al	cohol, mg/kg	<2	<2	<0.4	<2	
Benzoic a	cid, mg/kg	<3	<3	<0.6	<3	
•	ylphthalate, mg/kg	<1	<1	<0.2	<1	
Chrysene,	4 0	<1	<1	<0.2	4.3	
	lphthalate, mg/kg	<2	<2	<0.4	<2	
Dibenzo(a	,h)anthracene, mg/kg	<1	<1	<0.2	<1	



1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-472

Received: 20 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAME	DA	TE SAMPLED		
03-472-1	96401E-1				19 MAR 92
03-472-2	96401E-2				19 MAR 92
03-472-3	96401E-3				19 MAR 92
03-472-4	96401E-4				19 MAR 92
PARAMETER		03-472-1	03-472-2	03-472-3	03-472-4
	ran, mg/kg		<1	<0.2	1.7
Dibutylph	nthalate, mg/kg	<1	<1	<0.2	<1
	ithalate, mg/kg	<1	<1	<0.2	<1
	ohthalate, mg/kg	<1	<1	<0.2	<1
	nene, mg/kg	<1	<1	<0.2	13
Fluorene,		1.6	<1	<0.2	2.2
	cobenzene, mg/kg	<2	<2	<0.4	<2
	cobutadiene, mg/kg	<2	<2	<0.4	<2
	cocyclopentadiene, mg/kg	<6	<6	<2	<6
	coethane, mg/kg	<1	<1	<0.2	<1
	,2,3-c,d)pyrene, mg/kg	<2	<2	<0.4	<2
	ne, mg/kg	<1	<1	<0.2	<1
	odimethylamine, mg/kg	<3	<3	<0.6	<3
	odiphenylamine, mg/kg	<3	<3	<0.6	<3
	odi-n-propylamine, mg/kg	<1	<1	<0.2	<1
	zene, mg/kg	<2	<2	<0.4	<2
	ene, mg/kg	34	2.7	3.2	14
Phenanthr	rene, mg/kg	1.0	<2	0.24	16
Phenol, m		<2	<2	9.2	<2
Pentachlo	prophenol, mg/kg	<3	<3	<0.6	<3
Pyrene, m		<1	<1	0.19	14
Bis(2-chl	oroethoxy)methane, mg/kg	<1	<1	<0.2	<1
Bis(2-chl	oroethyl)ether, mg/kg	<1	<1	<0.2	<1
Bis(2-chl	oroisopropyl)ether, mg/kg	<1	<1	<0.2	<1



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Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAM	MPLES			TE SAMPLED
03-472-1					19 MAR 92
03-472-2	96401E-2				19 MAR 92
03-472-3	96401E-3				19 MAR 92
03-472-4					19 MAR 92
PARAMETER		03-472-1	03-472-2	03-472-3	
	lhexyl)phthalate, mg/kg	3.9			
Semi-Quant	ified Results **				
C7-C35 Ho	: Matrix, mg/kg	40000	500	5000	20000
** Quanti that of t	fication based upon comparison he nearest internal standard.	on of total ion	count of	the compound	d with
	ocarbons 3550/8015	•			
Date Analy	zed	03.26.92	03.26.92	03.26.92	03.26.92
Date Extra	cted	03.25.92	03.25.92	03.25.92	03.25.92
	actor, Times	1000	500	1	500
	(as diesel), mg/kg	<1000	<500	<1	<500
	e Character, .				
	ile Hydrocarbons				
Date Analy		03.27.92	03.26.92	03.26.92	03.26.92
	actor, Times	20000	10000	101	10000
	(as gasoline), mg/kg	11000	6000	2800	10000
Approximat	e Character, .	UNKNOWN	UNKNOWN	UNKNOWN	UNKNOWN



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Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SA	MPLES		DA	TE SAMPLED
03-472-1	96401E-1				19 MAR 92
03-472-2	96401E-2				19 MAR 92
03-472-3	96401E-3				19 MAR 92
03-472-4	96401E-4				19 MAR 92
PARAMETER		03-472-1	03-472-2	03-472-3	03-472-4
Volatile O	rganics (EPA 8240)				
Date Anal	yzed	03.23.92	03.23.92	03.23.92	03.23.92
Time Anal	yzed	16:41	17:13	17:43	18:14
Analyst I		7504	7504	7504	7504
	Limit, mg/kg	20	20	20	20
	Factor, Times	4000	4000	4000	4000
Instrumen		517-03	517-03	517-03	517-03
1,1,1-Tri	chloroethane, mg/kg	140	140	80	30
$1,1,2,2-T_0$	etrachloroethane, mg/kg	<20	<20	<20	<20
	chloroethane, mg/kg	<20	<20	<20	<20
	oroethane, mg/kg	30	30	<20	<20
	proethene, mg/kg	<20	<20	<20	<20
	oroethane, mg/kg	<20	<20	<20	<20
	orobenzene, mg/kg	<20	<20	<20	<20
1,2-Dichle	oroethene (Total), mg/kg	<20	<20	<20	<20
1,2-Dickle	oropropane, mg/kg	<20	<20	<20	<20
	orobenzene, mg/kg	<20	<20	<20	<20
	probenzene, mg/kg	<20	<20	<20	<20
	thylvinylether, mg/kg	<20	<20	<20	<20
2-Hexanon		<40	<40	<40	<40
	2-Pentanone, mg/kg	<200	<200	<200	<200
Acetone, i		<200	<200	<200	<200
Acrolein,		<200	<200	<200	<200
Acrylonit	rile, mg/kg	<200	<200	<200	<200



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LOG NO: E92-03-472

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Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL	DATE SAMPLED			
				υA 	TE SWELFED
03-472-1	96401 E-1				19 MAR 92
03-472-2	-				19 MAR 92
	96401 E-3				19 MAR 92
03-472-4	96401 E-4				19 MAR 92
PARAMETER		03-472-1	03-472-2	03-472-3	03-472-4
Bromodich	loromethane, mg/kg	<20	<20	<20	<20
	ane, mg/kg	<20	<20	<20	<20
Benzene,	mg/kg	190	170	100	40
Bromoform	n, mg/kg	<20	<20	<20	<20
	zene, mg/kg	<20	<20	<20	<20
Carbon Te	trachloride, mg/kg	<20	<20	<20	<20
Chloroeth	ane, mg/kg	<20	<20	<20	<20
Chlorofor	m, mg/kg	<20	<20	<20	<20
	hane, mg/kg	<20	<20	<20	<20
	sulfide, mg/kg	<20	<20	<20	<20
Dibromoch	loromethane, mg/kg	<20	<20	<20	<20
Ethylbenz	ene, mg/kg	150	130	100	50
Freon 113		<20	<20	<20	<20
	hyl ketone, mg/kg	<40	<40	<40	<40
	chloride, mg/kg	450	380	<20	<20
Styrene,	- · ·	<20	<20	<20	<20
	ethene, mg/kg	<20	<20	<20	<20
	fluoromethane, mg/kg	<20	<20	<20	<20
Toluene,		580	530	340	170
	roethene, mg/kg	100	80	60	30
	tate, mg/kg	<20	<20	<20	<20
	oride, mg/kg	<20	<20	<20	<20
Total Xyl	ene Isomers, mg/kg	700	630	420	250
cis-1,2-D	ichloroethene, mg/kg	<20	<20	<20	<20



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Project: 96-401

REPORT OF ANALYTICAL RESULTS

Page 8

LOG NO	SAMPLE DESCRIPTION, SOIL S	AMPLES		DA	TE SAMPLED
03-472-1 03-472-2 03-472-3 03-472-4	96401E-1 96401E-2 96401E-3 96401E-4				19 MAR 92 19 MAR 92 19 MAR 92 19 MAR 92
PARAMETER		03-472-1	03-472-2	03-472-3	03-472-4
trans-1,2-	ichloropropene, mg/kg -Dichloroethene, mg/kg -Dichloropropene, mg/kg	<20 <20 <20	<20 <20 <20 <20	<20 <20 <20 <20	<20 <20 <20 <20
	tified Results ** odrocarbons, mg/kg	300	300	200	100

** Quantification based upon comparison of total ion count of the compound with that of the nearest internal standard.

Sim D. Lessley, Ph.D., Laboratory Director

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

March 30, 1992

Mr. John Borrego URIBE & ASSOCIATES 2930 Lakeshore Ave, Ste. 200 Oakland, CA 94610

> Client Ref. 028691 (96-401) Clayton Project No. 92033.05

Dear Mr. Borrego:

Attached is our analytical laboratory report for the samples received on March 26, 1992. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH

Michael Lynch for

Director, Laboratory Services

Western Operations

RHP/tb

Attachments



Page 2 of 9

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Matrix/Media: SOIL

Analysis Method: SM 5520E

Date Received: 0

Date Analyzed:

03/26/92 03/29/92

Lab No.	Sample ID	Date Sampled	Total Oil & Grease (mg/kg)
01A	96401E-5	03/25/92	ND
02A	96401E-6	03/25/92	ND
03A	96401E-7	03/25/92	ND
04A	96401E-8	03/25/92	ND
05A	96401E-9	03/25/92	ND
06A	96401E-10	03/25/92	ND
07A	96401E-11	03/25/92	ND
08A	96401E-12	03/25/92	ND
09A	METHOD BLANK		ND
Detecti	on Limit:		50

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 3 of 9

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Matrix/Media: SOIL Preparation Method: EPA 3550 Analysis Method: EPA 8015

Date Received: 03/26/92 Date Prepared: 03/26/92 Date Analyzed: 03/26/92

Lab No.			Diesel (mg/kg)
02A	96401E-6	03/25/92	7
04A	96401E-8	03/25/92	3
07A	96401E-11	03/25/92	ND
09A	METHOD BLANK		ND
Detect	cion Limit:		1

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

Results are reported on a wet weight basis, as received

⁻⁻ Information not available or not applicable



Page 4 of 9

Results of Analysis for

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-7

Lab Number: 9203305-03A

Sample Matrix/Media: SOIL

Preparation Method: EPA 5030

Date Sampled: 03/25/92

Date Received: 03/26/92

Date Prepared: 03/26/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			******
Chloromethane	74-87-3	ИД	0.05
Bromomethane	74-83-9	ND	0.02
Vinyl chloride	75-01-4	ND	0.02
Chloroethane	75-00-3	ND	0.02
Methylene chloride	75-09-2	ND	0.05
Trichlorofluoromethane	75-69-4	ND	0.02
1,1-Dichloroethene	75-35-4	ND	0.02
1,1-Dichloroethane	75-35-3	ND	0.02
Trans-1,2-Dichloroethene	156-60-5	ND	0.02
Cis-1,2-Dichloroethene	156-59-2	ND	0.02
Chloroform	67-66-3	ND	0.02
1,2-Dichloroethane	107-06-2	ND	0.02
1,1,1-Trichloroethane	71-55-6	ND	0.02
Carbon tetrachloride	56-23-5	ND	0.02
Bromodichloromethane	75-27-4	ND	0.02
1,2-Dichloropropane	78-87-5	ND	0.02
Cis-1,3-Dichloropropene	10061-01-5	ND	0.02
Trichloroethene	79-01-6	ND	0.02
Benzene	71-43-2	0.02	0.01
Dibromochloromethane	124-48-1	ND	0.01

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

Note: Detection limits increased due to matrix interference



Page 5 of 9

Results of Analysis for

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-7 Lab Number:

9203305-03A

Date Sampled: 03/25/92 Date Received: 03/26/92

Sample Matrix/Media: Preparation Method:

SOIL

Date Prepared: 03/26/92

Analytical Method:

EPA 5030

Date Analyzed: 03/26/92

EPA 8240 (Low Level)

nalyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)	
urgeable Organics (continued	1)			
1,1,2-Trichloroethane	79-00-5	ND	0.02	
Trans-1,3-Dichloropropene	10061-02-6	ND	0.03	
2-Chloroethylvinylether	110-75-8	ND	0.02	
Bromoform	75-25-2	ND	0.02	
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.02	
Tetrachloroethene	127-18-4	ND	0.02	
Toluene	108-88-3	0.04	0.01	
Chlorobenzene	108-90-7	ND	0.02	
Ethylbenzene	100-41-4	ND	0.02	
1,3-Dichlorobenzene	541-73-7	ND	0.02	
1,2-Dichlorobenzene	95-50-1	ND	0.02	
1,4-Dichlorobenzene	106-46-7	ND	0.02	
Freon 113	76-13-1	ND	0.02	
p,m-Xylenes		0.04	0.02	
o-Xylene	95-47-6	0.02	0.02	
Acetone	67-64-1	ND	0.1	
2-Butanone	78-93-3	ND	0.1	
4-Methyl-2-pentanone	108-10-1	ND	0.1	
2-Hexanone	591-78-6	ND	0.1	
Vinyl acetate	108-05-4	ND	0.05	

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

Note: Detection limits increased due to matrix interference



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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-7

Date Sampled: 03/25/92

Lab Number: Sample Matrix/Media:

9203305-03A SOIL

Date Received: 03/26/92 Date Prepared: 03/26/92

Preparation Method:

EPA 5030

03/26/92 Date Analyzed:

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	<u>1)</u>		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.02 0.02
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	2037-26-5 460-00-4	114 98 94	31 - 159 77 - 139 47 - 119

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

Detection limits increased due to matrix interference Note:



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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203305-09A

Date Received:

Sample Matrix/Media:

SOIL

Date Prepared: 03/26/92

Preparation Method:

EPA 5030

Date Analyzed: 03/26/92

EPA 8240 (Low Level) Analytical Method:

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.01
Bromomethane	74-83-9	ND	0.004
Vinyl chloride	75-01-4	ND	0.004
Chloroethane	75-00-3	ND	0.004
Methylene chloride	75-09-2	ND	0.01
Trichlorofluoromethane	75-69-4	ND	0.003
1,1-Dichloroethene	75-35-4	ND	0.003
1,1-Dichloroethane	75-35-3	ND	0.003
Trans-1,2-Dichloroethene	156-60 - 5	ND	0.003
Cis-1,2-Dichloroethene	156-59-2	ND	0.003
Chloroform	67-66-3	ND	0.003
1,2-Dichloroethane	107-06-2	ND	0.003
1,1,1-Trichloroethane	71-55-6	ND	0.003
Carbon tetrachloride	56-23-5	ND	0.003
Bromodichloromethane	75-27-4	ND	0.003
1,2-Dichloropropane	78-87-5	ND	0.003
Cis-1,3-Dichloropropene	10061-01-5	ND	0.003
Trichloroethene	79-01-6	ND	0.004
Benzene	71-43-2	ND	0.002
Dibromochloromethane	124-48-1	ND	0.002

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: METHOD BLANK Date Sampled: -- Lab Number: 9203305-09A Date Received: --

Sample Matrix/Media: SOIL Date Prepared: 03/26/92 Preparation Method: EPA 5030 Date Analyzed: 03/26/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continue	<u>1)</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.003
Trans-1,3-Dichloropropene	10061-02-6	ND	0.005
2-Chloroethylvinylether	110-75-8	ND	0.003
Bromoform	75-25-2	ND	0.003
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.004
Tetrachloroethene	127-18-4	ND	0.004
Toluene	108-88-3	ND	0.002
Chlorobenzene	108-90-7	ND	0.003
Ethylbenzene	100-41-4	ND	0.003
1,3-Dichlorobenzene	541-73-7	ND	0.003
1,2-Dichlorobenzene	95-50-1	ND	0.003
1,4-Dichlorobenzene	106-46-7	ND	0.003
Freon 113	76-13-1	ND	0.003
p,m-Xylenes		ND	0.003
o-Xylene	95-47-6	ND	0.003
Acetone	67-64-1	ND	0.02
2-Butanone	78-93-3	ND	0.02
4-Methyl-2-pentanone	108-10-1	ND	0.02
2-Hexanone	591-78-6	ND	0.02
Vinyl acetate	108-05-4	ND	0.01

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



Page 9 of 9

Results of Analysis for

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203305-09A

Date Received:

Sample Matrix/Media:

SOIL

Date Prepared:

Preparation Method:

EPA 5030

03/26/92 Date Analyzed: 03/26/92

Analytical Method:

EPA 8240 (Low Level)

Analyte	Concentration CAS # (mg/kg)		Limit of Detection (mg/kg)
Purgeable Organics (continued)	-		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.003 0.003
Surrogates		Recovery (%)	QC Limits (%)LCLUCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	2037-26-5 460-00-4	98 100 90	31 - 159 77 - 139 47 - 119

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



URIBE & ASSOCIATES
2930 LAKESHORE AVENUE
SUITE TWO HUNDRED
OAKLAND, CALIFORNIA 94610
415 - 832 - 2233
FAX 415 - 832 - 2237

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

April 10, 1992

Mr. John Borrego URIBE & ASSOCIATES 2930 Lakeshore Ave, Ste. 200 Oakland, CA 94577

> Client Ref. 028691 (96-401) Clayton Project No. 92033.05

Dear Mr. Borrego:

Attached is our analytical laboratory report for the samples received on March 26, 1992 and originally reported to you on March 30, 1992. On April 2, 1992 you requested analysis for TPH as gasoline and EPA 8240 for samples 96401E-5, 96401E-10, 96401E-11, and 96401E-12, and TPH as gasoline for sample 96401E-6. Those results are presented in this report. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Ronald H. Peters, CIH

Michael Symul Fa

Director, Laboratory Services

Western Operations

RHP/caa Attachments



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Results of Analysis for ribe & Associatos / Bort of Oakland

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-5 Date Sampled: 03/25/92
Lab Number: 9203305-01A Date Received: 03/26/92
Sample Matrix/Media: SOIL Date Prepared: 04/07/92
Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.005
Bromomethane	74-83-9	ND	0.005
Vinyl chloride	75-01-4	ND	0.005
Chloroethane	75-00-3	ND	0.005
Methylene chloride	75-09-2	ND	0.005
Trichlorofluoromethane	75-69-4	ND	0.005
1,1-Dichloroethene	75-35-4	ND	0.005
1,1-Dichloroethane	75-35-3	ND	0.005
Trans-1,2-Dichloroethene	156-60-5	ND	0.005
Cis-1,2-Dichloroethene	156-59-2	ND	0.005
Chloroform	67-66-3	NĎ	0.005
1,2-Dichloroethane	107-06-2	ND	0.005
1,1,1-Trichloroethane	71-55-6	ND	0.005
Carbon tetrachloride	56-23-5	ND	0.005
Bromodichloromethane	75-27-4	ND	0.005
1,2-Dichloropropane	78-87-5	ND	0.005
Cis-1,3-Dichloropropene	10061-01-5	ND	0.005
Trichloroethene	79-01-6	ND	0.005
Benzene	71-43-2	ND	0.005
Dibromochloromethane	124-48-1	ND	0.005

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-5 Date Sampled: 03/25/92
Lab Number: 9203305-01A Date Received: 03/26/92
Sample Matrix/Media: SOIL Date Prepared: 04/07/92
Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detectior (mg/kg)
Purgeable Organics (continued	<u>(£</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.005
Trans-1,3-Dichloropropene	10061-02-6	ND	0.005
2-Chloroethylvinylether	110-75-8	ND	0.005
Bromoform	75-25-2	ND	0.005
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.005
Tetrachloroethene	127-18-4	ND	0.005
Toluene	108-88-3	ND	0.005
Chlorobenzene	108-90-7	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
1,3-Dichlorobenzene	541-73-7	ND	0.005
1,2-Dichlorobenzene	95-50-1	NĎ	0.005
1,4-Dichlorobenzene	106-46-7	ND	0.005
Freon 113	76-13-1	ND	0.005
p,m-Xylenes		ND	0.005
o-Xylene	95-47-6	ND	0.005
Acetone	67-64-1	ND	0.02
2-Butanone	78-93-3	ND	0.02
4-Methyl-2-pentanone	108-10-1	ND	0.02
2-Hexanone	591-78-6	0.03	0.02
Vinyl acetate	108-05-4	ND	0.01

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-5
Lab Number: 9203305-01A
Date Sampled: 03/25/92
Date Received: 03/26/92
Date Prepared: 04/07/92
Preparation Method: EPA 5030
Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ued)		
Carbon disulfide	75-15-0	ND	0.005
Styrene	100-42-5	ND	0.005
			QC Limits (%)
Surrogates		Recovery (%)	TCT ACT
1,2-Dichloroethane-d4	17060-07-0	100	70 - 121
Toluene-d8	2037-26-5	102	81 - 117
Bromofluorobenzene	460-00-4	92	74 - 121

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-10 Date Sampled: 03/25/92
Lab Number: 9203305-06A Date Received: 03/26/92
Sample Matrix/Media: SOIL Date Prepared: 04/06/92
Preparation Method: EPA 5030 Date Analyzed: 04/06/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.005
Bromomethane	74-83-9	ND	0.005
Vinyl chloride	75-01-4	ND	0.005
Chloroethane	75-00-3	ND	0.005
Methylene chloride	75-09-2	ND	0.005
Trichlorofluoromethane	75-69-4	ND	0.005
1,1-Dichloroethene	75-35 - 4	ND	0.005
1,1-Dichloroethane	75-35-3	NĎ	0.005
Trans-1,2-Dichloroethene	156-60-5	ND	0.005
Cis-1,2-Dichloroethene	156-59-2	ND	0.005
Chloroform	67-66-3	ND	0.005
1,2-Dichloroethane	107-06-2	ND	0.005
1,1,1-Trichloroethane	71-55-6	ND	0.005
Carbon tetrachloride	56-23-5	ND	0.005
Bromodichloromethane	75-27-4	ND	0.005
1,2-Dichloropropane	78-87-5	ND	0.005
Cis-1,3-Dichloropropene	10061-01-5	ND	0.005
Trichloroethene	79-01-6	ND	0.005
Benzene	71-43-2	ND	0.005
Dibromochloromethane	124-48-1	ND	0.005

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-10 Date Sampled: 03/25/92
Lab Number: 9203305-06A Date Received: 03/26/92
Sample Matrix/Media: SOIL Date Prepared: 04/06/92
Preparation Method: EPA 5030 Date Analyzed: 04/06/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	1)		
1,1,2-Trichloroethane	79-00-5	ND	0.005
Trans-1,3-Dichloropropene	10061-02-6	ND	0.005
2-Chloroethylvinylether	110-75-8	ND	0.005
Bromoform	75-25-2	ND	0.005
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.005
Tetrachloroethene	127-18-4	ND	0.005
Toluene	108-88-3	ND	0.005
Chlorobenzene	108-90-7	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
1,3-Dichlorobenzene	541-73-7	ND	0.005
1,2-Dichlorobenzene	95-50-1	ND	0.005
1,4-Dichlorobenzene	106-46-7	ND	0.005
Freon 113	76-13-1	ND	0.005
p,m-Xylenes		ND	0.005
o-Xylene	95-47-6	ND	0.005
Acetone	67-64-1	ND	0.02
2-Butanone	78-93 - 3	ND	0.02
4-Methyl-2-pentanone	108-10-1	ND	0.02
2-Hexanone	591-78-6	ND	0.02
Vinyl acetate	108-05-4	ND	0.01

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-10 Date Sampled: 03/25/92
Lab Number: 9203305-06A Date Received: 03/26/92
Sample Matrix/Media: SOIL Date Prepared: 04/06/92
Preparation Method: EPA 5030 Date Analyzed: 04/06/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	reg)		· · · · · · · · · · · · · · · · · · ·
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.005 0.005
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	108 92 110	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-11 Date Sampled: 03/25/92
Lab Number: 9203305-07A Date Received: 03/26/92
Sample Matrix/Media: SOIL Date Prepared: 04/06/92
Preparation Method: EPA 5030 Date Analyzed: 04/06/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.005
Bromomethane	74-83-9	ND	0.005
Vinyl chloride	75-01-4	ND	0.005
Chloroethane	75-00-3	ND	0.005
Methylene chloride	75-09 - 2	ND	0.005
Trichlorofluoromethane	75-69-4	ND	0.005
1,1-Dichloroethene	75-35-4	ND	0.005
1,1-Dichloroethane	75-35-3	ND	0.005
Trans-1,2-Dichloroethene	156-60-5	ND	0.005
Cis-1,2-Dichloroethene	156-59-2	ND	0.005
Chloroform	67-66-3	ND	0.005
1,2-Dichloroethane	107-06-2	ND	0.005
1,1,1-Trichloroethane	71-55-6	ND	0.005
Carbon tetrachloride	56-23-5	ND	0.005
Bromodichloromethane	75-27-4	ND	0.005
1,2-Dichloropropane	78-8 7- 5	ND	0.005
Cis-1,3-Dichloropropene	10061-01-5	ND	0.005
Trichloroethene	79-01-6	ND	0.005
Benzene	71-43-2	ND	0.005
Dibromochloromethane	124-48-1	ND	0.005

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-11 Date Sampled: 03/25/92
Lab Number: 9203305-07A Date Received: 03/26/92
Sample Matrix/Media: SOIL Date Prepared: 04/06/92
Preparation Method: EPA 5030 Date Analyzed: 04/06/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	<u>1)</u>		-
1,1,2-Trichloroethane	79-00-5	ND	0.005
Trans-1,3-Dichloropropene	10061-02-6	ND	0.005
2-Chloroethylvinylether	110-75-8	ND	0.005
Bromoform	75-25-2	ND	0.005
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.005
Tetrachloroethene	127-18-4	ND	0.005
Toluene	108-88-3	ND	0.005
Chlorobenzene	108-90-7	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
1,3-Dichlorobenzene	541-73-7	ND	0.005
1,2-Dichlorobenzene	95-50-1	ND	0.005
1,4-Dichlorobenzene	106-46-7	ND	0.005
Freon 113	76-13-1	ND	0.005
p,m-Xylenes		ND	0.005
o-Xylene	95-47-6	ND	0.005
Acetone	67-64-1	ND	0.02
2-Butanone	78-93 - 3	ND	0.02
4-Methyl-2-pentanone	108-10-1	ND	0.02
2-Hexanone	591-78-6	ND	0.02
Vinyl acetate	108-05-4	ND	0.01

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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-11

Date Sampled: 03/25/92

Lab Number: Sample Matrix/Media: 9203305-07A SOIL

Date Received: 03/26/92 Date Prepared: 04/06/92

Preparation Method: Analytical Method:

EPA 5030 EPA 8240 (Low Level) Date Analyzed: 04/06/92

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ued)		<u> </u>
Carbon disulfide	75-15-0	ND	0.005
Styrene	100-42-5	ND	0.005
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
		Recovery (a)	
1,2-Dichloroethane-d4	17060-07-0	106	70 - 121
Toluene-d8	2037-26-5	104	81 - 117
Bromofluorobenzene	460-00-4	104	74 - 121

Not detected at or above limit of detection ND 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: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-12 Date Sampled: 03/25/92 Lab Number: 9203305-08A Date Received: 03/26/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	1)		
1,1,2-Trichloroethane	79-00-5	ND	0.005
Trans-1,3-Dichloropropene	10061-02-6	ND	0.005
2-Chloroethylvinylether	110-75-8	ND	0.005
Bromoform	75-25-2	ND	0.005
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.005
Tetrachloroethene	127-18-4	ND	0.005
Toluene	108-88-3	ND	0.005
Chlorobenzene	108-90-7	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
1,3-Dichlorobenzene	541-73-7	ND	0.005
1,2-Dichlorobenzene	95-50-1	ND	0.005
1,4-Dichlorobenzene	106-46-7	ND	0.005
Freon 113	76-13-1	ND	0.005
p,m-Xylenes		0.005	0.005
o-Xylene	95-47-6	ND	0.005
Acetone	67-64-1	ND	0.02
2-Butanone	78-93-3	ND	0.02
4-Methyl-2-pentanone	108-10-1	ND	0.02
2-Hexanone	591-78-6	ND	0.02
Vinyl acetate	108-05-4	ND	0.01

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

Page 13 of 17

Results of Analysis for

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: 96401E-12 Lab Number:

03/25/92 Date Sampled:

Sample Matrix/Media:

9203305-08A SOIL EPA 5030

Date Received: 03/26/92 Date Prepared: 04/07/92 Date Analyzed: 04/07/92

Preparation Method: Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (contin	ued)		
Carbon disulfide	75-15-0	ND	0.005
Styrene	100-42-5	ND	0.005
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4	17060-07-0	110	70 - 121
Toluene-d8	2037-26-5	104	81 - 117
Bromofluorobenzene	460-00-4	96	74 - 121

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 14 of 17

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: METHOD BLANK Date Sampled: -Lab Number: 9203305-09A Date Received: --

Sample Matrix/Media: SOIL Date Prepared: 04/06/92 Preparation Method: EPA 5030 Date Analyzed: 04/06/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.005
Bromomethane	74-83-9	ND	0.005
Vinyl chloride	75-01-4	ND	0.005
Chloroethane	75-00-3	ND	0.005
Methylene chloride	75-09-2	ND	0.005
Trichlorofluoromethane	75-69-4	ND	0.005
1,1-Dichloroethene	75-35-4	ND	0.005
1,1-Dichloroethane	75-35-3	ND	0.005
Trans-1,2-Dichloroethene	156-60-5	ND	0.005
Cis-1,2-Dichloroethene	156-59-2	ND	0.005
Chloroform	67-66-3	ND	0.005
1,2-Dichloroethane	107-06-2	ND	0.005
1,1,1-Trichloroethane	71-55-6	ND	0.005
Carbon tetrachloride	56-23-5	ND	0.005
Bromodichloromethane	75-27-4	ND	0.005
1,2-Dichloropropane	78-87 - 5	ND	0.005
Cis-1,3-Dichloropropene	10061-01-5	ND	0.005
Trichloroethene	79-01-6	ND	0.005
Benzene	71-43-2	ND	0.005
Dibromochloromethane	124-48-1	ND	0.005

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



Page 15 of 17

Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: METHOD BLANK

Date Sampled:

Lab Number:

9203305-09A

Date Received:

Sample Matrix/Media: Preparation Method:

SOIL EPA 5030 Date Prepared: 04/06/92 Date Analyzed: 04/06/92

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	1)		
1,1,2-Trichloroethane	79-00-5	ND	0.005
Trans-1,3-Dichloropropene	10061-02-6	ND	0.005
2-Chloroethylvinylether	110-75-8	ND	0.005
Bromoform	75-25-2	ND	0.005
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.005
Tetrachloroethene	127-18-4	ND	0.005
Toluene	108-88-3	ND	0.005
Chlorobenzene	108-90-7	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
1,3-Dichlorobenzene	541-73-7	ND	0.005
1,2-Dichlorobenzene	95-50-1	ND	0.005
1,4-Dichlorobenzene	106-46-7	ND	0.005
Freon 113	76-13-1	ND	0.005
p,m-Xylenes		ND	0.005
o-Xylene	95-47-6	ND	0.005
Acetone	67-64-1	ND	0.02
2-Butanone	78-93-3	ND	0.02
4-Methyl-2-pentanone	108-10-1	ND	0.02
2-Hexanone	591-78-6	ND	0.02
Vinyl acetate	108-05-4	ND	0.01

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 16 of 17

Results of Analysis

for

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Identification: METHOD BLANK Date Sampled: Lab Number: 9203305-09A Date Received

Lab Number: 9203305-09A Date Received: -Sample Matrix/Media: SOIL Date Prepared: 04/06/92
Preparation Method: EPA 5030 Date Analyzed: 04/06/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration CAS # (mg/kg)			
Purgeable Organics (contin	ued)				
Carbon disulfide	75-15-0	ND	0.005		
Styrene	100-42-5	ND	0.005		
			QC Limits (%)		
Surrogates		Recovery (%)	LCL UCL		
1,2-Dichloroethane-d4	17060-07-0	106	70 - 121		
Toluene-d8	2037-26-5	102	81 - 117		
Bromofluorobenzene	460-00-4	94	74 - 121		

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



Page 17 of 17

Results of Analysis for Uribe & Associates/ Port of Oakland

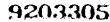
Client Reference: 028691 (96-401) Clayton Project No. 92033.05

Sample Matrix/Media: SOIL Preparation Method: EPA 5030 Analysis Method: EPA 8015

Date Received: 03/26/92 Date Prepared: 04/03/92 Date Analyzed: 04/06/92

Lab No.	Sample ID	Date Sampled	Gasoline (mg/kg)
01A	96401E-5	03/25/92	ND
02A	96401E-6	03/25/92	0.3
06A	96401E-10	03/25/92	ND
07A	96401E-11	03/25/92	ND
08A	96401E-12	03/25/92	ND
09A	METHOD BLANK		ND
Detect	0.3		

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





URIBE & ASSOCIATES
2938 LAKESHORE AVENUE
SUITE TWO HUNDRED
OAKLAND. CALIFORNIA 94610
415-832-2233
FAX 415-832-2237

						CHAIN OF CUSTODY RECORD) ,	. (Bř	11:	:) KR	ł.	9	Cakland
PROJ NO 0286 96-4 SAMPLET	07)	Ze Muro)	ank En	<u>'</u>	17	1F-25+MF-26	;	IO. OF IAINERS	Ř						hold Remainder of Samples CHECK IF PRUSH
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Appendix C

Soil Pile Laboratory Results

cc:

1255 POWELL STREET • EMERYVILLE, CA 94608 • (415) 428-2300 • Fax (415) 547-3643

Port of Oakland 530 Water Street Oakland, CA 94607

Report To:

ATTN: Mr. Andrew Clark-Clough

Log No.: E92-03-477-1

Date Sampled:

03/19/92

Date Received: Date Mailed:

03/19/92 APR 2 L 1992

Laboratory Director

CALIFORNIA HAZARDOUS WASTE ASSESSMENT BIOASSAY: SCREEN

	cription <u>96</u>																		
est Organis	m <u></u>	mebus	ites p	rome	<u>as. Ia</u>	thead	minno	W			Sou	itce	II	nomas	Fish (Compar	ay		
iution wate	er <u>F</u>	resn		·	-	_ Sourc	e <u>Emery</u>	ville	<u>Dech</u>	lorina	ited	Temp	erature	Range _	19.2	<u>- 19</u>	<u>٠</u> 5 °		
	🔻	_					Tap W	ater	with 1	Matrix	Modi	fiers							
leration:	Air X	Oxyg	en	Non	e	Test in	itiated	03.27	.92		. Cor	trof initia	al hardni	ess	43 m	<u>z/L</u>			
Pianas	T:			Ī						Dilı	ıtion								
Bioassay Conditions	Time, Hrs		ontrol	250	mg/L	250	mg/L	750	mg/L		mg/L	 				T			
	1110	No.	%	No.	%	No.	9∕0	No.	%	No.	%	No.	%	No.	%	No.	9/0		
	Start	10	100	10	100	10	100	10	100	10	100	1		110	,,,	100.	 ~~		
	24	10	100	10	100	10	100	10	100	10	100			 		†	 		
Organisms Surviving	48	10	100	10	100	10	100	10	100	10	100			 		1	\vdash		
dusviving	72	10	100	10	100	10	100	10	100	10	100			†		†	 		
<u> </u>	96	10	100	10	100	10	100	10	100	10	100			†		+			
	Start	8	.8	9	.3	9.	1	9.	1	9	1.1				<u> </u>	 			
Dissolved	24	8.5		9	.0	8.	8	9.	0	9.1				 		 			
Oxygen	48	8.6		8	. 8	8.	8	9.4		9.1				 		 			
mg/L	72	8.2		8	.1	8.1		8.	ī	8.0				1		 			
<u> </u>	96	8.2		8	. 4	8.	1	8.1		8	.6					i			
	Start	7	7.7 7.3 7.7 7.0		.7	7.8		7.8		7	.8								
•	24	7			.6	7.	5	7.	7	7.7						<u> </u>			
. pH	48	7	.7		.7	7.	6	7.	6	7	.6		•						
	72	7	7.6		7.6		.7	7.	7	7.	7	7	.6		•				
<u>'</u>	96		.7	7	.7	7.	7	7.	7		.8								
	Start	19	<u>.</u> 5	19	. 2	19.	3	19.	4	19	. 4								
ì	_ 24	19		19	.3	19.	3	19.	5	19	.4					 			
mperature	48	19		19		19.	4	19.	3	19	.3								
-	72	19		19	.5	19.	5	19.	5	19					•	1			
.	96	19		19		19.		19.	4	19	. 4					1			
RESULTS		750 m	g/L	_ Toxi	No city Units	t App	licabl	e 9	5% conf mits of T	idence Lm Ot	Estab	lished	Perce	nt surviva	alin _{Not}	Appl	icab		
Len	gth of fish,	cm: Ma	x	3.3			2.7			3 1					does not equ				
	ght of fish,			0.41		in			ean				east one di		e sample, i				

ANALYTICAL REPORT

1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-477

Received: 19 MAR 92

Mailed: APR 2 1 1992

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES		DATE SAMPLED
	964015-1		10 MAP 02
PARAMETER		03-477-1	
Fourteen (CA Metals by ICAP		
Silver, n			
Barium, n		<1	
Beryllium		37	
Cadmium,	4 9	<0.2	
Cobalt, m		3	
		4	
Chromium,	3. D	27	
Copper, m		10	
Molybdenu		<4	
Nickel, m	3· 0	21	
Lead, mg/		4	
Antimony,		<4	
Thallium,		<4	
Vanadium,		18	
Zinc, mg/	•	24	
Arsenic, m		1.2	
Mercury, m		<0.02	
Selenium,		<0.4	
	d Digestion, Date	03.27.92	
	d Digestion, Date	03.27.92	
	et Up Date	03.27.92	
CA Haz Was	te Bioassay, Screen, mg/L	>750	
Oil and Gr	ease, gravimetric, mg/kg	11000	
Flammabili	ty, deg F	N.I.	
pH, Units		8.4	



1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-477

Received: 19 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

			1050 2
LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES		DATE SAMPLED
03-477-1	96401S-1		19 MAR 92
PARAMETER		03-477-1	
B/N, A Ext.	Priority Pollutants		
Date Anal		04.14.92	
Date Extr		03.29.92	
Dilution	Factor, Times	5	
	ichlorobenzene, mg/kg	<1	
1,2-Dichl	torobenzene, mg/kg	<1	
	enylhydrazine, mg/kg	<1	
1.3-Dichl	Lorobenzene, mg/kg	<0.5	
	orobenzene, mg/kg	<0.5	
	ichlorophenol, mg/kg	<0.5 <1	
	chlorophenol, mg/kg	<0.5	
	lorophenol, mg/kg	<0.5	
	hylphenol, mg/kg	<0.5 <1	
	rophenol, mg/kg	<2	
	crotoluene, mg/kg		
	rotoluene, mg/kg	<2	
	aphthalene, mg/kg	<0.5	
	phenol, mg/kg	<0.5	
	4,6-dinitrophenol, mg/kg	<1 <0.5	
	aphthalene, mg/kg	18	
	phenol (o-Cresol), mg/kg	<0.5	
	iline, mg/kg	<0.3 <2	
	menol, mg/kg	<0.5	
	lorobenzidine, mg/kg	<3	
	iline, mg/kg	<2	
	enylphenylether, mg/kg	<1	
4-Chloro-	3-methylphenol, mg/kg	<1	
) I	~1	



1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-477

Received: 19 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

			8	
LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES		DATE SAMPLED	
	96401S-1		19 MAR 92	
PARAMETER		03-477-1		
4-Chloroa				
	phenylphenylether, mg/kg	<1		
4-Methyl	phenol (p-Cresol), mg/kg	<1		
4-Nitroar	niline, mg/kg	<2		
	nenol, mg/kg	<5		
	nene, mg/kg	<1		
	nylene, mg/kg	<0.5		
Aniline,		<2		
Anthracer	ne, mg/kg	<1		
Benzidine		<10		
Benzo(a)a	anthracene, mg/kg	0.5		
	pyrene, mg/kg	<0.5		
	luoranthene, mg/kg	<2		
	n,i)perylene, mg/kg	<0.5		
	luoranthene, mg/kg	<2		
	cohol, mg/kg	<1		
	cid, mg/kg	<2		
	ylphthalate, mg/kg	<0.5		
Chrysene,		<0.5		
Di-n-octy	lphthalate, mg/kg	<1		
	,h)anthracene, mg/kg	<0.5		
	ran, mg/kg	<0.5		
	thalate, mg/kg	<0.5		
	thalate, mg/kg	<0.5		
	ohthalate, mg/kg	0.5		
Fluoranth	nene, mg/kg	1.2		
Fluorene,	mg/kg	1.0		

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LOG NO: E92-03-477

Received: 19 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO SAMPLE DESCRIPTION, SOIL		DATE SAMPLED
03-477-1 96401S-1		19 MAR 92
PARAMETER	03-477-1	
Hexachlorobenzene, mg/kg	<1	
Hexachlorobutadiene, mg/kg	<1	
Hexachlorocyclopentadiene, mg/kg	<3	
Hexachloroethane, mg/kg	<0.5	
<pre>Indeno(1,2,3-c,d)pyrene, mg/kg</pre>	<1	
Isophorone, mg/kg	<0.5	
N-Nitrosodimethylamine, mg/kg	<2	
N-Nitrosodiphenylamine, mg/kg	<2	
N-Nitrosodi-n-propylamine, mg/kg	<0.5	
Nitrobenzene, mg/kg	<1	
Naphthalene, mg/kg	4.5	
Phenanthrene, mg/kg	1.5	
Phenol, mg/kg	<1	
Pentachlorophenol, mg/kg	<2	
Pyrene, mg/kg	1.1	
Bis(2-chloroethoxy)methane, mg/kg	<0.5	
Bis(2-chloroethyl)ether, mg/kg	<0.5	
Bis(2-chloroisopropyl)ether, mg/kg	<0.5	
Bis(2-ethylhexyl)phthalate, mg/kg	2.4	
Semi-Quantified Results **		
C7-C35 Hydrocarbon Matrix, mg/kg	10000	
** Quantification based upon compar that of the nearest internal standa	ison of total ion count of the compored.	ınd with



1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-477

Received: 19 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES		DATE SAMPLED
03-477-1	96401S-1		19 MAR 92
PARAMETER		03-477-1	
Diesel Hydr	ocarbons 3550/8015		
Date Analy	rzed	04.01.92	
Date Extra	icted	03.27.92	
Dilution F	factor, Times	500	
C10 to C22	! (as diesel), mg/kg	8800	
Approximat	e Character, .	UNKNOWN	
TPH - Volat	ile Hydrocarbons		
Date Analy	zed	03.30.92	
Dilution F	actor, Times	10000	
C6 to C14	(as gasoline), mg/kg	7700	
Approximat	e Character, .	UNKNOWN	
	· · · · · · · · · · · · · · · · · · ·		

1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-477

Received: 19 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

			Tage 0
LOG NO	SAMPLE DESCRIPTION, SOIL SAMPLES		DATE SAMPLED
03-477-1	96401S-1		19 MAR 92
PARAMETER		03-477-1	
Date Analy		04.03.92	
Time Analy		13:05	
Analyst II		7504	
•	Limit, mg/kg	20	
	Factor, Times	<4	
Instrument		4	
	chloroethane, mg/kg	<4	
	etrachloroethane, mg/kg	<4	
	chloroethane, mg/kg	<4	
1,1-Dichlo	oroethane, mg/kg	<4	
1,1-Dichlo	proethene, mg/kg	<4	
1,2-Dichlo	proethane, mg/kg	<4	
1,2-Dichlo	probenzene, mg/kg	<4	
1,2-Dichlo	proethene (Total), mg/kg	<4	
1,2-Dichlo	propropane, mg/kg	<4	
	orobenzene, mg/kg	<4	
1,4-Dichlo	orobenzene, mg/kg	<4	
2-Chloroet	chylvinylether, mg/kg	<4	
2-Hexanone	e, mg/kg	<20	
4-Methyl-2	2-Pentanone, mg/kg	<40	
Acetone, n	ng/kg	<100	
Acrolein,	mg/kg	<100	
	ile, mg/kg	<40	
	loromethane, mg/kg	<4	
Bromometha	nne, mg/kg	<4	
Benzene, m	ng/kg	<4	



1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-477

Received: 19 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

S DATE SAMPLED
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1255 Powell Street Emeryville, CA 94608 510/428-2300 Fax: 510/547-3643

LOG NO: E92-03-477

Received: 19 MAR 92

Mr. Andrew Clark-Clough Port of Oakland 530 Water Street Oakland, California 94607

Purchase Order: WO 028691

Project: 96-401

REPORT OF ANALYTICAL RESULTS

Page 8

		_
LOG NO	SAMPLE DESCRIPTION, NON-SALINE WATER SAMPLES	DATE SAMPLED
03-477-2	Control Tank	··································
PARAMETER	03-477-2	
Total Hardn	ess, mg/L 43	

Sim D. Lessley, Ph.D., Laboratory Director



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



April 9, 1992

Mr. John Borrego URIBE & ASSOCIATES 2930 Lakeshore Ave, Ste. 200 Oakland, CA 94577

> Client Ref. 028691 (96-401) Clayton Project No. 92040.32

Dear Mr. Borrego:

Attached is our analytical laboratory report for the samples received on April 2, 1992. A copy of the Chain-of-Custody form acknowledging receipt of these samples is attached.

Please note that any unused portion of the samples will be disposed of 30 days after the date of this report, unless you have requested otherwise.

We appreciate the opportunity to be of assistance to you. If you have any questions, please contact Maryann Gambino, Client Services Supervisor, at (510) 426-2657.

Sincerely,

Michael Fruith For Ronald H. Peters, CIH

Director, Laboratory Services

Western Operations

RHP/caa Attachments



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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-2 Date Sampled: 04/01/92 Lab Number: 9204032-01A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.5
Bromomethane	74-83-9	ND	0.5
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	0.5
Trichlorofluoromethane	75-69-4	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
1,1-Dichloroethane	75-35-3	ND	0.5
Trans-1,2-Dichloroethene	156-60-5	ND	0.5
Cis-1,2-Dichloroethene	156-59-2	ND	0.5
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.5
Bromodichloromethane	75-27-4	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Benzene	71-43-2	ND	0.5
Dibromochloromethane	124-48-1	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-2 Date Sampled: 04/01/92 Lab Number: 9204032-01A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	i)		
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trans-1,3-Dichloropropene	10061-02-6	ND	0.5
2-Chloroethylvinylether	110-75-8	ИD	0.5
Bromoform	75-25-2	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	0.6	0.5
Toluene	108-88-3	ND	0.5
Chlorobenzene	108-90-7	ND	0.5
Ethylbenzene	100-41-4	ND	0.5
1,3-Dichlorobenzene	541-73-7	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Freon 113	76-13-1	· ND	0.5
p,m-Xylenes		3.7	0.5
o-Xylene	95-47-6	3.2	0.5
Acetone	67-64-1	ND	2
2-Butanone	78-93-3	ND	2
4-Methyl-2-pentanone	108-10-1	ND	
2-Hexanone	591-78-6	ND	2 2 1
Vinyl acetate	108-05-4	ND	1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-2

Date Sampled: 04/01/92

Lab Number:

9204032-01A

Date Received: 04/02/92

Sample Matrix/Media:

SOIL

Date Prepared: 04/07/92

Preparation Method:

EPA 5030

Date Analyzed: 04/07/92

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ued)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.5 0.5
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	107 105 106	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-3

Lab Number: 9204032-02A

Sample Matrix/Media: SOIL

Preparation Method: EPA 5030

Date Sampled: 04/01/92

Date Received: 04/02/92

Date Prepared: 04/07/92

Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	0.7	0.1
Bromomethane	74-83-9	0.1	0.1
Vinyl chloride	75-01-4	0.8	0.1
Chloroethane	75-00-3	0.3	0.1
Methylene chloride	75-09-2	ND	0.1
Trichlorofluoromethane	75-69-4	0.3	0.1
1,1-Dichloroethene	75-35-4	ND	0.1
1,1-Dichloroethane	75-35-3	ND	0.1
Trans-1,2-Dichloroethene	156-60-5	ND	0.1
Cis-1,2-Dichloroethene	156-59-2	ND	0.1
Chloroform	67-66-3	ND	0.1
1,2-Dichloroethane	107-06-2	ND	0.1
1,1,1-Trichloroethane	71-55-6	ND	0.1
Carbon tetrachloride	56-23-5	ND	0.1
Bromodichloromethane	75-27-4	ND	0.1
1,2-Dichloropropane	78-87-5	ND	0.1
Cis-1,3-Dichloropropene	10061-01-5	ND	0.1
Trichloroethene	79-01-6	ND	0.1
Benzene	71-43-2	ND	0.1
Dibromochloromethane	124-48-1	ND	0.1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-3 Date Sampled: 04/01/92 Lab Number: 9204032-02A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	<u>1)</u>	4442-81-4	
1,1,2-Trichloroethane	79-00-5	ND	0.1
Trans-1,3-Dichloropropene	10061-02-6	ND	0.1
2-Chloroethylvinylether	110-75-8	ND	0.1
Bromoform	75-25-2	ND	0.1
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.1
Tetrachloroethene	127-18-4	ND	0.1
Toluene	108-88-3	1.0	0.1
Chlorobenzene	108-90-7	ND	0.1
Ethylbenzene	100-41-4	0.5	0.1
1,3-Dichlorobenzene	541-73-7	ND	0.1
1,2-Dichlorobenzene	95-50-1	ND	0.1
1,4-Dichlorobenzene	106-46-7	ND	0.1
Freon 113	76-13-1	ND	0.1
p,m-Xylenes		5.4	0.1
o-Xylene	95-47-6	3.0	0.1
Acetone	67-64-1	ND	0.5
2-Butanone	78-93-3	ND	0.5
4-Methyl-2-pentanone	108-10-1	ND	0.5
2-Hexanone	591-78-6	ND	0.5
Vinyl acetate	108-05-4	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-3 Lab Number: 9204032-02A

Sample Matrix/Media: Preparation Method:

SOIL

EPA 5030

Analytical Method:

EPA 8240 (Low Level)

Date Sampled: 04/01/92 Date Received: 04/02/92 Date Prepared: 04/07/92

Date Prepared: 04/07/92 Date Analyzed: 04/07/92

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ied)		
Carbon disulfide	75-15-0	ND	0.1
Styrene	100-42-5	ND	0.1
			QC Limits (%)
Surrogates		Recovery (%)	LCL UCL
1,2-Dichloroethane-d4	17060-07-0	114	70 - 121
Toluene-d8	2037-26-5	104	81 - 117
Bromofluorobenzene	460-00-4	105	74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-4 Date Sampled: 04/01/92 Lab Number: 9204032-03A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/08/92 Preparation Method: EPA 5030 Date Analyzed: 04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detectior (mg/kg)
Purgeable Organics		· · · · · · · · · · · · · · · · · · ·	
Chloromethane	74-87-3	ND	0.3
Bromomethane	74-83-9	ND	0.3
Vinyl chloride	75-01-4	ИD	0.3
Chloroethane	75-00-3	ND	0.3
Methylene chloride	75-09-2	ND	0.3
Trichlorofluoromethane	75-69-4	ND	0.3
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.3
Trans-1,2-Dichloroethene	156-60-5	ND	0.3
Cis-1,2-Dichloroethene	156-59-2	ND	0.3
Chloroform	67-66-3	ND	0.3
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.3
Carbon tetrachloride	56-23-5	ND	0.3
Bromodichloromethane	75-27-4	ND	0.3
1,2-Dichloropropane	78-87-5	ND	0.3
Cis-1,3-Dichloropropene	10061-01-5	ND	0.3
Trichloroethene	79-01-6	ND	0.3
Benzene	71-43-2	ND	0.3
Dibromochloromethane	124-48-1	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-4

Lab Number: 9204032-03A

Sample Matrix/Media: SOIL

Preparation Method: EPA 5030

Date Sampled: 04/01/92

Date Received: 04/02/92

Date Prepared: 04/08/92

Analytical Method: EPA 8240 (Low Level)

nalyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
urgeable Organics (continued	1)		
1,1,2-Trichloroethane	79-00-5	ND	0.3
Trans-1,3-Dichloropropene	10061-02-6	ND	0.3
2-Chloroethylvinylether	110-75-8	ND	0.3
Bromoform	75-25-2	ND	0.3
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.3
Tetrachloroethene	127-18-4	ИD	0.3
Toluene	108-88-3	0.8	0.3
Chlorobenzene	108-90-7	ND	0.3
Ethylbenzene	100-41-4	0.8	0.3
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,2-Dichlorobenzene	95-50-1	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.3
Freon 113	76-13-1	ND	0.3
p,m-Xylenes		2.7	0.3
o-Xylene	95-47-6	1.4	0.3
Acetone	67-64-1	ND	1
2-Butanone	78-93-3	ND	1
4-Methyl-2-pentanone	108-10-1	ND	1 1
2-Hexanone	591-78-6	ND	1
Vinyl acetate	108-05-4	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-4

Date Sampled: 04/01/92

Lab Number:

9204032-03A

Date Received: 04/02/92

Sample Matrix/Media:

SOIL

Date Prepared: 04/08/92

Preparation Method:

EPA 5030

Date Analyzed: 04/08/92

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ued)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.3 0.3
Surrogates		Recovery (%)	QC Limits (%)LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	110 98 106	70 - 121 $81 - 117$ $74 - 121$

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-5 Date Sampled: 04/01/92 Lab Number: 9204032-04A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.5
Bromomethane	74-83-9	ND	0.5
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	0.5
Trichlorofluoromethane	75-69-4	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
1,1-Dichloroethane	75-35-3	ND	0.5
Trans-1,2-Dichloroethene	156-60-5	ND	0.5
Cis-1,2-Dichloroethene	156-59-2	ND	0.5
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1,1-Trichloroethane	71-55-6	0.6	0.5
Carbon tetrachloride	56-23-5	ND	0.5
Bromodichloromethane	75-2 7- 4	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ИD	0.5
Trichloroethene	79-01-6	ND	0.5
Benzene	71-43-2	ND	0.5
Dibromochloromethane	124-48-1	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-5 Date Sampled: 04/01/92 Lab Number: 9204032-04A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detectior (mg/kg)
Purgeable Organics (continued	<u>i)</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trans-1,3-Dichloropropene	10061-02-6	ND	0.5
2-Chloroethylvinylether	110-75-8	ND	0.5
Bromoform	75-25-2	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	7.4	0.5
Toluene	108-88-3	2.6	0.5
Chlorobenzene	108-90-7	ND	0.5
Ethylbenzene	100-41-4	1.7	0.5
1,3-Dichlorobenzene	541-73-7	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Freon 113	76-13-1	ND	0.5
p,m-Xylenes		15	0.5
o-Xylene	95-47-6	8.7	0.5
Acetone	67-64-1	ND	2
2-Butanone	78-93-3	ND	2
4-Methyl-2-pentanone	108-10-1	ND	2
2-Hexanone	591-78-6	ND	2 2
Vinyl acetate	108-05-4	ND	1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-5

Date Sampled: 04/01/92

Lab Number:

9204032-04A

Sample Matrix/Media:

SOIL

Date Received: 04/02/92 Date Prepared: 04/07/92

Preparation Method:

EPA 5030

Date Analyzed: 04/07/92

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	req)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.5 0.5
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	113 108 113	70 - 121 $81 - 117$ $74 - 121$

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-6 Date Sampled: 04/01/92 Lab Number: 9204032-05A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/08/92 Preparation Method: EPA 5030 Date Analyzed: 04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			·
Chloromethane	74-87-3	ND	0.3
Bromomethane	74-83-9	ND	0.3
Vinyl chloride	75-01-4	ND	0.3
Chloroethane	75-00-3	ND	0.3
Methylene chloride	75-09-2	ND	0.3
Trichlorofluoromethane	75-69-4	ND	0.3
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.3
Trans-1,2-Dichloroethene	156-60-5	ND	0.3
Cis-1,2-Dichloroethene	156-59-2	ND	0.3
Chloroform	67-66-3	ND	0.3
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.3
Carbon tetrachloride	56-23-5	ND	0.3
Bromodichloromethane	75-27-4	ND	0.3
1,2-Dichloropropane	78-87-5	ND	0.3
Cis-1,3-Dichloropropene	10061-01-5	ND	0.3
Trichloroethene	79-01-6	ND	0.3
Benzene	71-43-2	ND	0.3
Dibromochloromethane	124-48-1	ND	0.3

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: 028691 (96-401)

Clayton Project No. 92040.32

Sample Identification: 964015-6 Date Sampled: 04/01/92 Lab Number: 9204032-05A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/08/92 Preparation Method: EPA 5030 Date Analyzed: 04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detectior (mg/kg)
Purgeable Organics (continued	1)	· · · · · · · · · · · · · · · · · · ·	
1,1,2-Trichloroethane	79-00-5	ND	0.3
Trans-1,3-Dichloropropene	10061-02-6	ND	0.3
2-Chloroethylvinylether	110-75-8	ND	0.3
Bromoform	75-25-2	ND	0.3
1,1,2,2-Tetrachloroethane	79-34 - 5	ND	0.3
Tetrachloroethene	127-18-4	ND	0.3
Toluene	108-88-3	0.8	0.3
Chlorobenzene	108-90-7	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,2-Dichlorobenzene	95-50 - 1	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.3
Freon 113	76-13-1	ND	0.3
p,m-Xylenes		6.0	0.3
o-Xylene	95-47-6	4.1	0.3
Acetone	67-64-1	ИD	1
2-Butanone	78-93-3	ND	
4-Methyl-2-pentanone	108-10-1	ND	1 1 1
2-Hexanone	591-78-6	ND	1
Vinyl acetate	108-05-4	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-6 Lab Number:

9204032-05A

Sample Matrix/Media: Preparation Method:

SOIL

Analytical Method:

EPA 5030

EPA 8240 (Low Level)

Date Sampled: 04/01/92 Date Received: 04/02/92 Date Prepared: 04/08/92 Date Analyzed: 04/08/92

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ıed)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.3
Surrogates		Recovery (%)	QC Limits (%)LCLUCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	112 110 106	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-7 Date Sampled: 04/01/92 Lab Number: 9204032-06A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.1
Bromomethane	74-83-9	ND	0.1
Vinyl chloride	75-01-4	NĎ	0.1
Chloroethane	75-00-3	ND	0.1
Methylene chloride	75-09-2	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.1
1,1-Dichloroethene	75-35-4	ND	0.1
1,1-Dichloroethane	75-35-3	ND	0.1
Trans-1,2-Dichloroethene	156-60-5	ND	0.1
Cis-1,2-Dichloroethene	156-59-2	ND	0.1
Chloroform	67-66-3	ND	0.1
1,2-Dichloroethane	107-06-2	ND	0.1
1,1,1-Trichloroethane	71-55-6	ND	0.1
Carbon tetrachloride	56-23-5	ND	0.1
Bromodichloromethane	75-27-4	ND	0.1
1,2-Dichloropropane	78-87-5	ND	0.1
Cis-1,3-Dichloropropene	10061-01-5	ND	0.1
Trichloroethene	79-01-6	ND	0.1
Benzene	71-43-2	ND	0.1
Dibromochloromethane	124-48-1	ND	0.1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-7 Date Sampled: 04/01/92 Lab Number: 9204032-06A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

nalyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
urgeable Organics (continued	1)	· · · · · · · · · · · · · · · · · · ·	
1,1,2-Trichloroethane	79-00-5	ND	0.1
Trans-1,3-Dichloropropene	10061-02-6	ND	0.1
2-Chloroethylvinylether	110-75-8	ND	0.1
Bromoform	75-25-2	ND	0.1
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.1
Tetrachloroethene	127-18-4	ND	0.1
Toluene	108-88-3	ND	0.1
Chlorobenzene	108-90-7	ND	0.1
Ethylbenzene	100-41-4	ND	0.1
1,3-Dichlorobenzene	541-73-7	ND	0.1
1,2-Dichlorobenzene	95-50-1	ND	0.1
1,4-Dichlorobenzene	106-46-7	ND	0.1
Freon 113	76-13-1	ND	0.1
p,m-Xylenes		1.7	0.1
o-Xylene	95-47-6	1.2	0.1
Acetone	67-64-1	ND	0.5
2-Butanone	78-93-3	ND	0.5
4-Methyl-2-pentanone	108-10-1	ND	0.5
2-Hexanone	591-78-6	ND	0.5
Vinyl acetate	108-05-4	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification:964015-7Date Sampled:04/01/92Lab Number:9204032-06ADate Received:04/02/92Sample Matrix/Media:SOILDate Prepared:04/07/92Preparation Method:EPA 5030Date Analyzed:04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ied)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.1 0.1
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	118 112 108	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-8 Date Sampled: 04/01/92 Lab Number: 9204032-07A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.3
Bromomethane	74-83-9	ND	0.3
Vinyl chloride	75-01-4	ND	0.3
Chloroethane	75-00-3	NĎ	0.3
Methylene chloride	75-09-2	ND	0.3
Trichlorofluoromethane	75-69-4	ND	0.3
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.3
Trans-1,2-Dichloroethene	156-60-5	ND	0.3
Cis-1,2-Dichloroethene	156-59-2	ND	0.3
Chloroform	67-66-3	ND	0.3
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.3
Carbon tetrachloride	56-23-5	ND	0.3
Bromodichloromethane	75-27-4	ND	0.3
1,2-Dichloropropane	78-87-5	ND	0.3
Cis-1,3-Dichloropropene	10061-01-5	ND	0.3
Trichloroethene	79-01-6	ND	0.3
Benzene	71-43-2	ND	0.3
Dibromochloromethane	124-48-1	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-8 Date Sampled: 04/01/92 Lab Number: 9204032-07A 04/02/92 Date Received: Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: Analytical Method: EPA 5030 Date Analyzed: 04/07/92

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	<u>1)</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.3
Trans-1,3-Dichloropropene	10061-02-6	ND	0.3
2-Chloroethylvinylether	110-75-8	ND	0.3
Bromoform	75-25-2	ND	0.3
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.3
Tetrachloroethene	127-18-4	ND	0.3
Toluene	108-88-3	0.8	0.3
Chlorobenzene	108-90-7	ND	0.3
Ethylbenzene	100-41-4	1.6	0.3
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,2-Dichlorobenzene	95-50-1	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.3
Freon 113	76-13-1	ND	0.3
p,m-Xylenes		5.7	0.3
o-Xylene	95-47-6	4.0	0.3
Acetone	67-64-1	NĎ	1
2-Butanone	78-93-3	ND	1
4-Methyl-2-pentanone	108-10-1	1	1
2-Hexanone	591-78-6	ND	1
Vinyl acetate	108-05-4	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-9
Lab Number: 9204032-08A
Date Sampled: 04/01/92
Date Received: 04/02/92
Sample Matrix/Media: SOIL
Date Prepared: 04/08/92
Preparation Method: EPA 5030
Date Analyzed: 04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			* ************************************
Chloromethane	74-87-3	ND	0.5
Bromomethane	74-83-9	ND	0.5
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	0.5
Trichlorofluoromethane	75-69-4	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
1,1-Dichloroethane	75-35-3	ND	0.5
Trans-1,2-Dichloroethene	156-60-5	ND	0.5
Cis-1,2-Dichloroethene	156-59-2	ND	0.5
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	NĎ	0.5
Bromodichloromethane	75-27-4	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Benzene	71-43-2	ND	0.5
Dibromochloromethane	124-48-1	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-9

Lab Number: 9204032-08A

Sample Matrix/Media: SOIL

Preparation Method: EPA 5030

Date Sampled: 04/01/92

Date Received: 04/02/92

Date Prepared: 04/08/92

Date Analyzed: 04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	1)		
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trans-1,3-Dichloropropene	10061-02-6	ND	0.5
2-Chloroethylvinylether	110-75-8	ND	0.5
Bromoform	75-25-2	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	0.8	0.5
Toluene	108-88-3	2.0	0.5
Chlorobenzene	108-90-7	ND	0.5
Ethylbenzene	100-41-4	1.7	0.5
1,3-Dichlorobenzene	541-73-7	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Freon 113	76-13-1	ND	0.5
p,m-Xylenes		18	0.5
o-Xylene	95-47-6	11	0.5
Acetone	67-64-1	ND	2
2-Butanone	78-93-3	ND	2
4-Methyl-2-pentanone	108-10-1	ND	2
2-Hexanone	591-78-6	ND	2 2
Vinyl acetate	108-05-4	ND	1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-9

Date Sampled: 04/01/92

Lab Number:

9204032-08A

Sample Matrix/Media:

SOIL

Date Received: 04/02/92

Preparation Method:

EPA 5030

Date Prepared: 04/08/92 Date Analyzed: 04/08/92

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ied)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.5 0.5
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	114 92 114	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-10 Date Sampled: 04/01/92 Lab Number: 9204032-09A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			<u></u>
Chloromethane	74-87-3	ND	0.5
Bromomethane	74-83-9	ND	0.5
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	0.5
Trichlorofluoromethane	75-69-4	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
1,1-Dichloroethane	75-35-3	ND	0.5
Trans-1,2-Dichloroethene	156-60-5	ND	0.5
Cis-1,2-Dichloroethene	156-59-2	ND	0.5
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.5
Bromodichloromethane	75-27-4	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Benzene	71-43-2	ND	0.5
Dibromochloromethane	124-48-1	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-10 Date Sampled: 04/01/92 Lab Number: 9204032-09A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	i)		
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trans-1,3-Dichloropropene	10061-02-6	ND	0.5
2-Chloroethylvinylether	110-75-8	ND	0.5
Bromoform	75-25-2	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	ИD	0.5
Toluene	108-88-3	2.9	0.5
Chlorobenzene	108-90-7	ND	0.5
Ethylbenzene	100-41-4	3.4	0.5
1,3-Dichlorobenzene	541-73-7	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Freon 113	76-13-1	ND	0.5
p,m-Xylenes		11	0.5
o-Xylene	95-47-6	6.3	0.5
Acetone	67-64-1	ND	2
2-Butanone	78-93-3	ИD	2
4-Methyl-2-pentanone	108-10-1	ND	2
2-Hexanone	591-78-6	ND	2
Vinyl acetate	108-05-4	ND	1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-10 Date Sampled: 04/01/92 Lab Number: 9204032-09A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92 Analytical Method: EPA 8240 (Low Level)

Limit of Concentration Detection Analyte CAS # (mg/kg) (mg/kg) Purgeable Organics (continued) Carbon disulfide 75-15-0 ND 0.5 Styrene 100-42-5 ND 0.5 QC Limits (%) Surrogates Recovery (%) LCL UCL 1,2-Dichloroethane-d4 17060-07-0 116 70 - 121 Toluene-d8 2037-26-5 108 81 - 117 Bromofluorobenzene 460-00-4 110 74 - 121

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



Date Analyzed:

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04/07/92

Results of Analysis for

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-11 Date Sampled: 04/01/92 Lab Number: 9204032-10A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method:

EPA 5030 Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.1
Bromomethane	74-83-9	ND	0.1
Vinyl chloride	75-01-4	ND	0.1
Chloroethane	75-00-3	ND	0.1
Methylene chloride	75-09-2	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.1
1,1-Dichloroethene	75-35-4	ND	0,1
1,1-Dichloroethane	75-35-3	ND	0.1
Trans-1,2-Dichloroethene	156-60-5	ND	0.1
Cis-1,2-Dichloroethene	156-59-2	ND	0.1
Chloroform	67-66-3	ND	0.1
1,2-Dichloroethane	107-06-2	ND	0.1
1,1,1-Trichloroethane	71-55-6	ND	0.1
Carbon tetrachloride	56-23-5	ND	0.1
Bromodichloromethane	75-27-4	ND	0.1
1,2-Dichloropropane	78-87-5	ND	0.1
Cis-1,3-Dichloropropene	10061-01-5	ND	0.1
Trichloroethene	79-01-6	ND	0.1
Benzene	71-43-2	ND	0.1
Dibromochloromethane	124-48-1	ND	0.1

Not detected at or above limit of detection ND 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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-11 Date Sampled: 04/01/92 Lab Number: 9204032-10A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	1)		
1,1,2-Trichloroethane	79-00-5	ND	0.1
Trans-1,3-Dichloropropene	10061-02-6	ND	0.1
2-Chloroethylvinylether	110-75-8	ND	0.1
Bromoform	75 - 25-2	ND	0.1
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.1
Tetrachloroethene	127-18-4	ND	0.1
Toluene	108-88-3	0.2	0.1
Chlorobenzene	108-90-7	ND	0.1
Ethylbenzene	100-41-4	ND	0.1
1,3-Dichlorobenzene	541 - 73-7	ND	0.1
1,2-Dichlorobenzene	95-50-1	ND	0.1
1,4-Dichlorobenzene	106-46-7	ND	0.1
Freon 113	76-13-1	ND	0.1
p,m-Xylenes		ND	0.1
o-Xylene	95-47-6	ND	0.1
Acetone	67-64-1	ND	0.5
2-Butanone	78-93 - 3	ND	0.5
4-Methyl-2-pentanone	108-10-1	ND	0.5
2-Hexanone	591-78-6	ND	0.5
Vinyl acetate	108-05-4	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-11

Date Sampled: 04/01/92

Lab Number:

9204032-10A

Date Received: 04/02/92

Sample Matrix/Media:

SOIL

Date Prepared: 04/07/92

Preparation Method:

EPA 5030

04/07/92 Date Analyzed:

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ıed)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.1 0.1
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	120 106 106	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-12 Date Sampled: 04/01/92 Lab Number: 9204032-11A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.3
Bromomethane	74-83-9	ND	0.3
Vinyl chloride	75-01-4	ND	0.3
Chloroethane	75-00-3	ИĎ	0.3
Methylene chloride	75-09-2	ND	0.3
Trichlorofluoromethane	75-69-4	ND	0.3
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.3
Trans-1,2-Dichloroethene	156-60-5	ND	0.3
Cis-1,2-Dichloroethene	156-59-2	ND	0.3
Chloroform	67-66-3	ND	0.3
1,2-Dichloroethane	107-06-2	ИD	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.3
Carbon tetrachloride	56-23-5	ND	0.3
Bromodichloromethane	75-27-4	ND	0.3
1,2-Dichloropropane	78-87-5	ND	0.3
Cis-1,3-Dichloropropene	10061-01-5	ND	0.3
Trichloroethene	79-01-6	ND	0.3
Benzene	71-43-2	ND	0.3
Dibromochloromethane	124-48-1	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-12

Lab Number: 9204032-11A

Sample Matrix/Media: SOIL

Preparation Method: EPA 5030

Date Sampled: 04/01/92

Date Received: 04/02/92

Date Prepared: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detectior (mg/kg)
Purgeable Organics (continued	<u>1)</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.3
Trans-1,3-Dichloropropene	10061-02-6	ND	0.3
2-Chloroethylvinylether	110-75-8	ND	0.3
Bromoform	75-25-2	ND	0.3
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.3
Tetrachloroethene	127-18-4	ND	0.3
Toluene	108-88-3	0.6	0.3
Chlorobenzene	108-90-7	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,2-Dichlorobenzene	95-50-1	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.3
Freon 113	76-13-1	ND	0.3
p,m-Xylenes		2.1	0.3
o-Xylene	95-47-6	2.1	0.3
Acetone	67-64-1	ND	1
2-Butanone	78-93-3	ND	1
4-Methyl-2-pentanone	108-10-1	ND	1
2-Hexanone	591-78-6	ND	1
Vinyl acetate	108-05-4	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-12

Date Sampled: 04/01/92

Lab Number:

9204032-11A

04/02/92

Sample Matrix/Media:

SOIL

Date Received: Date Prepared: 04/07/92

Preparation Method:

EPA 5030

Date Analyzed: 04/07/92

Analytical Method:

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ied)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.3 0.3
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	106 108 96	70 - 121 81 - 117 74 - 121

Not detected at or above limit of detection ND 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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-13 Date Sampled: 04/01/92 Lab Number: 9204032-12A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.3
Bromomethane	74-83-9	ND	0.3
Vinyl chloride	75-01-4	ND	0.3
Chloroethane	75-00-3	ND	0.3
Methylene chloride	75-09-2	ND	0.3
Trichlorofluoromethane	75-69-4	ND	0.3
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.3
Trans-1,2-Dichloroethene	156-60-5	ND	0.3
Cis-1,2-Dichloroethene	156-59-2	ND	0.3
Chloroform	67-66-3	ND	0.3
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.3
Carbon tetrachloride	56-23-5	ND	0.3
Bromodichloromethane	75-27-4	ND	0.3
1,2-Dichloropropane	78-87-5	ND	0.3
Cis-1,3-Dichloropropene	10061-01-5	ND	0.3
Trichloroethene	79-01-6	ND	0.3
Benzene	71-43-2	ND	0.3
Dibromochloromethane	124-48-1	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-13 Date Sampled: 04/01/92 Lab Number: 9204032-12A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	<u>i)</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.3
Trans-1,3-Dichloropropene	10061-02-6	ND	0.3
2-Chloroethylvinylether	110-75-8	ND	0.3
Bromoform	75-25-2	ND	0.3
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.3
Tetrachloroethene	127-18-4	ND	0.3
Toluene	108-88-3	0.6	0.3
Chlorobenzene	108-90-7	ND	0.3
Ethylbenzene	100-41-4	ND	0.3
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,2-Dichlorobenzene	95-50-1	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.3
Freon 113	76-13-1	ND	0.3
p,m-Xylenes		ND	0.3
o-Xylene	95-47-6	0.9	0.3
Acetone	67-64-1	ND	
2-Butanone	78-93 - 3	ND	1
4-Methyl-2-pentanone	108-10-1	ND	1 1 1
2-Hexanone	591-78-6	ND	1
Vinyl acetate	108-05-4	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-13 Date Sampled: 04/01/92 Lab Number: 9204032-12A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ıed)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.3 0.3
Surrogates		Recovery (%)	QC Limits (%)LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	112 108 110	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-14 Date Sampled: 04/01/92 Lab Number: 9204032-13A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/08/92 Preparation Method: EPA 5030 Date Analyzed: 04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.3
Bromomethane	74-83-9	ND	0.3
Vinyl chloride	75-01-4	ND	0.3
Chloroethane	75-00-3	ND	0.3
Methylene chloride	75-09-2	ND	0.3
Trichlorofluoromethane	75-69-4	ND	0.3
1,1-Dichloroethene	75-35-4	ND	0.3
1,1-Dichloroethane	75-35-3	ND	0.3
Trans-1,2-Dichloroethene	156-60-5	ND	0.3
Cis-1,2-Dichloroethene	156-59-2	ND	0.3
Chloroform	67-66-3	ND	0.3
1,2-Dichloroethane	107-06-2	ND	0.3
1,1,1-Trichloroethane	71-55-6	ND	0.3
Carbon tetrachloride	56-23-5	ND	0.3
Bromodichloromethane	75-27-4	ND	0.3
1,2-Dichloropropane	78-87-5	ND	0.3
Cis-1,3-Dichloropropene	10061-01-5	ND	0.3
Trichloroethene	79-01-6	ND	0.3
Benzene	71-43-2	ND	0.3
Dibromochloromethane	124-48-1	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-14 Date Sampled: 04/01/92 Lab Number: 9204032-13A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/08/92 Preparation Method: EPA 5030 Date Analyzed: 04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	<u>1)</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.3
Trans-1,3-Dichloropropene	10061-02-6	ND	0.3
2-Chloroethylvinylether	110-75-8	ND	0.3
Bromoform	75-25-2	ND	0.3
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.3
Tetrachloroethene	127-18-4	ND	0.3
Toluene	108-88-3	ND	0.3
Chlorobenzene	108-90-7	ND	0.3
Ethylbenzene	100-41-4	ND ·	0.3
1,3-Dichlorobenzene	541-73-7	ND	0.3
1,2-Dichlorobenzene	95-50-1	ND	0.3
1,4-Dichlorobenzene	106-46-7	ND	0.3
Freon 113	76-13-1	ND	0.3
p,m-Xylenes		0.5	0.3
o-Xylene	95-47-6	0.9	0.3
Acetone	67-64-1	ND	1
2-Butanone	78-93-3	ND	1
4-Methyl-2-pentanone	108-10-1	ND	1 1
2-Hexanone	591-78-6	ND	1
Vinyl acetate	108-05-4	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification:964015-14Date Sampled:04/01/92Lab Number:9204032-13ADate Received:04/02/92Sample Matrix/Media:SOILDate Prepared:04/08/92Preparation Method:EPA 5030Date Analyzed:04/08/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ned)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.3 0.3
Surrogates		Recovery (%)	QC Limits (%) LCL UCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	100 104 112	70 - 121 $81 - 117$ $74 - 121$

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-15 Date Sampled: 04/01/92 Lab Number: 9204032-14A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detectior (mg/kg)
Purgeable Organics		•	
Chloromethane	74-87-3	ND	0.1
Bromomethane	74-83-9	ND	0.1
Vinyl chloride	75-01-4	ND	0.1
Chloroethane	75-00-3	ND	0.1
Methylene chloride	75-09-2	ND	0.1
Trichlorofluoromethane	75-69-4	ND	0.1
1,1-Dichloroethene	75-35-4	ND	0.1
1,1-Dichloroethane	75-35-3	ND	0.1
Trans-1,2-Dichloroethene	156-60-5	ND	0.1
Cis-1,2-Dichloroethene	156-59-2	ND	0.1
Chloroform	67-66-3	ND	0.1
1,2-Dichloroethane	107-06-2	ND	0.1
1,1,1-Trichloroethane	71-55-6	ND	0.1
Carbon tetrachloride	56-23-5	ND	0.1
Bromodichloromethane	75-27-4	ND	0.1
1,2-Dichloropropane	78-87-5	ND	0.1
Cis-1,3-Dichloropropene	10061-01-5	ND	0.1
Trichloroethene	79-01-6	ND	0.1
Benzene	71-43-2	ND	0.1
Dibromochloromethane	124-48-1	ND	0.1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-15 Date Sampled: 04/01/92 Lab Number: 9204032-14A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	<u> </u>		
1,1,2-Trichloroethane	79-00-5	ND	0.1
Trans-1,3-Dichloropropene	10061-02-6	ND	0.1
2-Chloroethylvinylether	110-75-8	ND	0.1
Bromoform	75-25-2	ND	0.1
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.1
Tetrachloroethene	127-18-4	ND	0.1
Toluene	108-88-3	0.3	0.1
Chlorobenzene	108-90-7	ND	0.1
Ethylbenzene	100-41-4	ND	0.1
1,3-Dichlorobenzene	541-73-7	ND	0.1
1,2-Dichlorobenzene	95-50-1	ND	0.1
1,4-Dichlorobenzene	106-46-7	ND	0.1
Freon 113	76-13-1	ND	0.1
p,m-Xylenes		0.3	0.1
o-Xylene	95-47-6	0.5	0.1
Acetone	67-64-1	ND	0.5
2-Butanone	78-93-3	ND	0.5
4-Methyl-2-pentanone	108-10-1	ND	0.5
2-Hexanone	591-78-6	ND	0.5
Vinyl acetate	108-05-4	ND	0.3

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-15 Date Sampled: 04/01/92 Lab Number: 9204032-14A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (contin	ued)		
Carbon disulfide	75-15-0	ND	0.1
Styrene	100-42-5	ND	0.1
			QC Limits (%)
Surrogates		Recovery (%)	LCL UCL
1,2-Dichloroethane-d4	17060-07-0	114	70 - 121
Toluene-d8	2037-26-5	106	81 - 117
Bromofluorobenzene	460-00-4	114	74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-16 Date Sampled: 04/01/92 Lab Number: 9204032-15A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detectior (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.5
Bromomethane	74-83-9	ND	0.5
Vinyl chloride	75-01-4	ND	0.5
Chloroethane	75-00-3	ND	0.5
Methylene chloride	75-09-2	ND	0.5
Trichlorofluoromethane	75-69-4	ND	0.5
1,1-Dichloroethene	75-35-4	ND	0.5
1,1-Dichloroethane	75-35-3	ND	0.5
Trans-1,2-Dichloroethene	156-60-5	ND	0.5
Cis-1,2-Dichloroethene	156-59-2	ND	0.5
Chloroform	67-66-3	ND	0.5
1,2-Dichloroethane	107-06-2	ND	0.5
1,1,1-Trichloroethane	71-55-6	ND	0.5
Carbon tetrachloride	56-23-5	ND	0.5
Bromodichloromethane	75-27-4	ND	0.5
1,2-Dichloropropane	78-87-5	ND	0.5
Cis-1,3-Dichloropropene	10061-01-5	ND	0.5
Trichloroethene	79-01-6	ND	0.5
Benzene	71-43-2	ND	0.5
Dibromochloromethane	124-48-1	ND	0.5

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-16 Date Sampled: 04/01/92 Lab Number: 9204032-15A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continue	<u>a)</u>		
1,1,2-Trichloroethane	79-00-5	ND	0.5
Trans-1,3-Dichloropropene	10061-02-6	ND	0.5
2-Chloroethylvinylether	110-75-8	ND	0.5
Bromoform	75-25-2	ND	0.5
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.5
Tetrachloroethene	127-18-4	0.8	0.5
Toluene	108-88-3	4.7	0.5
Chlorobenzene	108-90-7	ND	0.5
Ethylbenzene	100-41-4	5.6	0.5
1,3-Dichlorobenzene	541-73-7	ND	0.5
1,2-Dichlorobenzene	95-50-1	ND	0.5
1,4-Dichlorobenzene	106-46-7	ND	0.5
Freon 113	76-13-1	ND	0.5
p,m-Xylenes		21	0.5
o-Xylene	95-47-6	12	0.5
Acetone	67-64-1	ND	2
2-Butanone	78-93-3	ND	
4-Methyl-2-pentanone	108-10-1	ND	2 2
2-Hexanone	591-78-6	ND	2
Vinyl acetate	108-05-4	ND	1

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: 964015-16 Date Sampled: 04/01/92 Lab Number: 9204032-15A Date Received: 04/02/92 Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ned)		
Carbon disulfide Styrene	75-15-0 100-42-5	ND ND	0.5
Surrogates	100 .2 0	Recovery (%)	QC Limits (%)LCLUCL
1,2-Dichloroethane-d4 Toluene-d8 Bromofluorobenzene	17060-07-0 2037-26-5 460-00-4	112 108 112	70 - 121 81 - 117 74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: METHOD BLANK Date Sampled: -Lab Number: 9204032-16A Date Received: --

Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics			
Chloromethane	74-87-3	ND	0.005
Bromomethane	74-83-9	ND	0.005
Vinyl chloride	75-01-4	ND	0.005
Chloroethane	75 - 00-3	ND	0.005
Methylene chloride	75-09-2	ND	0.005
Trichlorofluoromethane	75-69-4	ND	0.005
1,1-Dichloroethene	75-35-4	ND	0.005
1,1-Dichloroethane	75 - 35-3	ND	0.005
Trans-1,2-Dichloroethene	156-60-5	ND	0.005
Cis-1,2-Dichloroethene	156-59-2	ND	0.005
Chloroform	67-66-3	ND	0.005
1,2-Dichloroethane	107-06-2	ND	0.005
1,1,1-Trichloroethane	71-55-6	ND	0.005
Carbon tetrachloride	56-23-5	ND	0.005
Bromodichloromethane	75-27-4	ND	0.005
1,2-Dichloropropane	78 - 87-5	ND	0.005
Cis-1,3-Dichloropropene	10061-01-5	ND	0.005
Trichloroethene	79-01-6	ND	0.005
Benzene	71-43-2	ND	0.005
Dibromochloromethane	124-48-1	ND	0.005

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: METHOD BLANK Date Sampled: -Lab Number: 9204032-16A Date Received: --

Sample Matrix/Media: SOIL Date Prepared: 04/07/92 Preparation Method: EPA 5030 Date Analyzed: 04/07/92

Analytical Method: EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continued	1)		
1,1,2-Trichloroethane	79-00-5	ND	0.005
Trans-1,3-Dichloropropene	10061-02-6	ND	0.005
2-Chloroethylvinylether	110-75-8	ND	0.005
Bromoform	75-25-2	ND	0.005
1,1,2,2-Tetrachloroethane	79-34-5	ND	0.005
Tetrachloroethene	127-18-4	ND	0.005
Toluene	108-88-3	ND	0.005
Chlorobenzene	108-90-7	ND	0.005
Ethylbenzene	100-41-4	ND	0.005
1,3-Dichlorobenzene	541-73-7	ND	0.005
1,2-Dichlorobenzene	95-50-1	ИD	0.005
1,4-Dichlorobenzene	106-46-7	ND	0.005
Freon 113	76-13-1	ND	0.005
p,m-Xylenes		ND	0.005
o-Xylene	95-47-6	ND	0.005
Acetone	67-64-1	ND	0.02
2-Butanone	78-93-3	ND	0.02
4-Methyl-2-pentanone	108-10-1	ND	0.02
2-Hexanone	591-78-6	ND	0.02
Vinyl acetate	108-05-4	ND	0.01

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Identification: METHOD BLANK Date Sampled: Lab Number: 9204032-16A Date Received:

Sample Matrix/Media: 04/07/92 SQIL Date Prepared: Preparation Method: Analytical Method: EPA 5030 Date Analyzed: 04/07/92

EPA 8240 (Low Level)

Analyte	CAS #	Concentration (mg/kg)	Limit of Detection (mg/kg)
Purgeable Organics (continu	ued)		
Carbon disulfide	75-15-0	ND	0.005
Styrene	100-42-5	ND	0.005
			QC Limits (%)
Surrogates		Recovery (%)	LCL UCL
1,2-Dichloroethane-d4	17060-07-0	120	70 - 121
Toluene-d8	2037-26-5	106	8 1 - 117
Bromofluorobenzene	460-00-4	100	74 - 121

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: 028691 (96-401) Clayton Project No. 92040.32

Sample Matrix/Media: SOIL Date Received: 04/02/92 Analysis Method: SM 5520E Date Analyzed: 04/06/92

Lab No.	Sample ID	Date Sampled	Total Oil & Grease (mg/kg)
01A	964015-2	04/01/92	10,000
02A	964015-3	04/01/92	1,000
03A	964015-4	04/01/92	1,900
04A	964015-5	04/01/92	3,800
05A	964015-6	04/01/92	8,100
06A	964015-7	04/01/92	1,900
07A	964015-8	04/01/92	5,300
08A	964015-9	04/01/92	9,200
09A	964015-10	04/01/92	7,400
10A	964015-11	04/01/92	540
11A	964015-12	04/01/92	4,000
12A	964015-13	04/01/92	670
Detection	on Limit:		50

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



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Results of Analysis

for

Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92040.32

Sample Matrix/Media: SOIL

Analysis Method: S

SM 5520E

Date Received:

04/02/92

Date Analyzed: 04/06/92

Lab No.	Sample ID	Date Sampled	Total Oil & Grease (mg/kg)
13A	964015-14	04/01/92	2,000
14A	964015-15	04/01/92	2,200
15A	964015-16	04/01/92	4,400
16A	METHOD BLANK	-	<50
Detect	tion Limit:		50

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



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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92040.32

Sample Matrix/Media: SOIL
Preparation Method: EPA 5030
Analysis Method: EPA 8015

Date Received: 04/02/92 Date Prepared: 04/03/92 Date Analyzed: 04/06/92

Lab No.	Sample ID	Date Sampled	Gasoline (mg/kg)
01A	964015-2	04/01/92	1,300
02A	964015-3	04/01/92	370
03A	964015-4	04/01/92	250
04A	964015-5	04/01/92	900
05A	964015-6	04/01/92	980
06A	964015-7	04/01/92	370 a
07A	964015-8	04/01/92	910 a
08A	964015-9	04/01/92	2,400
09A	964015-10	04/01/92	1,400
10A	964015-11	04/01/92	80
11A	964015-12	04/01/92	930 a
12A	964015-13	04/01/92	670
Detectio	n Limit:		0.3

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

a Sample was analyzed on 04/03/92

Note: Purgeable hydrocarbons quantitated as gasoline do not match typical gasoline pattern



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Results of Analysis for Uribe & Associates/ Port of Oakland

Client Reference: 028691 (96-401) Clayton Project No. 92040.32

Sample Matrix/Media: SOIL
Preparation Method: EPA 5030
Analysis Method: EPA 8015

Date Received: 04/02/92 Date Prepared: 04/03/92 Date Analyzed: 04/06/92

Lab No.	Sample ID	Date Sampled	Gasoline (mg/kg)
13A	964015-14	04/01/92	450
14A	964015-15	04/01/92	390
15A	964015-16	04/01/92	2,100 a
16A	METHOD BLANK		ND b
Detect:	ion Limit:		0.3

ND Not detected at or above limit of detection

Note: Purgeable hydrocarbons quantitated as gasoline do not match typical gasoline pattern

Not detected at or above limit of detection

⁻⁻ Information not available or not applicable Results are reported on a wet weight basis, as received

a Sample was analyzed on 04/03/92

b Sample was analyzed on 04/07/92



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CHAIN OF CUSTODY RECORD Bill: Port of Cakland ONE WEEK
HORAGE

THE REMARKS

AREA REMARKS PROJ. NO. PROJECT NAME 028691 Tanks MF-25 + MF-26 (96-401) SAMPLERS: (Signature) NC. 200 XX **DF** CONTAINERS CHECK IF BUSH 8 NO. DATE TIME SAMPLE I.D. 4/1/AZ 5: 150 964015 - 2 1 liner × 5:20 K 5:25 5:30 -5 5:40 X -6 X X 5: 45 y × K 5:55 X 6:05 X 6:15 -10 У 1.1.1-Trichloroethane, 1.1 Dichlorb-X 6:20 ĸ - 11 -12 -13 Xi leves Y K -14 -15 6:30 -16. .Date/Time Received by: (Signature) Relinquished by: (Signature) Date/Time Received by: (Signature) 11515 Relinquished by: (Signature) Date/Time Received by: (Signature) Relinquished by: (Signature) Received by: (Signature) Relinquished by: (Signature) NAME Clayton Encironmental, ADDRESS P.O. BOX 9019 Date/Time Received for Laboratory by: (Signature) Date/Time PHONE NO 510-426-2600

SAMPLING PROCEDURES

SOILS

1. In-place soil samples are collected with a stainlesssteel corer, fitted with a 6-inch brass liner. The corer is driven into the ground by a slide hammer. The brass liner is removed from the steel corer, capped with aluminum foil and a plastic cap, taped with masking tape, placed in a sip-lock bag, and iced prior to being brought to the laboratory for analysis. Proper chain-of-custody and sample labeling procedures are followed.

All sampling equipment is decontaminated with tri-sodium phosphate (TSP) and deionized water prior to collection of each sample

- 2. In-place soil samples may also be collected during drilling activities. The samples are collected with a California Modified sampler (2-inch diameter) fitted with 6-inch brass sleeves. The sampler is driven into the ground by a 140-lb hammer falling 30 inches. The samples are handled similarly to the procedures described above and the equipment is decontaminated in the same fashion.
- 3. During tank removal activities, soil samples may be collected from a backhoe bucket having extracted material from a specific depth. The soil brought to the surface in a bucket is sampled after about 6 inches of the surface is discarded. The sample is collected with a stainless steel corer fitted with a brass tube. The sample is handled in the same manner as described above, and decontamination procedures are similar.

GROUNDWATER

The well is checked for floating product with a dual interface probe. A water level measurement is made simultaneously with the probe, calibrated to the nearest 1/100th of a foot.

The well is then evacuated of five well volumes of water prior to sampling. The evacuation is performed with either a PVC 1.7-inch hand pump or a power pump with disposable tubing, the sample is collected with a disposable, bottom-valve, plastic bailer. The sample is transferred directly into glass vials, iced, and brought to the laboratory. Proper chain-of-custody and sample labeling procedures are followed.

All sampling equipment is decontaminated with TSP and deionized water prior to collection of each sample.