

CONSULTING GROUND-WATER  
GEOLOGISTS AND ENGINEERS  
**ROUX ASSOCIATES**



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91 JUN -4 AM 10:44

**Transmittal/Memorandum**

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**To:** ~~Mr. Gil Wistar~~ SH  
Alameda County Department of Environmental Health  
Hazardous Materials Program  
80 Swan Way, Room 200  
Oakland, California 94621

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**From:** Brian Thomas

**Date:** May 31, 1991

**Subject:** Remedial Excavation of Soils  
Former Underground Storage Tank Pit  
Harcros Pigments Facility  
Emeryville, California

**Job No.:** 19801W

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**Remarks:** Enclosed is one copy of the subject report.

**REMEDIAL EXCAVATION OF SOILS  
FORMER UNDERGROUND STORAGE TANK PIT**

**Harcros Pigments Facility  
Emeryville, California**

May 31, 1991

*Prepared for:*

**Harcros Pigments, Inc.  
4650 Shellmound Ave.  
Emeryville, California**

*Prepared by:*

**ROUX ASSOCIATES  
1350 Arnold Drive, Suite 201  
Martinez, CA 94553  
(415) 370-2275**

**TITLE:** Remedial Excavation of Soil  
Harcros Pigments Facility  
4650 Shellmound Street  
Emeryville, California

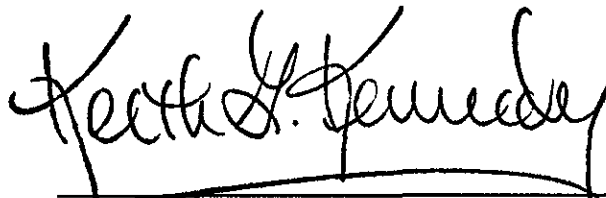
**DATE:** May 31, 1991

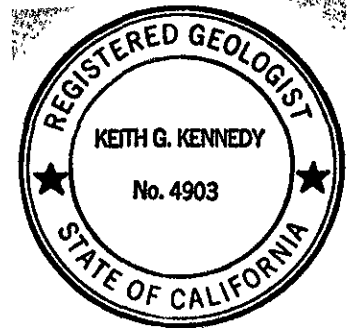
**PROJECT NO:** 19801W

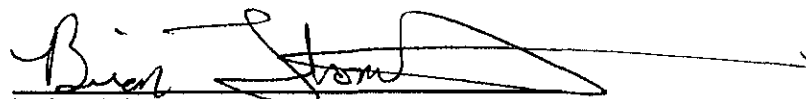
**SUBMITTED BY:** Roux Associates  
1350 Arnold Drive, Suite 201  
Martinez, California 94553

This work was done under the direction of the undersigned California Registered Geologist.

**PREPARED BY:**

  
Keith G. Kennedy  
California Registered Geologist No. 4903



  
Brian Thomas  
Senior Hydrogeologist

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## 1.0 INTRODUCTION

Roux Associates (Roux) was retained by Harcros Pigments, Inc. (formerly Pfizer Pigments, Inc.) to supervise the excavation of soil within an area of an aboveground diesel fuel leak and collect verification samples at the Harcros Pigments Facility (Site), Emeryville, California (Figure 1). The excavated soil containing diesel fuel was transported by Dillard Trucking Company to a Class II disposal facility based upon the concentration of petroleum hydrocarbons of soil samples collected from the stockpiled soils. Roux also supervised the abandonment of two ground water monitoring wells and the installation of three ground water monitoring wells at the Site.

### 1.1 Purpose/Objectives

Soils containing diesel fuel, located along the north and east sides of Service Building Number 10 (Figure 2), were excavated to remove a continuous source of diesel fuel contamination to ground water beneath the Site. Monitoring wells RW-4 and RW-11, located within the area to be excavated, were abandoned prior soil removal. Three additional monitoring wells were installed to monitor ground water quality beneath the Site.

### 1.2 Scope of Work

The following scope of work was performed at the Site:

- Abandon monitoring wells RW-4 and RW-11 located within the area to be excavated.
- Excavate soil containing diesel fuel along the north and east sides of Building Number 10.
- Collect soil samples from the sidewalls of the excavations and from the excavated soil stockpiles for laboratory analysis.
- Install monitoring wells RW-29, RW-30 and RW-31 at the Site to monitor ground water quality.

### 1.3 Background

An underground storage tank used for storage of waste oil was removed from the Harcros Pigments Facility (formerly Pfizer Pigments Facility) in December, 1987 (Roux, 1988). The waste oil tank was located along the east side of Service Building No. 10 (Figure 2). The base of the former waste oil tank pit was about seven feet below land surface. The tank pit was backfilled with sand and gravel fill following tank removal.

Roux conducted a Site investigation during 1988 to address soil and ground water contamination from the removed waste oil tank (Roux, 1988). The investigation included the installation of monitoring wells RW-2, RW-3, RW-4 and RW-11. Roux has periodically collected ground water samples from the wells at the Site since 1988.

Ten underground storage tanks were removed from a tank pit located 35 feet south of Service Building Number 10 in December, 1989, by Diablo Tank and Testing Company of

Martinez, California (Diablo Tank). After the tanks were removed from the ground, holes were observed in one tank that was removed from the northeastern corner of the tank pit. The soil excavated from the tank pit was tested and then transported off site for disposal. The pit was backfilled with clean fill (Roux, 1990). Diablo Tank installed new double-walled underground storage tanks and fuel lines east of Service Building No. 10 (Figure 2).

Free phase diesel fuel was detected in monitoring wells RW-4 and RW-11 on January 22, 1990 during a semi-annual sampling of monitoring wells at the Site (Figure 2). The two wells were located adjacent to the newly installed underground storage tanks and underground fuel lines. A pressure test was conducted on the secondary containment structure and the lines for the recently installed tanks by Diablo Tank. No leaks were detected during testing (Roux, 1990).

The source of diesel fuel in the subsurface was determined to be a leak from an aboveground surface control valve based on the results of pressure testing of subsurface tanks and lines (Roux, 1990). The location of the aboveground surface control valve is shown on Figure 2.

#### 1.4 Regulatory Interface

The Alameda County Department of Environmental Health (DEH) requested in correspondence dated May 9, 1990 to Harcros Pigments, Inc. that:

- 1) a monitoring well (RW-29) be installed within the former tank pit located 35 feet south of Service Building Number 10,
- 2) excavation and disposal of the soil containing diesel be performed within the area near the east and north sides of Service Building Number 10, and
- 3) a ground water monitoring program be initiated within the area of the aboveground diesel fuel leak.

The DEH requested in correspondence dated September 19, 1990, to Harcros Pigments Inc. that two monitoring wells (RW-30 and RW-31) be installed within the excavated soil area. The purpose of these wells is to monitor ground water quality within the area of the aboveground diesel fuel leak.



## 2.0 FIELD INVESTIGATION

Field investigation was conducted from July, 1990 to December, 1990 and consisted of:

- 1) installing monitoring wells RW-29, RW-30 and RW-31,
- 2) well abandonment of monitoring wells RW-4 and RW-11,
- 3) supervision of excavations of soil containing diesel fuel, and
- 4) collecting stockpile and sidewall soil samples for laboratory analyses.

At the request of the DEH, monitoring well RW-29 was installed in the former diesel fuel tank pit located south of Service Building Number 10 on July 25, 1990, (Figure 2). Soil was excavated in August, 1990, from an area impacted by a diesel fuel leak east and north of Service Building Number 10. The DEH requested the installation of additional monitoring wells within the formerly excavated area impacted by the diesel fuel leak east and north of Service Building Number 10. Monitoring wells RW-30 and RW-31 were installed east and north of Service Building Number 10.

### 2.1 Monitoring Well Installation

Gregg Drilling and Testing, Inc. of Concord, California was subcontracted to install monitoring wells within the former tank pit south of Service Building Number 10 and within the formerly excavated area east and north of Service Building No. 10. A hollow stem auger drill rig was used to drill boreholes RW-29, RW-30 and RW-31. The boreholes were advanced to a depth ranging from 14.0 to 14.6 feet below land surface. Soil samples were

not collected during the drilling activities because the wells were situated in clean, uniform sand backfill that was emplaced following the tank removal and excavation activities. After the drilling was completed, a ten foot long, flush threaded, 10 slot (0.010 inch) PVC screen and the appropriate amount of blank PVC casing were installed to complete the well to ground surface. Monitoring well RW-29 was construction of a two inch diameter PVC pipe, while monitoring wells RW-30 and RW-31 were constructed of four inch diameter PVC pipe.

Based upon the shallow depth to water at the Site (approximately five feet below ground surface), the monitoring wells could not be constructed according to LUFT guidelines which recommends a 12 inch to 24 inch sand pack above the screen and a three foot thick bentonite pellet seal installed above the screen. Instead, a one foot bentonite pellet seal was placed above the top of the sand packs. In each well, a sand pack was placed around and up to a minimum of 1.0 feet above the screened interval. A one foot thick bentonite pellet seal was placed above the sand pack and the pellets were hydrated with potable water. A flush to ground surface protective utility box was placed over each well and cemented in place. A locking cap with a rubber gasket was placed on the PVC casing and a flush mount curb box with locking lid was installed over the PVC well. Well construction diagrams for wells RW-29, RW-30 and RW-31 are provided in Appendix A.

Each well was developed to ensure that there was hydraulic connection between the well and the ground water underlying the Site. Ground water was purged from each well until the well was sediment free or until a minimum of five casing volumes of water was removed from the well. The purged ground water was contained in 55 gallon drums and transported

to the Liquid Waste Management, Inc. Class II disposal facility in McKittrick, California (Appendix B). The vertical elevation of the top of the PVC casing of each well was surveyed by Bates and Bailey, Berkeley, California, a State licensed surveyor.

## 2.2 Well Abandonment

Monitoring wells RW-4 and RW-11, which had been located in the area to be excavated (Figure 2), were abandoned in July, 1990. The monitoring wells were over-drilled with the use of a hollow stem auger rig. The PVC well casings and sand packs were removed during the drilling. The augers were advanced approximately 1.0 foot below RW-4 and 5.0 feet below RW-11. The boreholes were filled with bentonite and cement grout up to land surface. The surface was repaired with cold patch asphalt.

## 2.3 Soil Excavation

Harcros Pigments, Inc. subcontracted Diablo Tank to excavate the soil containing diesel fuel immediately east (Area 1) and north (Area 2) of Service Building Number 10 (Figure 3). A Roux geologist observed, directed and documented these activities.

The excavations in both areas were advanced into the natural formation (Bay mud) underlying the Site. The Bay mud is a clayey unit which has relatively low permeability compared to the backfill material (sand and gravel) that was present in the former waste oil tank pit (Roux, 1990).

The excavation was advanced vertically to about three feet below water surface and laterally until further excavation would have endangered the surrounding structures or until clean material was observed. A Roux geologist observed and directed the excavation of the soils. A total of 84 cubic yards of soil was excavated and stockpiled on site by Diablo Tank.

Area 1 (Figure 3) was excavated to a depth of about 7.3 feet below ground surface along the west wall of the pit and to a depth of about 9 feet in the middle and along the east wall of the pit. The excavation was completed to a maximum depth, about 2 feet into the Bay mud. Area 2 (Figure 3) was excavated to a depth of about 7.5 feet below ground surface, about 3 feet into the Bay mud.

An oily sheen was observed on the surface of the ground water that entered the pit (Roux, 1990). Ground water was observed at a depth of about 5.0 feet below ground surface in the open excavations. Water that entered into the pits was pumped out into temporary storage tanks. The water (about 3,000 gallons) was then transported for disposal to Liquid Waste Management by Kern Vacuum Service (Appendix B).

## 2.4 Soil Sampling

### 2.4.1 Limits of Excavated Areas

Roux collected soil samples from the native materials in the sidewalls of the excavated areas. Five soil samples were collected from excavated Area 1 and four soil samples were collected from excavated Area 2 (Figure 3). The samples were collected at depths ranging

from 3.7 to 4.5 feet below ground surface. The samples were collected to determine the concentration of total petroleum hydrocarbons as diesel (TPH-D) at the limits of the excavations.

Samples were collected in a two and one-half inch diameter, eight inch long stainless steel drive sampler lined with a two inch diameter, six inch long clean brass sampling tube. The drive sampler was attached to the end of steel rods of sufficient length to extend across the open excavation. The sampler was driven directly into the excavation sidewall by hammering the free end of the steel rods with a slide hammer. The sampler was then recovered and opened. The brass tube was removed, and each end was covered with aluminum foil and a plastic cap and then sealed with duct tape. The samples were then labeled and stored on ice in a closed cooler chest until delivery to the laboratory. A Chain-of-Custody was maintained for the samples.

#### 2.4.2 Excavated Soil Stockpiles

The fill material and native soil removed during excavation of Areas 1 and 2 were stockpiled on an open area at the northwestern corner of the Harcros Pigments Facility. On August 10, 1990, Roux collected four soil samples from each 50 cubic yards of stockpiled soil.

Six to twelve inches of soil were scraped away from the surface of the stockpile. A brass sampling tube was then driven into the newly exposed surface and filled completely so that no head space remained in the tube at either end. The brass tube was removed and then

prepared for transport to the laboratory in the same manner utilized when sampling at the limits of the excavations. A Chain-of-Custody was maintained for the samples.

## 2.5 Laboratory Analyses

The soil samples were delivered for chemical analyses to Curtis and Tompkins Ltd. of Berkeley, California, a State certified laboratory. Curtis and Tompkins combined each set of four stockpile samples into one composite sample for analysis. The composite stockpile samples and the samples collected at the limits of the excavations were analyzed for TPH-D by U.S. Environmental Protection Agency (USEPA) Method 5030/8015. In addition, one of the composite stockpile samples (CS-1A-D) was analyzed for organic lead by the Department of Health Services Method described in the Regional Water Quality Control Board (RWQCB) Leaking Underground Fuel Tank (LUFT) field manual. Table 1 summarizes the laboratory analytical data for the samples collected from the limits of the excavation and the excavated soil stockpiles. Chain-of-Custody documentation forms are included in Appendix C and laboratory analytical reports are included in Appendix D.

### 3.0 SUMMARY OF RESULTS

#### Monitoring Well Installation

Monitoring well RW-29 was installed in the former tank pit located south of Service Building Number 10. Monitoring wells RW-30 and RW-31 were installed in Area 1 and Area 2, respectively. These wells will be monitored as part of the ongoing quarterly ground water monitoring program at the Site.

#### Excavated/Stockpiled Soils

About 84 cubic yards of soil were excavated from Area 1 and Area 2. Excavated soil was stockpiled on an open area at the northwestern corner of the property. Laboratory analyses of composite soil samples (CS-1A-D and CS-2A-D) collected from the stockpiled soils indicated TPH-D concentrations of 260 mg/kg and 760 mg/kg, respectively. Laboratory analysis of composite soil sample CS-1A-D indicated organic lead was not present above the detection limit of 0.5 mg/kg. The laboratory analytical data for the composite stockpile samples and the samples collected at the limits of the excavation are summarized in Table 1. The soils were transported by Dillard Trucking of Byron, California, to Liquid Waste Management (Appendix B).

### Sidewall Samples

Nine soil samples were collected from the sidewalls in Area 1 and Area 2 (Figure 3). Laboratory analyses of four of the samples indicated TPH-D concentrations ranging from 45 mg/kg to 2,300 mg/kg. Laboratory analyses of the remaining five samples indicated TPH-D was not present above the detection limit of 10 mg/kg (Table 1). Laboratory analytical reports are provided in Appendix D.

### Soils Left in Place

Further removal of soil from the east sidewall could not be done without risking the integrity of the backfill surrounding the new underground storage tanks and fuel lines. These soils were left in place and, as a result, the DEH requested, in a correspondence dated September 19, 1990, that two additional wells (RW-30 and RW-31) be installed within the excavated areas and sampled every three months (quarterly) along with monitoring wells RW-2, RW-3, RW-22 and RW-29.



#### 4.0 REFERENCES

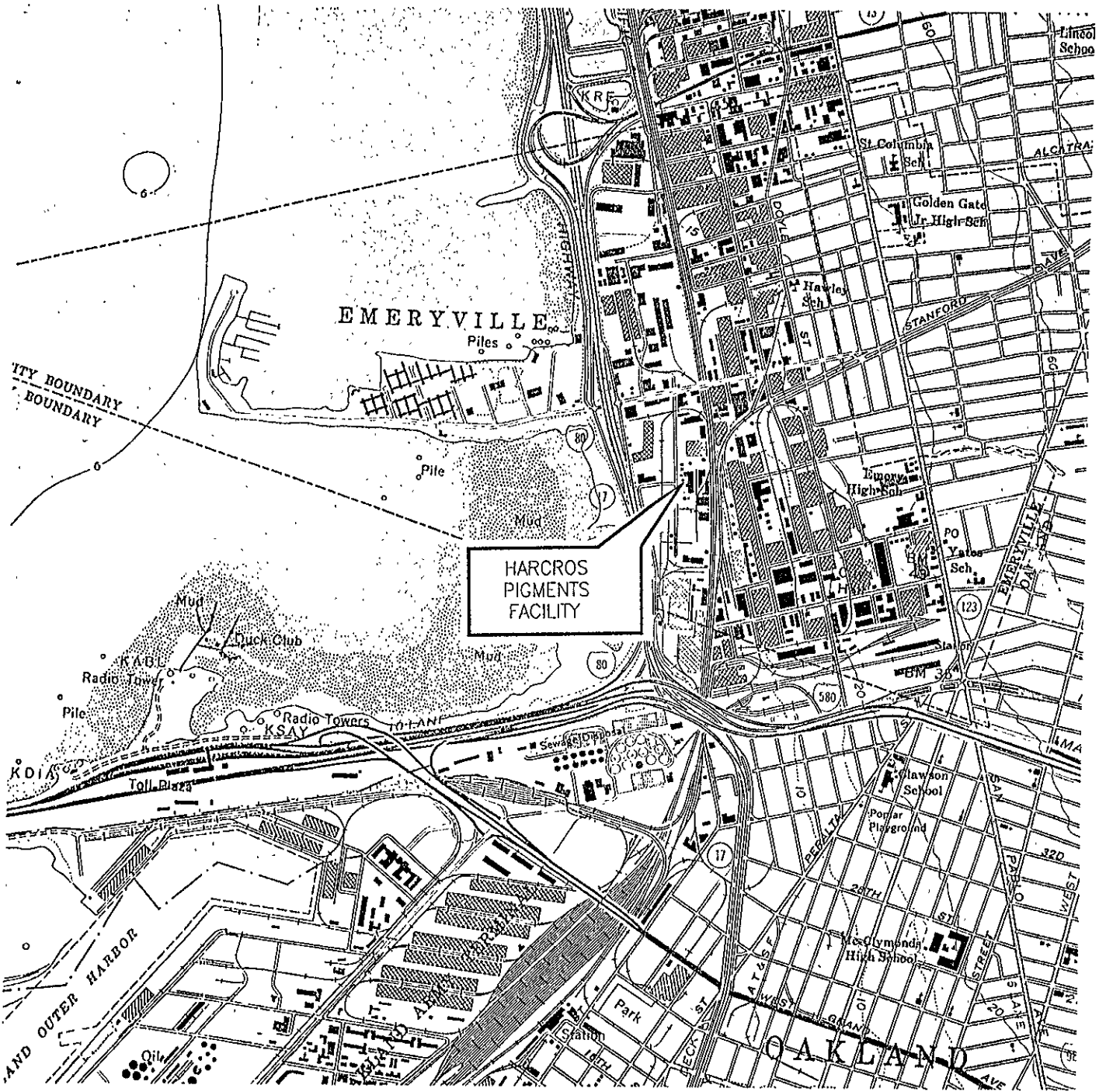
Roux Associates, August 12, 1988, Underground Storage Tank Site Investigation, Pfizer Pigments Plant, Emeryville, California.

Roux Associates, May 1990, Final Report, Diesel Fuel Site Investigation, Pfizer Pigments Plant.

**Table 1. Summary of Soil Analyses, Harcros Pigments Facility, Emeryville, California**

Sample Designation	Sample Depth (feet below land surface)	USEPA Method 5030/8015 Total Petroleum Hydrocarbons as Diesel (1)	Organic Lead DHS Method RWQCB LUFT Manual
S-1	4.3	ND	NA
S-2	3.7	ND	NA
S-3	4.2	45	NA
S-4	4.5	330	NA
S-5	4.2	2,300	NA
S-6	4.1	ND	NA
S-7	3.7	ND	NA
S-8	4.3	75	NA
S-9	4.0	ND	NA
CS-1A-D	Stockpile	260	ND
CS-2A-D	Stockpile	760	NA

- (1) = Concentrations reported in mg/kg (ppm)  
 ND = Analyte reported as ND was not detected above the stated limit of detection  
 (see laboratory analytical report for detection limits)  
 NA = Not Analyzed



SOURCE:  
7.5 MINUTE QUADRANGLE  
OAKLAND WEST



TITLE:

LOCATION OF SITE

PREPARED FOR:

HARCROS PIGMENTS, INC.

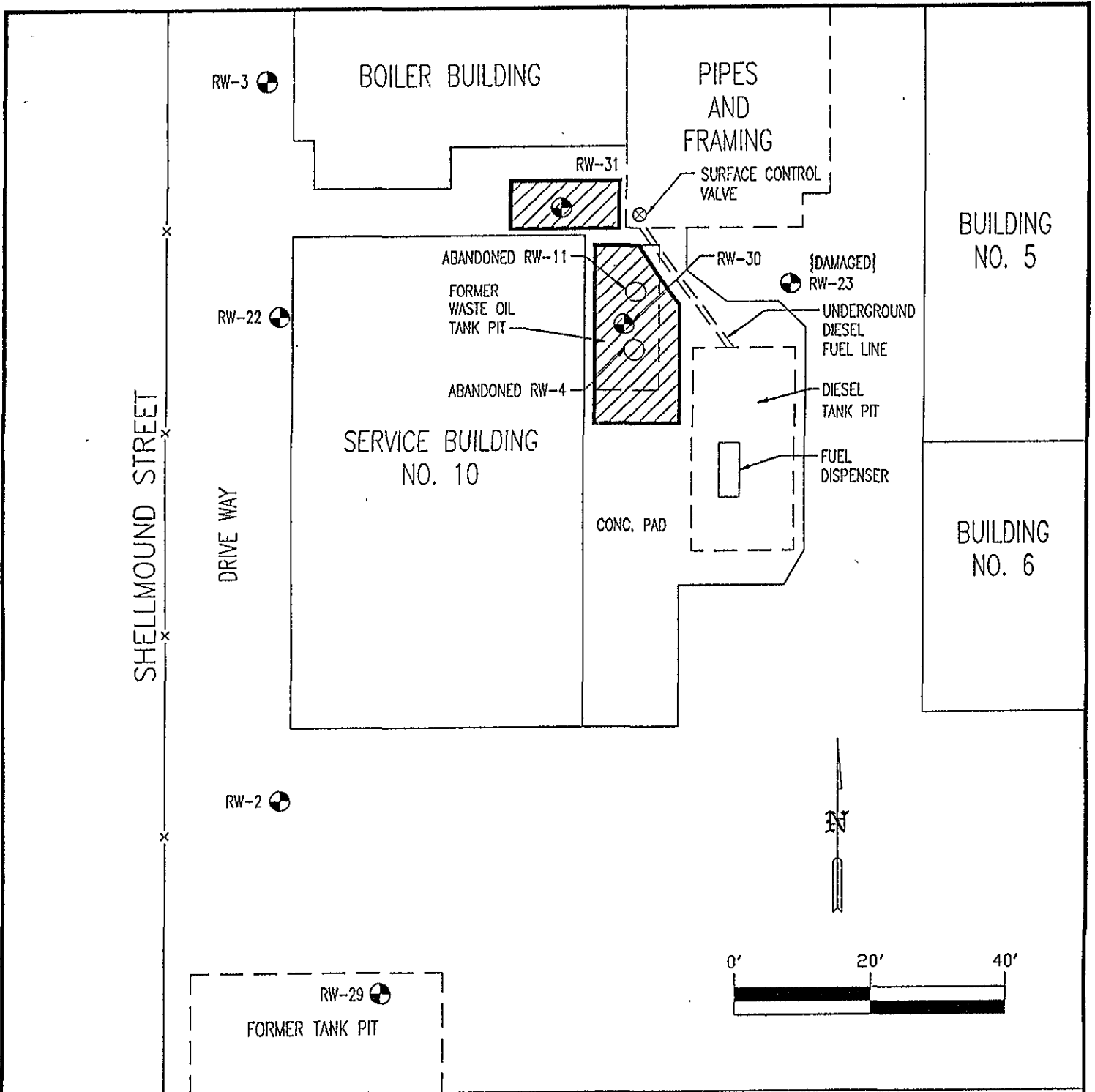
**ROUX**

ROUX ASSOCIATES, INC.  
ENVIRONMENTAL CONSULTING  
& MANAGEMENT

COMPILED BY:	B.T.	DATE:	02/91
PREPARED BY:	R.P.	SCALE:	AS SHOWN
PROJECT MANAGER:	B.T.	REVISION:	0
PROJECT NO.	19801W		

FIGURE

1



EXPLANATION

RW-2 MONITORING WELL LOCATION AND DESIGNATION

RW-11 FORMER MONITORING WELL LOCATION AND DESIGNATION

APPROXIMATE AREA OF EXCAVATION

TITLE:

LOCATION OF MONITORING WELLS AND TANK PITS

PREPARED FOR:

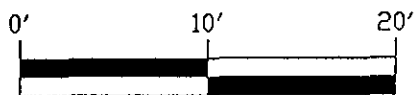
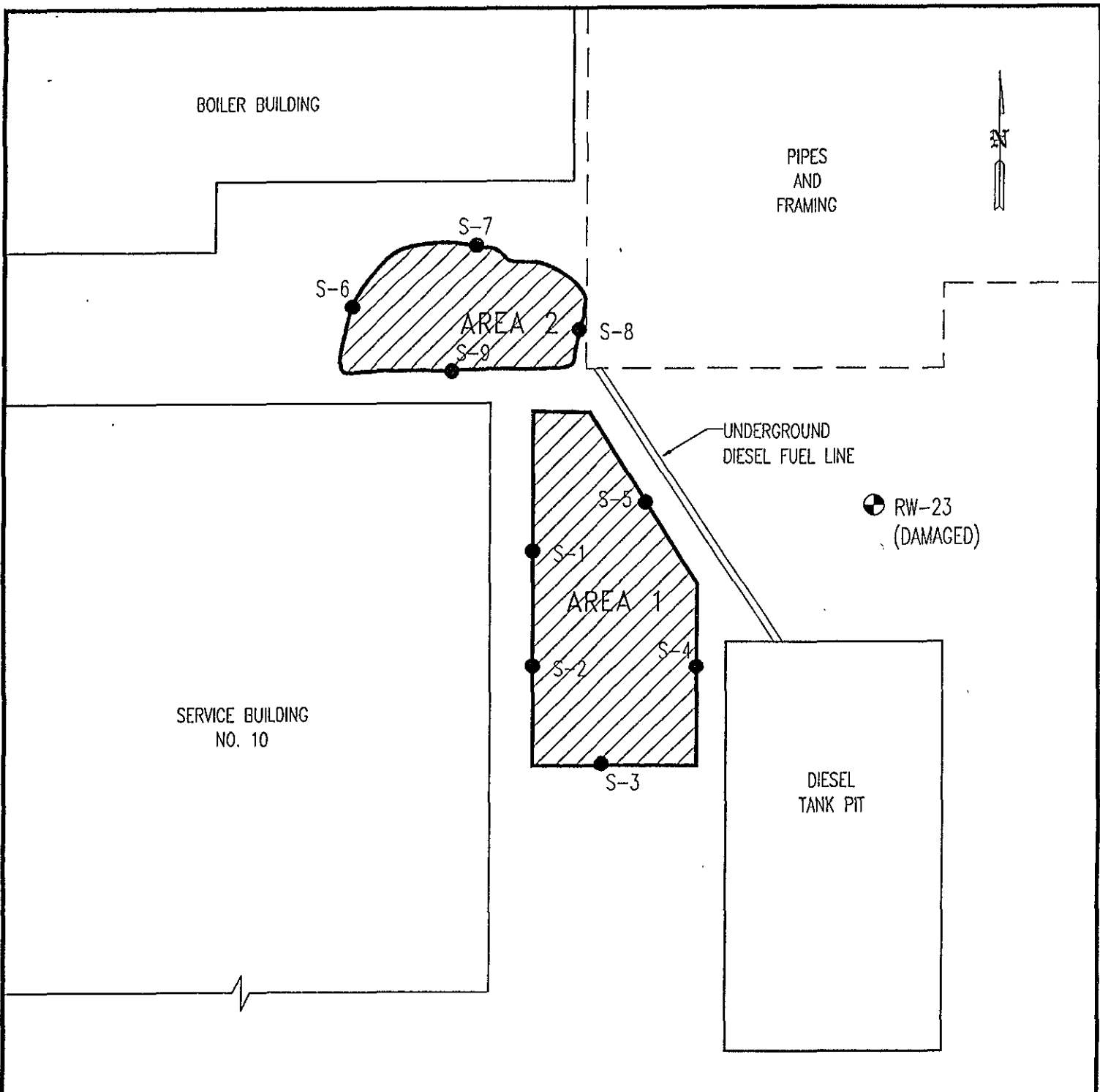
HARCROS PIGMENT, INC.

**ROUX**  
ROUX ASSOCIATES, INC.  
ENVIRONMENTAL CONSULTING  
& MANAGEMENT




COMPILED BY:	B.T.	DATE:	01/91
PREPARED BY:	R.P.	SCALE:	AS SHOWN
PROJECT MANAGER:	B.T.	REVISION:	0
PROJECT NO.	19801W		

FIGURE

2



EXPLANATION

-  RW-23 MONITORING WELL LOCATION AND DESIGNATION.
-  S-1 EXCAVATION SIDEWALL SAMPLE LOCATION AND DESIGNATION.
-  EXCAVATED AREAS

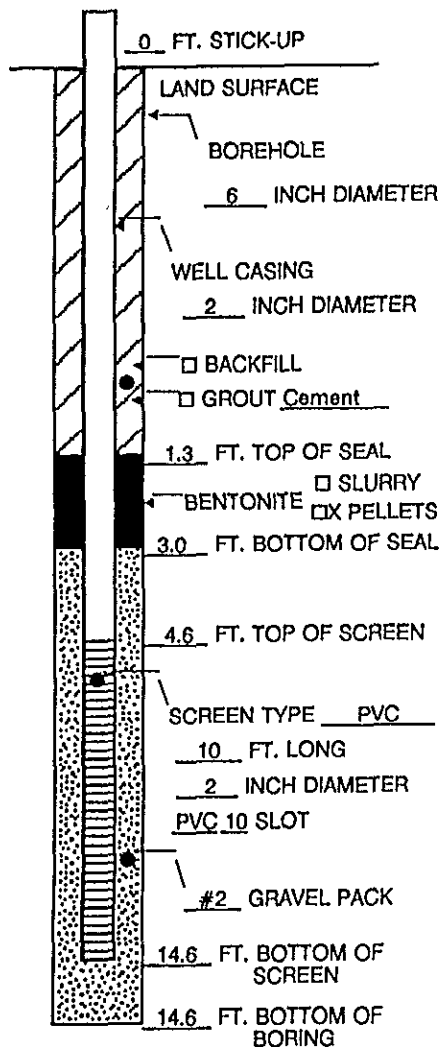
TITLE:  
 LOCATION OF SOIL SAMPLES AND AREAS OF SOIL EXCAVATION

PREPARED FOR:  
 HARCROS PIGMENTS, INC.

<b>ROUX</b> ROUX ASSOCIATES, INC. <small>ENVIRONMENTAL CONSULTING &amp; MANAGEMENT</small>	COMPILED BY: B.T.	DATE: 01/91	FIGURE <b>3</b>
	PREPARED BY: R.P.	SCALE: AS SHOWN	
	PROJECT MANAGER: B.T.	REVISION: 0	
	PROJECT NO. 19801W		

**APPENDIX A**  
**Well Construction Diagrams**

## MONITORING WELL CONSTRUCTION LOG



NOTE:  
 ALL DEPTHS IN FEET  
 BELOW LAND SURFACE

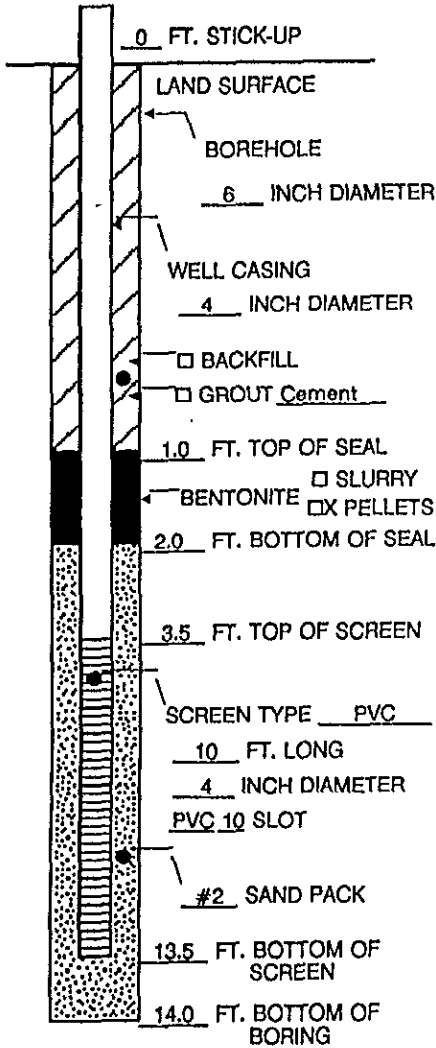
PROJECT NAME HARCROS NUMBER 19801W  
 WELL NO. RW-29 PERMIT NO. \_\_\_\_\_  
 TOWN/CITY Emeryville  
 COUNTY Alameda STATE California  
 WELL LOCATION \_\_\_\_\_  
 LAND-SURFACE ELEVATION \_\_\_\_\_  SURVEYED  ESTIMATED  
 MEASURING POINT ELEVATION 7.01  SURVEYED  ESTIMATED  
 MEASURING POINT LOCATION \_\_\_\_\_  
 INSTALLATION DATE(S) 7/20/90  
 DRILLING METHOD Hollow Stem Auger  
 DRILLING CONTRACTOR Gregg Drilling  
 DRILLING FLUID none

DEVELOPMENT TECHNIQUES(S) AND DATE(S)  
Developed with stainless steel bailer  
 FLUID LOSS DURING DRILLING \_\_\_\_\_ GALLONS  
 WATER REMOVED DURING DEVELOPMENT 36 GALLONS  
 STATIC DEPTH TO WATER \_\_\_\_\_ FEET BELOW M.P.  
 PUMPING DEPTH TO WATER \_\_\_\_\_ FEET BELOW M.P.  
 PUMPING DURATION \_\_\_\_\_ HOURS  
 YIELD \_\_\_\_\_ GPM DATE \_\_\_\_\_  
 SPECIFIC CAPACITY \_\_\_\_\_ GPM/FT.  
 WELL PURPOSE Monitoring well

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SIGNATURE \_\_\_\_\_

## MONITORING WELL CONSTRUCTION LOG



NOTE:  
 ALL DEPTHS IN FEET  
 BELOW LAND SURFACE

PROJECT NAME HARCROS NUMBER 19801W  
 WELL NO. RW-30 PERMIT NO. \_\_\_\_\_  
 TOWN/CITY Emeryville  
 COUNTY Alameda STATE California  
 WELL LOCATION \_\_\_\_\_  
 LAND-SURFACE ELEVATION \_\_\_\_\_  SURVEYED  ESTIMATED  
 MEASURING POINT ELEVATION 7.51  SURVEYED  ESTIMATED  
 MEASURING POINT LOCATION Top of PVC casing

INSTALLATION DATE(S) 12/20/90  
 DRILLING METHOD Hollow Stem Auger  
 DRILLING CONTRACTOR Gregg Drilling  
 DRILLING FLUID none

DEVELOPMENT TECHNIQUES(S) AND DATE(S)  
Developed with stainless steel bailer 12/20/90 and 12/26/90

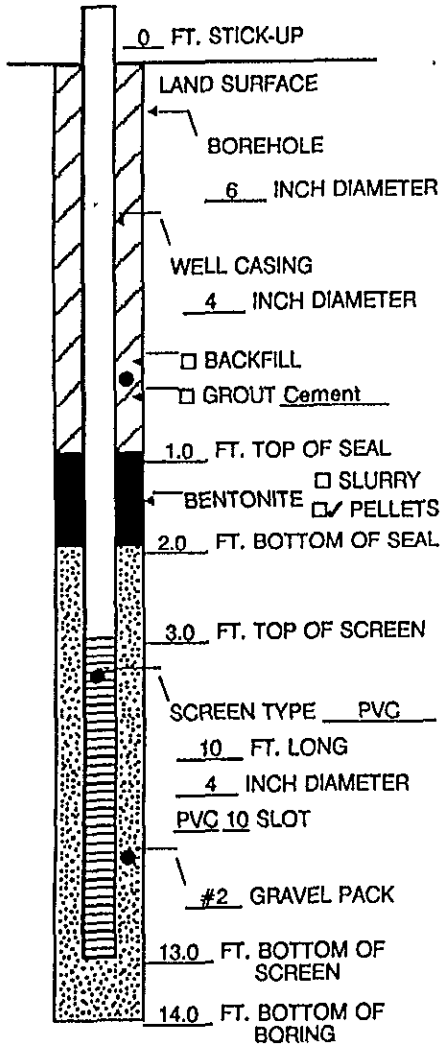
FLUID LOSS DURING DRILLING \_\_\_\_\_ GALLONS  
 WATER REMOVED DURING DEVELOPMENT 36 GALLONS  
 STATIC DEPTH TO WATER 4.15 FEET BELOW M.P.  
 PUMPING DEPTH TO WATER \_\_\_\_\_ FEET BELOW M.P.  
 PUMPING DURATION \_\_\_\_\_ HOURS  
 YIELD \_\_\_\_\_ GPM DATE 12/26/90  
 SPECIFIC CAPACITY \_\_\_\_\_ GPM/FT.  
 WELL PURPOSE Monitoring well

REMARKS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

SIGNATURE \_\_\_\_\_



## MONITORING WELL CONSTRUCTION LOG



NOTE:  
 ALL DEPTHS IN FEET  
 BELOW LAND SURFACE

PROJECT NAME HARCROS NUMBER 19801W

WELL NO. RW-31 PERMIT NO. \_\_\_\_\_

TOWN/CITY Emeryville

COUNTY Alameda STATE California

WELL LOCATION \_\_\_\_\_

LAND-SURFACE ELEVATION \_\_\_\_\_  SURVEYED  ESTIMATED

MEASURING POINT ELEVATION 7.08  SURVEYED  ESTIMATED

MEASURING POINT LOCATION Top of PVC casing

INSTALLATION DATE(S) 12/20/90

DRILLING METHOD Hollow Stem Auger

DRILLING CONTRACTOR Gregg Drilling

DRILLING FLUID none

DEVELOPMENT TECHNIQUES(S) AND DATE(S)

Developed with stainless steel bailer 12/26/90

FLUID LOSS DURING DRILLING \_\_\_\_\_ GALLONS

WATER REMOVED DURING DEVELOPMENT 31 GALLONS

STATIC DEPTH TO WATER 3.55 FEET BELOW M.P.

PUMPING DEPTH TO WATER \_\_\_\_\_ FEET BELOW M.P.

PUMPING DURATION \_\_\_\_\_ HOURS

YIELD \_\_\_\_\_ GPM DATE 12/26/90

SPECIFIC CAPACITY \_\_\_\_\_ GPM/FT.

WELL PURPOSE Monitoring well

REMARKS \_\_\_\_\_

SIGNATURE \_\_\_\_\_

**APPENDIX B**

**October 5, 1990 Letter from Harcros Pigments  
to Alameda County Department of Environmental Health  
Regarding Soil and Water Disposal**

**Harcros Pigments Site  
Emeryville, California**

**(including Attachments)**

RECEIVED OCT 10 1990



Harcros Pigments Inc.  
P.O. Box 8215  
4650 Shellmound Street  
Emeryville, CA 94662  
Telephone (415)653-6151

HARCROS  
CHEMICAL GROUP

Oct. 5, 1990

Alameda County Dept of Environmental Health  
Hazardous Materials Program  
80 Swan Way, Room 200  
Oakland, Ca. 94621

Attn: G. M. Wistar, Hazardous Materials Specialist

Re: Soil and Water Disposal, Diesel Site, 4650 Shellmound St.

As requested in your letter of 19 Sept. '90, we supply the following details of the disposal of the diesel fuel contaminated soil and water from the excavation on our property at 4650 Shellmound St., Emeryville.

Soil


Soil was removed from the excavation and piled on plastic sheeting. Three drums of soil from well borings was added to the pile. Soil composite samples were analyzed and found to show TPH-D levels of 260ppm and 760ppm, as diesel. Lab results are attached.

The soil was hauled by Dillard Trucking Inc. to the Liquid Waste Management Inc. Class II facility at McKittrick, California. Documentation attached shows 84 cubic yards of soil weighting 100.18 tons was transported and disposed.

Water

Approximately 3000 gals of water was removed from the excavation and from the purging of monitoring wells. The water was held in storage tanks before disposal. The water was not analyzed but was presumed to be contaminated based on the appearance of an oily sheen on the water. With the agreement of Liquid Waste Management Inc. the water was used to wash out containers of waste iron oxide and the combined contaminated water and iron oxide solids were transported by Kern Vacuum Service ( Erickson Enterprises ) to the Liquid Waste Management Inc. Class II facility in McKittrick, California. Documentation is attached.

If there are any questions concerning the disposal of the soil and water, I may be reached at the above telephone number, extension 246.

  
M. S. HERZOG  
Environmental/Project Mgr.

cc: J. DeMartini, Roux Associates West  
W. C. Groth  
J. N. Deblock  
T. J. Lee



Curtis & Tompkins, Ltd.

LABORATORY NUMBER: 101361  
 CLIENT: ROUX ASSOCIATES  
 JOB #: 19801W  
 LOCATION: EMERYVILLE

DATE RECEIVED: 08/10/90  
 DATE EXTRACTED: 08/13/90  
 DATE ANALYZED: 08/15/90  
 DATE REPORTED: 08/17/90

Extractable Petroleum Hydrocarbons in Soils & Wastes  
 California DOHS Method  
 LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT (mg/Kg)
101361-9	CS-1A-D	ND	260	10
101361-10	CS-2A-D	ND	760	10

ND = Not Detected at or above reporting limit.

QA/QC SUMMARY

RPD, % 3  
 RECOVERY, % 117

# Dillard Trucking, Inc.

HAZARDOUS WASTE TRANSPORTATION  
ROUTE 1, BOX 73 BYRON, CALIFORNIA 94514  
(415) 634-0567 FAX 634-0569

## FAX COVER DOCUMENT

DATE: 10-3-90

PLEASE DELIVER THE FOLLOWING 6 PAGES, INCLUDING THIS COVER TO:

TO: Harcos Pigments, Inc

ATTENTION: Mike Herzog

RECEIVER FAX: 653-0560

FROM: DILLARD TRUCKING, INC.

Donna

SENDER FAX: 415-634-0569

REGARDING: Copies of Non Hazardous Data Forms  
sent transported 9-26-90 to  
Liquid Waste Mgmt.  
IF you have any questions  
please call

# NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Harcos Pigments, Inc. EPA I.D. NO. EPA EXEMPT  
 ADDRESS P. O. Box 8215  
 CITY, STATE, ZIP Emeryville, CA 94662 Site: 4850 Shellmound, Emeryville PHONE NO. 415 653-6151

CONTAINERS: No. 107291 VOLUME 18y WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

WASTE DESCRIPTION		GENERATING PROCESS	
COMPONENTS OF WASTE	PPM	COMPONENTS OF WASTE	PPM
1. <u>Soil</u>	<u>99.9</u>	5. _____	_____
2. <u>Diesel</u>	<u>&lt;0.1</u>	6. _____	_____
3. _____	_____	7. _____	_____
4. _____	_____	8. _____	_____

PROPERTIES: Neutral pH  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_

HANDLING INSTRUCTIONS: Approval 091490-680

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

ROBERT A. BEGGS ROBEGGS 9/26/90  
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Dillard Trucking, Inc. EPA I.D. NO. CAD081602809

ADDRESS Route 1 Box 73 SERVICE ORDER NO. \_\_\_\_\_

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE \_\_\_\_\_

PHONE NO. 415 634-0567 Douglas Stephen 9/26/90  
 TRUCK, UNIT, I.D. NO. 1648 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Liquid Waste Management, Inc. EPA I.D. NO. GAD980638831

ADDRESS Star Route Box 4  LANDFILL  OTHER \_\_\_\_\_

CITY, STATE, ZIP McKittrick, Ca. 93251

PHONE NO. 805 762-7366 MARTHA DOLZ 9-26-90  
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	<u>22.52</u>
C/O		RT/CD	HWDF. NONE	DISCREPANCY

Ph. 6.0

# NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Harcos Pigments, Inc. EPA I.D. NO. EPA EXEMPT

ADDRESS P. O. Box 8213

CITY, STATE, ZIP Emeryville, CA 94662 Site: 4630 Shellmound, Emeryville PHONE NO. 415 653-6151

CONTAINERS: No 100971 VOLUME 10y WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

WASTE DESCRIPTION Soil with Diesel GENERATING PROCESS Site Clean Up

COMPONENTS OF WASTE			COMPONENTS OF WASTE		
	PPM	%		PPM	%
1. <u>Soil</u>		<u>99.9</u>	5. _____		
2. <u>Diesel</u>		<u>&lt;0.1</u>	6. _____		
3. _____			7. _____		
4. _____			8. _____		

PROPERTIES: Neutral pH  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_

HANDLING INSTRUCTIONS: Approval 091490-680

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

[Signature] 26 Sept '90  
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Dillard Trucking, Inc. EPA I.D. NO. CAD981692809

ADDRESS Route 1 Box 73 SERVICE ORDER NO. \_\_\_\_\_

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE 9-26-90

PHONE NO. 415 634-0367

TRUCK, UNIT, I.D. NO. 83 [Signature] 9-26-90  
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Liquid Waste Management, Inc. EPA I.D. NO. CAD980638831

ADDRESS Star Route Box 4 DISPOSAL METHOD  LANDFILL  OTHER \_\_\_\_\_

CITY, STATE, ZIP McKittrick, Ca. 93251

PHONE NO. 805 762-7366

MARTHA DOLE Martha Dole 9-26-90  
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	<u>7.17</u>
C/O		RT/CD		HWDF NONE

DISCREPANCY Ph. 6.0

# NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Harcos Pigments, Inc. EPA I.D. NO. EPA EXEMPT

ADDRESS P. O. Box 8215

CITY, STATE, ZIP Emeryville, CA 94662 Site: 4850 Shellmound, Emeryville PHONE NO. 415 653-6151

CONTAINERS: No. 100969 VOLUME 181 WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

WASTE DESCRIPTION Soil with Diesel GENERATING PROCESS Site Clean Up

COMPONENTS OF WASTE			COMPONENTS OF WASTE		
	PPM	%		PPM	%
1. <u>Soil</u>		<u>99.9</u>	5. _____		
2. <u>Diesel</u>		<u>&lt;0.1</u>	6. _____		
3. _____			7. _____		
4. _____			8. _____		

PROPERTIES: Neutral  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_

HANDLING INSTRUCTIONS: Approval 091490-880

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

ROBERT A. BEGGS RO Beggs 9/26/90  
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Dillard Trucking, Inc. EPA I.D. NO. CAD981892809

ADDRESS Route 1 Box 73 SERVICE ORDER NO. \_\_\_\_\_

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE \_\_\_\_\_

PHONE NO. 415 634-0567 JIM RAYNO Jim Rayno 9-26-90  
TRUCK, UNIT, I.D. NO. 8 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Liquid Waste Management, Inc. EPA I.D. NO. CAD98016368311 DISPOSAL METHOD

ADDRESS Star Route Box 4  LANDFILL  OTHER \_\_\_\_\_

CITY, STATE, ZIP McKittrick, Ca. 93251

PHONE NO. 805 762-7366 MARTHA DOLE Martha Dole 9-26-90  
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN \_\_\_\_\_ OLO/NEW \_\_\_\_\_ L A TONS 23.97

DD L. n



# NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Harcos Pigments, Inc. EPA I.D. NO. EPA EXEMPT  
 ADDRESS P. O. Box 8215  
 CITY, STATE, ZIP Emeryville, CA 94682 Site: 4650 Shellmound, Emeryville PHONE NO. 415 653-6151

CONTAINERS: No. 107290 VOLUME 18yd WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

WASTE DESCRIPTION		GENERATING PROCESS	
COMPONENTS OF WASTE	PPM	COMPONENTS OF WASTE	PPM
1. <u>Soil</u>	<u>99.9</u>	5. _____	_____
2. <u>Diesel</u>	<u>&lt;0.1</u>	6. _____	_____
3. _____	_____	7. _____	_____
4. _____	_____	8. _____	_____

PROPERTIES: pH Neutral  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_  
 HANDLING INSTRUCTIONS: Approval 091490-680

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.  
ROBERT A. BEGGS Robert A. Beggs 9/26/90  
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Dillard Trucking, Inc. EPA I.D. NO. CAD981692809  
 ADDRESS Route 1 Box 73 SERVICE ORDER NO. \_\_\_\_\_  
 CITY, STATE, ZIP Byron, California 94514 PICKUP DATE \_\_\_\_\_  
 PHONE NO. 415 634-0587  
Thomas E. Watson Thomas E. Watson 9-26-90  
 TRUCK UNIT, I.D. NO. 21 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Liquid Waste Management, Inc. EPA I.D. NO. CAD980636831  
 ADDRESS Star Route Box 4 DISPOSAL METHOD  LANDFILL  OTHER \_\_\_\_\_  
 CITY, STATE, ZIP McKittrick, Ca. 93251  
 PHONE NO. 805 762-7366  
MARTHA DOLÉ Martha Dole 9-26-90  
 TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS	DISCREPANCY
TRANS		S	B	<u>23.28</u>	
		RT/CD		HWDF NONE	

pH, 6.0

# NON-HAZARDOUS WASTE DATA FORM

TO BE COMPLETED BY GENERATOR

NAME Harcos Pigments, Inc.

ADDRESS P. O. Box 8215 EPA I.D. NO. EPA EXEMPT

CITY, STATE, ZIP Emeryville, CA 94662 Site: 4650 Shellmound, Emeryville PHONE NO. 415 653-6151

CONTAINERS: No. 100972 VOLUME 20 YDS WEIGHT \_\_\_\_\_

TYPE:  TANK TRUCK  DUMP TRUCK  DRUMS  CARTONS  OTHER \_\_\_\_\_

WASTE DESCRIPTION Soil with Diesel GENERATING PROCESS Site Clean Up

COMPONENTS OF WASTE			COMPONENTS OF WASTE		
	PPM	%		PPM	
1. <u>Soil</u>		<u>99.9</u>	5. _____		
2. <u>Diesel</u>		<u>&lt;0.1</u>	6. _____		
3. _____			7. _____		
4. _____			8. _____		

PROPERTIES: pH Neutral  SOLID  LIQUID  SLUDGE  SLURRY  OTHER \_\_\_\_\_

HANDLING INSTRUCTIONS: Approval 081490-680

THE GENERATOR CERTIFIES THAT THE WASTE AS DESCRIBED IS 100% NON-HAZARDOUS.

ROBERT A. BEGGS Rob Beggs 9/26/90  
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TRANSPORTER

NAME Dillard Trucking, Inc. EPA I.D. NO. CAD981692809

ADDRESS Route 1 Box 73 SERVICE ORDER NO. \_\_\_\_\_

CITY, STATE, ZIP Byron, California 94514 PICK UP DATE \_\_\_\_\_

PHONE NO. 415 634-0567

TRUCK UNIT I.D. NO. 1937 LEE NECKER Lee Necker 9-26-90  
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

TSD FACILITY

NAME Liquid Waste Management, Inc. EPA I.D. NO. CAD980638831

ADDRESS Star Route Box 4 DISPOSAL METHOD  LANDFILL  OTHER \_\_\_\_\_

CITY, STATE, ZIP McKittrick, Ca. 93251

PHONE NO. 805 762-7366

MARTHA DOLO Martha Dolo 9-26-90  
TYPED OR PRINTED FULL NAME & SIGNATURE DATE

GEN	OLD/NEW	L	A	TONS
TRANS		S	B	<u>23.24</u>
C/O		RT/CD	HWO/NONE	

DISCREPANCY Ph. 6.0

# KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. \_\_\_\_\_

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388

Field or Area \_\_\_\_\_

(805) 589-5220

No 13968

## NON-HAZARDOUS WASTE HAULER RECORD TO BE USED FOR NON-HAZARDOUS WASTES ONLY

### GENERATOR (Generator Must Complete)

1 Name Harcros Pigments, Inc.  
Field Address 4650 Shellmound Street  
City, State, Zip Emeryville, California 94608  
Phone (415) 653-6151  
Order Placed By J. Deblock  
Signature of Authorized Agent *J. Deblock*  
Date 9-13-90  
Title Matthys Mgr

### WASTE TO BE DISPOSED

2 Type Iron Oxide  
Generating Location Emeryville, California 94608  
Special Handling Instructions:  
 Gloves  Goggles  Other \_\_\_\_\_  
Quantity 90 Bbls.

### DESIGNATED FACILITY

3 Name LWM  
Address \_\_\_\_\_  
City, State, Zip McKittrick CA.  
Phone 762-7607

### TRANSPORTER (Hauler Must Complete)

Name Kern Vacuum Service  
Address P. O. Box 5337  
City, State, Zip Bakersfield, California 93388  
Phone (805) 589-5220  
Signature of Authorized Agent or Driver *James Castel*  
Date 9/13/90

Ticket # 101944 Unit No. T28 / T26  
Pick Up Date 9-13-90 Time 12:30  AM  PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

### DISPOSAL FACILITY (Facility Operator Must Complete)

Name L.W.M.  
Address Star Rt Box 4  
City, State, Zip McKittrick Ca 93251  
Phone 762-7364 / Disp. Ticket # \_\_\_\_\_  
Signature of Authorized Agent *Thelma Villines* Date 9-13-90

Quantity Received 15.70 <sup>TONS</sup> Bbls. Date 9-13-90  
Time \_\_\_\_\_  AM  PM PH# 7.0

DISPOSAL METHOD:  Surface Impoundment  Injection  
 Landfill  Other \_\_\_\_\_

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

NOTE: It is not necessary to send copy to Dept. of Health Services.  
NO HAZARDOUS FEES SHOULD BE LEVIED

WEIGHMASTER CERTIFICATE  
 THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 6 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

LIQUID WASTE MANAGEMENT, INC. — WEIGHMASTER  
 STAR ROUTE BOX 4 • McKittrick, CA 93251  
 (805) 782-7366

12566

WEIGHING LOCATION:

HIGHWAY 58, 1/4 MILE WEST OF HIGHWAY 33  
 MCKITTRICK, CALIFORNIA

If Waste Is Weighed it is 100% Nonhazardous

GROSS BY *Thelma Williams*  
 DEPUTY

TARE BY *Thelma Williams*  
 DEPUTY

DATE	TIME	WEIGHT IN LBS.	GROSS
9-13-90	5:11PM	69640	GROSS
9-13-90	5:54PM	38240	TARE
		<u>31400</u>	NET
		<u>15.70</u>	TONS

WEIGHED FOR/SELLER

DELIVERED TO/BUYER

DRIVER *J.W.M.*

VEHICLE LIC. NOS.	TRAILER LIC.	TRAILER LIC.	COMMODITY	UNITS	B/L NO.
<i>4A12995</i>	<i>new</i>		<i>Iron Oxide</i>	<i>90-B</i>	<i>13968</i>
CARRIER <i>Perm Val # T-28</i>				FEE: <input type="checkbox"/> PD <input type="checkbox"/> CHG \$	

# KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. \_\_\_\_\_

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388

Field or Area \_\_\_\_\_

(805) 589-5220

No 13964

## NON-HAZARDOUS WASTE HAULER RECORD TO BE USED FOR NON-HAZARDOUS WASTES ONLY

### GENERATOR

(Generator Must Complete)

**1** Name Harcros Pigments, Inc.  
Field Address 4650 Shellmound Street  
City, State, Zip Emeryville, California 94608  
Phone (415) 653-6151  
Order Placed By J. Deblock  
Signature of Authorized Agent *J. Deblock*  
Date 9/13/90  
Title Materials Mgr

### WASTE TO BE DISPOSED

Type Iron Oxide

**2** Generating Location Emeryville, California 94608

Special Handling Instructions:

Gloves  Goggles  Other \_\_\_\_\_

Quantity 100 Bbls.

### DESIGNATED FACILITY

**3** Name LWM  
Address \_\_\_\_\_  
City, State, Zip McKittick, CA  
Phone 762-7607

### TRANSPORTER

(Hauler Must Complete)

Name Kern Vacuum Service  
Address P. O. Box 5337  
City, State, Zip Bakersfield, California 93388  
Phone (805) 589-5220  
Signature of Authorized Agent or Driver *Joe Buda*  
Date 9-13-90

Ticket # 105304 Unit No. T-1 1 T9

Pick Up Date 9-13-90 Time 7:00  AM  PM

**NOTE:** This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

### DISPOSAL FACILITY

(Facility Operator Must Complete)

Name L. V. M.  
Address Star Pt Box 4  
City, State, Zip McKittick, Ca, 93251  
Phone 762-7366 / Disp. Ticket # \_\_\_\_\_  
Signature of Authorized Agent *Thelma Villines* Date 9-13-90

Quantity Received 16.04 TONS Bbls. Date 9-13-90

Time \_\_\_\_\_  AM  PM PH# 7.0

DISPOSAL METHOD:  Surface Impoundment  Injection  
 Landfill  Other \_\_\_\_\_

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

**NOTE:** It is not necessary to send copy to Dept. of Health Services. NO HAZARDOUS FEES SHOULD BE LEVIED

WEIGHMASTER CERTIFICATE  
 THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 2700) of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

**LIQUID WASTE MANAGEMENT, INC. — WEIGHMASTER**  
 STAR ROUTE BOX 4 • McKittrick, CA 93251  
 (805) 762-7388

12567

WEIGHING LOCATION:

HIGHWAY 58, ¼ MILE WEST OF HIGHWAY 33  
 MCKITTRICK, CALIFORNIA

If Waste Is Weighed it is 100% Nonhazardous

DATE	TIME	WEIGHT IN LBS.	GROSS
9-13-90	5:16PM	70200	GROSS
9-13-90	6:05PM	38120	TARE
		32080	NET
		16.04	TONS

GROSS BY Thelma Villines  
 TARE BY Thelma Villines  
 DEPUTY DEPUTY

WEIGHED FOR / SELLER Marcos Riquenza  
 DELIVERED TO / BUYER L.W. M  
 DRIVER Joe Bada

VEHICLE LIC. NOS.	TRAILER LIC.	TRAILER LIC.	COMMODITY	UNITS	B/L NO.
			<u>Oxide</u> <u>Iron Oxide</u>	<u>100-B</u>	<u>13964</u>
CARRIER <u>Kern Vac # T-1</u>			FEE: <input type="checkbox"/> PD <input type="checkbox"/> CHG \$		

KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. \_\_\_\_\_

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388

Field or Area \_\_\_\_\_

(805) 589-5220

No 13966

NON-HAZARDOUS WASTE HAULER RECORD  
TO BE USED FOR NON-HAZARDOUS WASTES ONLY

GENERATOR (Generator Must Complete)

1 Name Harcros Pigments, Inc.  
Field Address 4650 Shellmound Street  
City, State, Zip Emeryville, California 94608  
Phone (415) 653-6151  
Order Placed By J. Deblock  
Signature of Authorized Agent  
[Signature]  
Date 9-10-90  
Title \_\_\_\_\_

WASTE TO BE DISPOSED

Type Iron Oxide  
2 Generating Location Emeryville, California 94608  
Special Handling Instructions:  
 Gloves  Goggles  Other \_\_\_\_\_  
Quantity 100 Bbls.

DESIGNATED FACILITY

3 Name \_\_\_\_\_  
Address \_\_\_\_\_  
City, State, Zip \_\_\_\_\_  
Phone \_\_\_\_\_

TRANSPORTER (Hauler Must Complete)

Name Kern Vacuum Service  
Address P. O. Box 5337  
City, State, Zip Bakersfield, California 93388  
Phone (805) 589-5220  
Signature of Authorized Agent or Driver  
[Signature]  
Date 9-10-90

Ticket # 100890 Unit No. T-12 1T-9  
Pick Up Date 9-10-90 Time 7:00  AM  PM

NOTE: This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

DISPOSAL FACILITY (Facility Operator Must Complete)

Name L. W. M.  
Address Star Rt Boff  
City, State, Zip McKittrick Ca 95251  
Phone (805) 762-7364 / Disp. Ticket # \_\_\_\_\_  
Signature of Authorized Agent  
[Signature] Date 9-10-90

Quantity Received 19.16 <sup>TONS</sup> Bbls. Date 9-10-90  
Time \_\_\_\_\_  AM  PM

DISPOSAL METHOD:  Surface Impoundment  Injection  
 Landfill  Other \_\_\_\_\_

Return Copy To: GENERATOR UNLESS OTHERWISE SPECIFIED

NOTE: It is not necessary to send copy to Dept. of Health Services.  
NO HAZARDOUS FEES SHOULD BE LEVIED

**WEIGHMASTER CERTIFICATE**

CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by commencing with Section 12700 of Division 3 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

**LIQUID WASTE MANAGEMENT, INC. — WEIGHMASTER**  
 STAR ROUTE BOX 4 • McKittrick, CA 93251  
 (805) 782-7368

**12492**

LOCATION:  
 HWAY 58, 1/4 MILE WEST OF HIGHWAY 33  
 KITTRICK, CALIFORNIA

If Waste is Weighed it is 100% Nonhazardous

DATE	TIME	WEIGHT IN LBS.	
9-10-90	5:08PM	26500	GROSS
9-10-90	5:42PM	38180	TARE
		<u>38320</u>	NET
		<u>19.16</u>	TONS

GROSS BY *Thelma Villines*  
 TARE BY *Thelma Villines*  
 DEPUTY  
 DEPUTY  
 WEIGHED FOR/SELLER *Barrow Pigments*  
 DELIVERED TO/BUYER *L.W.M.*  
 DRIVER *Richard Benne*

TRUCK LIC. NOS.	TRAILER LIC.	TRAILER LIC.	COMMODITY	UNITS	B/L NO.
<i>3257327</i>	<i>1UP8571</i>		<i>Iron Oxide</i>	<i>100 B</i>	<i>13966</i>
<i>Barrow Vac T-12</i>				FEE: <input type="checkbox"/> PD <input type="checkbox"/> CHG \$	



# KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well, Tank No. \_\_\_\_\_

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388

(805) 589-5220

No 13967

Field or Area \_\_\_\_\_

## NON-HAZARDOUS WASTE HAULER RECORD TO BE USED FOR NON-HAZARDOUS WASTES ONLY

**GENERATOR** (Generator Must Complete)

**1** Name Harcros Pigments, Inc.  
Field Address 4650 Shellmound Street  
City, State, Zip Emeryville, California 94608  
Phone (415) 653-6151  
Order Placed By J. Deblock  
Signature of Authorized Agent [Signature]  
Date \_\_\_\_\_  
Title \_\_\_\_\_

WASTE TO BE DISPOSED

Type Iron Oxide

**2** Generating Location Emeryville, California 94608

Special Handling Instructions:

Gloves  Goggles  Other \_\_\_\_\_

Quantity \_\_\_\_\_ 100 Bbls.

DESIGNATED FACILITY

**3** Name Liquid Waste Management

Address High 33 + Hwy 58

City, State, Zip McKittrick, CA

Phone \_\_\_\_\_

**TRANSPORTER** (Hauler Must Complete)

Name Kern Vacuum Service  
Address P. O. Box 5337  
City, State, Zip Bakersfield, California 93388  
Phone (805) 589-5220  
Signature of Authorized Agent or Driver [Signature]  
Date 9-10-90

Ticket # 102344 Unit No. T-11 / T-14

Pick Up Date 9-10-90 Time \_\_\_\_\_  AM  PM

**NOTE:** This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

**DISPOSAL FACILITY** (Facility Operator Must Complete)

Name L.W.M.  
Address Stan Rt Box 4  
City, State, Zip McKittrick Ca 93251  
Phone 762-1366 / Disp. Ticket # \_\_\_\_\_  
Signature of Authorized Agent [Signature] Date 9-10-90

Quantity Received 17.80 <sup>TONS</sup> Bbls. Date 9-10-90

Time \_\_\_\_\_  AM  PM

DISPOSAL METHOD:  Surface Impoundment  Injection  
 Landfill  Other \_\_\_\_\_

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

**NOTE:** It is not necessary to send copy to Dept. of Health Services. NO HAZARDOUS FEES SHOULD BE LEVIED

GENERATOR COPY

011 11-70

WEIGHMASTER CERTIFICATE  
 The following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by  
 Section 12700 of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

**QUID WASTE MANAGEMENT, INC. — WEIGHMASTER**  
 STAR ROUTE BOX 4 • McKittrick, CA 93251  
 (805) 762-7368

12493

LOCATION:  
 MAY 58, 1/4 MILE WEST OF HIGHWAY 33  
 McKITTRICK, CALIFORNIA

If Waste Is Weighed it is 100% Nonhazardous

DATE	TIME	WEIGHT IN LBS.
9-10-90	5:11PM	73300
9-10-90	5:53PM	32700
		<u>35600</u>
		<u>17.80</u>

GROSS BY: *Thelma Villines*  
 TARE BY: *Thelma Villines*  
 DEPUTY  
 DEPUTY  
 WEIGHED FOR/SELLER: *Harvey Rignanter*  
 DELIVERED TO/BUYER: *T.W.M.*  
 DRIVER: *Jim Job*

VEHICLE LIC. NOS.	TRAILER LIC.	TRAILER LIC.	COMMODITY	UNITS	B/L NO.
3Z 87325	1UR2577		<i>Iron Oxide</i>	100B	73967
CARRIER: <i>Kern Valley T.H.</i>				FEE: <input type="checkbox"/> PD <input type="checkbox"/> CHG \$	

# KERN BACKHOE SERVICE INC. — KERN VACUUM SERVICE

Well Tank No. \_\_\_\_\_  
Field of Area \_\_\_\_\_

P.O. BOX 5337 • BAKERSFIELD, CALIFORNIA 93388  
(805) 589-5220

No 13965

## NON-HAZARDOUS WASTE HAULER RECORD TO BE USED FOR NON-HAZARDOUS WASTES ONLY

**GENERATOR** (Generator Must Complete)

**1** Name Harcros Pigments, Inc.  
Field Address 4650 Shellmound Street  
City, State, Zip Emeryville, California 94608  
Phone (415) 653-6151  
Order Placed By J. Deblock  
Signature of Authorized Agent  
[Signature]  
Date 9/10/90  
Title DEPARTMENT MANAGER

WASTE TO BE DISPOSED  
Type Iron Oxide

**2** Generating Location Emeryville, California 94608

Special Handling Instructions:

Gloves  Goggles  Other \_\_\_\_\_

Quantity 100 Bbls.

**3** DESIGNATED FACILITY

Name Liquid Waste Management Inc.  
Address Star Rt. Box 4  
City, State, Zip McKittrick CA 93251  
Phone 805-762-7366

**TRANSPORTER** (Hauler Must Complete)

Name Kern Vacuum Service  
Address P. O. Box 5337  
City, State, Zip Bakersfield, California 93388  
Phone (805) 589-5220  
Signature of Authorized Agent or Driver  
[Signature]  
Date 9-10-90

Ticket # 103976 Unit No. T-13 / T-5

Pick Up Date 9-10-90 Time \_\_\_\_\_  
 AM  PM

**NOTE:** This form to be used in lieu of the California Department of Health Services Hazardous Waste Manifest for NON-HAZARDOUS wastes only.

REMARKS:

**DISPOSAL FACILITY** (Facility Operator Must Complete)

Name L.W.M.  
Address Star Rt Box 4  
City, State, Zip McKittrick Ca 93251  
Phone 762-7366 / Disp. Ticket # \_\_\_\_\_  
Signature of Authorized Agent [Signature] Date 9-10-90

Quantity Received 18.35 <sup>TONS</sup> Bbls. Date 9-10-90

Time \_\_\_\_\_  
 AM  PM

PH# 7.0

DISPOSAL METHOD:  Surface Impoundment  Injection  
 Landfill  Other \_\_\_\_\_

Return Copy To: **GENERATOR UNLESS OTHERWISE SPECIFIED**

**NOTE:** It is not necessary to send copy to Dept. of Health Services.  
NO HAZARDOUS FEES SHOULD BE LEVIED

THIS IS TO CERTIFY that the following described commodity was weighed, measured or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 commencing with Section 12700 of Division 5 of the California Business and Professions Code, administered by the Division of Measurement Standards of the California Department of Food and Agriculture.

**WEIGHMASTER CERTIFICATE**

**LIQUID WASTE MANAGEMENT, INC. — WEIGHMASTER**  
 STAR ROUTE BOX 4 • McKittrick, CA 93251  
 (805) 762-7388

**12498**

WEIGHING LOCATION:

HIGHWAY 58, 1/4 MILE WEST OF HIGHWAY 33  
 MCKITTRICK, CALIFORNIA

If Waste Is Weighed it is 100% Nonhazardous

DATE	TIME	WEIGHT IN LBS.	
9-10-90	7:24PM	74580	GROSS
9-10-90	8:26PM	37880	TARE
		<u>36700</u>	NET
		<u>18.35</u>	TONS

GROSS BY *Thelma Villines*  
 TARE BY *Thelma Villines*  
 DEPUTY  
 DEPUTY  
 WEIGHED FOR / SELLER *Hareros Regiment*  
 DELIVERED TO / BUYER *T.W.M.*  
 DRIVER *George Cant*

VEHICLE LIC. NOS.	TRAILER LIC.	TRAILER LIC.	COMMODITY	UNITS	B/L NO.
3257386 CARRIER	1092590		<i>Iron Oxide</i>	100-B	13965
			FEE: <input type="checkbox"/> PD <input type="checkbox"/> CHG \$		

*Kern Val # T-13*

**APPENDIX C**

**Chain-of-Custody Documentation**



101360

## CHAIN OF CUSTODY

Nº 513

W

Consulting Ground-Water  
Geologists & Engineers1340 ARNOLD DRIVE, SUITE 231  
MARTINEZ, CALIFORNIA 94553  
(415) 370-2275 FAX. (415) 370-2235

ANALYSES

PAGE OF

ROUX ASSOCIATES

PROJECT NAME

Harcros Diesel

PROJECT NUMBER

19201W

PROJECT LOCATION

Emeryville, CA

SAMPLER(S):

GPM

TPH-D

TOTAL BOTTLES

SAMPLE DESIGNATION/LOCATION

DATE COLLECTED

TIME COLLECTED

NOTES

S-1	4.3'	8-10-90	245	X
S-2	3.7'	"	250	X
S-3	4.2'	"	3.00	X
S-4	4.5'	"	3.10	X
S-5	4.2'	"	3.15	X
S-6	4.1'	"	3.30	X
S-7	3.7'	"	3.40	X
<del>S-8</del> S-8	4.3'	"	350	X
S-9	4.0'	"	4.10	X

RELINQUISHED BY: (SIGNATURE) FOR

RELINQUISHED BY: (SIGNATURE) FOR

RELINQUISHED BY: (SIGNATURE) FOR

DATE

TIME

DATE

TIME

DATE

TIME

RELINQUISHED BY: (SIGNATURE) FOR

RELINQUISHED BY: (SIGNATURE) FOR

RELINQUISHED BY: (SIGNATURE) FOR

FOR

FOR

FOR

DATE

TIME

DATE

TIME

DATE

TIME

DELIVERY METHOD

COMMENTS

All 24 hrs T.A.T.

Received by  
*[Signature]*  
 ROUX

*[Signature]*  
 C.T

8/10/90 1720  
 3/10/90 5:20

Consulting Ground-Water  
Geologists & Engineers  
**ROUX ASSOCIATES**

1340 ARNOLD DRIVE, SUITE 231  
MARTINEZ, CALIFORNIA 94553  
(415) 370-2275 FAX. (415) 370-2235

ANALYSES

PAGE OF

PROJECT NAME: **HARCROS DIESEL** PROJECT NUMBER: **19801W**

PROJECT LOCATION: **EMERYVILLE CA**

SAMPLER(S): **GPM**

TPH-D  
ORGANIC  
LEAD

TOTAL BOTTLES

SAMPLE DESIGNATION/LOCATION	DATE COLLECTED	TIME COLLECTED	ANALYSES					NOTES
CS-1A	8/10/90	4:30						
CS-1B	8/10/90	4:30	X	X				
CS-1C	8/10/90	4:30						
CS-1D	8/10/90	4:30						
CS-2A	8/10/90	4:30						
CS-2B	8/10/90	4:30	X					
CS-2C	8/10/90	4:30						
CS-2D	8/10/90	4:30						

RELINQUISHED BY: (SIGNATURE) FOR <i>[Signature]</i>	DATE 8/10/90	TIME 1:20	RELINQUISHED BY: (SIGNATURE) FOR <i>[Signature]</i> C-7 Lab	DATE 8/10/90	TIME 5:20
RELINQUISHED BY: (SIGNATURE) FOR <i>[Signature]</i>	DATE	TIME	RELINQUISHED BY: (SIGNATURE) FOR	DATE	TIME
RELINQUISHED BY: (SIGNATURE) FOR	DATE	TIME	RELINQUISHED BY: (SIGNATURE) FOR	DATE	TIME

DELIVERY METHOD: COMMENTS: **2 composite soil samples from 8 submitted samples**

AUG 21 '90 10:47 C&T BERKELEY

**APPENDIX D**  
**Analytical Data**





Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 08/10/90  
DATE REPORTED: 08/14/90

LAB NUMBER: 101360

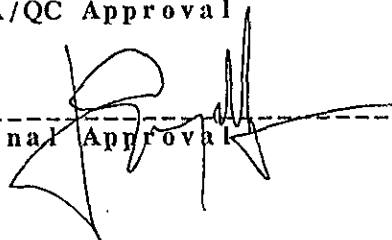
CLIENT: ROUX ASSOCIATES

REPORT ON: 9 SOIL SAMPLES

PROJECT #: 19801W  
LOCATION: HARCROS DIESEL

RESULTS: SEE ATTACHED

  
-----  
QA/QC Approval

  
-----  
Final Approval



LABORATORY NUMBER: 101360  
CLIENT: ROUX ASSOCIATES  
JOB #: 19801W  
LOCATION: HARCROS DIESEL

DATE RECEIVED: 08/10/90  
DATE EXTRACTED: 08/13/90  
DATE ANALYZED: 08/14/90  
DATE REPORTED: 08/14/90

Extractable Petroleum Hydrocarbons in Soils & Wastes  
California DOHS Method  
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg /Kg)	DIESEL RANGE (mg /Kg)	REPORTING LIMIT (mg /Kg)
101360-1	S-1 4.3'	ND	ND	10
101360-2	S-2 3.7'	ND	ND	10
101360-3	S-3 4.2'	ND	45	10
101360-4	S-4 4.5'	ND	330	10
101360-5	S-5 4.2'	ND	2,300	100
101360-6	S-6 4.1'	ND	ND	10
101360-7	S-7 3.7'	ND	ND	10
101360-8	S-8 4.3'	ND	75	10
101360-9	S-9 4.0'	ND	ND	10

ND = Not Detected at or above reporting limit.



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 08/10/90

DATE REPORTED: 08/17/90

LAB NUMBER: 101361

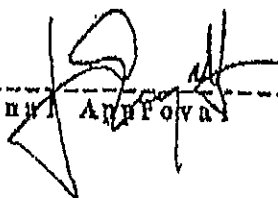
CLIENT: ROUX ASSOCIATES

REPORT ON: 2 SOIL COMPOSITES

PROJECT #: 19801W  
LOCATION: EMERYVILLE

RESULTS: SEE ATTACHED

  
-----  
QA/QC Approval

  
-----  
Final Approval

RECEIVED AUG 23 1990

FILE - 19801W



Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 94710, Phone (415) 486-0900

DATE RECEIVED: 08/10/90  
DATE REPORTED: 08/17/90

LAB NUMBER: 101361

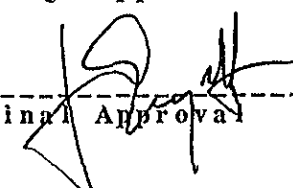
CLIENT: ROUX ASSOCIATES

REPORT ON: 2 SOIL COMPOSITES

PROJECT #: 19801W  
LOCATION: EMERYVILLE

RESULTS: SEE ATTACHED

  
-----  
QA/QC Approval

  
-----  
Final Approval



LABORATORY NUMBER: 101361  
CLIENT: ROUX ASSOCIATES  
JOB #: 19801W  
LOCATION: EMERYVILLE

DATE RECEIVED: 08/10/90  
DATE EXTRACTED: 08/13/90  
DATE ANALYZED: 08/15/90  
DATE REPORTED: 08/17/90

Extractable Petroleum Hydrocarbons in Soils & Wastes  
California DOHS Method  
LUFT Manual October 1989

LAB ID	CLIENT ID	KEROSENE RANGE (mg/Kg)	DIESEL RANGE (mg/Kg)	REPORTING LIMIT (mg/Kg)
101361-9	CS-1A-D	ND	260	10
101361-10	CS-2A-D	ND	760	10

ND = Not Detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	3
RECOVERY, %	117



LABORATORY NUMBER: 101361  
CLIENT: ROUX ASSOCIATES  
PROJECT #: 19801W  
LOCATION: EMERYVILLE

DATE RECEIVED: 08/10/90  
DATE ANALYZED: 08/16/90  
DATE REPORTED: 08/17/90

=====  
ANALYSIS: ORGANIC LEAD  
METHOD: CA DHS METHOD, LUFT MANUAL OCT 1989  
=====

LAB ID	CLIENT ID	RESULT	UNITS	REPORTING LIMIT
101361-9	CS-1A-D	ND	mg/Kg	0.5

ND = Not detected at or above reporting limit.

QA/QC SUMMARY

RPD, %	4
RECOVERY, %	100