ENVIROMENTAL SITE ASSESSMENT WORKPLAN

OIL AND GAS SERVICE INDUSTRIES
COMPLIANCE EVALUATION INSPECTION
FINAL - REPORT

OF

KNOX SERVICES, INC.
HOBBS, NEW MEXICO

SUBMITTED BY:

A.T. KEARNEY, INC.
KEARNEY/CENTAUR DIVISION
500 NORTH AKARD STREET, SUITE 4170
DALLAS, TEXAS 75201

SUBMITTED TO:

MS. RENA McCLURG
REGIONAL PROJECT OFFICER
U.S. ENVIRONMENTAL PROTECTION AGENCY
REGION 6
1445 ROSS AVENUE, SUITE 1200
DALLAS, TEXAS 75202-2733

IN RESPONSE TO:

EPA CONTRACT NO. 68-W4-0006
WORK ASSIGNMENT NO. R06054

March 10, 1997

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DISCLAIMER

This report was prepared for the U.S. Environmental Protection Agency (EPA) Region 6, by A.T. Kearney, Inc., in fulfillment of Contract No. 68-W4-0006, Work Assignment No. R06054. The opinions, findings, and conclusions, expressed herein are those of the contractor and not necessarily those of EPA or cooperating agencies. Mention of company or product names is not to be considered an endorsement by EPA.

This document is intended to assist EPA personnel in determining if wastes generated by Oil and Gas Service Industry facilities, are subject to regulation pursuant to 40 CFR 261. EPA will not necessarily limit enforcement actions or other requirements to those that correspond with the recommendations set forth herein. EPA personnel must exercise their technical judgement in using the CEI report as well as other relevant information, in determining what enforcement or other requirements to include in a permit or an order.

1.0 EXECUTIVE SUMMARY

On Thursday, November 21, 1996, an unannounced RCRA Compliance Evaluation Inspection (CEI) was conducted at the Knox Service, Inc. (Knox), facility located at 1329 North West County Road in Hobbs, Lea County, New Mexico. Knox is a service provider to the oil and gas industry in New Mexico. Specifically, the facility provides well stimulation services to well sites.

Waste streams generated at the facility which were identified during the inspection included used motor oil, spent parts washer solvent (Varsol), and liquids present in the facility's HCl/freshwater secondary containment area and storage tank.

Used motor oil is generated from routine vehicle maintenance. The used oil is initially accumulated in an open-topped tank located in the garage area. The used oil is subsequently transferred to 55-gallon drums and stored outdoors. The used oil is reportedly collected, transported, and recycled off-site by E&E Environmental.

Spent parts washer solvent is generated from a parts washer unit located in the garage area. According to facility representatives, the parts washer solvent is combined with the used oil generated on-site prior to being collected by E&E Environmental.

At the time of the inspection, liquids were present in the HCl/freshwater secondary containment area and the HCL/freshwater secondary containment collection tank. The liquids were reportedly the result of a one-time valve failure of the freshwater storage tank. The liquids that accumulate in the hydrochloric acid/fresh water storage area secondary containment area are gravity feed to the secondary containment collection tank. According to facility representatives, liquids which collect in the collection tank are collected by a facility-owned vacuum truck and disposed of at an New Mexico Oil Conservation District (OCD) approved disposal site.

Based on analytical data of samples collected during the CEI, waste collected from the used oil drums and the secondary containment collection tank did not meet the characteristics of ignitability or corrosivity as defined in 40 CFR Part 261.

2.0 INTRODUCTION

A.T. Kearney, Inc. was tasked to support the Environmental Protection Agency, Region 6 in conducting a Compliance Evaluation Inspection (CEI) and collecting samples at the Knox Services, Inc., facility located in Hobbs, Lea County, New Mexico, under the RCRA Enforcement, Permitting and Assistance (REPA) Contract 68-W4-0006, Work Assignment R06054. The inspection was conducted under the authority of Section 3007 of the Resource Conservation and Recovery Act (RCRA), as amended. This narrative report with attachments, present the results of the inspection.

2.1 Purpose of the CEI

The EPA Region 6 RCRA Enforcement Branch, undertook an initiative to gather information on Oil and Gas Service Industry facilities with the ultimate goal of selecting facilities for RCRA Compliance Evaluations Inspections (CEIs) and determining compliance with RCRA regulations.

The CEI was conducted to gather enough information to allow RCRA Enforcement personnel to assess facility compliance with RCRA regulations. The CEI included the collection of waste samples for analysis and reporting of levels of concentrations of contaminants for corrosivity and ignitability.

In addition, a visual inspection of facility waste management practices were documented via photographs and in field logbooks. Available facility files and records were obtained and reviewed as required to determine regulatory compliance.

2.2 Participants

Knox Services, Inc., was represented by Mrrs. Nagi Soas, President; and Hector Ramirez, Vice-President of Operation. The CEI inspection team consisted of: Mrrs. Greg Pashia and Bill Rhotenberry, Environmental Protection Agency (EPA), RCRA Enforcement Branch, Region 6; Mr. Dan Irvin, A.T. Kearney, Inc.; Ms. Catherine Dare, A.T. Kearney, Inc.; and Mr. Wally O'Rear, Metcalf & Eddy, Inc. (M&E).

2.3 Inspection Procedures

An unannounced RCRA CEI was conducted at Knox Services, Inc. (Knox), on November 21, 1996. Upon arrival to the facility at 1329 North West County Road, Lea County, Hobbs, New Mexico, the inspection team met with Mr. Hector Ramirez, Vice-President of Operations. The EPA inspector's credentials were presented. The inspection purpose and procedures were explained.

The inspection began with a discussion of facility operations. Mr. Ramirez indicated that the facility is primarily involved in providing oil well stimulation services to numerous oil and gas industry clients. He indicated that the facility does not generate hazardous waste nor does the facility have an EPA ID number. A tour of the facility was conducted and a review of pertinent documents available at the facility were reviewed. Sampling activities were conducted by Ms. Catherine Dare and Mr. Wally O'Rear, members of the EPA inspection team, on November 21, 1996.

An exit briefing was lead by Mr. Pashia of EPA on November 21, 1996. Items discussed during the briefing included potential deficiencies and concerns, sample media, and inspsection report preparation procedures.

3.0 FACILITY DESCRIPTION

3.1 Facility Location and Ownership

Knox Services, Inc., is located at 1329 North West County Road in Hobbs, Lea County, New Mexico (Figure 1), and is reportedly owned by Mr. Nagi Soas. The land use surrounding the facility is rural agricultural farm land with numerous oil wells and light commercial businesses. The facility occupies approximately 1.5 to 2 acres of land approximately 1000 feet east of the city limit and approximately a quarter mile south of W. Bender Boulevard. The facility consists of a single, metal administration/storage building, a chemical storage shed and several storage tanks (Figure 2).

3.2 Facility Operations and Waste Management Practices

Knox is a service provider to the oil and gas production industry. Specifically, Knox provides oil well stimulation services to oil and gas industry clients in the southeastern portion of New Mexico. Mr. Ramirez indicated that these services included providing freshwater, brine, and acidic (HCL) and alkaline (sodium bicarbonate) waters to well sites for injection into active drilling wells. Mr. Ramirez indicated that these waters are typically combined with a variety of corrosion and scale inhibitors, stabilizers, gelling agents, and nonemulisifiers prior to being injected into the oil well. The majority of the chemicals purchased by Knox are bought in bulk and transferred from the delivery tank truck directly to on-site tank trucks. Other chemicals received in drums are transferred by a pump. Any remaining chemical in the drums is poured into a 5-gallon bucket and pressure pumped into the tanker trucks. Chemical suppliers pick up the empty drums. Knox transports the mixed chemicals to the well locations.

Trucks used to transport the various waters/mixed chemicals are rinsed on site. The acidic water from the tank trucks is neutralized by pumping the water to an on-site storage tank (soda ash tank). When full or the tank mixtures can no longer be neutralized, the tanks contents are disposed at an OCD disposal well facility. Knox obtains receipts for disposal at the facility.

Below is a description of all of the waste streams generated at the facility.

Used Oil

Used motor oil is generated from routine vehicle maintenance (the facility operates 10 trucks used to transport materials to well sites). The used oil is initially accumulated in an open-topped tank located in the garage area (see photograph 1-1). This tank consists of a 55-gallon metal drum which has been cut in half along its length and mounted horizontally on a metal stand. The used oil is subsequently transferred to 55-gallon drums and stored outdoors (see photograph 1-3). At the time of the inspection, three 55-gallon drums accumulating used oil were located outside on the north side of the administration building. Two of the drums were full. The third drum was approximately 1/3 (22 inches in depth) full. The drums were placed on wooden pallets

which rested on the ground. The used oil is reportedly collected periodically, transported, and recycled off-site by E&E Environmental.

Parts Washer Solvent

Spent parts washer solvent (Varsol) is generated from a parts washer unit located in the garage area (see photograph 1-2). The parts washer consists of an approximately 30-gallon barrel with an attached plastic washing basin. The parts washer is located on the garage concrete floor. According to Mr. Ramriez, the parts washer solvent is combined with the used oil generated on-site prior to being collected by E&E Environmental. A review of a MSDS for the parts washer solvent indicated that the solvent may be ignitable.

HCL/Freshwater Secondary Containment Area

The HCl/Freshwater tanks and secondary containment and secondary containment collection tank, are located on the northwest portion of the property near the rear. On two sides of the secondary containment are loading docks: HCl loading dock and chemical storage loading dock. Drums of chemicals were present on the chemical storage loading dock during the inspection (see photograph 1-11 and 1-13). There is also a small shed adjoining the chemical storage loading dock. Behind the shed were over 25 empty drums stored on the ground. The HCl and Freshwater tanks are elevated approximately 10 feet aboveground. Each tank is approximately 10 feet in diameter by 20 feet long. The secondary containment around the tanks is made of concrete and is 30 feet by 30 feet by 2 foot tall. At the time of the inspection, liquids were present in the HCl/freshwater secondary containment area (see photograph 1-7 through 1-10) and the HCl/freshwater secondary containment collection tank (see photograph 1-6). According to Mr. Ramriez, the liquids were reportedly the result of a one-time valve failure of the freshwater storage tank. A field pH test was conducted on the water in the containment area. The pH was 7.5. At the rear of the HCl tank is a sump made of a cut-off 55-gallon plastic drum. It was 2 feet in depth. An area approximately 6 feet by 6 feet of stained soil was observed around this sump.

The liquids accumulated in the secondary containment area are gravity feed via underground piping to the HCl/Freshwater secondary containment collection tank. According to Mr. Ramriez, liquids which collect in the storage tank are collected by a facility-owned vacuum truck and disposed of the Attwell oil field. Mr. Ramirez was unaware if this site was a New Mexico Oil Conservation District (OCD) approved disposal site.

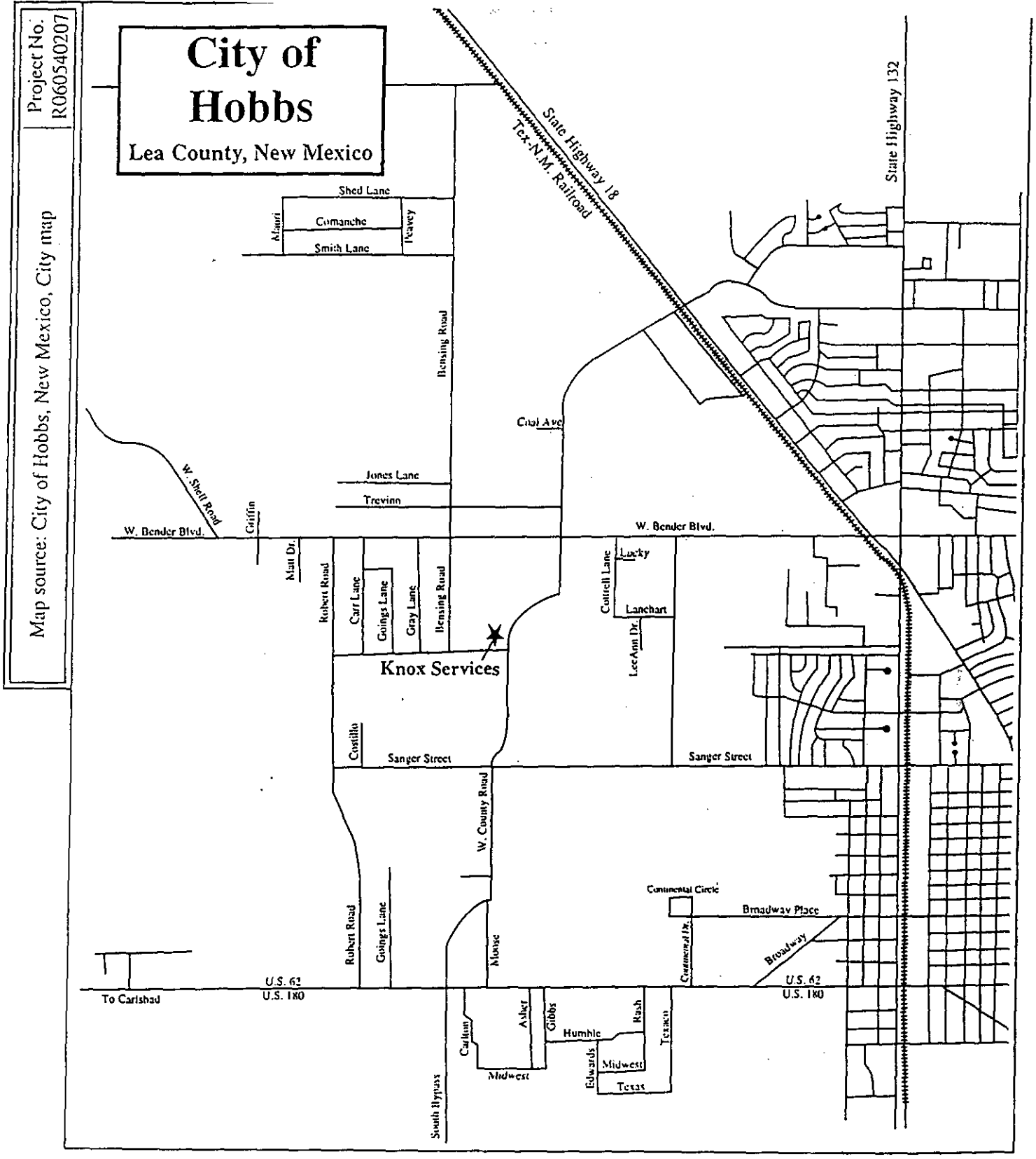


Figure 1
Site Location Map
Knox Services, Inc.
Hobbs, NM

A.T. Kearney/Centaur
REPA Contract
No. 68-W4-0006

A.T. Kearney 9/1703C/cc

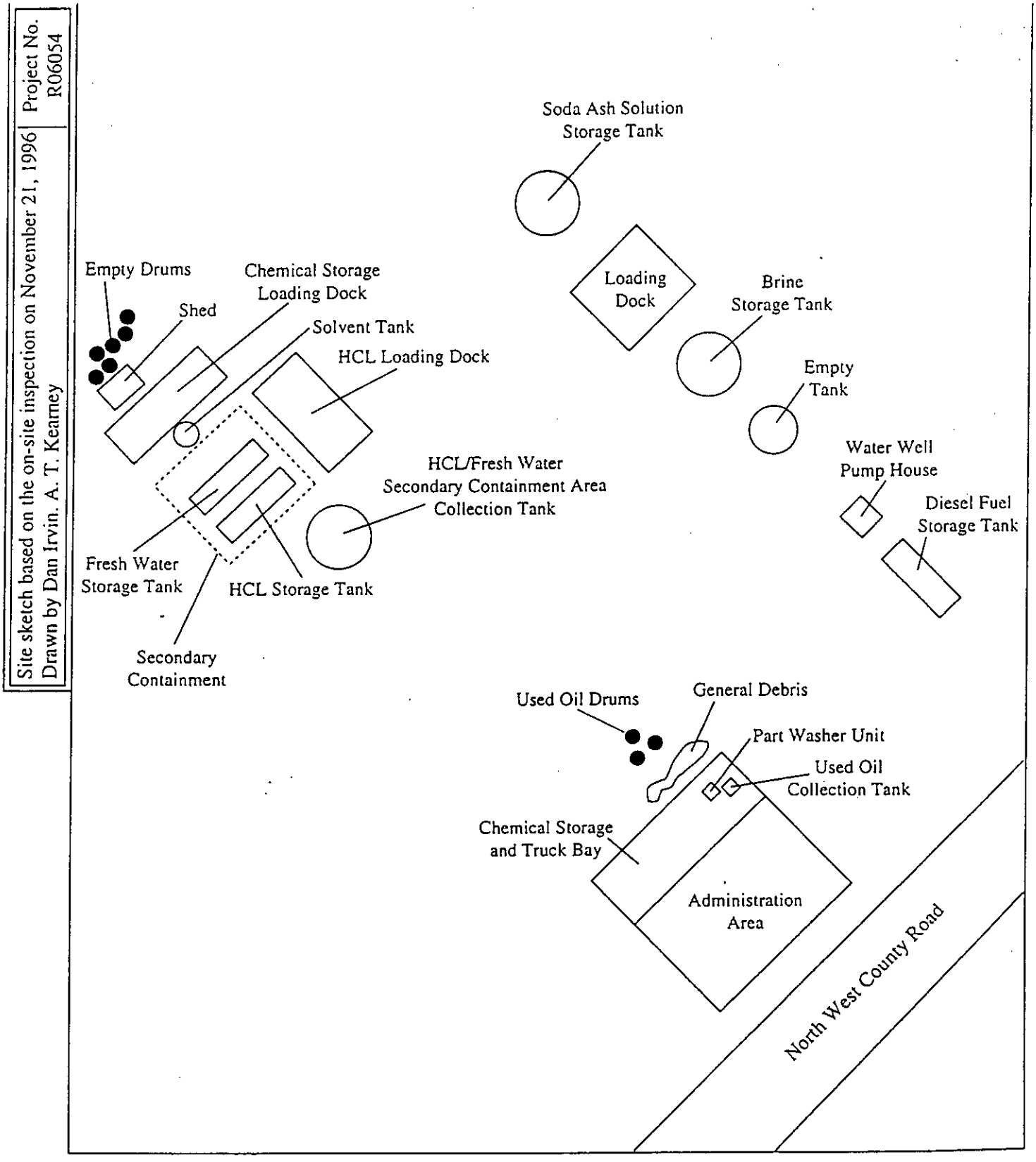


Figure 2
Site Layout Map
Knox Services, Inc.
Hobbs, NM

A.T. Kearney/Centaur
REPA Contract
No. 68-W4-0006

A.T. Kearney 9/1703A/cc

4.0 SAMPLING ACTIVITIES

4.1 Sample Description and Locations

On Thursday, November 21, 1996, the inspection team collected two waste liquid samples from the Knox site. Figure 3 shows the locations for each sample collected during the inspection. Table 1 lists the sampled material, sample and laboratory numbers, sample matrix, and analysis conducted on each sample collected at Knox. All sampling and analytical procedures were followed as described in the Quality Assurance Project Plan (QAPjP), New Mexico Oil and Gas Service facilities dated November 15, 1996. Copies of the chain-of-custody records for the sampling event are provided in Appendix B.

TABLE 1

SUMMARY OF SAMPLE DESCRIPTIONS AND LOCATIONS
KNOX SERVICES, INC.

SAMPLED MATERIAL	SAMPLE ID LABORATORY ID	MATRIX	ANALYSIS
HCL/freshwater secondary containment storage tank	KS-01-WL-01 7GDXER01-18	Liquid	Ignitability, pH (MS/MSD)
HCL/freshwater secondary containment storage tank	KS-01-WL-02 7GDXER01-19	Duplicate of Sample KS-01-WL-01	Ignitability, pH (MS/MSD)
Used oil	KS-02-WL-01 7GDXER01-20	Liquid/Oily	Ignitability, pH (MS/MSD)
Used oil	KS-02-WL-02 7GDXER01-21	Duplicate of Sample KS-02-WL-01	Ignitability, pH (MS/MSD)

Sampling locations were determined in the field on November 21, 1996, during the inspection of the facility. The sampling locations were selected and approved on-site by Mr. Greg Pashia, the EPA Work Assignment Manager and Lead Inspector.

Prior to sampling, the equipment was thoroughly washed with deionized water and a phosphate-free laboratory detergent. A natural bristle brush was used to remove any particulate matter or surface film. After the equipment was thoroughly washed it was rinsed with deionized water, diluted nitric acid, and again rinsed with deionized water. The equipment was then wrapped in aluminum foil and placed into a plastic bag to prevent contamination during storage and/or transport to the field.

A field blank sample, KS-01-TB-01, was collected and an equipment blank sample, KS-01-EB-01, was collected from cleaned field sampling equipment prior to the initiation of sampling activities. Each of these samples were analyzed for ignitability and pH.

A total of two waste liquid samples and two duplicate waste liquid samples were collected. The first waste liquid sample, KS-01-WL-01 was collected from the HCL/freshwater secondary containment collection tank (see photographs 2-3). The contents in the tank were approximately 1 to 2 feet in depth. This sample was clear in color. Sample KS-01-WL-02 was collected as a blind duplicate of sample KS-01-WL-01.

The second waste liquid sample, KS-02-WL-01 was a composite sample collected from the three used oil drums located on the north side of the administration building (see photographs 1-24, 1-25, 2-1, and 2-2). The sample was bi-phasic, a dark oily liquid on top and a clear liquid on the bottom. Sample KS-02-WL-02 was collected as a blind duplicate of sample KS-02-WL-02. Matrix spike and matrix spike duplicate (MS/MSD) samples were collected with each of the samples.

The EPA representatives offered the facility the option to received split samples. Split samples were collected by the EPA inspection team for Knox facility representatives. Mr. Hector Ramirez of Knox accepted split samples from the sampling team.

All collected samples were properly sealed, labeled, and placed in a cooler. Samples KS-01-EB-01, KS-01-FB-01, KS-01-WL-01 and KS-01-WL-02 were wrapped in bubble wrap, placed in plastic bags, and packed in coolers with ice to keep the samples cool. Samples KS-02-WL-01, and KS-02-WL-02 were placed in DOT approved shipping containers and placed in the coolers containing the other Knox samples. The chain-of-custody paperwork was placed in a clear plastic bag and taped to the inside of the cooler lid. The cooler was then sealed with strapping tape and a custody seal was placed in the appropriate location on the cooler and covered with clear tape. The samples were shipped overnight, via Federal Express, to the EPA Region 6 Environmental Services Division Laboratory in Houston, Texas, for chemical analysis.

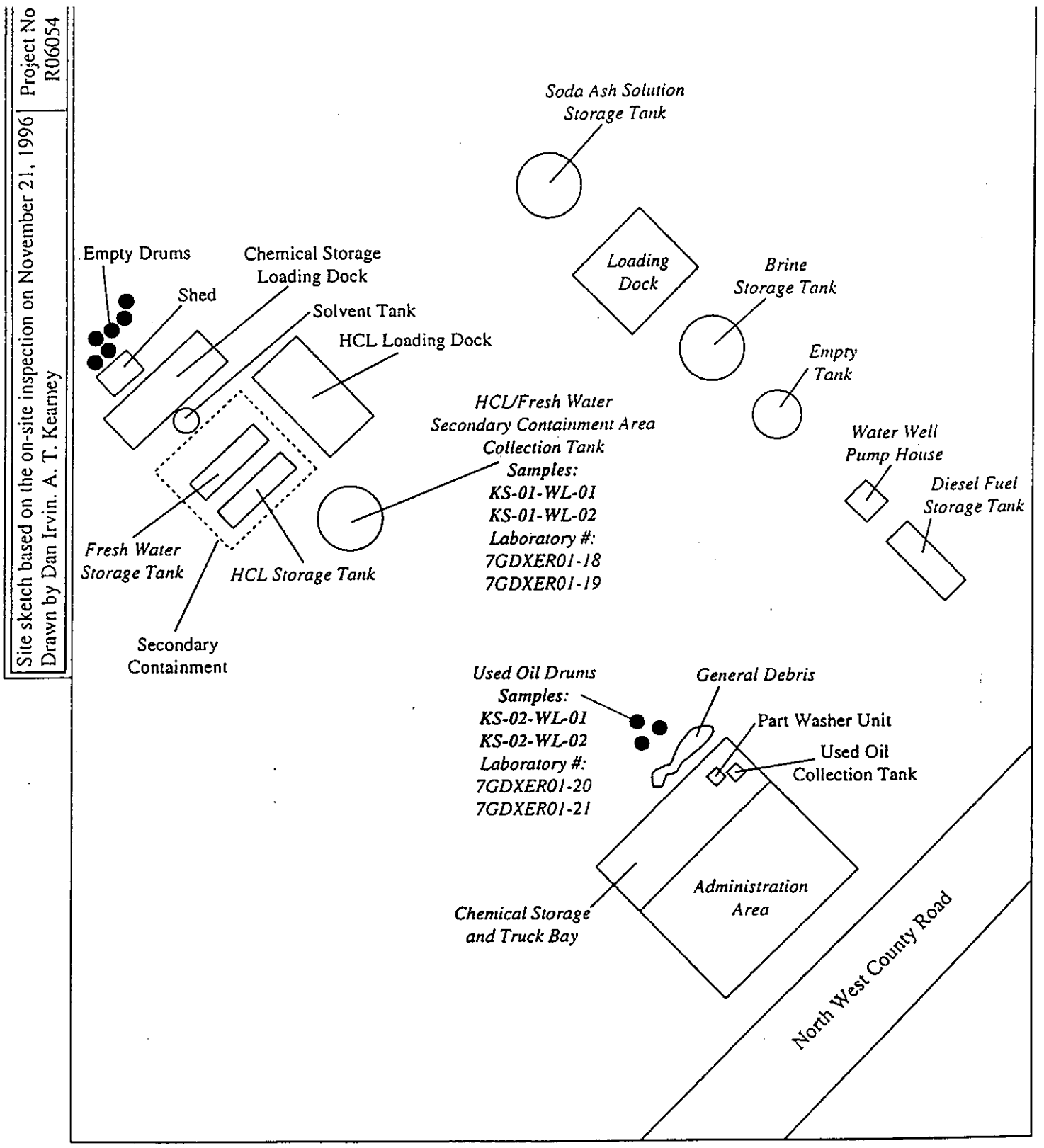


Figure 3
Sample Location Map
Knox Services, Inc.
Hobbs, NM

A.T. Kearney/Centaur
REPA Contract
No. 68-W4-0006

A.T. Kearney 9/1703B/cc

4.2 Analytical Results

Copies of the analytical data for samples collected during the CEI conducted at Knox on November 21, 1996, are located in Appendix D. Table 2 presents a summary of the results of the chemical analysis requested by EPA.

TABLE 2

SUMMARY OF ANALYTICAL DATA
KNOX SERVICES, INC.

Sample Number	Ignitability*	pH**	Regulatory Limits pH
KS-01-WL-01	Negative	4.5	≤2 ≥12.5
KS-01-WL-02	Negative	4.5	≤2 ≥12.5
KS-02-WL-01	Negative	6.3	≤2 ≥12.5
KS-02-WL-02	Negative	6.4	≤2 ≥12.5
KS-01-FB-01	Negative	5.6	≤2 ≥12.5
KS-01-EB-01	Negative	5.8	≤2 ≥12.5

* SETA Flash Method 1020A
** Aqueous samples Method Reference 9040B, Non-aqueous samples Method Reference 9045C

The analytical results indicate that none of the samples collected at the Knox facility exhibited the hazardous waste characteristic of ignitability (D001) or corrosivity (D002) as defined in 40 CFR 261.

5.0 OBSERVATIONS

5.1 Records Inspections

Mr. Ramirez indicated that the facility did not have an EPA ID number nor had it previously shipped hazardous waste. A MSDS for the parts washer solvent was reviewed by the inspection team.

5.2 Visual Observations

A visual inspection of the Knox facility was conducted on December 21, 1996. The facility tour was provided by Mr. Ramirez. Areas toured included the garage area, which included a parts washer unit and used oil storage tank; used oil storage area; three loading docks; HCl/freshwater storage tank area; soda ash storage tank, and the facility's equipment/vehicle storage yard.

During the inspection, the following area of concern was identified. According to Mr. Ramirez, the facility mixes a potentially ignitable spent parts washer solvent with its used oil prior to the used oil being collected, transport, and recycled by E&E Environmental. During the inspection three drums containing used oil were observed to be present at the facility. Mr. Ramirez indicated that parts washer solvent had potentially been placed in each of the drums with the used oil.

Other observations included the stained soil around the HCL sump next to the HCL/Freshwater tanks. According to Mr. Ramriez, the stained soil was the result of the HCL supplier recently breaking the connectors to the HCL tank used to pump the HCL from the suppliers tanker truck to the Knox tank. Mr. Ramriez indicated that he was in the process of fixing the pump connector.

6.0 SUMMARY OF FINDINGS

On Thursday, November 21, 1996, an unannounced CEI was performed by A.T. Kearney, Inc. at Knox Services, Inc. located at 1329 North West County Road in Hobbs, Lea County, New Mexico. Sampling was conducted as part of the inspection. The sampling and inspection was conducted under the RCRA REPA Contract 68-W4-0006, Work Assignment R06054 under the authority of Section 3007 of the RCRA, as amended.

Findings

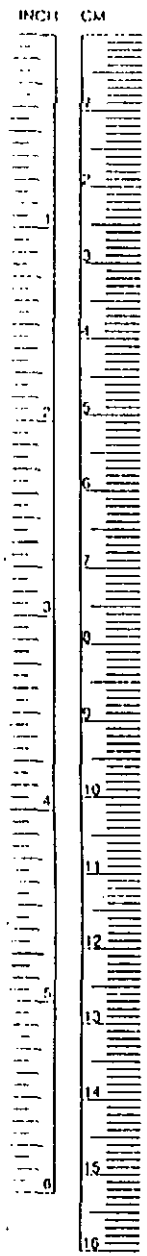
Knox provides well stimulation services to various oil and gas production companies with wells located in the southeastern New Mexico area. The facility generates used oil from routine vehicle maintenance. The used oil is mixed with spent parts washer solvent from the facilities single parts washer unit. Chemical analysis of the used oil mixture indicated that the resulting mixture did not exhibit the characteristic of ignitability or corrosivity as defined at 40 CFR Part 261.

7.0 REFERENCES

1. Code of Federal Regulations, Parts 260 through 299. Revised as of July 1, 1995.

APPENDIX A

Field Log



MEASUREMENT CONVERSIONS

IF YOU KNOW	MULTIPLY BY	TO FIND
LENGTH		
inches	2.540	centimeters
feet	30.480	centimeters
yards	0.914	meters
miles	1.609	kilometers
millimeters	0.039	inches
centimeters	0.393	inches
meters	3.280	feet
meters	1.093	yards
kilometers	0.621	miles
WEIGHT		
ounces	28.350	grams
pounds	0.453	kilograms
grams	0.035	ounces
kilograms	2.204	pounds
VOLUME		
fluid ounces	29.573	milliliters
pints	0.473	liters
quarts	0.946	liters
gallons (U.S.)	3.785	liters
milliliters	0.033	fluid ounces
liters	1.056	quarts
liters	0.264	gallons (U.S.)
TEMPERATURE		

°C = (°F - 32) x .555
°F = (°C x 1.8) + 32

Inches	Decimals of feet	Milli-meters
1/16	.0052	1.5875
1/8	.0104	3.1750
3/16	.0156	4.7625
1/4	.0208	6.3500
5/16	.0260	7.9350
3/8	.0313	9.5250
1/2	.0417	12.700
5/8	.0521	15.875
3/4	.0625	19.050
7/8	.0729	22.225
1"	.0833	25.400
2"	.1667	50.800
3"	.2500	76.200
4"	.3333	101.60
5"	.4167	127.00
6"	.5000	152.40
7"	.5833	177.80
8"	.6667	203.20
9"	.7500	228.60
10"	.8333	254.00
11"	.9167	279.40
1 foot	1.0000	304.80

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DAN KEVIN, ATK - ALEX
CATHY DARE, ATK - DAILY

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Project KWAM : DEBRA PANDAK
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	INSPECTION TEAM	
	WM. RHOTENBERRY, EPA REG. 6	
	GREG PASHIA, EPA REGION 6	
	DAN IRVIN, ATK	
	CATHERINE DARE, ATK	
	WALLY O'REAR, MEE	
	11-21-96	

KNOX SERVICES
1329 NORTH WEST COUNTY RD
HOBBS, NM
505/397-1227

11/21/96

1030 ARRIVE AT FACILITY

WM. RHOTENBERRY, EPA REGION 6 ANNOUNCE INSPECTION TO MS. GAIL SARRACINO

1038 INSPECTION TEAM MET BY HECTOR RAMIREZ, KNOX'S VICE-PRESIDENT OF OPERATIONS.

RHOTENBERRY DISCUSSES PURPOSE OF INSPECTION

RAMIREZ INDICATES ALL CHEMICALS/MATERIAL ARE USED UP AT WELL SITE

11-21-96 DaSaffe

11-21-96 DS

CHEMICAL PRESENT ON-SITE INCLUDE HCl WITH INHIBITORS

BUSINESS IS PRIMARILY IN WELL STIMULATION BUSINESS

TRUCKS ARE RINSED AND ACIDS NEUTRALIZED AND WATER PUMPED TO ON-SITE STORAGE TANK. WHEN FULL TANK ~~TRUCKS~~ DS 11-21-96 CONTENTS ARE DISPOSED AT OCD DISPOSAL WELL FACILITY

MAJORITY OF CHEMICALS PURCHASED (TOLUENE, XYLENE) ARE BOUGHT IN BULK AND TRANSFERRED DIRECTLY TO TANK TRUCK WHICH HAULS CHEMICAL TO WELL SITE

CHEMICALS ON-SITE IN DRUMS ARE INHIBITORS, SURFACTANTS AND GELLING AGENTS

11-21-96 DS

CHEMICAL SUPPLIERS PICK-UP EMPTY DRUMS

DRUM TRANSFER IS PERFORMED BY A PUMP. ANY REMAINING CHEMICAL IN DRUM IS POURED INTO A 5-GALLON BUCKET AND PRESSURE PUMPED INTO TANKER TRUCK

LIQUIDS ARE DISPOSED OF AT AA OILFIELD. KNOX OBTAINS RECEIPT.

NO TRUCK WASH SUMPS ON-SITE

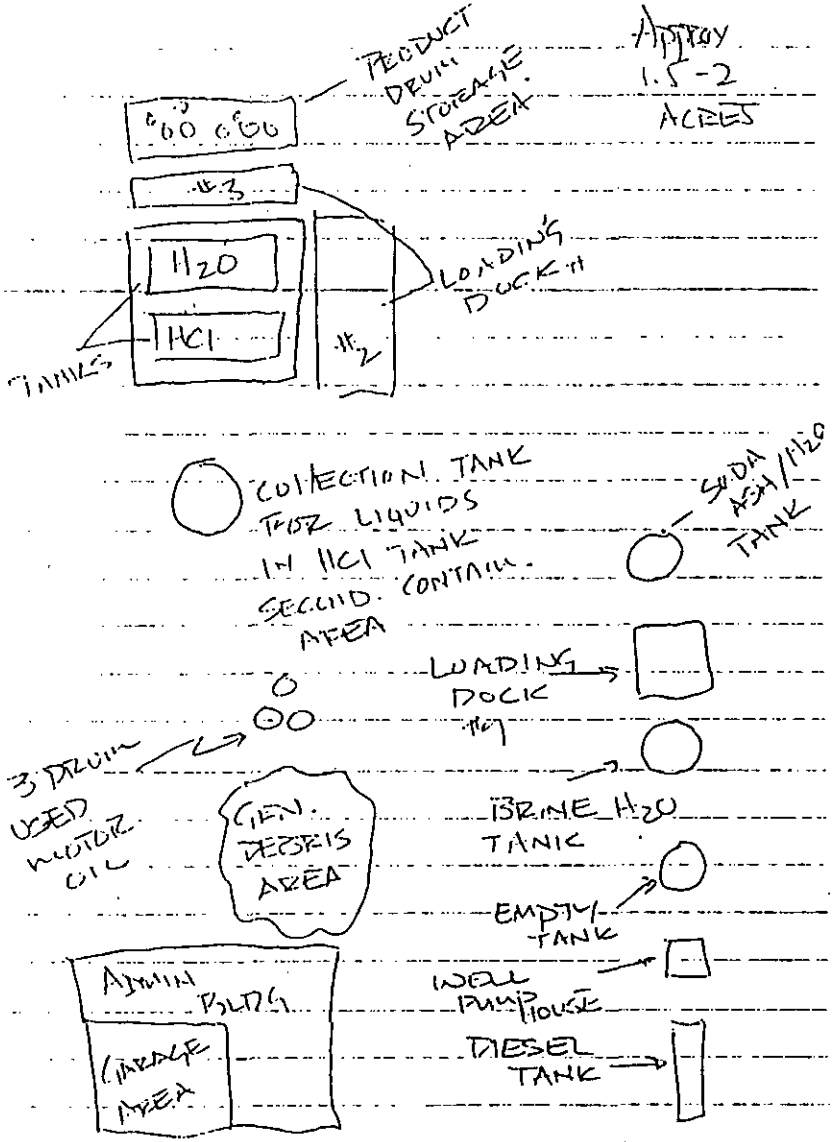
SUMP PRESENT AT LOADING DOCK, BUT IS RARELY USED.

OCD HASN'T BEEN TO SITE TO DISCUSS OCD PERMIT

11-21-96

11-21-96

FACILITY LAYOUT



1055 BEGIN SITE TOUR

WASTE OIL COLLECTED BY E&E

- GARAGE AREA CONTAINS SEVERAL DRUMS CONTAINING PRODUCT

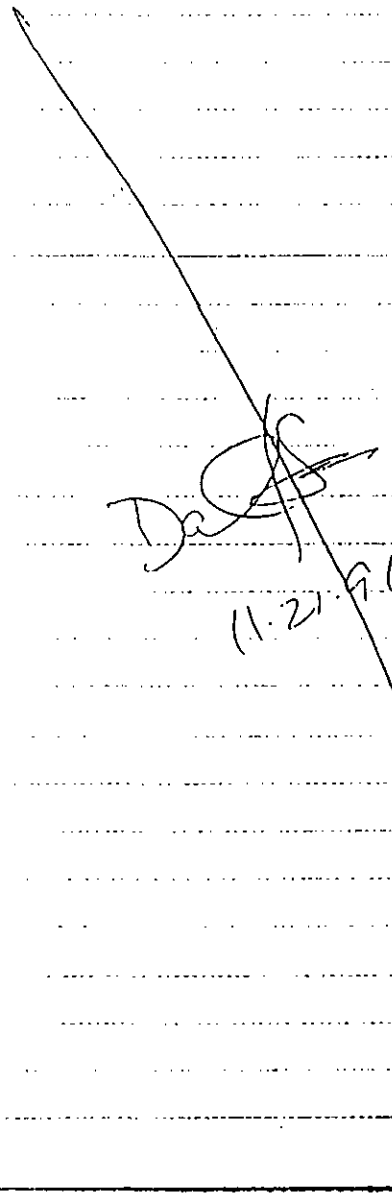
- PARTS WASHER UNIT - SOLVENT USED IS NAPTHA. NAPTHA PLACED IN USED OIL DRUM

- OIL ~~STORED~~ PI 11-21 IN ½ DRUM OPEN ACCUMULATED

- WASTE OIL STORAGE AREA: OIL TRANSFERRED TO 55-GALLON DRUM; OUTDOORS 3-DRUMS ON PALLET. APPEAR TO BE FULL

LOADING DOCK #1 - PRODUCT SCALE INHIBITOR & GELLING AGENTS

11-21-96



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HCl TANK SECONDARY CONTAINMENT AREA DRAINS TO COLLECTION SUMP / TANK VIA UNDERGROUND PIPING

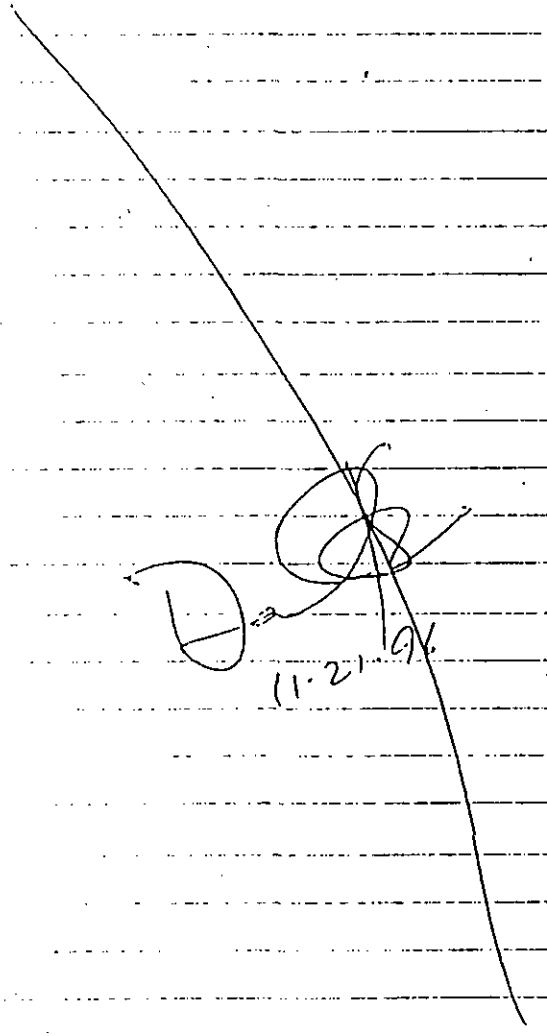
SECONDARY CONTAINMENT AREA FULL WITH LIQUID. REPORTEDLY H_2O. AREA APPROX. 30'x30'x2'

HCl TANK & H_2O TANK ELEVATED APPROX 10' ABOVE GROUND 10' DIA x 20' LONG EACH

ON LOADING DOCK 3, FORMER SOLVENT TANK, NO LONGER IN USE, EMPTY

APPROX. 32 PRODUCT DRUMS, VARIOUS INHIBITORS

11.21.96



LOADING DOCK 3 CONTAINS:
CLAY STABILIZERS
GELLING AGENTS
SCALE INHIBITOR
CORROSION INHIBITOR
NON EMULSIFIER

AT REAR OF HCl TANK IS A SUMP (CUT-OFF 55-GAL PLASTIC DRUM) 2' DEEP. VALVE TO PUMP HCl INTO TANK IS BROKEN

AREA APPROX 6'x6' STAINED WITH HCl RESIDUES

9 - FULL TIME EMPLOYEES
OPERATE 10 TRUCKS

1130 END SITE TOUR

INFORMED RAMIREZ, TEAM WILL COLLECT SAMPLES
Daliff 11-21-96

11-21-96

1123 SAMPLES TO BE COLLECTED

- WASTE OIL
  - IGNITABILITY

- HCl SUMP TANK
  - IGNITABILITY MS/MSD DUPLICATE

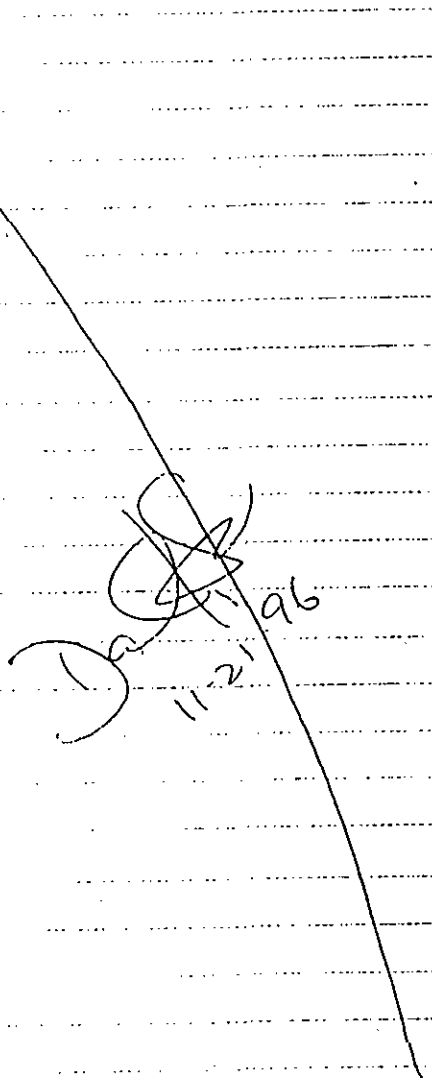
- HCl TRUCK PAD SUMP
  - IGNITABILITY

1150 SAMPLE PREP BEGINS

1155 COLLECT FIELD BLANK
KS-01-FB-01
1 LITER POLY

1210 COLLECT EQUIPMENT BLANK FROM DISPOSABLE COLIWASSA PART 25569
1 LITER POLY
KS-01-EB-01

11.21.96



11-21-96

1210 CONDUCT FIELD pH
TESTS AT HCl
SECONDARY CONTAINMENT
AREA pH - 7.5

1225 FIELD pH TEST AT
SODA ASH TANK
pH - 11.5

~~12~~ 11.21.96

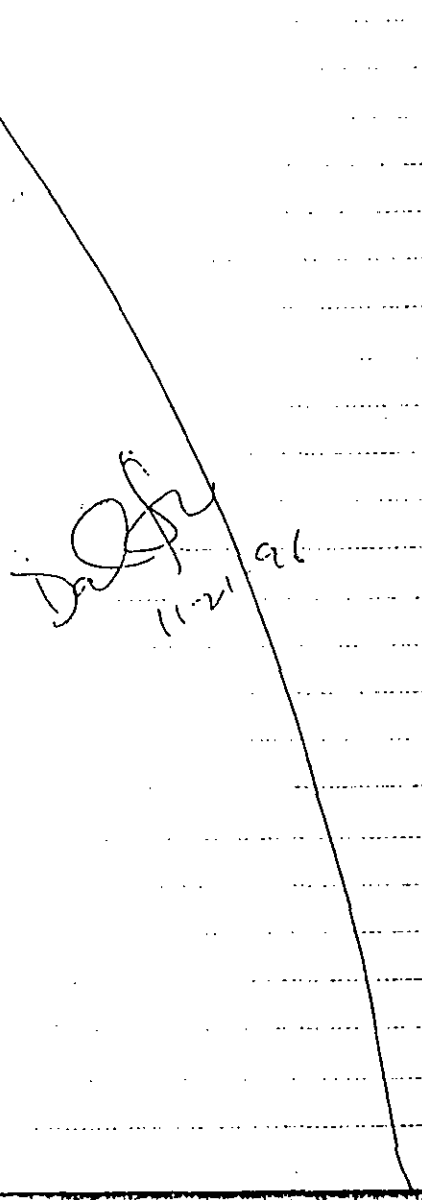
1250 COLLECT SAMPLES FROM
WASTE OIL DRUMS

COMPOSITE SAMPLE FROM
3 DRUMS; ~~EACH~~ 2 DRUMS IS
FULL, ONE 11-21-96 20.5" DEEP

KS-02-WL-01 AND DUPLICATE
KS-02-WL-02

802 GLASS VOLUME
SPLIT W/FACILITY

SAMPLE IS BLACK AND BITUMASIC
11-21-96



11-21-96

1315 SAMPLE HCl SECONDARY CONTAINMENT SUMP/TANK

TANK CONTENTS 1'-2' DEEP.

SAMPLES
KS-01-WL-01
KS-01-WL-02 DUPLICATE
SPLIT W/FACILITY

ANALYSIS pH/ISNITABILITY

1345 CLOSE OUT MEETING

OBTAIN MSDS FOR PARTS WASHER AND HCl

PARTS WASH SOLVENT IS VARSOL.

11-21-96

11-21-96

HCl SECONDARY CONTAINMENT AREA IS LEAKING IN SW CORNER, NEEDS TO BE REPAIRED

11-21-96

11/21/96

Photo #17 0944

Photo of HCL tank

Left Sonny's at 1030

11/21/96

Knox Services, Inc.

Arrived @ 1033

Roll #8

Left for site visit @ 1053

Photo #1 1054

Oil Storage area in Shop

Photo #2 1055 Parts Washer located in shop area

Photo #3 1057

Paint storage area

Photo #4 1058

Waste oil storage located south of Shop

11/21/96

Photo #5 1059
Photo of empty HCL Storage Tank Located on NW corner

Photo #6 1100
Tank Storage area located on the West side of facility. Photo looking West.

Photo #7 1102
HCL Storage tanks located on the Southern part of facility

11/21/96

Photo #8 1103
Sump runoff collection Tank from the HCL Tanks. It is located just North of HCL Tanks

Photo #9 1105
Close up of HCL tanks

Photo #10 1106
Water located below HCL Tanks

1107 Photo #11 Drums located Just South Next to the HCL tanks

11/21/96

1110 Photo #12 Drum
Drum Storage area South of
Storage Shed

1112 Photo #13 Mutual Solvent
Holding tank.

Photo #14 1113
Photo of Inhibitor
Tank

Photo #15 1115
East side of HCL Tanks
and Drum Storage area

11/21/96

Photo #16 1116
Unloading area Next
to HCL. It has a
yellow stain

Photo #17 1118
View of facility from
the HCL tanks looking
North.

Photo # 18, 19, 20, 21 + 22 1122
Overall View of facility
taken from the SW
corner of facility

11/21/96

Photo #23 1131

Water pump shed and gas holding tank located on the NW corner of facility

Photo 24

Collect waste oil sample from drums looking SSE

Photo 25

Collecting waste oil sample look SSE

11/21/96

Roll 5 Photo #1

Closeup Photo of samples KS-OL-WL-01 (3) and KS-02-WL-02

Photo #2

Long view of sample KS-02-WL-01 and KS-02-WL-02

Photo #3

View of O'Rear collecting KS-01-WL-01 KS-01 WL-02 looking S

APPENDIX B

Sample Chain-of-Custody Forms

ENVIRONMENTAL PROTECTION AGENCY
Region 6

OFFICIAL
CHAIN OF CUSTODY RECORD

REGION 6
1445 Ross Avenue, Suit
Dallas, Texas 75202-

PROJ. NO.	PROJECT NAME: OIL AND GAS SERVICE / KNOX SERVICE

SAMPLERS: (Signature) Catherine Dale / Walter O'Rear

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	TAT / DC 11/21/96	PH / IGNITABILITY					REMARKS
KS-01-FB-01	11/21/96	1155		X	FIELD BLANK	1		X					TAG NUMBER / VOLUME 6-014511 / 1 LITER
KS-01-EB-01	11/21/96	1210		X	EQUIPMENT BLANK	1		X					6-014512 / 1 LITER

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Catherine Dale Walter O'Rear	11/21/96 1700				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
			11/22/96 9:55		
Shipped by:		Airbill Number: 24067933384			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files;
Green to Report; Yellow Returns with Warrant

ENVIRONMENTAL PROTECTION AGENCY
Region 6

OFFICIAL CHAIN OF CUSTODY RECORD

REGION 6
1445 Ross Avenue, Suit
Dallas, Texas 75202-

PROJ. NO.	PROJECT NAME
	OIL AND GAS SERVICE / KNOX SERVICE

SAMPLERS: (Signature)
Catherine Dare / Wallace O'Rear

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	PH/IGNITABILITY	REMARKS
KS-01-WL-01	11/21/96	1315		X	HCL CONTAINMENT AREA TANK	1 CPD	X	TAG NUMBERS: KS-01-WL-02 DUPLICATE 6-014514
KS-01-WL-02	11/21/96	1315 1335 DUP		X	HCL CONTAINMENT AREA TANK	2 CPD	X	DO QC 6-014515 / 6-014516
KS-02-WL-01	11/21/96	1250	X		WASTE OIL DRUMS	1 CPD	X	DUPLICATE 6-014518
KS-02-WL-02	11/21/96	1250	X		WASTE OIL DRUMS	2 CPD	X	DO QC 6-014516 / 6-014517

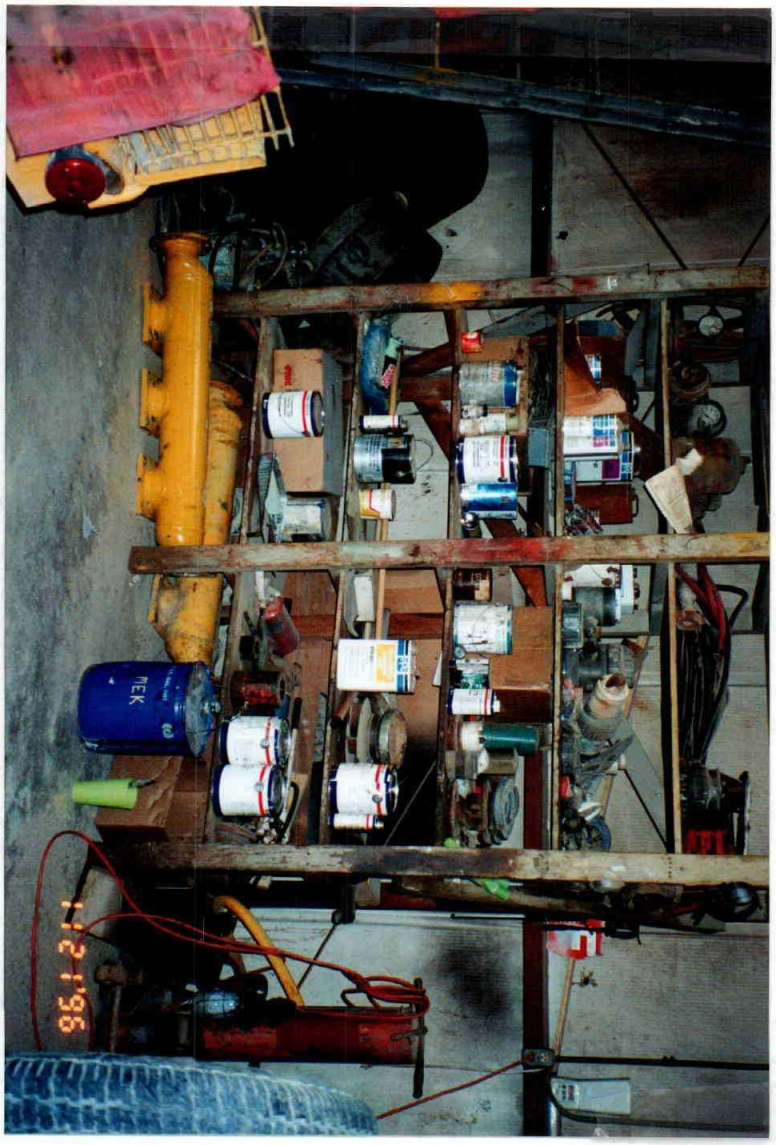
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Catherine Dare Wallace O'Rear	11/21/96 1700				
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
			11/22/96 9:55		
Shipped by:		Airbill Number: 24067933784			

Distribution: White Accompanies Shipment; Pink to Coordinator Field Files;
Green to Report; Yellow Returns with Warrant

APPENDIX C

Photograph Documentation

Photo# 1-1



Photo# 1-3

Photo# 1-2

Photo #1-1 **City:** Hobbs, New Mexico
Site: Knox Services Inc **Time:** 1054

Oil Storage Area in shop.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-2 **City:** Hobbs, New Mexico
Site: Knox Services Inc **Time: 1055**

Parts washer located in shop.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-3 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1057

Paint Storage area in shop.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo# 1-4

Photo# 1-6

Photo # 1-5

Photo #1-4 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1058

Waste oil storage area located outside in the back of the shop.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-5 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1059

Empty HCl storage tank located along the east side of facility.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-6 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1100

Storage tank area located on the east side of the facility.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-7

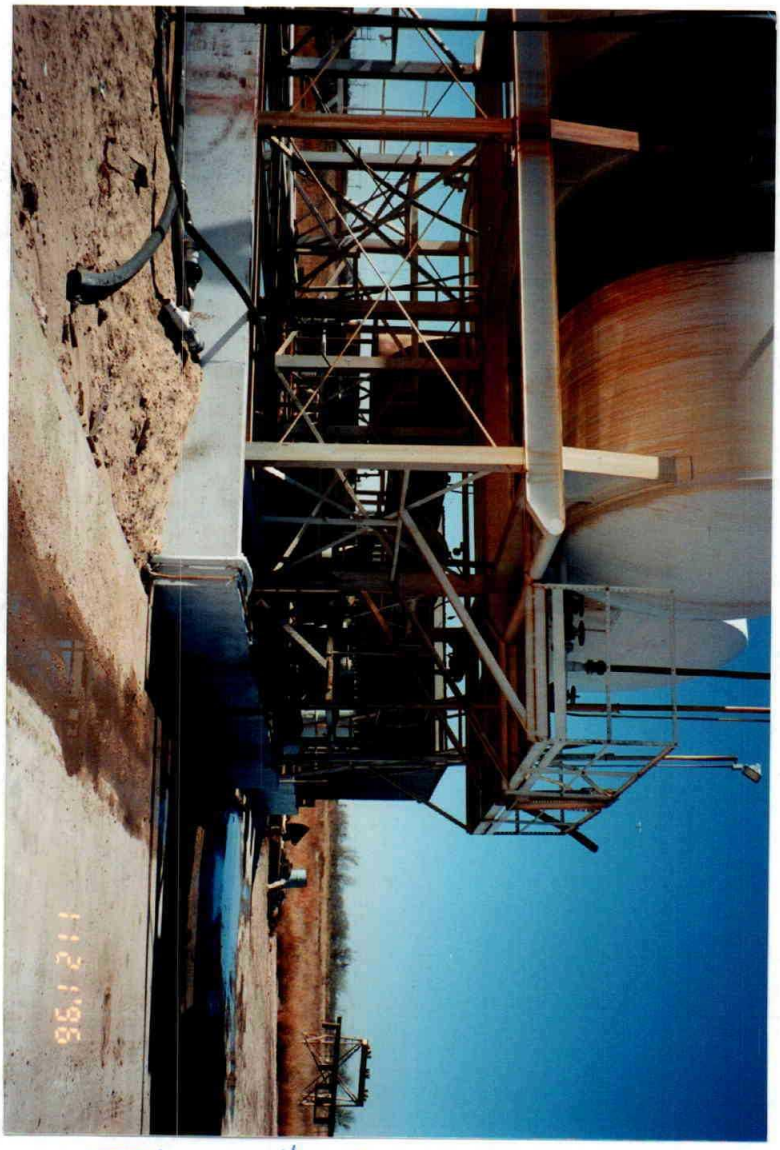


Photo #1-9

Photo #1-8

Photo #1-7 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1102

HCl/Freshwater storage tanks located on the northern part of the facility.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-8 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1103

Secondary Containment Collection tank for the HCl/Freshwater tanks. It is located just south of the HCl/Freshwater tanks.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-9 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1105

Close up of HCl/Freshwater tanks and secondary containment.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo# 1-10

Photo# 1-12

Photo# 1-11

Photo #1-10 **City:** Hobbs, New Mexico
Site: Knox Serivces, Inc. **Time:** 1006

Water located in secondary containment of HCL/Freshwater tanks and Freshwater tanks.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-11 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1107

Chemical storage loading dock located next to the HCl tanks.

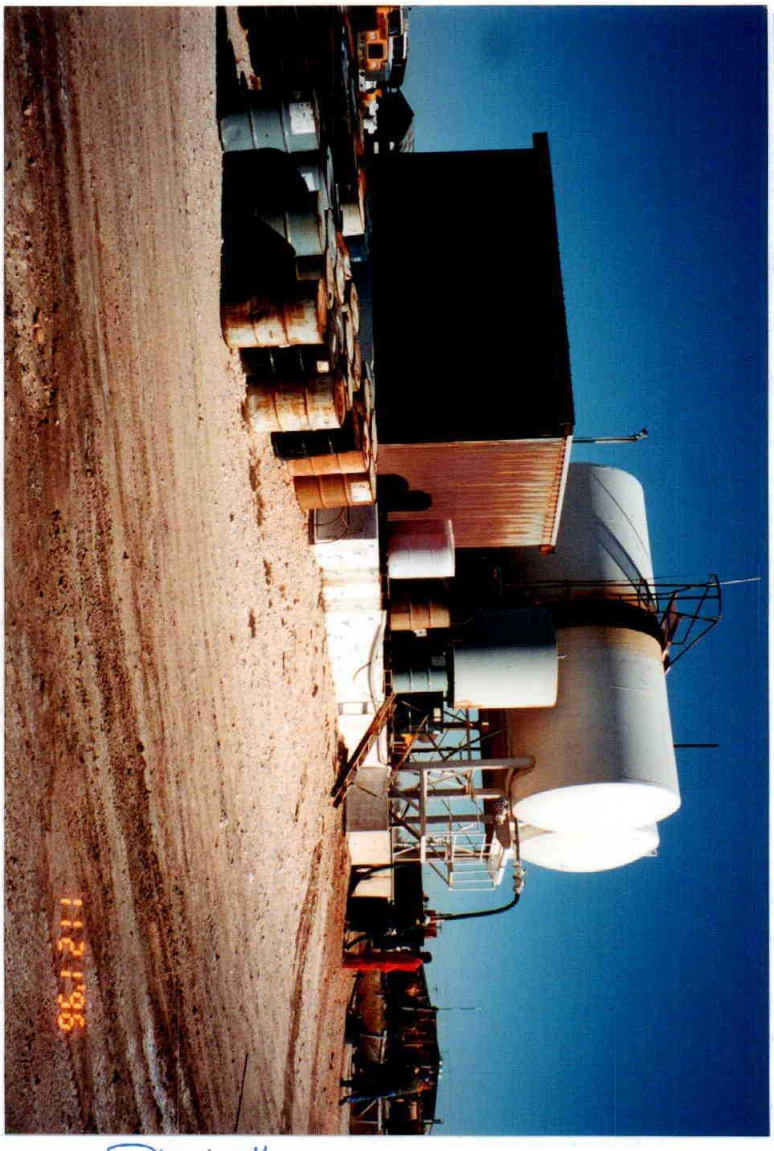
Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-12 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1105

Empty drum storage area adjacent to storage shed.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-13



Photo#1-15

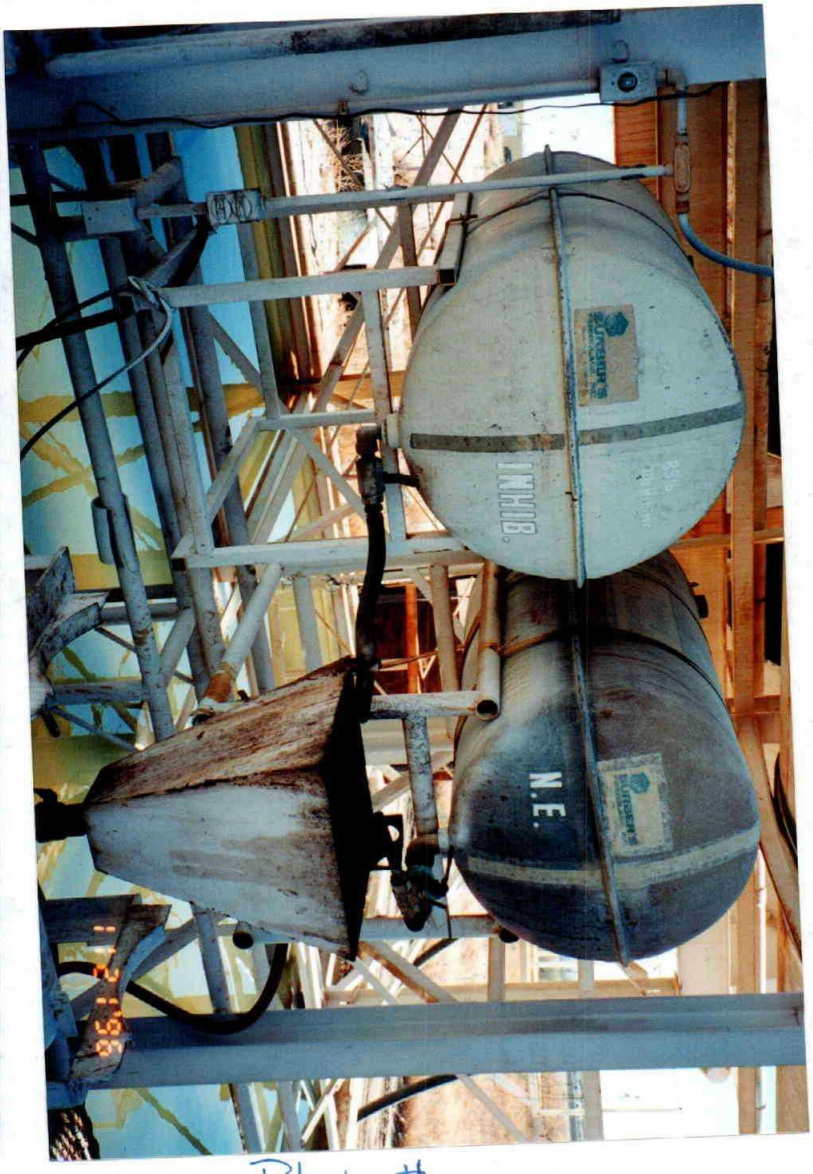


Photo #1-14

Photo #1-13 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1112

Mutual solvent holding tanks.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-14 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1113

Inhibitor tanks.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-15 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1115

Southwest side of HCL/Freshwater tanks and drum storage area.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-16

Photo #1-18

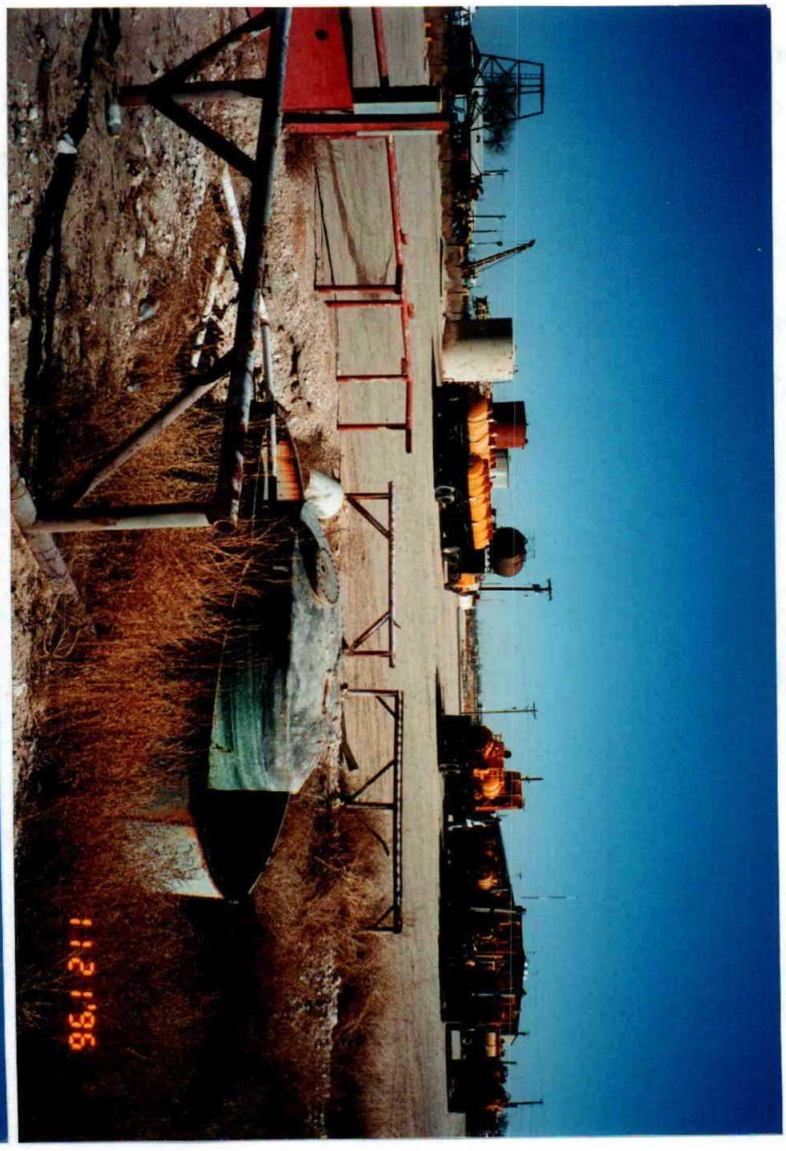


Photo #1-17

Photo #1-16 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1116

Unloading area on southwest side of the HCL/Freshwater tanks. Ground around line connector is stained yellow.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-17 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1118

View of facility from the HCl/Freshwater tanks looking southeast. Secondary containment collection tank is in foreground.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-18 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1122

Photo 1 of a panoramic view of the facility taken from the north part of the facility. Looking from East to West.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo# 1-19

Photo# 1-21

Photo# 1-20

Photo #1-19 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1122

Photo 2 of a panoramic view of the facility taken from the north part of the facility. Looking from east to west.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-20 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1122

Photo 3 of a panoramic view of the facility taken from the north part of the facility. Looking from east to west.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-21 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1122

Photo 4 of a panoramica view of the facility taken from the north part of the facility. Looking from east to west.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo
1-22

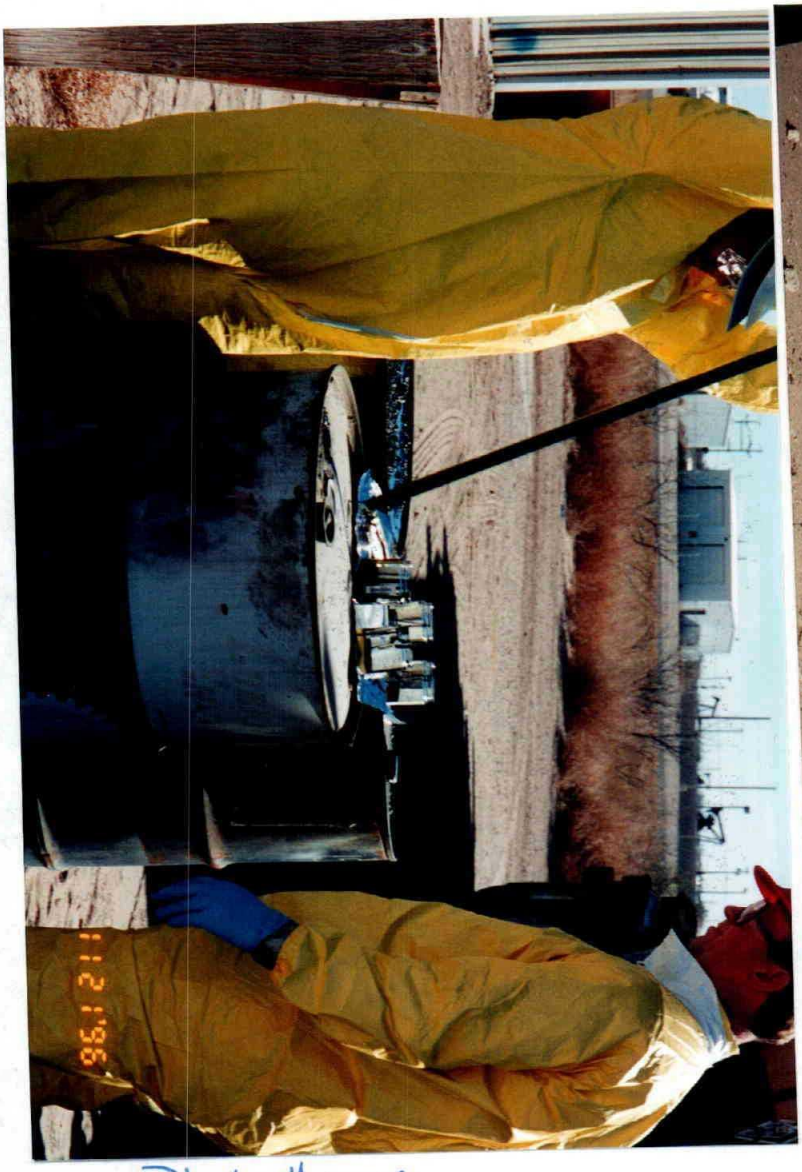


Photo # 1-24

Photo # 1-23

Photo #1-22 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1122

Photo 5 of a panorama view of the facility taken from the north part of the facility. Looking from east to west.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-23 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1131

Water pump shed and gas holding tank located on the southeast corner of the facility.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-24 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1250

Collection of waste oil sample from waste oil drums.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #1-25

Photo #2-2

Photo #2-1

Photo #1-25 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1250

Collection of waste oil sample from waste oil drums.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #2-1 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1255

Closeup of samples KS-02-WL-01 and KS-02-WL-02.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #2-2 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1255

Samples KS-02-WL-01 and KS-02-WL-02.

Photo By: Wallace O'Rear **Date:** November 21, 1996

Photo #2-3 **City:** Hobbs, New Mexico
Site: Knox Services, Inc. **Time:** 1315

Collection of samples KS-01-WL-01 and KS-01-WL-02.

Photo By: Wallace O'Rear **Date:** November 21, 1996

APPENDIX D

Analytical Results

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

December 30, 1996

MEMORANDUM

SUBJECT: Region 6 Environmental Laboratory Results for the New Mexico Oil Service Company Initiative

FROM: Douglas Lipka, Chief (6MD-H)
Houston Laboratory
Management Division

TO: Desi Crouther, Chief (6EN-H)
Hazardous Waste Enforcement Branch
Enforcement and Compliance Assurance Division

ATTN: Bill Rhotenberry (6EN-HX)

Attached are the laboratory results for samples submitted from the New Mexico Oil Service Company Initiative project. Twenty-three samples were submitted to the Laboratory on November 21-22, 1996. The laboratory numbers assigned to these samples are 7GDXER01-01 through 7GDXER01-23.

Standard procedures for quality assurance and quality control were followed in the analysis and reporting of these samples. The results apply only to the sample tested. This final report should only be reproduced in full.

Attachments

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 6
HOUSTON BRANCH
10625 FALLSTONE RD.
HOUSTON, TEXAS 77099

December 30, 1996

MEMORANDUM

SUBJECT: Notice of Intent to Dispose of Samples

FROM: Douglas Lipka, Chief (6MD-H)
Houston Laboratory
Management Division

TO: Desi Crouther, Chief (6EN-H)
Hazardous Waste Enforcement Branch
Enforcement and Compliance Assurance Division

The Houston Laboratory is required to dispose of all hazardous wastes we generate in a manner consistent with RCRA regulations. This includes all samples received for analysis provided we find them to contain contaminants which classify them as RCRA hazardous wastes. In addition, any samples found to contain PCBs must be disposed of according to TSCA regulations.

I have included this memorandum in the final analytical report to serve as notice to the program that we have completed all analysis. If we have any of the original sample remaining after analysis is complete we will dispose of it within 90 days. Please note that even though original sample may be left over, it does not mean that a reanalysis of the sample may be requested since the sample has most likely exceeded its holding time and any subsequent analysis may not be valid.

If you have a need to hold these samples in custody longer than 90 days, please sign below and return this memorandum to me within the next 30 days. Also, state briefly your need to hold these samples in custody.

Thank you for your cooperation in this request.

Facility Name	NEW MEXICO OIL SERVICE COMPANY INITIATIVE (7GDXER01)	
Program Manager (signature)		Date:
Justification for holding samples		

U.S. EPA - REGION 6 ENVIRONMENTAL LABORATORY
HOUSTON, TEXAS

FINAL REPORT
DECEMBER 30, 1996

SITE NAME: NEW MEXICO OIL SERVICE COMPANY INITIATIVE

DATES RECEIVED: NOVEMBER 21-22, 1996

LABORATORY NUMBER	STATION ID	DATE/TIME COLLECTED	RESULTS		
			IGNITABILITY[1]	pH[2]	TCLP METALS
7GDXER01-01	MI-01 WL-01	11/19/96,0820	POSITIVE	6.4	NOT REQUESTED
7GDXER01-02	MI-02 WL-01	11/19/96,0840	NEGATIVE	5.8	NOT REQUESTED
7GDXER01-03	MI-02 WL-02	11/19/96,0840	NEGATIVE	7.6	NOT REQUESTED
7GDXER01-04	MI-06 WL-01	11/19/96,0940	NEGATIVE	< 1.0	NOT REQUESTED
7GDXER01-05	MI-07 WL-01	11/19/96,0950	NEGATIVE	9.7	NOT REQUESTED
7GDXER01-06	MI-08 WL-01	11/19/96,0905	POSITIVE	8.2	NOT REQUESTED
7GDXER01-07	MI-09 WL-01	11/19/96,1000	NEGATIVE	4.4	NOT REQUESTED
7GDXER01-08	LS-01 WL-01	11/19/96,1640	NEGATIVE	7.0	NOT REQUESTED
7GDXER01-09	LS-02 WL-01	11/19/96,1647	NEGATIVE	6.8	NOT REQUESTED
7GDXER01-10	MI-03 WL-01	11/19/96,0855	NEGATIVE	9.5	NOT REQUESTED
7GDXER01-11	MI-04 WL-01	11/19/96,0930	NEGATIVE	6.7	NOT REQUESTED
7GDXER01-12	MI-05 WL-01	11/19/96,0955	NEGATIVE	10.1	NOT REQUESTED
7GDXER01-13	LS-03 WL-01	11/19/96,1655	NEGATIVE	7.1	SEE ATTACHMENT 2
7GDXER01-14	LS-03 WL-02	11/19/96,1655	NEGATIVE	6.9	SEE ATTACHMENT 2
7GDXER01-15	MI-01 EB-01	11/19/96,0737	NEGATIVE	6.4	NOT REQUESTED
7GDXER01-16	MI-01 FB-01	11/19/96,0732	NEGATIVE	5.9	NOT REQUESTED
7GDXER01-17	LS-01 FB-01	11/19/96,1713	NEGATIVE	5.8	SEE ATTACHMENT 2
7GDXER01-18	KS-01-WL-01	11/21/96,1315	NEGATIVE	4.5	NOT REQUESTED
7GDXER01-19	KS-01-WL-02	11/21/96,1315	NEGATIVE	4.5	NOT REQUESTED
7GDXER01-20	KS-02-WL-01	11/21/96,1250	NEGATIVE	6.3	NOT REQUESTED
7GDXER01-21	KS-02-WL-02	11/21/96,1250	NEGATIVE	6.4	NOT REQUESTED
7GDXER01-22	KS-01-FB-01	11/21/96,1155	NEGATIVE	5.6	NOT REQUESTED
7GDXER01-23	KS-01-EB-01	11/21/96,1210	NEGATIVE	5.8	NOT REQUESTED

1 SETA FLASH METHOD 1020A
2 AQUEOUS SAMPLES METHOD REFERENCE 9040B, NON-AQUEOUS SAMPLES METHOD REFERENCE 9045C