OKLAHOMA STATE DEPARTMENT OF HEALTH

EXPANDED PRELIMINARY ASSESSMENT

DATE: August 10, 1988

PREPARED BY: Scott A. Thompson

SITE: Commander Finishing Company

EPA ID NO.: OKD117545764

LOCATION: 226 Adams Road, Sand Springs, Oklahoma

CC:

1. **Initial Conclusions and Recommendations for Further Action:**
No further action is recommended at this time. This site does not appear to be a major source of groundwater contamination. The only way to definitely determine so, would be to install monitor wells around the site. The current evidence does not indicate that such action is warranted.

A. **Site Description:**
This site has been a textile manufacturing since the 1920's. Commander Mills ceased operations in the 1960s. Portions of the site now are being leased for various purposes including warehouse space, Regency Woodwork, and Midwest Textiles. Jim Stevens, an employee of Midwest Textiles who has been at this facility for 48 years, indicated operations at the facility had included bleaching, dyeing and finishing of material. Hydrosulfite and chrome were among compounds he recalled being used. He indicated that no chlorinated compounds had ever been used.

Apparent Problem:
This site is upgradient of the Sand Springs Petrochemical Complex, a National Priorities List (NPL) site. Chlorinated hydrocarbons have been identified in the upgradient wells of the NPL site and this site is being investigated as part of an effort to identify possible sources of the pollution.

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B. **Site Characteristics:**

Observed Release:
Observed releases from this site to the air, surface water or groundwater have not been documented.

Direct Contact/Fire and Explosion:
Leaks from some transformers stored on the site were visible. Samples were collected of stained soil to be tested for PCB, organics, and heavy metal contamination. However, the levels of PCBs and heavy metals detected are below levels which OSDH would consider significant threats. The low levels of trichloroethylene and tetrachloroethylene which were detected in one sample are probably representative of the transformer oil. The quantities involved are believed to be very minor.

Waste Type/Quantity:
The only wastes noted on the site were 7 old transformers still containing oil.

Groundwater:
There were no wells onsite at the time of the investigation so samples of groundwater could not be obtained. Approximately 35 years ago 5 sandpoint wells were installed but the water quality was insufficient for the usage intended and the wells were removed.

Surface Water:
During the operation of the facility millions of gallons of water per week were used and discharged to the sanitary sewer system.

Air:
No indications of any air releases were noted.

Target Populations
There are no apparent targets relative to this site. If groundwater contamination from this site were to be documented, there are approximately 67 private wells in the alluvial aquifer within a three mile radius which would be possible targets.

C. **Other Regulatory Involvement:**
None

Removal Considerations:
The property management company was informed that they should test the tranformer oil and properly dispose of it.

Other Factors:

D. Conclusions and Recommendations:

1) EPA:
No further action under CERCLA.

2) State or Other Agency:
Coordinate with the facility owner regarding the disposition of the tranformers.

2. Management Review/Concurrence:

3. EPA Recommendation for Further Action:	**Initial**	**Date**
No Further Action Under CERCLA	_____	_____
High Priority SSI	_____	_____
Medium Priority SSI	_____	_____

Justification:

sat#206

GC/MS LABORATORY
Sample #: 153076 SAMPLE ANALYSIS REPORT

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* TENTATIVLEY IDENTIFIED BY NBS LIBRARY SEARCH *
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:ANALYST'S COMMENTS :

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ANALYST Bill Ballew :

** MATRIX SPIKE - SPIKE DUPLICATE ANALYSIS **

SAMPLE # : 153076 CODE : PSS

COMPOUND	SPK1	SPK2	ACTU	%RECOVERY	DIFFERENCE	%DIFFERENCE
PHENOL	43.5	37.0	40	108.8	6.5	16.1
2CLPHENOL	42.8	33.8	40	107.0	9.0	23.5
4CL3MPHEN	32.9	44.2	40	82.3	-11.3	-29.3
4NITPHENOL	0.0	0.0	40	0.0	0.0	**
PCP	20.8	8.0	40	52.0	12.8	88.9
14DICLBEN	9.9	11.3	20	49.5	-1.4	-13.2
NROPINE	16.3	14.9	20	81.5	1.4	9.0
124CLBENZE	8.5	18.8	20	42.5	-10.3	-75.5
ACENAPHENE	11.4	11.6	20	57.0	-0.2	-1.7
24DNTOLUEN	NA	NA	NA			
DIBUTPHAL	NA	NA	NA			
PYRENE	12.2	12.2	20	61.0	0.0	0.0

COUMPUOND	SPK1	SPK2	ACTU	%RECOVERY	DIFFERENCE	%DIFFERENCE
11DICLENE	7.5	6.8	10	75.0	0.7	9.8
TCE	11.1	11.0	10	111.0	0.1	0.9
BENZENE	11.4	10.8	10	114.0	0.6	5.4
TOLUENE	12.2	12.7	10	122.0	-0.5	-4.0
CLBENZENE	11.4	11.4	10	114.0	0.0	0.0

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SAMPLE # : 153076 ** SURROGATE RECOVERIES ** CODE : PSS

COMPOUND:	% RECOVERY:
1,2-DICHLOROETHANE	99
TOLUENE-D8	101
4-BROMOFLUOROBENZENE	81
2-FLUOROPHENOL	32
PHENOL-D5	89
NITROBENZENE-D5	85
2-FLUOROBIPHENYL	83
2,4,6-TRIBROMOPHENOL	104
P-TERPHENYL-D14	84

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SAMPLE NUMBER 153076 SAMP 00000
DATE COLLECTED 06/15/88
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OKLA MA STATE DEPARTMENT OF HEALTH
STATE ENVIRONMENTAL LABORATORY SERVICE
REPORT OF ANALYSIS

DAMON WINGFIELD
WASTE MANAGEMENT SERVICE
OSDH ROOM 803
OKLAHOMA CITY OK 73152

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GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER		VALUE	UNITS	PARAMETER		VALUE	UNITS
PHENOL IN SEDIMENT	<	3000.000	UG/KG	2-CHLOROPHENOL SED	<	3000.000	UG/KG
2,4-DIMETHLYPHENOL S	<	3000.000	UG/KG	2-NITROPHENOL SED	<	3000.000	UG/KG
2,4-DICHLOROPHENOL S	<	3000.000	UG/KG	P-CHLORO-M-CRESOL SD	<	3000.000	UG/KG
246-TRICHLROPHENOL S	<	3000.000	UG/KG	4-NITROPHENOL SED	<	15000.00	UG/KG
2,4-DINITROPHENOL SD	<	15000.00	UG/KG	46DINITRO-O-CRESOL S	<	15000.00	UG/KG
PENTACHLOROPHENOL SD	<	15000.00	UG/KG	BIS2CHLRMTHYL-ETHR S	<	3000.000	UG/KG
1,4-DICHLROBENZENE S	<	3000.000	UG/KG	BIS2CLROISOPYPLETH S	<	3000.000	UG/KG
NITROBENZENE IN SED	<	3000.000	UG/KG	DIMETHYLPHTHALATE S		1100.000	UG/KG
2,6-DINITROTOLUENE S	<	3000.000	UG/KG	ACENAPHTHYLENE IN S	<	3000.000	UG/KG
2-METHYLPHENOL SED	<	3000.000	UG/KG	4-METHYLPHENOL SED	<	3000.000	UG/KG
245-TRICHLROPHENOL S	<	15000.00	UG/KG	BENZOIC ACID SED	<	15000.00	UG/KG
4-BROMOPHPHETHER SED	<	3000.000	UG/KG	BENZYL ALCOHOL SED	<	3000.000	UG/KG
4-CHLOROANALINE SED	<	3000.000	UG/KG	2-NITROANALINE SED	<	15000.00	UG/KG
3-NITROANALINE SED	<	15000.00	UG/KG	DIBENZOFURAN IN SED	<	3000.000	UG/KG
4-NITROANALINE SED	<	15000.00	UG/KG	3,3'-DICLROBNZDINE S	<	6000.000	UG/KG
BIS2ETHLHXLPHTHLTE S	<	3000	UG/KG	BNZO(B)FLURANTHENE S	<	3000.000	UG/KG
1,2-DICHLOROBNZENE S	<	3000.000	UG/KG	1,3-DICHLROBENZENE S	<	3000.000	UG/KG
BIS2CLROETHXYMTHNE S	<	3000.000	UG/KG	NAPTHALAENE IN SED	<	3000.000	UG/KG
HEXACHLROBUTADIENE S	<	3000	UG/KG	ACENAPHTHENE IN SED	<	3000.000	UG/KG
DIETHYLPHTHALATE S	<	3000.000	UG/KG	FLUORENE IN SEDIMENT	<	3000.000	UG/KG
HEXACHLOROBENZENE S	<	3000.0	UG/KG	ANTHRACENE IN SEDMNT	<	3000.000	UG/KG
PYRENE IN SEDIMENT	<	3000.000	UG/KG	CHRYSENE IN SEDIMENT	<	3000.000	UG/KG
2-CHLRONAPHTHALENE S	<	3000.000	UG/KG	NTROSODIPHNYLAMNE S	<	3000.000	UG/KG
2-MTHYL NPHTHALENE S	<	3000.000	UG/KG	PHENANTHRENE SED		4100.000	UG/KG
FLUORANTHENE SED	<	3000.000	UG/KG	BTYLBNZYLPHTHALATE S		3300.000	UG/KG
4-CHLOROPHPHETHER S	<	3000.000	UG/KG	DI-N-OCTYLPHTHALTE S		500.000	UG/KG
BENZO(A)PYRENE S	<	3000.000	UG/KG	BNZO(K)FLURANTHENE S	<	3000.000	UG/KG
BENZO(GHI)PERYLENE S	<	3000.000	UG/KG	INDENO(123CD)PYRNE S	<	3000.000	UG/KG
DI-N-BUTYLPHTHALTE S	<	3000	UG/KG	BENZO(A)ANTHRACENE S	<	3000.000	UG/KG
2,4-DINITROTOLUENE S	<	3000.000	UG/KG	DIBNZO(AH)ANTHRACE S	<	3000.000	UG/KG
NTROSODIPROPYLAMNE S	<	3000.000	UG/KG	HEXACHLOROETHANE S	<	3000.000	UG/KG
ISOPHORONE S	<	3000.000	UG/KG	124-TRICHOROBENZNE S	<	3000.000	UG/KG

SOURCE COMANDER FINISHING C
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA

CITY SAND SPRINGS

LEGAL
/4 /4 /4 SEC T R M

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SAMPLER'S COMMENTS SAMPLE #1/METALS 153077/ORGANICS 153078

ANALYST'S COMMENTS

OHD FORM NO. 814A (8 86)

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ANALYST Bill Battey

SAMPLE NUMBER 153076 SAMP 00000
DATE COLLECTED 06/15/88
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DAMON WINGFIELD
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OSDH ROOM 303
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GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER	REMARK	VALUE	UNITS	PARAMETER	REMARK	VALUE	UNITS
HXACLROCYCLPNTDENE S	<	3000.000	UG/KG	METH ETH KETON SED	<	50.000	UG/KG
STRYENE IN SEDIMENT	<	5.000	UG/KG	XYLENES IN SEDIMENT	<	5	UG/KG
ACETONE IN SEDIMENT	<	150.000	UG/KG	METHYL ISOBTYL KET S	<	10.000	UG/KG
CARBONDISULFIDE SED	<	5.000	UG/KG	METHYLENE CHLORIDE S	<	100.000	UG/KG
1,1-DICLROETHYLENE S	<	5.000	UG/KG	1,1-DICHLOROETHANE S	<	5.000	UG/KG
TRN1,2DICHLRETHENE S	<	5.000	UG/KG	CHLOROFORM IN SED	<	5.000	UG/KG
1,2-DICHLOROETHANE S	<	5.000	UG/KG	1,1,1-TRICLRETHANE S	<	5.000	UG/KG
CARBON TETRACHLRDE S	<	5.000	UG/KG	DICLORCBRMOMETHANE S	<	5.000	UG/KG
1,2-DICHLOROPROPNE S	<	5.000	UG/KG	T-1,3-DICLROPRPENE S	<	5.000	UG/KG
TRICHLOROETHYLENE S	<	5.000	UG/KG	DIBROMOCCHLOROMTHNE S	<	5.000	UG/KG
C-1,3-DICLROPRPENE S	<	5.000	UG/KG	112-TRICLOROETHANE S	<	5.000	UG/KG
BENZENE IN SEDIMENT	<	5	UG/KG	BROMOFORM IN SED	<	5.000	UG/KG
TETRACLOROETHLENE S	<	5.000	UG/KG	1122-TETRACLETHANE S	<	5.000	UG/KG
TOLUENE IN SEDIMENT	<	5	UG/KG	CHLOROBENZENE IN SED	<	5.000	UG/KG
ETHYLBENZENE IN SED	<	5.000	UG/KG	METHYL CHLORIDE SED	<	10.000	UG/KG
METHYL BROMIDE SED	<	10.000	UG/KG	VINYL CHLORIDE SED	<	10.000	UG/KG
CHLOROETHANE IN SED	<	10.000	UG/KG	2-CHLROETHLVNLETHR S	<	10.000	UG/KG
2-HEXANONE IN SED	<	10.000	UG/KG	VINYL ACETATE SED	<	10	UG/KG

REMARK CODE EXPLANATIONS

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SOURCE COMANDER FINISHING C CITY SAND SPRINGS
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA

LEGAL
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SAMPLER'S COMMENTS SAMPLE #1/METALS 153077/ORGANICS 153078

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SAMPLE NUMBER 153077 SAMP 00000
DATE COLLECTED 06/15/88
DATE RECEIVED 06/16/88
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REPORT OF ANALYSIS

DAMON WINGFIELD
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OSDH ROOM 803
OKLAHOMA CITY OK 73152

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GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER	FLAG	VALUE	UNITS	PARAMETER	FLAG	VALUE	UNITS
ANTIMONY IN SED	<	35.00	MG/KG	ARSENIC IN SEDIMENT	<	6.00	MG/KG
BARIUM IN SEDIMENT		71.70	MG/KG	BERYLLIUM IN SEDIMNT	<	1.00	MG/KG
CADMIUM IN SEDIMENT		2.30	MG/KG	CHROMIUM IN SEDIMENT		6.00	MG/KG
COPPER IN SEDIMENT		26.90	MG/KG	LEAD IN SEDIMENT		89.00	MG/KG
MERCURY IN SEDIMENT		0.29	MG/KG	NICKEL IN SEDIMENT		12.20	MG/KG
SELENIUM IN SEDIMENT	<	7.00	MG/KG	SILVER IN SEDIMENT	<	0.70	MG/KG
THALLIUM IN SEDIMENT	<	20.00	MG/KG	ZINC IN SEDIMENT		296.00	MG/KG

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REMARK CODE EXPLANATIONS

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PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA
CITY SAND SPRINGS

LEGAL
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SAMPLER'S COMMENTS SAMPLE #1/ GC/MS 153076/ORGANICS 153078

ANALYST'S COMMENTS

Cliff Petree
Cliff Petree
ENVIRONMENTAL LABORATORY SERVICE

OHD FORM NO. 814A (3-85)

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ANALYST

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SAMPLE NUMBER 153078 SAMP 00000
DATE COLLECTED 06/15/88
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DATE COMPLETED 06/27/88
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OSDH ROOM 803
OKLAHOMA CITY OK 73152

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GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER	FLAG	VALUE	UNITS	PARAMETER	FLAG	VALUE	UNITS
PCB 1016 SEDIMENT	<	20.0	UG/KG	PCB 1221 SEDIMENT	<	20.0	UG/KG
PCB 1232 SEDIMENT	<	20.0	UG/KG	PCB 1242 SEDIMENT	<	20.0	UG/KG
PCB 1248 SEDIMENT	<	20.0	UG/KG	PCB 1254 SEDIMENT	<	40.0	UG/KG
PCB 1260 SEDIMENT		1970.0	UG/KG				

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REMARK CODE EXPLANATIONS

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SOURCE COMANDER FINISHING
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA

CITY SAND SPRINGS

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SAMPLER'S COMMENTS SAMPLE #1
GC/MS 153076; METALS 153077

ANALYST'S COMMENTS

OHD FORM NO. 814A (8-86) REQUISITIONER COPY

ANAL

GC/MS LABORATORY
Sample #: 153079 SAMPLE ANALYSIS REPORT

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* TENTATIVLEY IDENTIFIED BY NBS LIBRARY SEARCH *
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:ANALYST'S COMMENTS :

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ANALYST Bill Battey :

0 0 4 4 8

SAMPLE # : 153079 ** SURROGATE RECOVERIES ** CODE : PSS

COMPOUND:	% RECOVERY:
1,2-DICHLOROETHANE	:100:
TOLUENE-D8	:102:
4-BROMOFLUOROBENZENE	: 84:
2-FLUOROPHENOL	: NA:
PHENOL-D5	: NA:
NITROBENZENE-D5	: NA:
2-FLUOROBIPHENYL	: NA:
2,4,6-TRIBROMOPHENOL	: NA:
P-TERPHENYL-D14	: NA:

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SAMPLE NUMBER 153079 SAMP 00000
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REPORT OF ANALYSIS

DAMON WINGFIELD
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GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER	FLAG	VALUE	UNITS	PARAMETER	FLAG	VALUE	UNITS
PHENOL IN SEDIMENT	<	3000.000	UG/KG	2-CHLOROPHENOL SED	<	3000.000	UG/KG
2,4-DIMETHLYPHENOL S	<	3000.000	UG/KG	2-NITROPHENOL SED	<	3000.000	UG/KG
2,4-DICHLOROPHENOL S	<	3000.000	UG/KG	P-CHLORO-M-CRESOL SD	<	3000.000	UG/KG
246-TRICHLROPHENOL S	<	3000.000	UG/KG	4-NITROPHENOL SED	<	15000.00	UG/KG
2,4-DINITROPHENOL SD	<	15000.00	UG/KG	46DINITRO-O-CRESOL S	<	15000.00	UG/KG
PENTACHLOROPHENOL SD	<	15000.00	UG/KG	BIS2CHLRMTHYL-ETHR S	<	3000.000	UG/KG
1,4-DICHLROBENZENE S	<	3000.000	UG/KG	BIS2CLROISOPYPLETH S	<	3000.000	UG/KG
NITROBENZENE IN SED	<	3000.000	UG/KG	DIMETHYLPHTHALATE S		1800.000	UG/KG
2,6-DINITROTOLUENE S	<	3000.000	UG/KG	ACENAPHTHYLENE IN S	<	3000.000	UG/KG
2-METHYLPHENOL SED	<	3000.000	UG/KG	4-METHYLPHENOL SED	<	3000.000	UG/KG
245-TRICHLROPHENOL S	<	15000.00	UG/KG	BENZOIC ACID SED	<	15000.00	UG/KG
4-BROMOPHPHETHER SED	<	3000.000	UG/KG	BENZYL ALCOHOL SED	<	3000.000	UG/KG
4-CHLOROANALINE SED	<	3000.000	UG/KG	2-NITROANALINE SED	<	15000.00	UG/KG
3-NITROANALINE SED	<	15000.00	UG/KG	DIBENZOFURAN IN SED	<	3000.000	UG/KG
4-NITROANALINE SED	<	15000.00	UG/KG	3,3'-DICLROBNZDINE S	<	6000.000	UG/KG
BIS2ETHLHXLPHTHLTE S	<	3000	UG/KG	BNZO(B)FLURANTHENE S	<	3000.000	UG/KG
1,2-DICHLOROBNZENE S	<	3000.000	UG/KG	1,3-DICHLROBENZENE S	<	3000.000	UG/KG
BIS2CLROETHXYMTHNE S	<	3000.000	UG/KG	NAPTHALAENE IN SED	<	3000.000	UG/KG
HEXACHLROBUTADIENE S	<	3000	UG/KG	ACENAPHTHENE IN SED	<	3000.000	UG/KG
DIETHYLPHTHALATE S	<	3000.000	UG/KG	FLUORENE IN SEDIMENT	<	3000.000	UG/KG
HEXACHLOROBENZENE S	<	3000.0	UG/KG	ANTHRACENE IN SEDMNT	<	3000.000	UG/KG
PYRENE IN SEDIMENT	<	3000.000	UG/KG	CHRYSENE IN SEDIMENT	<	3000.000	UG/KG
2-CHLRONAPHTHALENE S	<	3000.000	UG/KG	NTROSODIPHNYLAMNE S	<	3000.000	UG/KG
2-MTHYL NPHTHALENE S	<	3000.000	UG/KG	PHENANTHRENE SED	<	3000.000	UG/KG
FLUORANTHENE SED	<	3000.000	UG/KG	BTYLBNZYLPHTHALATE S		3200.000	UG/KG
4-CHLOROPHPHETHER S	<	3000.000	UG/KG	DI-N-OCTYLPHTHALTE S	<	3000.000	UG/KG
BENZO(A)PYRENE S	<	3000.000	UG/KG	BNZO(K)FLURANTHENE S	<	3000.000	UG/KG
BENZO(GHI)PERYLENE S	<	3000.000	UG/KG	INDENO(123CD)PYRNE S	<	3000.000	UG/KG
DI-N-BUTYLPHTHALTE S	<	3000	UG/KG	BENZO(A)ANTHRACENE S	<	3000.000	UG/KG
2,4-DINITROTOLUENE S	<	3000.000	UG/KG	DIBNZO(AH)ANTHRACE S	<	3000.000	UG/KG
NTROSODIPROPYLAMNE S	<	3000.000	UG/KG	HEXACHLOROETHANE S	<	3000.000	UG/KG
ISOPHORONE S	<	3000.000	UG/KG	124-TRICHOROBENZNE S	<	3000.000	UG/KG

SOURCE COMANDER FINISHING
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA

CITY SAND SPRINGS

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Waste Management Services

LEGAL
/4 /4 /4 SEC T R M

SAMPLER'S COMMENTS SAMPLE #2/ METALS 153080/ORGANICS 153081

ANALYST'S COMMENTS

OHD FORM NO. 814A (8-86)

REQUISITIONER COPY

ANALYST Bill Battey

SAMPLE NUMBER 153079 SAMP 00000
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GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER	MODIFIER	VALUE	UNITS	PARAMETER	MODIFIER	VALUE	UNITS
HXACLROCYCLPNTDENE S	<	3000.000	UG/KG	METH ETH KETON SED	<	10.000	UG/KG
STRYENE IN SEDIMENT	<	5.000	UG/KG	XYLENES IN SEDIMENT	<	5	UG/KG
ACETONE IN SEDIMENT	<	100.000	UG/KG	METHYL ISOBTYL KET S	<	10.000	UG/KG
CARBONDISULFIDE SED	<	5.000	UG/KG	METHYLENE CHLORIDE S	<	1000.000	UG/KG
1,1-DICLROETHYLENE S	<	5.000	UG/KG	1,1-DICHLOROETHANE S	<	5.000	UG/KG
TRN1,2DICHLRETHENE S	<	5.000	UG/KG	CHLOROFORM IN SED	<	5.000	UG/KG
1,2-DICHLOROETHANE S	<	5.000	UG/KG	1,1,1-TRICLRETHANE S	<	5.000	UG/KG
CARBON TETRACHLRDE S	<	5.000	UG/KG	DICLOROBRMOMETHANE S	<	5.000	UG/KG
1,2-DICHLOROPROPNE S	<	5.000	UG/KG	T-1,3-DICLROPRPENE S	<	5.000	UG/KG
TRICHLOROETHYLENE S		28.000	UG/KG	DIBROMOCHLOROMTHNE S	<	5.000	UG/KG
C-1,3-DICLROPRPENE S	<	5.000	UG/KG	112-TRICLOROETHANE S	<	5.000	UG/KG
BENZENE IN SEDIMENT		8	UG/KG	BROMOFORM IN SED	<	5.000	UG/KG
TETRACLOROETHLENE S		6.000	UG/KG	1122-TETRACLETHANE S	<	5.000	UG/KG
TOLUENE IN SEDIMENT		13	UG/KG	CHLOROBENZENE IN SED	<	5.000	UG/KG
ETHYLBENZENE IN SED	<	5.000	UG/KG	METHYL CHLORIDE SED	<	10.000	UG/KG
METHYL BROMIDE SED	<	10.000	UG/KG	VINYL CHLORIDE SED	<	10.000	UG/KG
CHLOROETHANE IN SED	<	10.000	UG/KG	2-CHLROETHLVNLETHR S	<	10.000	UG/KG
2-HEXANONE IN SED	<	10.000	UG/KG	VINYL ACETATE SED	<	10	UG/KG

REMARK CODE EXPLANATIONS

< LESS THAN DETECTION LIMIT

SOURCE COMANDER FINISHING
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA

CITY SAND SPRINGS

LEGAL
/4 /4 /4 SEC T R M

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AUG 1 1988
Waste Management Services

SAMPLER'S COMMENTS SAMPLE #2/ METALS 153080/ORGANICS 153081

ANALYST'S COMMENTS

OHD FORM NO. 814A (8/86) REQUISITIONER COPY ANALYST Bill Battey

SAMPLE NUMBER 153080 SAMP 00000
DATE COLLECTED 06/15/88
DATE RECEIVED 06/16/88
DATE COMPLETED 07/05/88
STATION DEPTH CODE
COLLECTED BY SAT

OKLA MA STATE DEPARTMENT OF HEALTH
STATE ENVIRONMENTAL LABORATORY SERVICE
REPORT OF ANALYSIS

DAMON WINGFIELD
WASTE MANAGEMENT SERVICE
USDH ROOM 803
OKLAHOMA CITY OK 73152

COPY

GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER		VALUE	UNITS	PARAMETER		VALUE	UNITS
ANTIMONY IN SED	<	140.00	MG/KG	ARSENIC IN SEDIMENT	<	24.00	MG/KG
BARIUM IN SEDIMENT		201.00	MG/KG	BERYLLIUM IN SEDIMNT	<	4.00	MG/KG
CADMIUM IN SEDIMENT		6.40	MG/KG	CHROMIUM IN SEDIMENT		17.60	MG/KG
COPPER IN SEDIMENT		79.00	MG/KG	LEAD IN SEDIMENT		<278.00	MG/KG
EP TOX LEAD		143	UG/L	MERCURY IN SEDIMENT	<	0.25	MG/KG
NICKEL IN SEDIMENT		29.00	MG/KG	SELENIUM IN SEDIMENT	<	23.00	MG/KG
SILVER IN SEDIMENT	<	2.30	MG/KG	THALLIUM IN SEDIMENT	<	80.00	MG/KG
ZINC IN SEDIMENT		691.00	MG/KG				

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JUL 6 1988
Waste Management Service

REMARK CODE EXPLANATIONS

< LESS THAN DETECTION LIMIT

SOURCE COMANDER FINISHING
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA
CITY SAND SPRINGS

LEGAL
/4 /4 /4 SEC T R M

SAMPLER'S COMMENTS SAMPLE #2/GC/MS 153079/ORGANICS 153081

ANALYST'S COMMENTS

Cliff Vetrine
ENVIRONMENTAL LABORATORY SERVICE

OHD FORM NO. 814A (8-86) REQUISITIONER COPY

ANALYST

0 0 4 5 7

SAMPLE NUMBER 153081 SAMP 00000
DATE COLLECTED 06/15/88
DATE RECEIVED 06/16/88
DATE COMPLETED 06/27/88
STATION DEPTH CODE
COLLECTED BY SAT

OKLA MA STATE DEPARTMENT OF HEALTH
STATE ENVIRONMENTAL LABORATORY SERVICE
REPORT OF ANALYSIS

DAMON WINGFIELD
WASTE MANAGEMENT SERVICE
OSDH ROOM 803
OKLAHOMA CITY OK 73152

COPY

GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER	REMARK	VALUE	UNITS	PARAMETER	REMARK	VALUE	UNITS
PCB 1016 SEDIMENT	<	20.0	UG/KG	PCB 1221 SEDIMENT	<	20.0	UG/KG
PCB 1232 SEDIMENT	<	20.0	UG/KG	PCB 1242 SEDIMENT	<	20.0	UG/KG
PCB 1248 SEDIMENT	<	20.0	UG/KG	PCB 1254 SEDIMENT	<	40.0	UG/KG
PCB 1260 SEDIMENT		1740.0	UG/KG				

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Waste Management Service

REMARK CODE EXPLANATIONS

< LESS THAN DETECTION LIMIT

SOURCE COMANDER FINISHING
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA
CITY SAND SPINGS

LEGAL
/4 /4 /4 SEC T R M

SAMPLER'S COMMENTS SAMPLE #2/GC/MS 153079/METALS 153080

ANALYST'S COMMENTS

OHD FORM NO. 314A (8 88) REQUISITIONER COPY

ANALYST

GC/MS LABORATORY
Sample #: 153082 SAMPLE ANALYSIS REPORT

****
* TENTATIVLEY IDENTIFIED BY NBS LIBRARY SEARCH *
****

1.: NONE FOUND
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Waste Management Service

:ANALYST'S COMMENTS : BLANK FOR SAMPLES 153076 AND 153079.

ANALYST Bill Battey

SAMPLE # : 153082 ** SURROGATE RECOVERIES ** CODE : PWS

COMPOUND:	% RECOVERY:
1,2-DICHLOROETHANE	: 94:
TOLUENE-D8	: 93:
4-BROMOFLUOROBENZENE	: 94:
2-FLUOROPHENOL	: 71:
PHENOL-D5	: 69:
NITROBENZENE-D5	: 76:
2-FLUOROBIPHENYL	: 75:
2,4,6-TRIBROMOPHENOL	: 32:
P-TERPHENYL-D14	:122:

RECEIVED
AUG 1 1988
Waste Management Service

0 4 5 5

SAMPLE NUMBER 153082 SAMP 00000
DATE COLLECTED 06/15/88
DATE RECEIVED 06/16/88
DATE COMPLETED 07/29/88
STATION DEPTH CODE
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OKLA MA STATE DEPARTMENT OF HEALTH
STATE ENVIRONMENTAL LABORATORY SERVICE
REPORT OF ANALYSIS

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Waste Management Service

DAMON WINGFIELD
WASTE MANAGEMENT SERVICE
OSDH ROOM 803
OKLAHOMA CITY OK 73152

COPY

GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETER		VALUE	UNITS	PARAMETER		VALUE	UNITS
PHENOL IN WATER	<	10.000	UG/L	2-CHLOROPHENOL WATER	<	10.000	UG/L
2,4-DIMETHYLPHENOL W	<	10.000	UG/L	2-NITROPHENOL WATER	<	10.000	UG/L
2,4-DICHLOROPHENOL W	<	10.000	UG/L	P-CHLORO-M-CRESOL W	<	10.000	UG/L
246-TRICHLOROPHNOL W	<	10.000	UG/L	4-NITROPHENOL WATER	<	50.000	UG/L
2,4-DINITROPHENOL W	<	50.000	UG/L	46DINITRO-O-CRESOL W	<	50.000	UG/L
PENTACHLOROPHENOL W	<	50.000	UG/L	BIS2CHLRETHYL-ETHR W	<	10.000	UG/L
1,4-DICHLROBENZENE W	<	10.000	UG/L	BIS2CLROISOPYPLETH W	<	10.000	UG/L
NITROBENZENE IN WATR	<	10.000	UG/L	DIMETHYL PHTHALATE W	<	10.000	UG/L
2,6-DINITROTOLUENE W	<	10.000	UG/L	ACENAPHTHYLENE IN W	<	10.000	UG/L
2-METHYL PHENOL WTR	<	10.000	UG/L	4-METHYL PHENOL WTR	<	10.000	UG/L
245-TRICHLROPHNEOL W	<	50.000	UG/L	BENZOIC ACID WTR	<	50.000	UG/L
4-BROMOPHPHETHER WTR	<	10.000	UG/L	BENZYL ALCOHOL WATER	<	10.000	UG/L
4-CHLOROANALINE WTR	<	10.000	UG/L	2-NITROANALINE WATER	<	50.000	UG/L
3-NITROANALINE WATER	<	50.000	UG/L	DIBENZOFURAN WATER	<	10.000	UG/L
4-NITROANALINE WATER	<	50.000	UG/L	3,3'-DICLROBNZDINE W	<	20.000	UG/L
BIS2ETHLHXLPHTHLTE W	<	10.000	UG/L	BNZO(B)FLURANTHENE W	<	10.000	UG/L
1,2-DICHLOROHNZENE W	<	10.000	UG/L	1,3-DICHLROBENZENE W	<	10.000	UG/L
BIS2CLROETHXYMTHNE W	<	10.000	UG/L	NAPHTHALENE IN WATER	<	10.000	UG/L
HEXACHLROBUTADIENE W	<	10.00	UG/L	ACENAPHTHENE IN WTR	<	10.000	UG/L
DIETHYLPHTHALATE W	<	10.000	UG/L	FLUORENE IN WATER	<	10.000	UG/L
HEXACHLOROBENZENE W	<	10.00	UG/L	ANTHRACENE IN WATER	<	10.000	UG/L
PYRENE IN WATER	<	10.000	UG/L	CHRYSENE IN WATER	<	10.000	UG/L
2-CHLRONAPHTHALENE W	<	10.000	UG/L	NTRSODIPHENYLAMNE W	<	10.000	UG/L
2-MTHYLNAPHTHALENE W	<	10.000	UG/L	PHENANTHRENE IN WATR	<	10.000	UG/L
FLUORANTHENE IN WATR	<	10.000	UG/L	BTYLBNZYLPHTHALATE W	<	10.000	UG/L
4-CHLOROPHPHETHER W	<	10.000	UG/L	DI-N-OCTYLPHTHALTE W	<	10.000	UG/L
BENZO(A)PYRENE W	<	10.000	UG/L	BNZO(K)FLURANTHENE W	<	10.000	UG/L
BENZO(GHI)PERYLENE W	<	10.000	UG/L	INDENO(123CD)PYRNE W	<	10.000	UG/L
DI-N-BUTYLPHTHLATE W	<	10.000	UG/L	BENZO(A)ANTHRACENE W	<	10.000	UG/L
2,4-DINITROTOLUENE W	<	10.000	UG/L	DIBNZO(AH)ANTHRCNE W	<	10.000	UG/L
NTROSODINPRPYLAMNE W	<	10.000	UG/L	HEXACHLOROETHANE W	<	10.000	UG/L
ISOPHORONE IN W	<	10.000	UG/L	124-TRICHLROBENZNE W	<	10.000	UG/L

SOURCE COMANDER FINISHING CITY SAND SPRINGS
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA

LEGAL
/4 /4 /4 SEC T R M

SAMPLER'S COMMENTS SAMPLE # BLANK
SAMPLES 153076 THRU 153081

ANALYST'S COMMENTS

OHD FORM NO. 814A (8-86) REQUISITIONER COPY ANALYST Bill Battey

SAMPLE NUMBER 153032 SAMP 00000
DATE COLLECTED 06/15/88
DATE RECEIVED 06/16/88
DATE COMPLETED 07/29/88
STATION DEPTH CODE
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OKLAHOMA STATE DEPARTMENT OF HEALTH
STATE ENVIRONMENTAL LABORATORY SERVICE
REPORT OF ANALYSIS

RECEIVED
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Waste Management Service

DAMON WINGFIELD
WASTE MANAGEMENT SERVICE
OSDH ROOM 803
OKLAHOMA CITY OK 73152

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GENERAL PROJECTS

CONCENTRATION IN SAMPLE

PARAMETERS	REMARK	VALUE	UNITS	PARAMETER	REMARK	VALUE	UNITS
HXACLROCYCLOPNTDNE W	<	10.000	UG/L	METH ETH KETONE WTR	<	10.000	UG/L
STYRENE IN WATER	<	5.000	UG/L	XYLENE IN WATER	<	5	UG/L
ACETONE TOTAL		20.000	UG/L	METYLISOBTYLKETONE W	<	10.000	UG/L
CARBON DISULFIDE WTR	<	5.000	UG/L	METHYLENE CHLORIDE W		4.000	UG/L
1,1-DICHLOROETHENE W	<	5.000	UG/L	1,1-DICHLOROETHANE W	<	5.000	UG/L
TRN1,2DICHLRETHENE W	<	5.000	UG/L	CHLOROFORM IN WATER	<	5.0	UG/L
1,2-DICHLOROETHANE W	<	5.000	UG/L	1,1,1-TRICLRETHANE W	<	5.000	UG/L
CARBON TETRACHLRDE W	<	5.0	UG/L	DICLOROBRMOMETHANE W	<	5.0	UG/L
1,2-DICHLORPROPANE W	<	5.000	UG/L	T-1,3-DICLROPRPENE W	<	5.000	UG/L
TRICHLOROETHENE W	<	5.000	UG/L	CHLORDIBROMOMETHNE W	<	5.000	UG/L
C-1,3-DICLROPRPENE W	<	5.000	UG/L	112-TRICLOROETHANE W	<	5.000	UG/L
BENZENE IN WATER	<	5	UG/L	BROMOFORM IN WATER	<	5.0	UG/L
TETRACLOROETHLENE W	<	5.000	UG/L	1122-TETRACLETHANE W	<	5.000	UG/L
TOLUENE IN WATER	<	5	UG/L	CHLOROBENZENE IN WTR	<	5.000	UG/L
ETHYLBENZENE IN WTR	<	5.000	UG/L	METHYL CHLORIDE WTR	<	10.000	UG/L
METHYL BROMIDE WTR	<	10.000	UG/L	VINYL CHLORIDE W	<	10.000	UG/L
CHLOROETHANE IN WTR	<	10.000	UG/L	2-CHLROETHLVNLETHR W	<	10.000	UG/L
2-HEXANONE WATER	<	10.000	UG/L	VINYL ACETATE WATER	<	10.000	UG/L

REMARK CODE EXPLANATIONS

< LESS THAN DETECTION LIMIT

SOURCE COMANDER FINISHING
PROGRAM WASTE MGMT SER(MULTI SITE)
COUNTY TULSA

CITY SAND SPRINGS

LEGAL
/4 /4 /4 SEC T R M

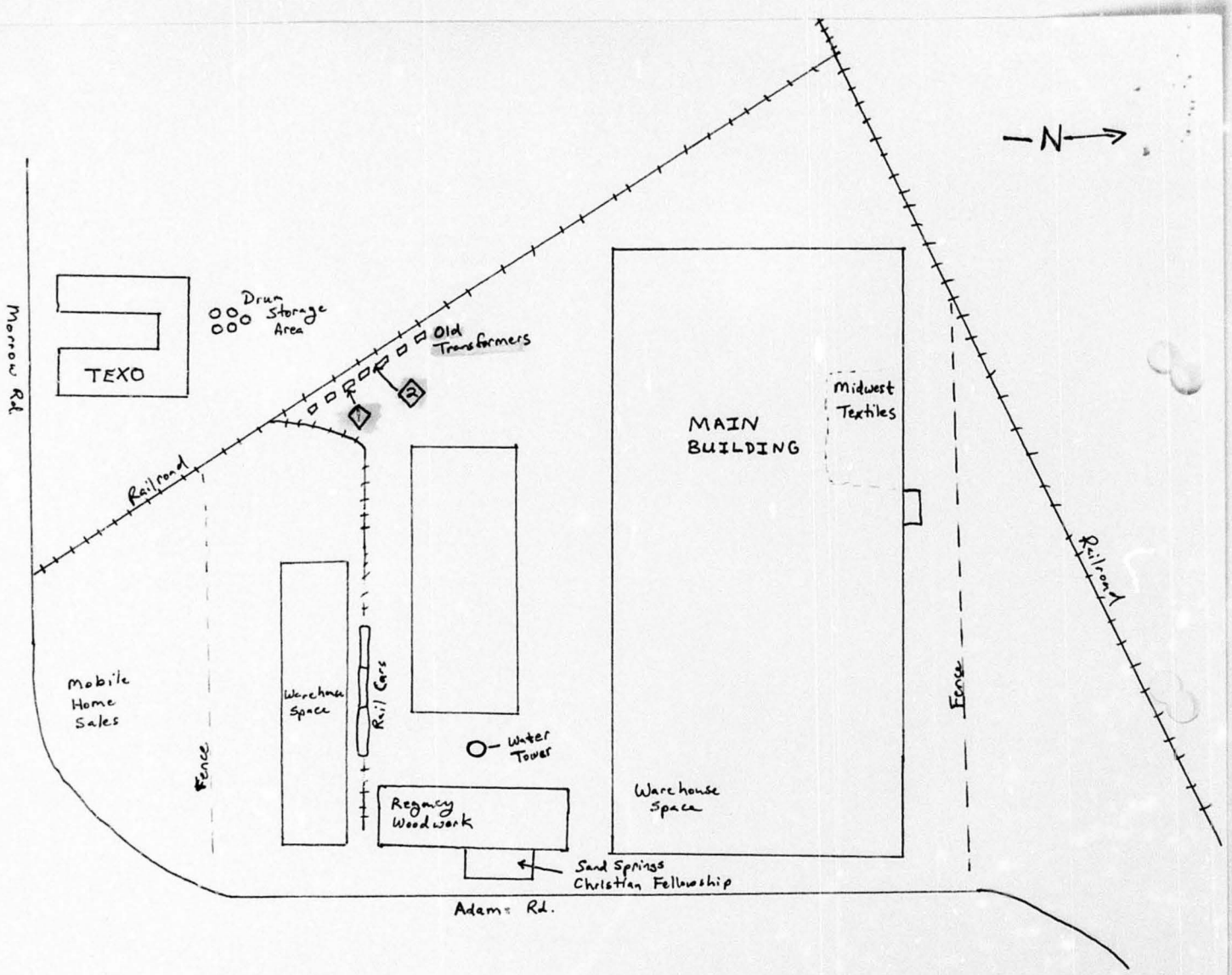
SAMPLER'S COMMENTS SAMPLE # BLANK
SAMPLES 153076 THRU 153081

ANALYST'S COMMENTS

OHD FORM NO 814A (5 86)

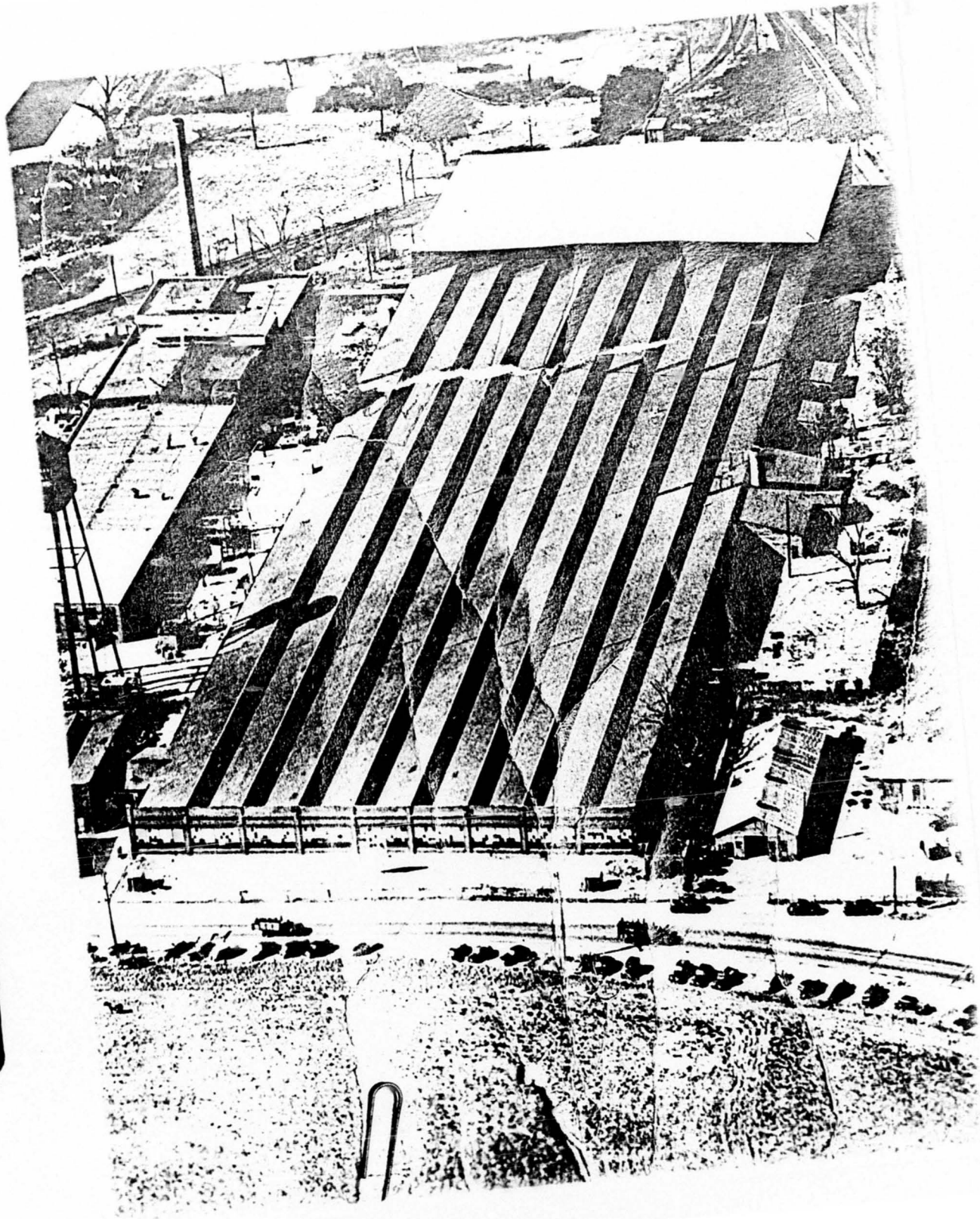
REQUISITIONER COPY

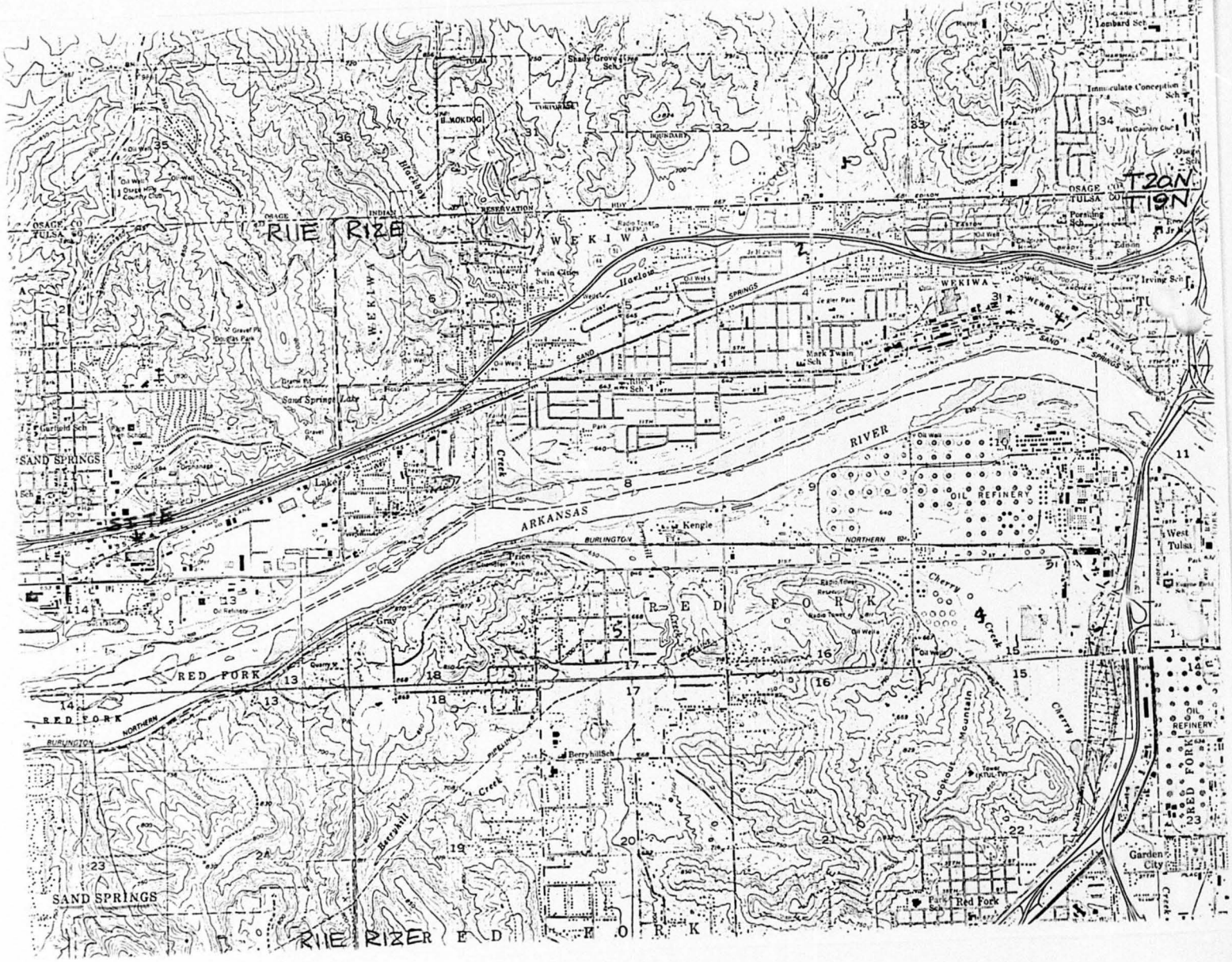
ANALYST Bill Battey

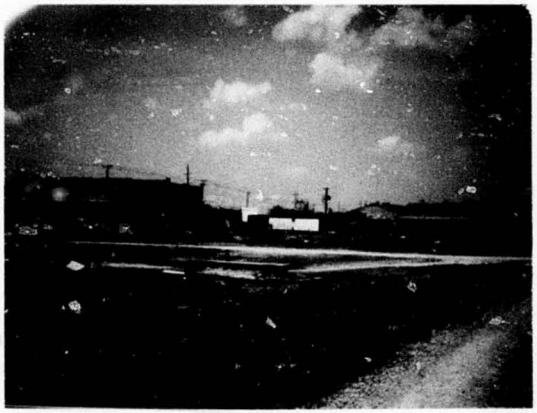


Commander Finishing Co.

◇ denotes sample location
Not-to-Scale



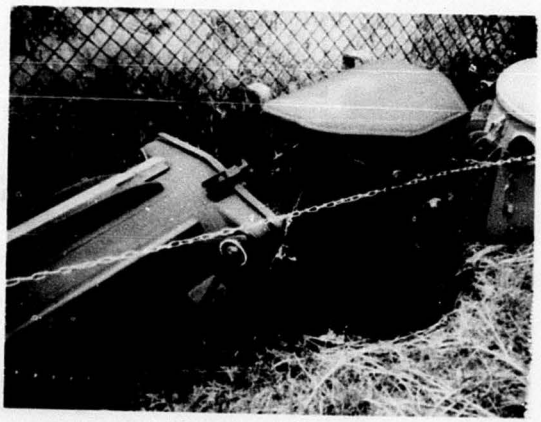

R11E R12E
T20N
T19N
WEKIWA
SAND SPRINGS
ARKANSAS RIVER
RED FORK
OIL REFINERY
Kenple
Trice
Gray
Berryhill Sch
Lookout Mountain
Cherry Creek
Garden City
West Tulsa
Red Fork
Sand Springs Lake
Mark Twain Sch
Shady Grove Sch
Immaculate Conception Sch
Lombard Sch
Twin Cities Sch
Pershing Sch
Edison
Irving Sch
Garfield Sch
Haelow
Hickory
Berryhill Creek
BURLINGTON NORTHERN
OSAGE CO
TULSA CO
R11E R12E RED FORK



Photographer / Witness | DATE / TIME /DIRECTION

Scott Thompson / Dennis Hrebec | 6-15-88 / 12:50 pm / Southwest

Comments: Looking at the back of Texo facility. Note transformers along fence.



Photographer / Witness | DATE / TIME /DIRECTION

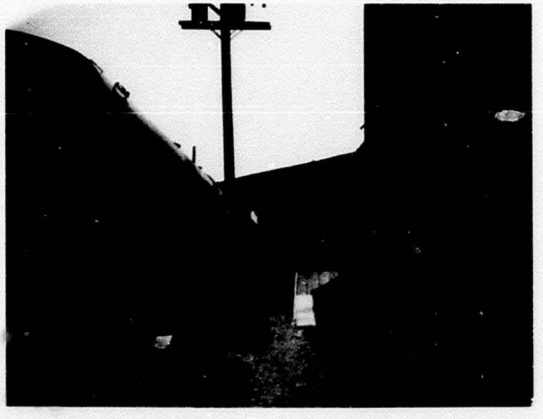
Scott Thompson / Dennis Hrebec | 6-15-88 / 12:54 pm / Southwest

Comments: Leaking transformer.

Photographer / Witness | DATE / TIME /DIRECTION

Scott Thompson / Dennis Hrebec | 6-15-88 / 12:51 pm / North

Comments: View of the South side of warehouse.



Photographer / Witness | DATE / TIME /DIRECTION

Scott A Thompson / Dennis Hrebec | 6-15-88 / 12:57 pm / East

Comments: Railroad cars and the south warehouse.

0 0 6 2

Photographer / Witness | DATE / TIME /DIRECTION

Scott Thompson / Dennis Hrebec | 6-15-88 / 12:58 PM / Northeast

Comments: View of south side of main warehouse.

Photographer / Witness | DATE / TIME /DIRECTION

Comments:

References

1. Uncontrolled Hazardous Waste Site Ranking System; A Users Manual.

2. This score is based on documented contamination in the monitor wells upgradient of the Sand Springs N.P.L. site and the possibility that this site might prove to be a source.

3. This score is based on the fact that a small amount of contaminated soil has been documented on the site.

4. Lead has been detected in the soil.

5. The quantity is unknown so a score of 1 is assumed.

6. There are 67 private wells within a three mile radius of this site. It is assumed that one well could be found without minimal hookup opportunity.

7. A U.S.G.S. topographical map and well logs have been used to locate the nearest well and indicate the population served.

8. A combination of visual observation, U.S.G.S. topographical map and a Tulsa County Soil Survey have been used to estimate this score.

9. This score is assumed as a worst case.

10. There is a high likelihood that fishing and boating uses of the Arkansas River could be easily documented in the area of conern.

11. Bald Eagles have been observed on the Sand Springs NPL Site on the banks of the Arkansas River. This is documented in the "Endangerment Assessment for the Operable Unit of the Sand Springs Petrochemical Complex Superfund Site."

12. The Arkansas River is generally too salty to be used as a public water supply. The Oklahoma Water Resources Board Streamwater Division is responsible for withdrawal permits from state waters.