

**Jimmy Cooper #4 Closure Report
Duke Energy Field Services
Lea County, New Mexico**

NOVEMBER 12, 2001

Prepared For:

**Duke Energy Field Services
P. O. Box 5493
Denver, CO 80217**

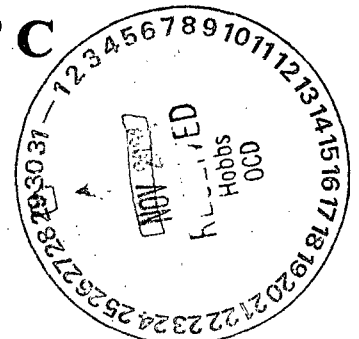
IRP-214
10.26.05

Site Name:

JIMMY COOPER #4 (JC#4)

Site Location:

T20S, R36 E, SECTION 23, UNIT C



Prepared By:

TRIDENT
ENVIRONMENTAL

**PO Box 7624
Midland, Texas 79708**



November 12, 2001

Mr. Steve Weathers
Duke Energy Field Services, LP
P. O. Box 5493
Denver, Colorado 80217

Re: Removal of Hydrocarbon-Impacted Soils from the JC #4 site
Township 20 South, Range 36 East, Section 23, Unit C

Dear Mr. Weathers:

Trident Environmental (Trident) was retained by Duke Energy Field Services, LP. (DEFS) to oversee the removal of hydrocarbon-impacted soil from an area along a pipeline right-of-way operated by DEFS near Monument, New Mexico in Lea County. The site (JC #4) is located in Section 23 (Unit C), Township 20 South, Range 36 East on property owned by Jimmy T. Cooper. The location of the JC #4 site is shown on the topographic map in Attachment A. The work was conducted in accordance with the work plan submitted to the New Mexico Oil Conservation Division (OCD). Trident personnel periodically collected soil samples to characterize the extent of hydrocarbon-impact and to verify when cleanup target levels had been achieved. This letter report describes the methods and results of the excavation, sampling, waste disposition, and backfilling operations for documentation that closure requirements have been satisfied.

Excavation and Sampling Procedures

Allstate Services Environmental (Allstate) performed excavation. Allstate used one trackhoe, one dozer, and one loader for earthmoving services. An area was excavated where Mr. Cooper identified indications of hydrocarbon-impacted soils. During excavation operations, subsurface soil samples were collected by Trident with stainless steel trowels. Floor samples were collected as a composite sample consisting of five aliquots, unless specified otherwise (Attachment A). Composite samples consisting of a minimum of three aliquots were also collected from each wall (north, south, east, and west), unless noted otherwise. During the course of excavation activities, samples were also collected for headspace analysis using an organic vapor meter (OVM), which was calibrated to assume a benzene response factor. All soil sampling, headspace analysis, and laboratory analysis were performed in accordance with OCD "Guidelines for Remediation of Leaks, Spills, and Releases" (August 13, 1993). Excavation operations were completed when laboratory analysis of collected samples indicated the extent of hydrocarbon-impacted soils remaining in the excavation were below the following concentrations:

- 100 milligrams per kilogram (mg/kg) of total petroleum hydrocarbons (TPH),
- 10 mg/kg benzene,
- 50 mg/kg total benzene, toluene, ethylbenzene, and xylenes (BTEX)

Soil samples were submitted to Environmental Laboratory of Texas (Odessa, Texas) and analyzed for gas and diesel range organics (GRO and DRO) using EPA Method 8015 to determine TPH concentrations. BTEX analyses were conducted for soil samples that exceeded OVM readings of 100 ppm or when GRO and/or DRO concentrations were above 100 mg/kg.

Soil Stockpiling, Waste Disposition, and Backfilling

An effort to segregate clean versus impacted soil during excavation was made. Only hydrocarbon-impacted soil that exceeded 100 mg/kg GRO/DRO, 10 mg/kg benzene, and/or 50 mg/kg total BTEX was transported to the C & C Landfarm. These target cleanup levels are based on the ranking criteria in the OCD "*Guidelines for Remediation of Leaks, Spills, and Releases*". A total ranking score of greater than 19 points was assumed since groundwater is less than 50 feet below ground surface based on landowner's claims and well records from the Office of the State Engineer.

Approximately 280 cubic yards of hydrocarbon-impacted soils were transported by local hauling contractors (Allstate) to the C & C Landfarm, owned and operated by Mr. Jimmy T. Cooper (OCD Rule 711 Permit Approval NM-01-0016). Completed *Generator Certificate of Waste Status* (C-143) and *Release Notification and Corrective Action* (C-141) forms are included in Attachment A.

Excavated soils below the remediation action levels and as agreed upon by Mr. Cooper were returned to the excavation after sampling and analysis verification. Also, native soil from adjacent sand dunes in the area was provided by Mr. Cooper and used as additional backfill in the excavation to restore the excavation to a level grade.

Results

At the completion of excavation activities all areas had petroleum hydrocarbon concentrations below the OCD standards listed above. Soil sample locations and site features are depicted on the site map in Attachment A. A Site Data Form that includes a summary of the analytical results and photo documentation are also provided in Attachment A. Laboratory analytical reports, and chain-of-custody documentation for the samples collected are provided in Attachment B. Copies of the field logbook are in Attachment C.

Sincerely,



Gilbert J. Van Deventer, REM
Project Manager

Attachments

cc: Jimmy Cooper, landowner – Monument, NM

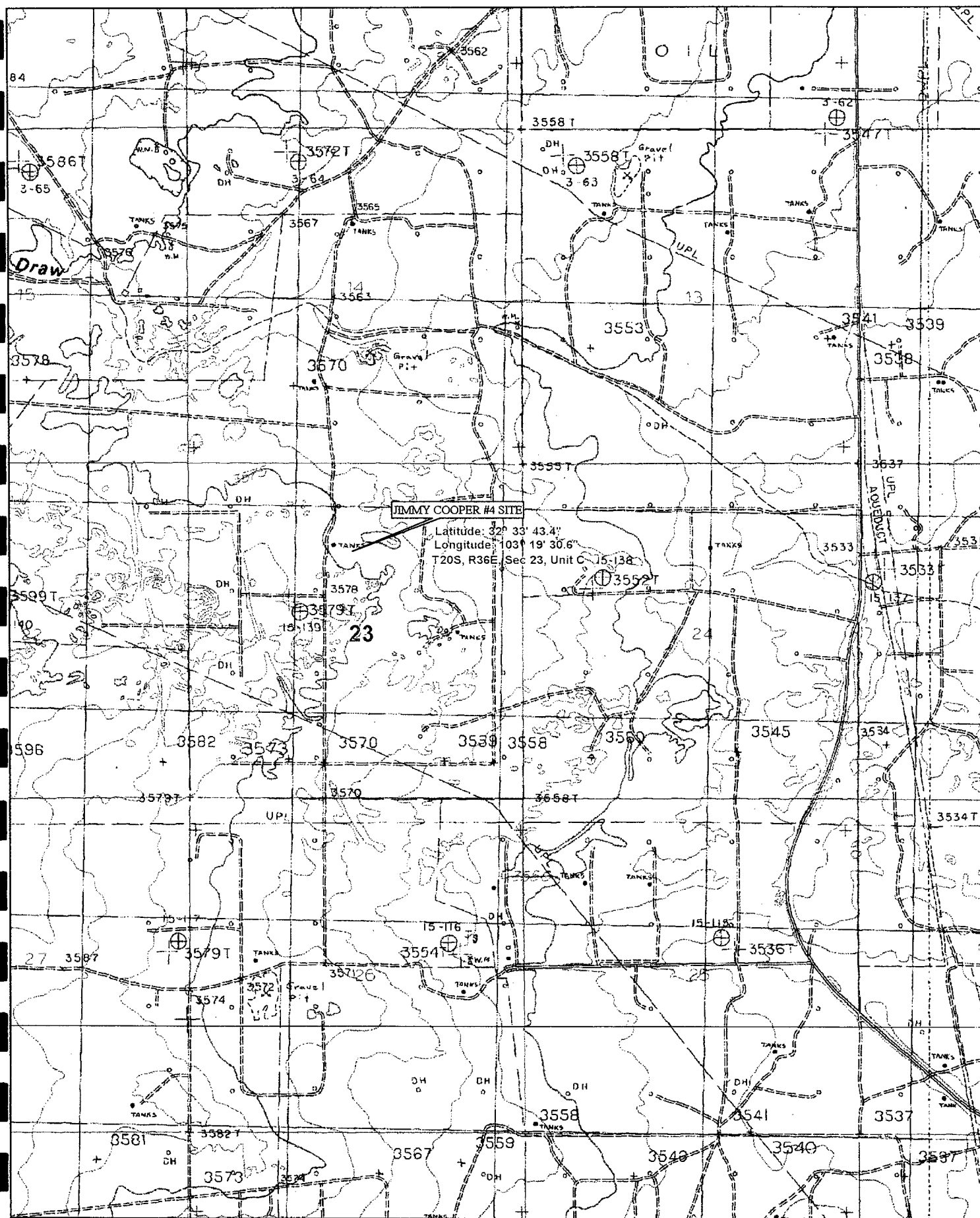
ATTACHMENT A

TOPOGRAPHIC MAP

SITE DATA FORM

C-141 AND C-143 FORMS

PHOTODOCUMENTATION





SITE DATA FORM

TRW Technician: JMF/GJV Excavation Crew Names: Allstate Services Environmental Site ID: Jimmy Cooper #4
Site Location: Latitude 32° 33' 43.4" N Longitude 103° 19' 30.6" W County: Lea State: New Mexico
Section 23 Township 20 South Range 36 East Unit C
Begin Excavation (Date/Time) 04/4/01 Complete Excavation (Date/Time) 04/10/01

LAND USE: ☐ Residential ☐ Recreational ☐ Farm land
(Check all that apply) ☐ Industrial ☐ School/Daycare ☒ Range land
☒ Oil & Gas ☐ Rural ☐ Other: _____

Depth to Groundwater: ☐ > 100 feet ☐ 50 - 99 ☒ < 50 feet
Wellhead Protection Area: ☒ > 1,000 feet from a water source ☐ < 200 feet from private domestic water source
Distance to Nearest Surface Water Body: ☒ > 1,000 feet ☐ 200 - 1,000 feet ☐ < 200 feet

SURFACE SOILS: ☒ Sand ☐ Gravel ☐ Silt
☐ Caliche ☐ Clay ☐ Other _____

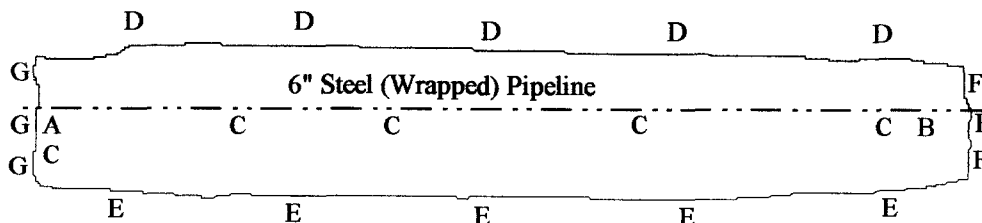
EXCAVATION DIMENSIONS Length 92 feet Width 12 - 15 feet Average Depth 3 feet Maximum Depth 6 feet

VOLUME BACKFILLED: 280 yd³ VOLUME HAULED TO LANDFARM: 280 yd³

ANALYTICAL RESULTS

Letter	Sample Identification	Sample Type	Date	OVN (ppm)	GRO (mg/kg)	DRO (mg/kg)
A	Floor (5')	Grab	4-4-01	0.01	< 10	< 10
B	Floor (6')	Grab	4-4-01	0.00	< 10	< 10
C	Floor (3')	Composite	4-9-01	0.00	< 10	< 10
D	N. Wall	Composite	4-9-01	0.00	< 10	< 10
E	S. Wall	Composite	4-9-01	0.00	< 10	< 10
F	E. Wall	Composite	4-9-01	0.00	< 10	< 10
G	W. Wall	Composite	4-9-01	0.00	< 10	< 10
Landfarm	Excavated Soil	Composite	4-9-01	0.00	< 10	212

SITE MAP



Scale: 1 inch = 20 feet

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 South First, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Form C-141
Revised March 17, 1999

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company Duke Energy Field Services Inc.	Contact Mr. Steve Weathers
Address P. O. Box 5493, Denver, Colorado 80217	Telephone No. (303) 605-1718
Facility Name Site Name: JC #4	Facility Type Natural Gas Pipeline

Surface Owner Jimmy Cooper	Mineral Owner Unknown	Lease No.
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the North/South Line	Latitude	Feet from the East/West Line	Longitude	County
C	23	20S	36E		32° 33' 43.4" N		103° 19' 30.6" W	Lea

NATURE OF RELEASE

Type of Release Condensate	Volume of Release Unknown	Volume Recovered ~280 yd ³ soil removed
Source of Release Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery Unknown
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Donna Williams, NMOCD District 1	
By Whom? Steve Weathers	Date and Hour	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

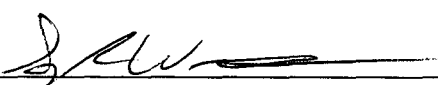
Describe Cause of Problem and Remedial Action Taken.*

Historical condensate release caused by external corrosion of steel pipeline in subsurface. Original steel pipeline was replaced by 6" wrapped steel pipeline (date unknown) prior to initiation of over-excavation work. Removal of impacted soil requested by landowner (Jimmy Cooper).

Describe Area Affected and Cleanup Action Taken.*

On 4/4/01 over-excavation was initiated. Excavation continued until 4/9/01. At the completion of excavation activities all areas had GRO and DRO concentrations on floors and walls below 100 mg/kg. Final excavation dimensions were approx. 12-15 ft wide by 92 long by 3-6 ft deep. Backfilling of excavation was completed on 4/10/01. Approx. 280 cu yds of soil was transported to the C&C Landfarm. Closure report, analytical results, photographs, and site map are attached.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Stephen Weathers	Approved by District Supervisor:		
Title: Environmental Specialist	Approval Date:	Expiration Date:	
Date: 11/15/01	Phone: (303) 605-1718	Conditions of Approval:	Attached <input type="checkbox"/>

* Attach Additional Sheets If Necessary

District I - (505) 393-6161
1625 N. French Dr
Hobbs, NM 88240
District II - (505) 748-1283
811 S. First
Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Road
Aztec, NM 87410
District IV - (505) 827-7131
2040 S. Pacheco
Santa Fe, NM 87505

New Mexico
Energy Minerals and Natural Resources Department
Oil Conservation Division
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

Form C-143
3/15/00

Submit to OCD
Permitted Surface
Waste Management
Facility

GENERATOR CERTIFICATE OF WASTE STATUS

1. Waste Generator Name and Address:

Duke Energy Field Services Inc.
P. O. Box 5493
Denver, Colorado 80217

2. Permit Number (if waste generated at an OCD
permitted facility)

3. Description of Waste and Generating Process:

Hydrocarbon-impacted soil
from historic pipeline leak

4. Location of Waste (Street address &/or ULSTR):

Sec. 23, Unit C, T20S, R36E

5. Destination (Surface Waste Management Facility):

C & C Landfarm, Inc. (NM-01-0012)
Unit E, Sec 3, T20S, R37E
Box 55, Monument, NM 88265
(505) 397-2045

6. Transporter:

Allstate Services (subcontract haulers from
Hobbs, NM)

7. Estimated Volume _____ cy/bbls

For NON-EXEMPT waste only, the following documentation is attached (check appropriate items):

_____ MSDS Information

_____ RCRA Hazardous Waste Analysis (With Chain of Custody).

_____ Other (Description)

Generator certifies that, according to the Resource Conservation and Recovery Act (RCRA) and the Environmental Protection Agency's July 1988 regulatory determination, the above described waste is: (check appropriate classification)

☒ EXEMPT oilfield waste.

☐ NON-EXEMPT oilfield waste that is non-hazardous
pursuant to 40 CFR Part 261. (Attach appropriate
documentation)

In addition, Generator certifies that nothing has been added to this exempt or non-exempt non-hazardous waste and that this waste does not contain Naturally Occurring Radioactive Material (NORM) regulated pursuant to 20 NMAC 3.1 Subpart 1403.

Generator Signature: _____

Date: _____

Print Name: Stephen W. Weathers

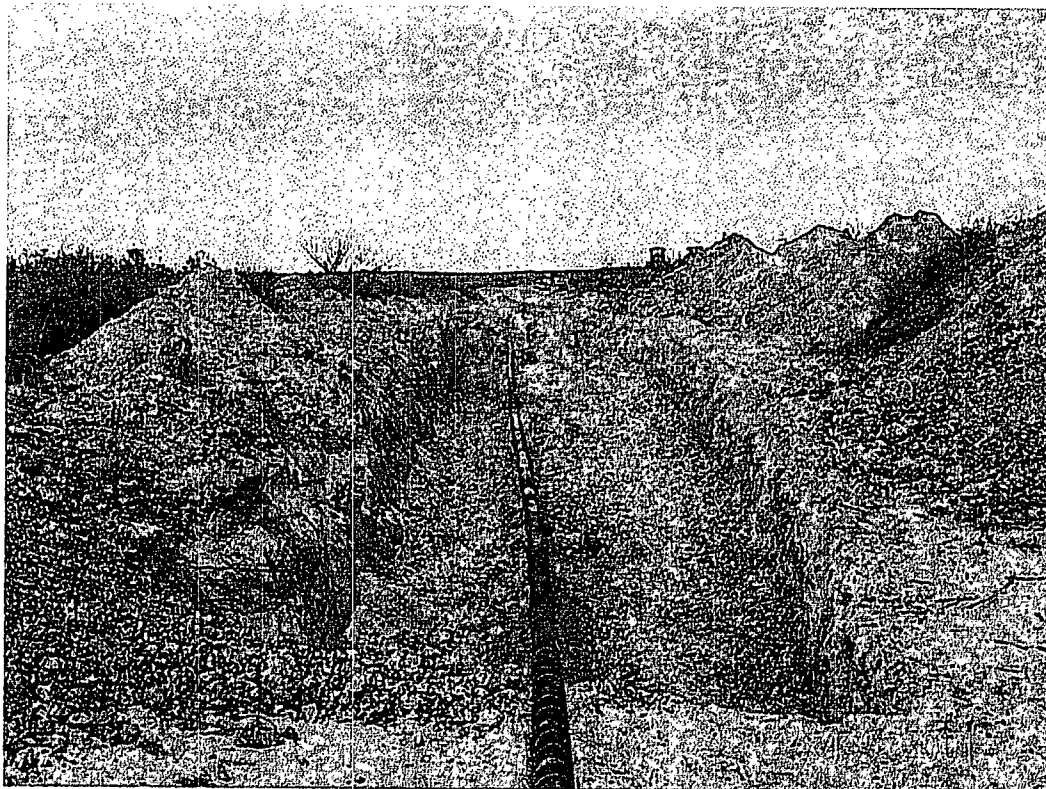
Title: Environmental Specialist



JC4-830 View of flange on 6" dia. wrapped steel pipeline at west end of excavation.

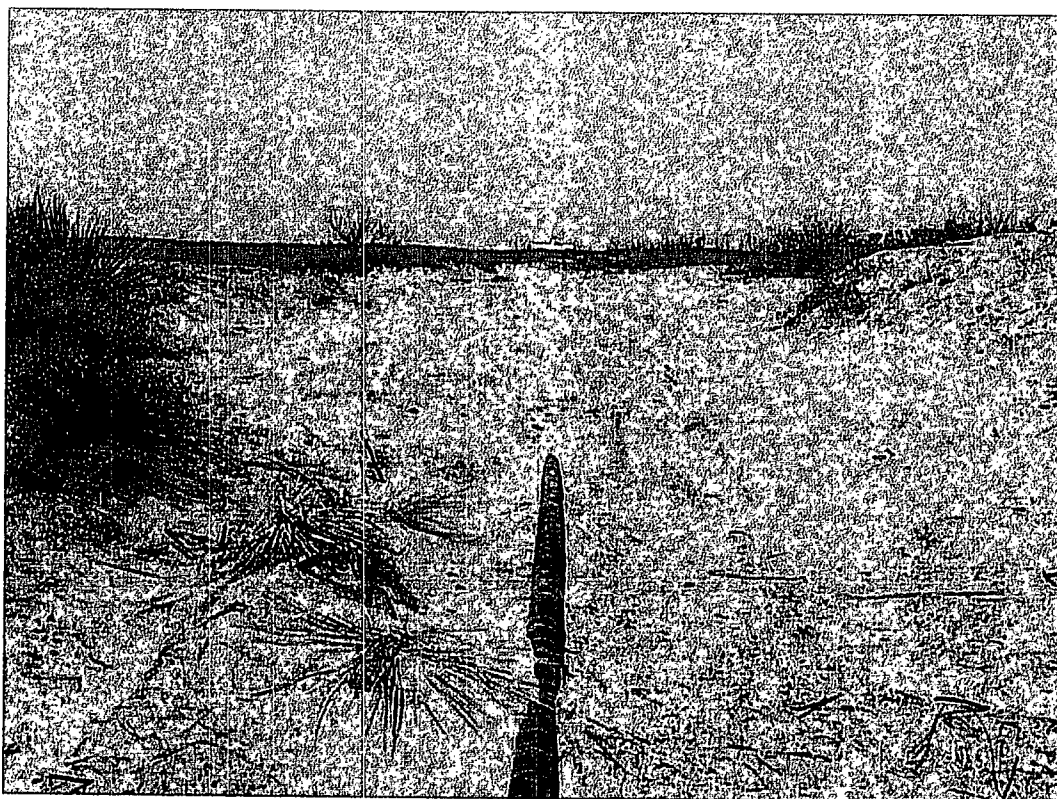


JC4-828 View facing east showing excavation at completion.
(Approximately 12-15 ft wide X 92 ft long by average 3 ft deep)



JC4-829

View facing west showing excavation at completion.



JC4-880

View facing west showing restored location after backfilling.

ATTACHMENT B

**LABORATORY ANALYTICAL REPORTS
AND
CHAIN-OF-CUSTODY DOCUMENTATION**

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TRIDENT ENVIRONMENTAL
ATTN: MR. GILBERT VAN DEVENTER
415 WEST WALL ST., STE. 1818
MIDLAND, TEXAS 79701
FAX: 682-0028

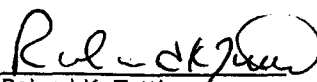
Sample Type: Soil
Sample Condition: Intact/Iced/ 2 deg C
Project #: None Given
Project Name: Duke Energy Field Services/ Jimmy Cooper Site #4
Project Location: Sec 23, T20S, R36E, Unit C

Sampling Date: 04/04/01
Receiving Date: 04/04/01
Analysis Date: 04/05/01

ELT#	FIELD CODE	GRO	DRO
		C6-C10 mg/kg	>C10-C28 mg/kg
38776	JC#4-A (Floor Grab 5')	<10	<10
38777	JC#4-B (Floor Grab 6')	<10	<10

% IA	87	108
%EA	85	116
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO


Raland K. Tuttle

4-6-01
Date



Chain of Custody

Date 4/4/01 Page 1 of 1

Distribution: White, Canary-I laboratory / Pink-TRW

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TRIDENT ENVIRONMENTAL
ATTN: MR. GILBERT VAN DEVENTER
P.O. BOX 7624
MIDLAND, TEXAS 79708-7624
FAX: 682-0028

Sample Type: Soil
Sample Condition: Intact/Iced/ 1.5 deg C
Project #: None Given
Project Name: Jimmy Cooper #4
Project Location: Unit C, Sec 23, T20S, R36E

Sampling Date: 04/09/01
Receiving Date: 04/09/01
Analysis Date: 04/09/01

ELT#	FIELD CODE	GRO C6-C10 mg/kg	DRO >C10-C28 mg/kg
38999	C-Floor 3'	<10	<10
39000	D-N. Wall	<10	<10
39001	E-S. Wall	<10	<10
39002	F-E. Wall	<10	<10
39003	G-W. Wall	<10	<10
39004	Exc. Soil	<10	212
% IA		89	113
%EA		91	107
BLANK		<10	<10

Methods: EPA SW 846-8015M GRO/DRO


Raland K. Tuttle

4-10-01
Date

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TRIDENT ENVIRONMENTAL
ATTN: MR. GILBERT VAN DEVENTER
P.O. BOX 7624
MIDLAND, TEXAS 79708-7624
FAX: 682-0028

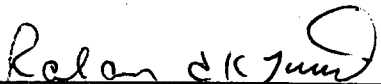
Sample Type: Soil
Sample Condition: Intact/ Iced/ 1.5 deg. C
Project #: None Given
Project Name: Jimmy Cooper #4
Project Location: Unit C, Sec 23, T20S, R36E

Sampling Date: 04/09/01
Receiving Date: 04/09/01
Analysis Date: 04/10/01

ELT#	FIELD CODE	BENZENE mg/kg	TOLUENE mg/kg	ETHYLBENZENE mg/kg	m,p-XYLENE mg/kg	o-XYLENE mg/kg
39004	Exc. Soil	<0.025	<0.025	<0.025	<0.025	<0.025

%IA	101	102	105	113	105
%EA	91	92	95	102	98
BLANK	<0.025	<0.025	<0.025	<0.025	<0.025

METHODS: EPA SW 846-8021B ,5030


Raland K. Tuttle

4-11-01
Date

**12600 West I-20 East
Odessa, Texas 79763**

Phone: 915-563-1800
Fax: 915-563-1713

Project Name: Jimmy Cooper #4

Project #: ^{Loc}Unit C, Sec 23, T20S, R36E

Project Loc: _____

PO #: _____

Project Manager: Gilbert Van Deventer
Company Name Trident Environmental
Company Address: P.O. Box 7624
City/State/Zip: Midland, TX 79708-7624
Telephone No: 915/682-0803 Fax No: 915/682-0028
Sampler Signature: Gilbert Van Deventer

[illegible]

ENVIRONMENTAL LAB OF , INC.

"Don't Treat Your Soil Like Dirt!"

TRIDENT ENVIRONMENTAL
ATTN: MR. GILBERT VAN DEVENTER
P.O. BOX 7624
MIDLAND, TEXAS 79706
FAX: 682-0028

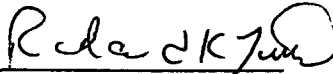
Sample Type: Soil
Sample Condition: Intact/Iced/ -1.0 deg C
Project #: JC#4
Project Name: Duke Energy Field Services/ Jimmy Cooper #4
Project Location: T20S, R36E, Sec23, Unit C

Sampling Date: 04/19/01
Receiving Date: 04/19/01
Analysis Date: 04/21/01

ELT#	FIELD CODE	GRO	DRO
		C6-C10 mg/kg	>C10-C28 mg/kg
39441	Backfill	<10	<10

% IA	93	86
%EA	107	110
BLANK	<10	<10

Methods: EPA SW 846-8015M GRO/DRO


Randal K. Tuttle

4-23-01
Date

(Y) N
-1.0°C

ATTACHMENT C

FIELD BOOK NOTES

4/4/01

0600 Left Midland For Jimmy Cooper

Site #4 (JC#4)

- Stopped For Field Supplies

0745 Arrive @ Project Location

Objective: Get Preliminary Extent of
Project Location, Collect Soil Samples
Oversight of Excavation Activity

Equipment: PPE, Decon, Camera, Measuring
Wheel, OVM, Soil Sampling Equipment

Weather: Sunny - Ptly Cloudy, Cool (Temp
≈ 50°F), Calm Winds

Personnel: John Fergerson - TRW

Billy Sullivan - Allstate

Bobby Blackwood - Allstate

Allstate Equipment:

② - G44H John Deere Loaders

* Allstate Moving Other Equipment
to Location

JMF

4/4/01

* Nearest Well (Oil) Location is:

Chevron U.S.A. Inc

Lat/Long

EMSU-B #904

Sec 23, T20S, R36E, Unit F

- This Well is Located Approx 200 yds
SW of Location

0830 Billy Arrives @ Location

- He is Anticipating Arrival of Survey
Crew From John West Engineering

0900 John West Engineering Survey
Arrives in Area

- Billy wants Survey Crew to Locate
N-S Half Section Line

* Left With Billy For JC#3 Site

- Observed Backfilled Location

1130 Surveying Crew Mark N-S Half
Section Line

- 1 of 8 Sites Identified is ON
Jimmie Coopers Land (tracked)

- Have Allstate Dig Trench on South
Side of along Pipeline to Expose
Contaminated Arcs. TD 3'

- Excavation Exposes 2 Areas

- Have Allstate Dig Down to Approx
5' in Heaviest Stained Area of

JMF

4/4/01

- Exposed Contaminated Areas
- Collect Grab Samples From Each Area

Sample Collection

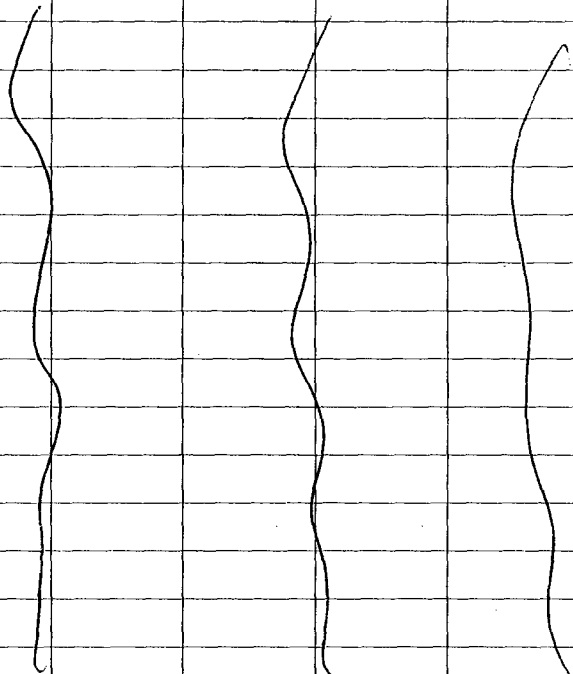
Sample Location	Desc	Letter	Depth	Time	PID
Floor	Grab	A	5'	1210	0.01
Floor	Grab	B	6'	1220	0.00

1240 Left Location For Lunch

1240-1340 Lunch

Travel Time = 1.5 Hours (TRW)

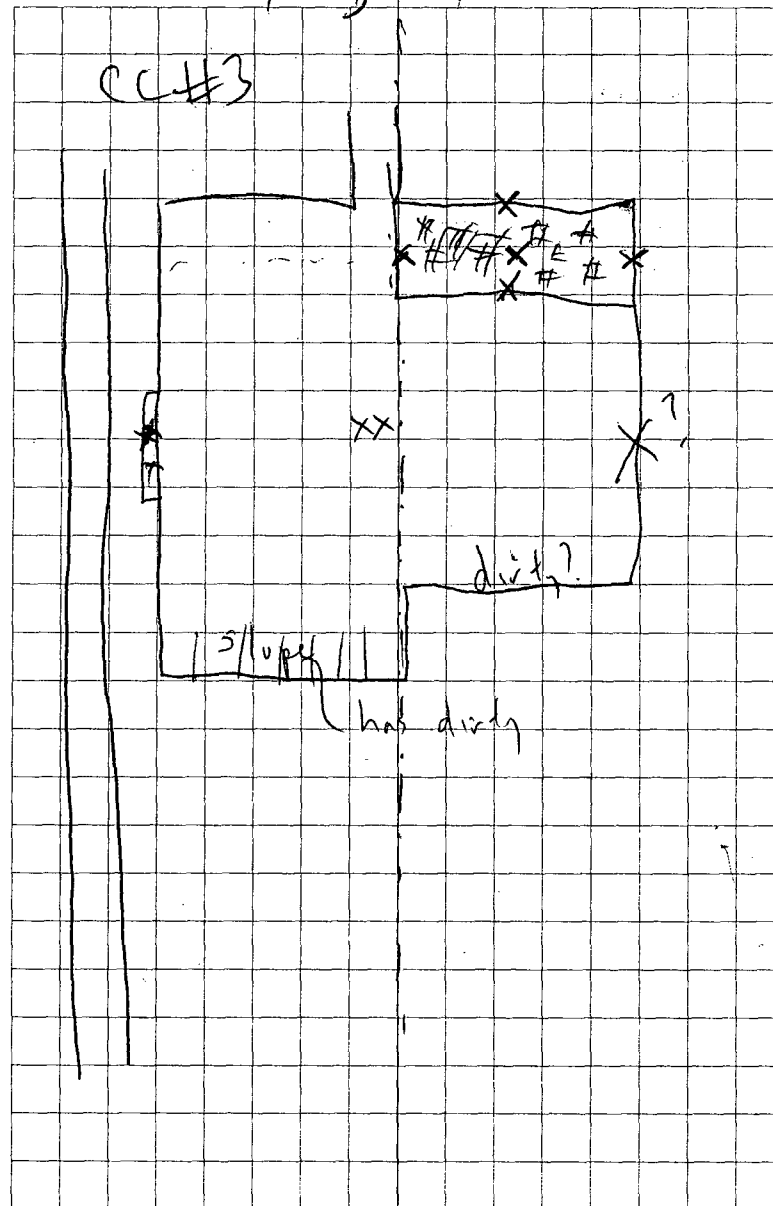
Labor = 5 Hours (Trident)



JMF

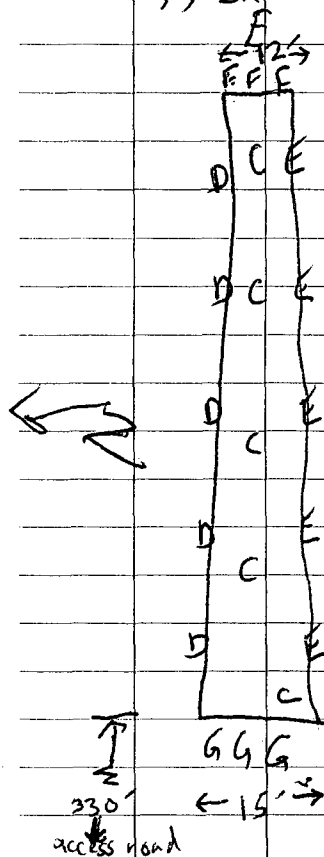
4-5-01

CC#3



4-9-01

Objective: Drive to JC#4 to collect composite floor & wall samples from current excavation. Visually, excavation looks clean.



Sample ID	Time	OVN
C-Floor (3')	1026	0
D-N.Wall	1030	0
E-S.Wall	1035	0
F-E.Wall	1040	0
G-W.Wall	1045	0
Exc. Soil	1050	0

No visible staining or odors observed in any samples.

uses Sec-marker ~ 1/4 mile north
S 14
S 23

6" pipe steel/wrapped

4-9-01

JC#4

Photo log

View facing east at access road showing equip (2 loaders, & trackhoe) in foreground (left) & excavation (background)

View of excavation facing east

View of excavation facing west

View of west end of pipeline at flange

B.S. oil/gas well ~ 0.1 mile north
60 Chevron U.S.A. Inc.
750.0 EMSU - B #1901
Fed Unit # NM 70948B
Un. # C, Sec 23, T20S, R36E
LC-046164-A