Clay Cooper #13 Closure Report
Duke Energy Field Services
Lea County, New Mexico

SEPTEMBER 9, 2002

Prepared For:

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

IRP-206
10.24.05

Site Name:

CLAY COOPER #13 (CC#13)

Site Location:

T20S, R36 E, SECTION 25, UNIT D

Prepared By:

TRIDENT ENVIRONMENTAL

PO Box 7624
Midland, Texas 79708

NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

GARY E. JOHNSON
Governor
Betty Rivera
Cabinet Secretary

Lori Wrotenbery
Director
Oil Conservation Division

October 23, 2002

Duke Energy Field Services, LP (DEFS)
Attn: Stephen Weathers
POB 5493
Denver, CO 80217

Re: Spill Site Closure Approval for Duke Energy Field Services, LP
Clay Cooper #9: UL-A, Sec 25-T20S-R36E. Dated: May 14, 2002
Clay Cooper #10: UL-A, Sec 26-T20S-R36E Dated: may 20, 2002
Clay Cooper #12: UL-D, Sec 25-T20S-R36E. Dated: September 30, 2002
Clay Cooper #13: UL-D, Sec 25-T20S-R36E. Dated: September 9, 2002

Dear Mr. Weathers,

The Spill Site Closure Reports referenced above and submitted to the New Mexico Oil Conservation Division (OCD) by Trident Environmental for DEFS are **hereby approved.**

Please be advised that OCD approval of this plan does not relieve DEFS of liability should their operations fail to adequately investigate and remediate contaminants that threaten ground water, surface water, human health or the environment. In addition, OCD approval does not relieve DEFS of responsibility for compliance with any other federal, state, or local laws and/or regulations.

If you have any questions or need assistance please write or call: (505) 393-6161, ext. 113, or e-mail: psheeeley@state.nm.us

Sincerely,

Paul Sheeley-Environmental Engineer
Cc: Roger Anderson - Environmental Bureau Chief
Chris Williams - District I Supervisor
William Olson - OCD Hydrologist
Larry Johnson - Environmental Engineer

TRIDENT ENVIRONMENTAL

September 9, 2002

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

Re: Removal of Hydrocarbon-Impacted Soils from the CC #13 site
Township 20 South, Range 36 East, Section 25, Unit D

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 (CC #13) is located in Section 25 (Unit D), Township 20 South, Range 36 East on property owned by Dale Cooper and managed by Clay Cooper. The location of the CC #13 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

Walton Construction Company, Inc. (Hobbs, New Mexico) performed excavation. Walton Construction used one trackhoe, one dozer, one loader, and 12 yd^3 dump trucks for earthmoving services. An area was excavated where Mr. Cooper identified indications of hydrocarbon-impacted soils. During excavation operations, subsurface soil samples were collected and submitted to an analytical laboratory to characterize the approximate lateral and vertical extent of hydrocarbon-impacted soil in each area. Samples were collected by Trident with stainless steel trowels. Grab samples were collected from the floor and walls (north, south, east, and west), as specified in the site data form in Attachment A. 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 only for the soil samples with OVM, GRO, or DRO concentrations exceeding 100 ppm.

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 South Monument 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 876 cubic yards of hydrocarbon-impacted soils were transported by Walton Construction to cell C-5 at the South Monument Landfarm, which is owned and operated by Ms. Kena Kay Cooper (OCD Rule 711 Permit Approval NM-01-0032). A completed *Release Notification and Corrective Action* (C-141) form is 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 are depicted on the Site Map in Attachment A. 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: Clay Cooper, landowner – Hobbs, NM

C:DEFS\COOPER\CC13\CC10CLOSE.DOC

ATTACHMENT A

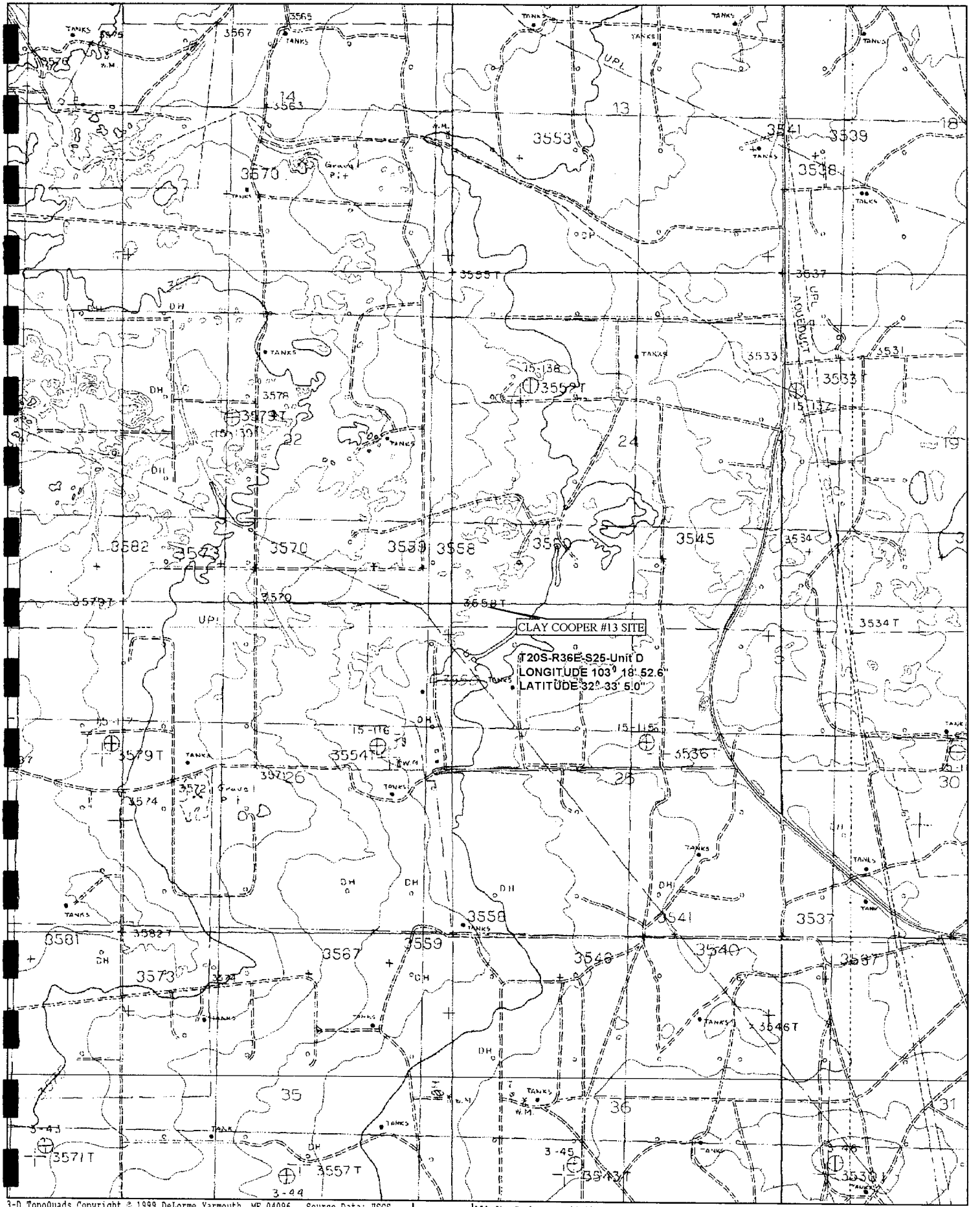
TOPOGRAPHIC MAP

SITE MAP

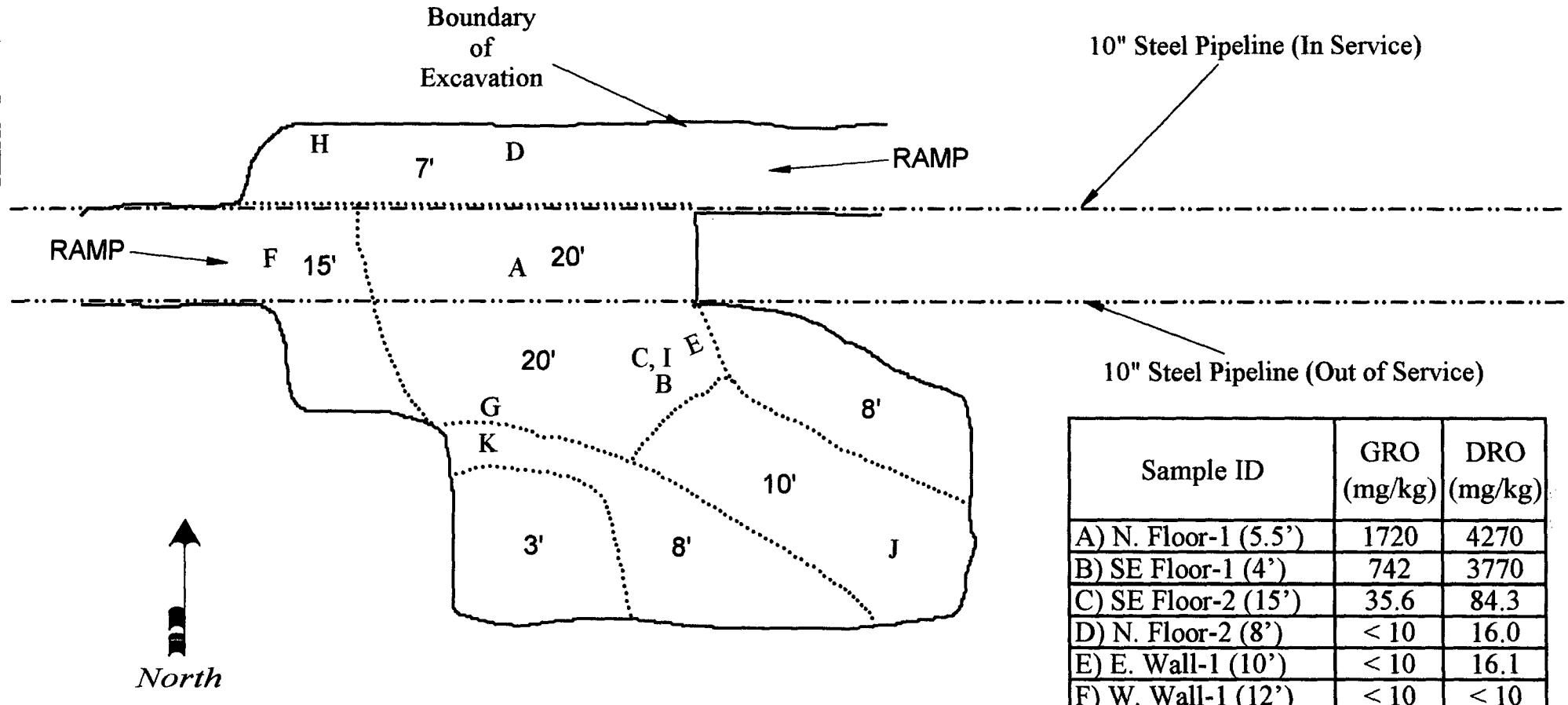
SITE DATA FORM

C-141 FORM

PHOTODOCUMENTATION



 Source Data: USGS 950 ft Scale: 1 : 24,000 Detail: 13-0 Datum: WGS84



Sample ID	GRO (mg/kg)	DRO (mg/kg)
A) N. Floor-1 (5.5')	1720	4270
B) SE Floor-1 (4')	742	3770
C) SE Floor-2 (15')	35.6	84.3
D) N. Floor-2 (8')	< 10	16.0
E) E. Wall-1 (10')	< 10	16.1
F) W. Wall-1 (12')	< 10	< 10
G) S. Wall-1 (12')	1650	2040
H) N. Wall-1 (6')	< 10	12.8
I) SE Floor-3 (20')	< 10	< 10
J) EXSE Floor-3 (10')	< 10	< 10
K) S. Wall-2 (12')	< 10	< 10

TRIDENT ENVIRONMENTAL

SITE NAME: CLAY COOPER # 13	
DATE: 07/24/02	REVISION NO.: 1
DRAWN BY: GJV	FILENAME: CC12.TCW
CHECKED BY: DTL	SCALE: 1 INCH = 20 FT

SITE MAP

TRIDENT ENVIRONMENTAL

Site Data Form

Trident Technician: DTL Excavation Crew Names: Walton Construction Site ID: Clay Cooper # 13

Site Location: Latitude 32° 33' 5.0" N Longitude 103° 18' 52.6" W County: Lea State: New Mexico

Township 20 South Range 36 East Section 25 Unit D

Begin Excavation (Date/Time) 07/17/02 Complete Excavation (Date/Time) 07/25/02

LAND USE: (Check all that apply)
☐ Residential ☐ Recreational ☐ Farm land
☐ 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 Silty clay at depth

EXCAVATION DIMENSIONS	Length	Width	Average Depth	Maximum Depth
	40 feet	50 feet	12 feet	20 feet

VOLUME EXCAVATED: ~~1,600~~ 4800 yd³ **VOLUME HAULED TO LANDFARM:** 876 yd³

SUMMARY OF ANALYTICAL RESULTS

Sample ID	Sample Type	Date	OVM (mg/m³)	GRO (mg/kg)	DRO (mg/kg)	Benzene (mg/m³)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)
A) N. Floor-1 (5.5')	Grab	07-18-02	59	1720	4270	< 0.025	0.169	1.77	0.766
B) SE Floor-1 (4')	Grab	07-18-02	13	742	3770	—	—	—	—
C) SE Floor-2 (15')	Grab	07-19-02	14	35.6	84.3	< 0.025	< 0.025	< 0.025	< 0.025
D) N. Floor-2 (8')	Grab	07-19-02	1	< 10	16.0	—	—	—	—
E) E. Wall-1 (10')	Grab	07-19-02	1	< 10	16.1	—	—	—	—
F) W. Wall-1 (12')	Grab	07-19-02	3	< 10	< 10	—	—	—	—
G) S. Wall-1 (12')	Grab	07-19-02	75	1650	2040	—	—	—	—
H) N. Wall-1 (6')	Grab	07-19-02	1	< 10	12.8	—	—	—	—
I) SE Floor-3 (20')	Grab	07-24-02	0	< 10	< 10	—	—	—	—
J) EXSE Floor-3 (10')	Grab	07-24-02	0	< 10	< 10	—	—	—	—
K) S. Wall-2 (12')	Grab	07-24-02	0	< 10	< 10	—	—	—	—
Stockpile-1 (land farm)	Comp	07-18-02	15	895	4990	< 0.025	< 0.025	< 0.025	< 0.025
Backfill	Comp	07-19-02	0	< 10	*10	—	—	—	—

Note: The south wall and floor was excavated further until concentrations were below OCD guidelines as confirmed by subsequent wall and floor samples.

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: CC #13	Facility Type: Natural Gas Pipeline

Surface Owner: Dale Cooper	Mineral Owner: Unknown	Lease No.:

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	25	20S	36E		32° 33' 5.0" N		103° 18' 52.6" W	Lea

NATURE OF RELEASE

Type of Release: Condensate	Volume of Release: Unknown	Volume Recovered: 876 yd^3 soil removed
Source of Release: Pipeline	Date and Hour of Occurrence: Unknown	Date and Hour of Discovery: Unknown
Was Immediate Notice Given? ☐ Yes ☐ No ■ Not Required	If YES, To Whom? Larry Johnson, NMOCD District 1	
By Whom? Steve Weathers	Date and Hour	
Was a Watercourse Reached? ☐ Yes ■ 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 subsurface external corrosion. Removal of impacted soil requested by landowner (Clay Cooper).

Describe Area Affected and Cleanup Action Taken.*

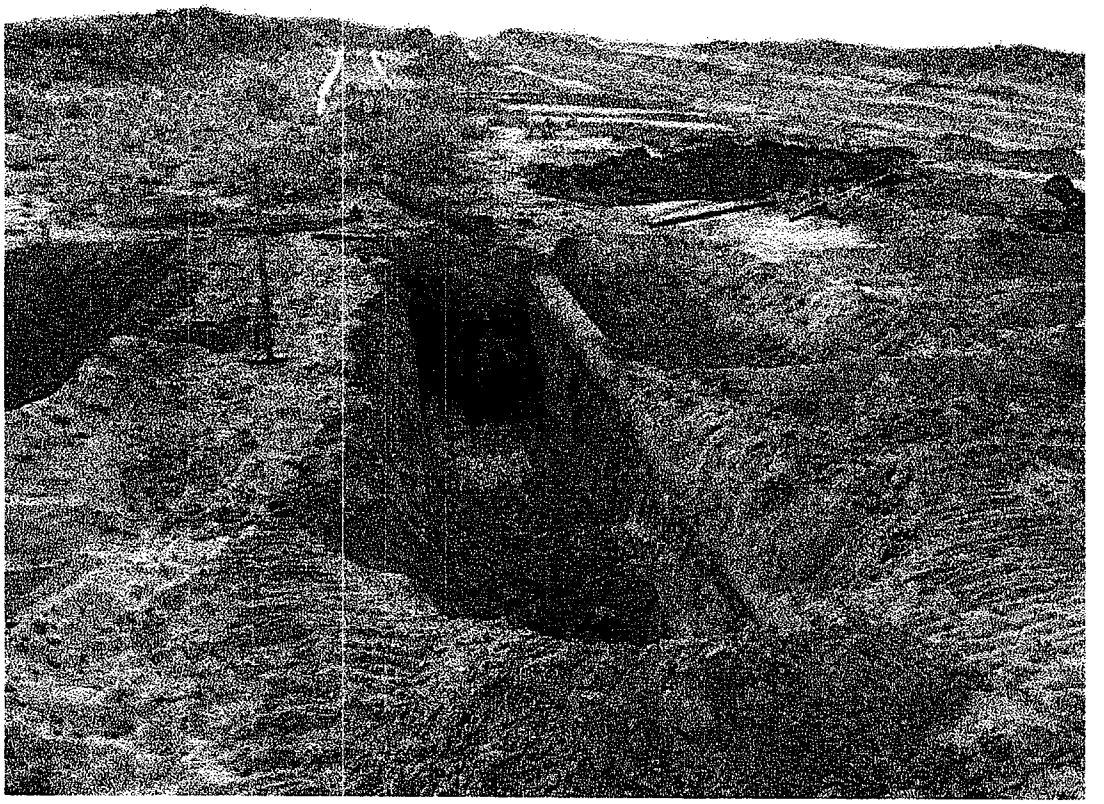
On 07/17/02 over-excavation was initiated. Excavation continued until 07/24/02. The excavation was relatively shallow (3 ft to 20 ft) and measured approx. 40 ft wide by 50 ft long. Approximately 876 cu yds of soil was transported to cell C-5 at the South Monument Land Farm. Backfilling of excavation was completed on 07/25/02. 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.

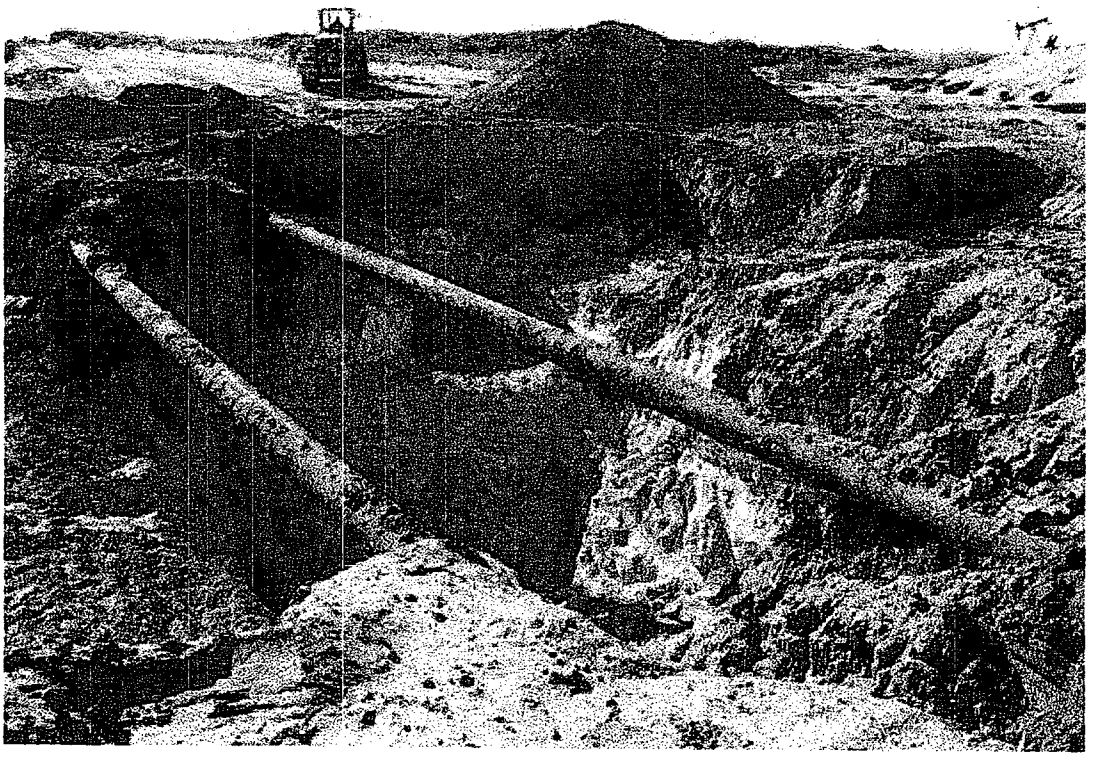
Signature:	OIL CONSERVATION DIVISION
Printed Name: Stephen Weathers	Approved by District Supervisor:
Title: Environmental Specialist	Approval Date: / Expiration Date:
Date: 10/8/02 Phone: (303) 605-1718	Conditions of Approval: / Attached ☐

* Attach Additional Sheets If Necessary

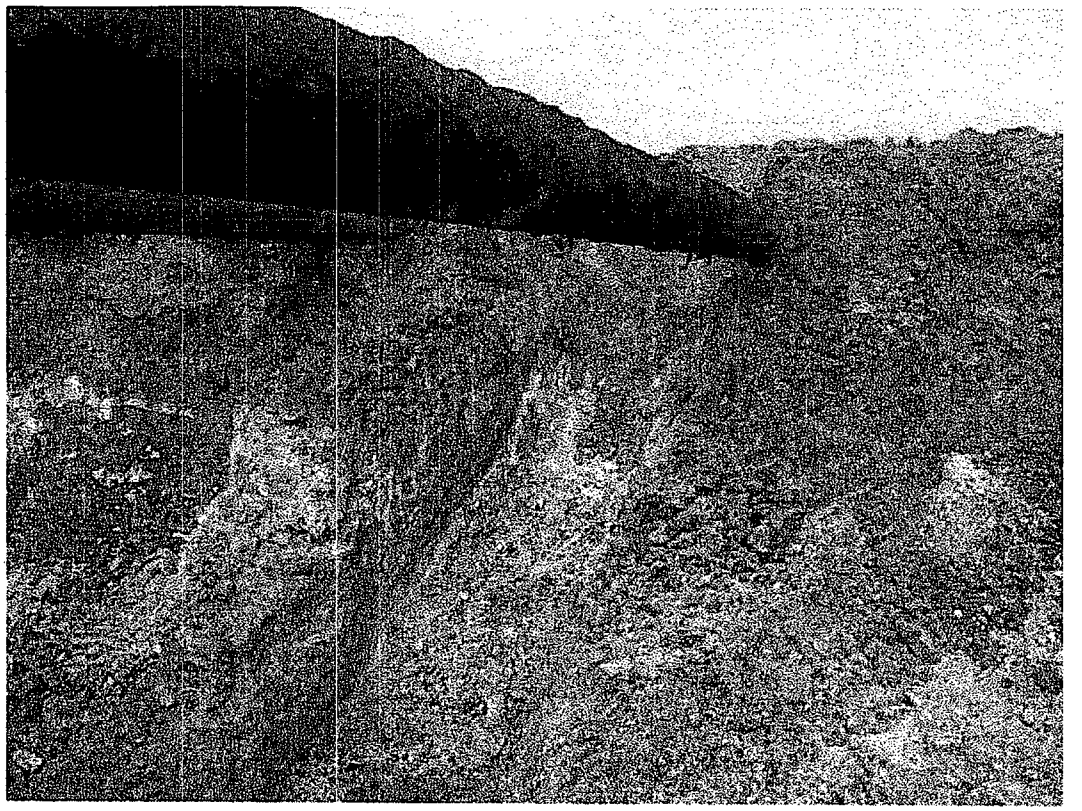
10/23/02 close



1 View facing east showing hydrocarbon-stained soil between the out of service pipeline (right) and in service (left). Drip pot has been removed as shown in background (07-18-02).



2 View facing southeast showing east and south walls at completion of excavation activities (07-24-02).



3 View facing west showing west wall at completion of excavation activities (07-24-02).

4 View facing north showing excavation at completion (07-24-02).

ATTACHMENT B

LABORATORY ANALYTICAL REPORTS

AND

CHAIN-OF-CUSTODY DOCUMENTATION

CC#13 (2)

ANALYTICAL REPORT

Prepared for:

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Project:

Order#: G0203967

Report Date: 07/23/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0203967
Project: V-106
Project Name: Duke Energy Field Services
Location: ~~None Given~~ CC #13

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0203967-01	Floor-2 SE (15')	SOIL	7/19/02 8:10	7/19/02 13:21	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX	**Rejected:** No		**Temp:** 0.5C		
0203967-02	Floor-2 N (8')	SOIL	7/19/02 8:15	7/19/02 13:21	4 oz Glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 0.5C		
0203967-03	East- 1 (10')	SOIL	7/19/02 8:20	7/19/02 13:21	4 oz Glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 0.5C		
0203967-04	West-1 (12')	SOIL	7/19/02 8:25	7/19/02 13:21	4 oz Glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 0.5C		
0203967-05	South-1 (12')	SOIL	7/19/02 8:30	7/19/02 13:21	4 oz Glass	Ice
	Lab Testing: 8015M, 8021B/5030 BTEX	**Rejected:** No		**Temp:** 0.5C		
0203967-06	North-1 (6')	SOIL	7/19/02 8:35	7/19/02 13:21	4 oz Glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 0.5C		
0203967-07	Backfill	SOIL	7/19/02 8:40	7/19/02 13:21	4 oz Glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 0.5C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203967
Project:
Project Name:
Location: None Given

Lab ID: 0203967-01
Sample ID: Floor-2 SE (15')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**35.6**	10.0
DRO, >C12-C35	**84.3**	10.0
TOTAL, C6-C35	**120**	10.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002491-02		7/22/02 18:47	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	**<0.025**	0.025
Ethylbenzene	**<0.025**	0.025
Toluene	**<0.025**	0.025
p/m-Xylene	**<0.025**	0.025
o-Xylene	**<0.025**	0.025

Lab ID: 0203967-02
Sample ID: Floor-2 N (8')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**16.0**	10.0
TOTAL, C6-C35	**16.0**	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203967
Project:
Project Name:
Location: None Given

Lab ID: 0203967-03
Sample ID: East- 1 (10')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**16.1**	10.0
TOTAL, C6-C35	**16.1**	10.0

Lab ID: 0203967-04
Sample ID: West-1 (12')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**<10.0**	10.0
TOTAL, C6-C35	**<10.0**	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203967
Project:
Project Name:
Location: None Given

Lab ID: 0203967-05
Sample ID: South-1 (12')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/22/02	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**1650**	50.0
DRO, >C12-C35	**2040**	50.0
TOTAL, C6-C35	**3690**	50.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002491-02		7/23/02 10:31	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	**<0.025**	0.025
Ethylbenzene	**0.052**	0.025
Toluene	**<0.025**	0.025
p/m-Xylene	**0.155**	0.025
o-Xylene	**0.069**	0.025

Lab ID: 0203967-06
Sample ID: North-1 (6')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**12.8**	10.0
TOTAL, C6-C35	**12.8**	10.0

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203967
Project:
Project Name:
Location: None Given

Lab ID: 0203967-07
Sample ID: Backfill

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/22/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**10.0**	10.0
TOTAL, C6-C35	**10.0**	10.0

Approval: Raland K Tuttle 7-23-02
Raland K. Tuttle, Lab Director, QA Officer — Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0203967

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0002477-02			<10.0		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0203967-01	120	952	1200	113.4%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0203967-01	120	952	1170	110.3%	2.5%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0002477-05		1000	1170	117.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203967

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0002491-02			<0.025		
Ethylbenzene-mg/kg	0002491-02			<0.025		
Toluene-mg/kg	0002491-02			<0.025		
p/m-Xylene-mg/kg	0002491-02			<0.025		
o-Xylene-mg/kg	0002491-02			<0.025		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0203965-04	0	0.1	0.099	99.%	
Ethylbenzene-mg/kg	0203965-04	0	0.1	0.104	104.%	
Toluene-mg/kg	0203965-04	0	0.1	0.103	103.%	
p/m-Xylene-mg/kg	0203965-04	0	0.2	0.219	109.5%	
o-Xylene-mg/kg	0203965-04	0	0.1	0.104	104.%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0203965-04	0	0.1	0.100	100.%	1.%
Ethylbenzene-mg/kg	0203965-04	0	0.1	0.104	104.%	0.%
Toluene-mg/kg	0203965-04	0	0.1	0.103	103.%	0.%
p/m-Xylene-mg/kg	0203965-04	0	0.2	0.216	108.%	1.4%
o-Xylene-mg/kg	0203965-04	0	0.1	0.103	103.%	1.%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
Benzene-mg/kg	0002491-05		0.1	0.104	104.%	
Ethylbenzene-mg/kg	0002491-05		0.1	0.109	109.%	
Toluene-mg/kg	0002491-05		0.1	0.107	107.%	
p/m-Xylene-mg/kg	0002491-05		0.2	0.227	113.5%	
o-Xylene-mg/kg	0002491-05		0.1	0.107	107.%	

* Run BTEX
DRO/GRO > 100

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 689-4578 (Fax)

V-106-CC13-02

Chain of Custody

Date 7-19-02 Page 1 of 1

Lab Name: Environmental Lab of Texas, Inc.
Address: 12600 West I-20 East
Odessa, TX 79763
Telephone: (915) 563-1800 Fax: (915) 563-1713

Samplers (SIGNATURES) Dale T Littlejohn

Analysis Request (GRO/DRO: Ext Range)

Lab No.	Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals							Number of Containers
3967 -01	Floor - 2 SE (15')	Soil	7/19/02	0810	G	✓								✓	✓											1
-02	Floor - 2 N (8')	"	"	0815	G									✓	✓											1
-03	East - 1 (10')	"	"	0820	G									✓	✓											1
-04	West - 1 (12')	"	"	0825	G									✓	✓											1
-05	South - 1 (12')	"	"	0830	G	✓								✓	✓											1
-06	North - 1 (6')	"	"	0835	G									✓	✓											1
-07	Backfill	"	"	0840	C									✓	✓											1

need Monday AM.

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	CC#13	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	0.5
Cost Center No.:	V-106	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):	Duke Energy Field Services		

Special Instructions: Attn: Steve Weathers
POBox 5493
Denver, CO 80217

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) ~~Gil Van Deventer~~ Dale Littlejohn	(Printed Name)	(Printed Name)
(Signature) Dale T Littlejohn	(Signature)	(Signature)
(Date) 7/19/02 (Time) 1235	(Date) (Time)	(Date) (Time)

Received By: (1) (Company)	Received By: (2) (Company)	Received By: (3) (Company)
ELOT		
(Printed Name) Roland K Tuttle	(Printed Name)	(Printed Name)
(Signature) Roland K Tuttle	(Signature)	(Signature)
(Date) 7-19-02 (Time) 1235	(Date) (Time)	(Date) (Time)

Copy signed original form for Trident Environmental records

CC#13 (3)

ANALYTICAL REPORT

Prepared for:

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Project:	Duke Energy Field Services
Order#:	G0203993
Report Date:	07/25/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0203993
Project: V-106
Project Name: Duke Energy Field Services
Location: CC #13

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0203993-01	Floor-3 SE 20'	SOIL	7/24/02 9:30	7/24/02 12:15	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 3.0 C		
0203993-02	Floor-3 EXSE 10'	SOIL	7/24/02 9:40	7/24/02 12:15	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 3.0 C		
0203993-03	South Wall-2 12'	SOIL	7/24/02 9:50	7/24/02 12:15	4 oz glass	Ice
	Lab Testing: 8015M	**Rejected:** No		**Temp:** 3.0 C		

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203993
Project: V-106
Project Name: Duke Energy Field Services
Location: CC #13

Lab ID: 0203993-01
Sample ID: Floor-3 SE 20'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
	7/24/02	7/24/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

Lab ID: 0203993-02
Sample ID: Floor-3 EXSE 10'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
	7/24/02	7/24/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	<10.0	10.0
DRO, >C12-C35	<10.0	10.0
TOTAL, C6-C35	<10.0	10.0

N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203993
Project: V-106
Project Name: Duke Energy Field Services
Location: CC #13

Lab ID: 0203993-03
Sample ID: South Wall-2 12'

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
	7/24/02	7/24/02	1	1	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**<10.0**	10.0
DRO, >C12-C35	**<10.0**	10.0
TOTAL, C6-C35	**<10.0**	10.0

Approval: Raland K Tuttle 7-25-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0203993

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0002530-02			<10.0		
MS SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0203993-01	0	909	808	88.9%	
MSD SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0203993-01	0	909	815	89.7%	0.9%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0002530-05		1000	842	84.2%	

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 689-4578 (Fax)

528-3878

V-106-CC13-03

Chain of Custody

Date 7-24-02 Page 1 of 1

Lab Name: Environmental Lab of Texas, Inc.
Address: 12600 West I-20 East
Odessa, TX 79763
Telephone: (915) 563-1800 Fax: (915) 563-1713

Samplers (SIGNATURES) Dale Littlejohn

203993

	Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals	Number of Containers
01	Floor-3 SE 20'	Soil	7/24/02	0930	G	✓								✓	✓					1
02	Floor-3 Ex SE 10'	"	"	0940	G									✓	✓					1
03	South Wall-2 12'	"	"	0950	G									✓	✓					1

Analysis Request: GRO (EPA 8015G) = TX; DRO (EPA 8015D) = NM

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	CC#13	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	3.0°
Cost Center No.:	V-106	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):	Duke Energy Field Services		
Special Instructions:	Attn: Steve Weathers POBox 5493 Denver, CO 80217		

Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) ~~Gil Van Deventer~~ Dale Littlejohn	(Printed Name)	(Printed Name)
(Signature) Dale Littlejohn	(Signature)	(Signature)
(Date) 7/24/02 (Time) 1215	(Date) (Time)	(Date) (Time)
Received By: (1) (Company)	**Received By: (2) (Company)**	**Received By: (3) (Company)**
Environmental Lab of TX		
(Printed Name) Jeanne McMurrey	(Printed Name)	(Printed Name)
(Signature) Jeanne McMurrey	(Signature)	(Signature)
(Date) 7-24-02 (Time) 1215	(Date) (Time)	(Date) (Time)

Copy signed original form for Trident Environmental records

Need by first thing 7/25 AM.

CC 13 (1)

ANALYTICAL REPORT

Prepared for:

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Project:	Duke Energy Field Servics
Order#:	G0203953
Report Date:	07/23/2002

Certificates
US EPA Laboratory Code TX00158

ENVIRONMENTAL LAB OF TEXAS

SAMPLE WORK LIST

TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708
682-0727

Order#: G0203953
Project:
Project Name: Duke Energy Field Servics
Location: CC #13

The samples listed below were submitted to Environmental Lab of Texas and were received under chain of custody. Environmental Lab of Texas makes no representation or certification as to the method of sample collection, sample identification, or transportation/handling procedures used prior to the receipt of samples by Environmental Lab of Texas.

Lab ID:	Sample :	Matrix:	Date / Time Collected	Date / Time Received	Container	Preservative
0203953-01	Floor-1 (5.5')	SOIL	7/18/02 7:20	7/18/02 9:04	4 oz glass	Ice
	Lab Testing:	**Rejected:** No		**Temp:** -1 C		
	8015M					
	8021B/5030 BTEX					
0203953-02	SE Floor-1 (4')	SOIL	7/18/02 7:30	7/18/02 9:04	4 oz glass	Ice
	Lab Testing:	**Rejected:** No		**Temp:** -1 C		
	8015M					
0203953-03	Stockpile-1	SOIL	7/18/02 7:40	7/18/02 9:04	4 oz glass	Ice
	Lab Testing:	**Rejected:** No		**Temp:** -1 C		
	8015M					
	8021B/5030 BTEX					

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203953
Project:
Project Name: Duke Energy Field Servics
Location: CC #13

Lab ID: 0203953-01
Sample ID: Floor-1 (5.5')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/19/02	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**1720**	50.0
DRO, >C12-C35	**4270**	50.0
TOTAL, C6-C35	**5990**	50.0

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002491-02		7/23/02 9:46	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	**<0.025**	0.025
Ethylbenzene	**1.77**	0.025
Toluene	**0.169**	0.025
p/m-Xylene	**0.660**	0.025
o-Xylene	**0.106**	0.025

Lab ID: 0203953-02
Sample ID: SE Floor-1 (4')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/19/02	1	10	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**742**	100
DRO, >C12-C35	**3770**	100
TOTAL, C6-C35	**4512**	100

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

ANALYTICAL REPORT

GILBERT VAN DEVENTER
TRIDENT ENVIRONMENTAL
P.O. BOX 7624
MIDLAND, TX 79708

Order#: G0203953
Project:
Project Name: Duke Energy Field Servics
Location: CC #13

Lab ID: 0203953-03
Sample ID: Stockpile-1

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		7/19/02	1	10	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	**895**	100
DRO, >C12-C35	**4990**	100
TOTAL, C6-C35	**5885**	100

8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0002491-02		7/23/02 10:53	1	25	CK	8021B

Parameter	Result mg/kg	RL
Benzene	**<0.025**	0.025
Ethylbenzene	**<0.025**	0.025
Toluene	**<0.025**	0.025
p/m-Xylene	**<0.025**	0.025
o-Xylene	**<0.025**	0.025

Approval: Raland K Tuttle 7-23-02
Raland K. Tuttle, Lab Director, QA Officer Date
Celey D. Keene, Org. Tech. Director
Jeanne McMurrey, Inorg. Tech. Director
Sandra Biezugbe, Lab Tech.
Sara Molina, Lab Tech.

DL = Diluted out N/A = Not Applicable RL = Reporting Limit

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8015M

Order#: G0203953

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg	0002473-02			<10.0		
CONTROL SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0002473-03		952	927	97.4%	
CONTROL DUP SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0002473-04		952	978	102.7%	5.4%
SRM SOIL	**LAB-ID #**	**Sample Concentr.**	**Spike Concentr.**	**QC Test Result**	**Pct (%) Recovery**	**RPD**
TOTAL, C6-C35-mg/kg	0002473-05		1000	1090	109.%	

ENVIRONMENTAL LAB OF TEXAS

QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0203953

BLANK SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0002491-02			<0.025		
Ethylbenzene-mg/kg	0002491-02			<0.025		
Toluene-mg/kg	0002491-02			<0.025		
p/m-Xylene-mg/kg	0002491-02			<0.025		
o-Xylene-mg/kg	0002491-02			<0.025		
MS SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0203965-04	0	0.1	0.099	99.%	
Ethylbenzene-mg/kg	0203965-04	0	0.1	0.104	104.%	
Toluene-mg/kg	0203965-04	0	0.1	0.103	103.%	
p/m-Xylene-mg/kg	0203965-04	0	0.2	0.219	109.5%	
o-Xylene-mg/kg	0203965-04	0	0.1	0.104	104.%	
MSD SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0203965-04	0	0.1	0.100	100.%	1.%
Ethylbenzene-mg/kg	0203965-04	0	0.1	0.104	104.%	0.%
Toluene-mg/kg	0203965-04	0	0.1	0.103	103.%	0.%
p/m-Xylene-mg/kg	0203965-04	0	0.2	0.216	108.%	1.4%
o-Xylene-mg/kg	0203965-04	0	0.1	0.103	103.%	1.%
SRM SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg	0002491-05		0.1	0.104	104.%	
Ethylbenzene-mg/kg	0002491-05		0.1	0.109	109.%	
Toluene-mg/kg	0002491-05		0.1	0.107	107.%	
p/m-Xylene-mg/kg	0002491-05		0.2	0.227	113.5%	
o-Xylene-mg/kg	0002491-05		0.1	0.107	107.%	

TRIDENT ENVIRONMENTAL

Trident Environmental
P.O. Box 7624
Midland, Texas 79708
(915) 682-0808
(915) 689-4578 (Fax)

V-106-CC13-01

Chain of Custody

Date 7/18/02 Page 1 of 1

203953

Lab Name: Environmental Lab of Texas, Inc.
Address: 12600 West I-20 East
Odessa, TX 79763
Telephone: (915) 563-1800 Fax: (915) 563-1713

Samplers (SIGNATURES) Dale Littlejohn

Sample Identification	Matrix	Date	Time	Sample Type: G - Grab, C- Composite	BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)	TPH (TX-1006)	GRO (EPA 8015G) C x T	DRO (EPA 8015D) Ran	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals	Number of Containers
01 Floor-1 (5.5')	Soil	7/18	0720	G	✓								✓	✓					1
02 SE Floor-1 (4')	"	"	0730	G									✓	✓					1
03 Stockpile-1	"	"	0740	C	✓								✓	✓					1

Project Information		Sample Receipt	
Project Name:	Duke Energy Field Services	Total Containers:	
Project Location:	CC#13	COC Seals:	
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	YC
Cost Center No.:	V-106	Conforms to Records:	
Shipping ID No.:		Lab No.:	
Bill to (see below):	Duke Energy Field Services		
Special Instructions:	Attn: Steve Weathers POBox 5493 Denver, CO 80217		

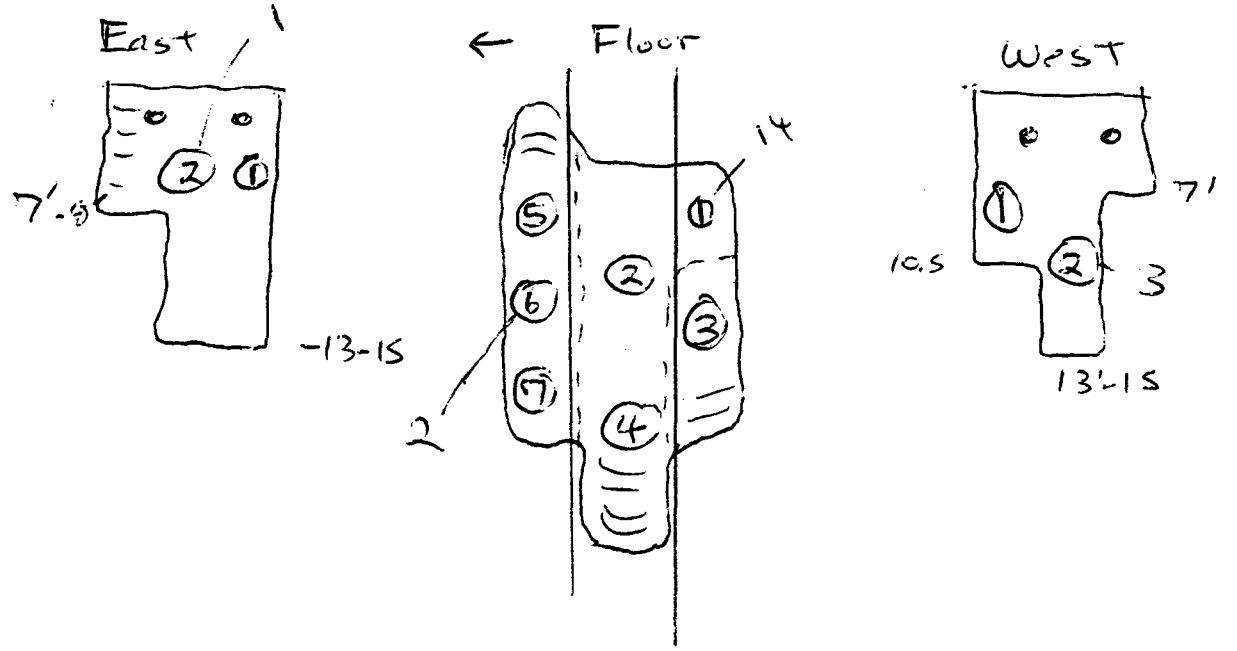
Relinquished By: (1) (Company)	Relinquished By: (2) (Company)	Relinquished By: (3) (Company)
Trident Environmental		
(Printed Name) ~~Gil Van Deventer~~ Dale Littlejohn	(Printed Name)	(Printed Name)
(Signature) Dale Littlejohn	(Signature)	(Signature)
(Date) 7/18/02 (Time) 0904	(Date) (Time)	(Date) (Time)
Received By: (1) (Company)	**Received By: (2) (Company)**	**Received By: (3) (Company)**
(Printed Name) Shawn Mussett	(Printed Name)	(Printed Name)
(Signature)	(Signature)	(Signature)
(Date) 7/18/02 (Time) 0904	(Date) (Time)	(Date) (Time)

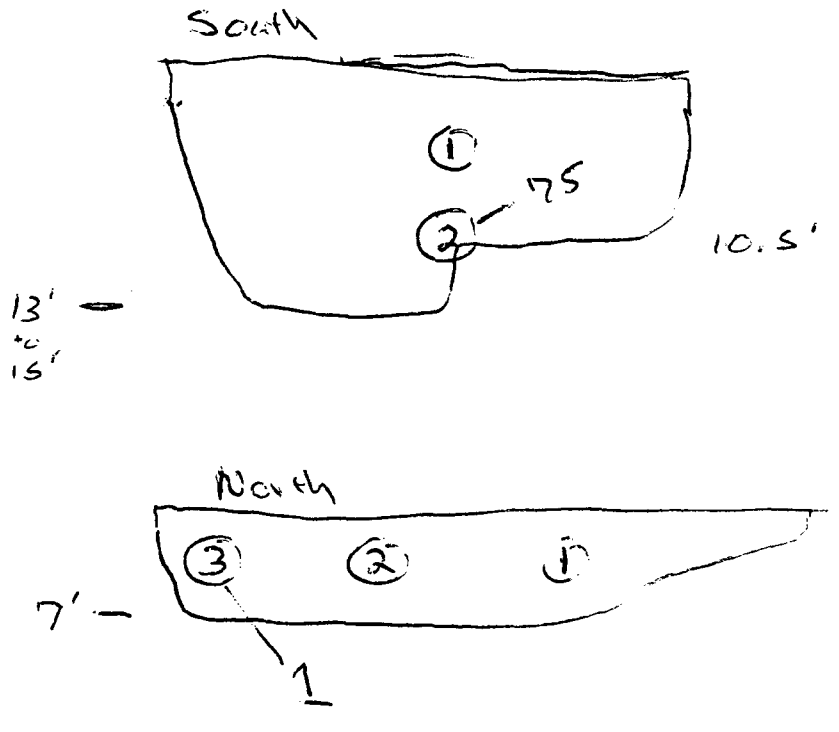
Copy signed original form for Trident Environmental records

ATTACHMENT C

FIELD BOOK NOTES

7/19/02 Field Screening





6-20-02

CC-12

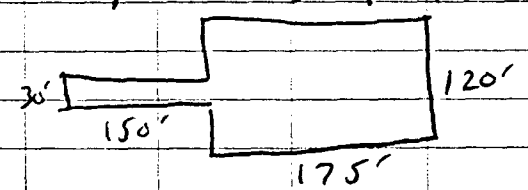
6/18 25 loads hauled to C-5
6/19 backfilled
6/20 ~20 loads hauled to C-5

Monty will repair Tuffy's road with 18 loads of caliche

6-25-02

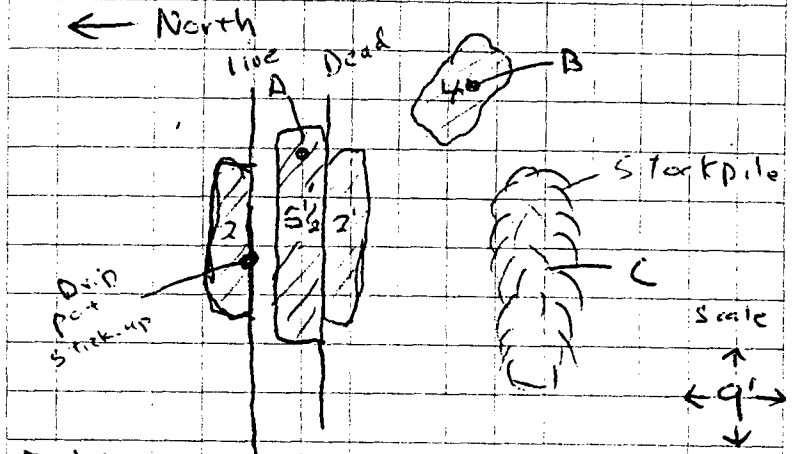
Received call from Roy with following information:

- 45 loads total contaminated soil hauled to cell C-5 at landfarm
- 16 loads caliche hauled in to repair Tuffy's road/drive
- Damaged area 30'×150' + 120'×175'



DTL 7-18-02 ①

0510 ct leave Midland for CC-13 ← BSW
0700 ct arrive at site, calib PID
-Checked PID - 98 ppm OK



Field Screened pit, all < 1 ppm, except Btm on east side, Bagged following

*	BTM-E -5½'	PID = 59 ppm
	BTM-M -5½'	PID = 5 ppm
	BTM-W -5½'	PID = 3 ppm
*	SE BTM - 4'	PID = 15 ppm
*	Stockpile - C'	PID = 15 ppm

A) Floor-1 (5½') 0207180720 (East)
B) SE Floor - 1 (4') 0207180730
C) Stockpile - 1 (C) 0207180740
0810 - leave site for John's site

(2) 7/18/02 DTL

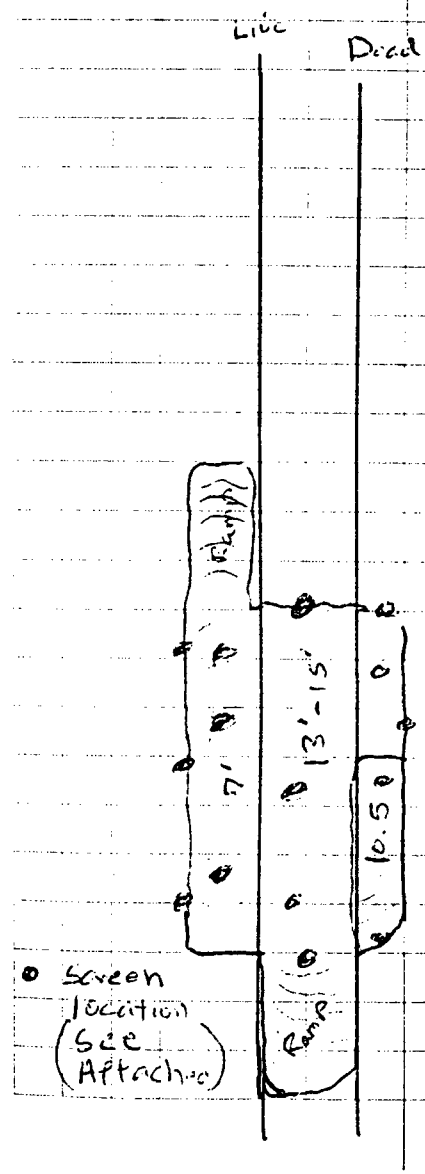
1250 - leave Ethridge site for lunch, (100 mi)
1340 - leave lunch for CC-13
1355 - Arrive at CC-13, strong HC odor in South wall, OCD (Larry) arrived, checked pit, looked at CC-14 (Photos) Will return Friday Morning to sample (8:00 MT)
1440 Leave CC-13, travel to Ethridge Ranch to help John
1455 Arrive at Eldridge Ranch (130 mi)
1949 Travel from Eldridge to Hobbs
2010 Arrive in Hobbs

7/19/02

0715 leave Hobbs for CC-13
0755 Arrive CC-13 - (21 mi from Hobbs)
Rained yesterday / last night pit muddy, but no standing water

DTL 7/19/02 (3)

← North



Check Calib. = 95 ppm
Re-cal to 99 ppm

	PID ppm
Floor 1	14
" 2	7
" 3	2
" 4	2
" 5	2
" 6	2
" 7	2
East 1	1
" 2	1
West 1	2
" 2	3
South 1	2
" 2	75
North 1	0
" 2	0
Backfill	2
North 3	1

(4) 7/19/02 NTC

Laboratory Samples [PID]

* Floor-2 * SE (15') [Floor-1]
* Floor-2 N (8') [Floor-6]
* East-1 (10') [East-1]
* West-1 (12') [West-2]
* South-1 (12') [South-2]
* North-1 (6') [North-3] screenings #s
* Backfill

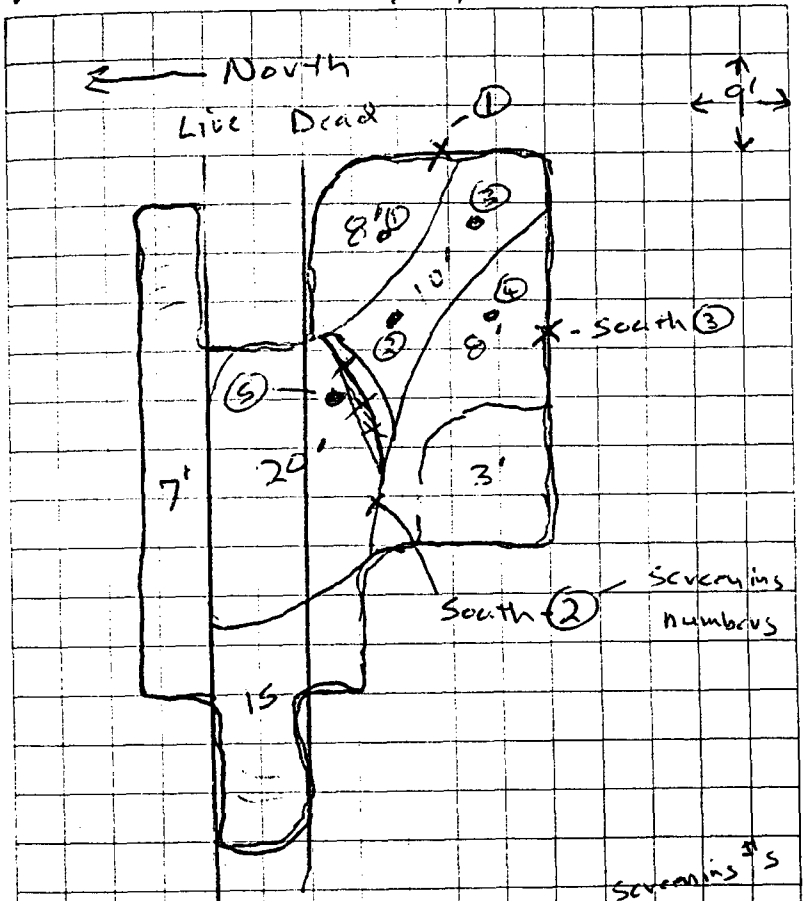
1100 Leave CC-13 for Lab (176 mi)
1315 Arrive at Midland (280 mi)

7/24/02

0720 Leave Midland for CC-13
0915 Arrive at site, recover soil samples from pit (see attached screen map)
1000 Check PID Cal. (98 ppm) + meter samples (screenings)

South-1 - 5' - 0 ppm
✓South-2 - 12' - 0 ppm
East-1 - 8' - 0 ppm
Floor-1 - 8' - 0 ppm
Floor-2 - 10' - 0 ppm
✓Floor-3 - 10' - 0 ppm
Floor-4 - 8' - 0 ppm
✓Floor-5 - 20' - 0 ppm

NTL 7/24/02 (5)



Lab Samples

Floor-3 SE 20' [Floor 5]
Floor-3 ExSE 10' [Floor-3]
South-2 12' [south-2].

*Gs of Mon (7/22) hauled 23 loads to C-5

1035 Leave site for Lab

TRIDENT ENVIRONMENTAL

January 8, 2003

Mr. Paul R. Sheeley
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

Re: Work Plan for Removal of Hydrocarbon-Impacted Soils along Pipeline right-of-way operated by Duke Energy Field Services near Monument, New Mexico (C-23-2 sites)

Dear Mr. Sheeley:

Trident Environmental (Trident) was retained by Duke Energy Field Services, LP (DEFS) to prepare this work plan for the removal of hydrocarbon-impacted soil at three locations along the "C-23-2" pipeline right-of-way operated by DEFS near Monument, New Mexico in Lea County. The purpose of this work plan is to develop procedures that meet the requirements of the landowner, New Mexico Oil Conservation Division (OCD), and DEFS. Walton Construction Co., Inc. (Walton) will perform the soil excavation and transport the soil to the South Monument Surface Waste Facility L.L.C. (Permit No. NM-01-0032). Walton will be responsible for contacting the New Mexico One Call for all line location requests. Trident Environmental personnel will also periodically collect soil samples to characterize the extent of hydrocarbon-impact and advise DEFS when cleanup target levels have been achieved where practicable.

Site Location

The latitude, longitude, and legal coordinates of the three sites are listed below:

Site Name	Latitude	Longitude	Township-Range-Section-UL
C-23-2 (Site #1)	32° 33.081'	103° 18.614'	T20S-R36E-S25-UL-C
C-23-2 (Site #2)	32° 33.077'	103° 18.535'	T20S-R36E-S25-UL-C
C-23-2 (Site #3)	32° 33.072'	103° 18.357'	T20S-R36E-S25-UL-B

Soil Sampling Procedures

During excavation operations, subsurface soil samples will be collected and submitted to an analytical laboratory to characterize the approximate lateral and vertical extent of hydrocarbon-impacted soil at each site. Samples will be collected by Trident with stainless steel trowels and/or hand augers. During the course of excavation activities, samples will also be collected for headspace analysis using an organic vapor meter (OVM), which will be calibrated to assume a benzene response factor. The headspace analysis will be used as guidance for continuation or cessation of excavation activities. All soil sampling, headspace analysis, and laboratory analysis will be performed in accordance with OCD *"Guidelines for Remediation of Leaks, Spills, and Releases"* (August 13, 1993). Excavation operations will cease when laboratory analysis of collected samples indicates the extent of hydrocarbon-impacted soils remaining in the excavation is 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)

Upon completion of excavation activities, closure samples will be collected as follows:

- A minimum of one grab sample collected along each wall (north, south, east and west sides) in closest proximity to the location with the highest OVM reading and/or the location where most staining/pooling has been observed.

- A minimum of one grab sample will be collected from the floor of the excavation in closest proximity to the location with the highest OVM reading and/or the location where most staining/pooling has been observed.

Soil samples submitted to the laboratory shall be analyzed for gas and diesel range organics (GRO and DRO) using EPA Method 8015 to determine TPH concentrations. Samples with OVM readings or GRO levels above 100 ppm will also be analyzed for BTEX using EPA Method 8021B.

Soil Stockpiling and Backfilling

An effort to segregate clean versus impacted soil during excavation will be made. Only hydrocarbon-impacted soil that exceeds 100 mg/kg TPH, 10 mg/kg benzene, and/or 50 mg/kg total BTEX will be transported to the South Monument 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 is assumed since groundwater is reportedly less than 50 feet below ground surface. Any excavated soils below the remediation action levels may be returned to the excavation after sampling and analysis verification. The landowner will provide nonhydrocarbon-impacted native soil and it will be used as additional backfill in the excavation until the original grade of the excavated site is restored as practicable.

Recordkeeping and Waste Disposition

A field logbook and photographs will also be used to record work related activities. Site data forms that will document pertinent information (Attachment A) will be completed for each site. The site data forms will include:

- Date and time of arrival/departure
- Site location (unit letter, section, township, range, and latitude/longitude)
- Site map (excavated area, sample locations, and pertinent structures)
- OVM readings (sample screening)
- Depth and areal extent of excavation (explanation and site sketch)
- Volume of excavated soil in cubic yards
- Comments (weather, visitors, crew names)
- Copy of notes from field book

A letter report will be prepared by Trident Environmental describing the excavation procedures, sample methods, analytical results, and supporting documentation (site data forms, C-141 form, laboratory analytical reports, and photodocumentation). The letter report will be submitted to the District OCD office along with a request from DEFS for no further action.

If you find the procedures proposed in this work plan acceptable please acknowledge your approval verbally followed with written backup at your convenience. Work is scheduled to begin January 13, 2003. DEFS and Trident look forward to working with the OCD in getting closure to the affected site. Please feel free to contact Mr. Steve Weathers (DEFS) at (303) 605-1718 or myself at (915) 682-0808 if you have any questions.

Sincerely,

Gilbert J. Van Deventer, REM
Project Manager

Attachments

xc: Steve Weathers, DEFS - Denver, CO
Clay Cooper, landowner – Hobbs, NM

D:\DUKE\CC151617WORKPLAN.DOC

Sheeley, Paul

From: Sheeley, Paul
Sent: Wednesday, January 08, 2003 10:38 AM
To: 'Gilbert J Van Deventer'
Subject: RE: Work plan for soil cleanup along DEFS C-23-2 pipeline ROW

Gil,

The referenced remediation project for the locations described herein is hereby approved according to previous Clay Cooper sites. Please continue to adhere to OCD guidelines, existing routine work plan and 48-hr. sampling notification.

Thanks,
Paul S.

-----Original Message-----
From: Gilbert J Van Deventer [mailto:kickbooty@juno.com]
Sent: Wednesday, January 08, 2003 9:34 AM
To: PSheeley@state.nm.us
Cc: LWJohnson@state.nm.us; swweathers@duke-energy.com; kcooper763@aol.com
Subject: Work plan for soil cleanup along DEFS C-23-2 pipeline ROW

Paul:

Please acknowledge your approval for DEFS to begin soil cleanup activities along the C-23-2 pipeline ROW which is scheduled to begin Monday January 13th. This is a continuation of the same work done on Clay Cooper property (CC-1 through CC-14). DEFS has just changed the site/project names to reflect the pipeline designation. The site locations are as follows:

C-23-2 (Site #1)
T20S, R36E, Sec 25, UL C
Latitude: N 32 33.081'
Longitude: W 103 18.614'

C-23-2 (Site #2)
T20S, R36E, Sec 25, UL C
Latitude: N 32 33.077'
Longitude: W 103 18.535'

C-23-2 (Site #3)
T20S, R36E, Sec 25, UL B
Latitude: N 32 33.072'
Longitude: W 103 18.357'

Thanks, Gil

Gilbert J. Van Deventer, REM
Trident Environmental
Office: 915-682-0808
Fax/Home: 915-682-0727

Mobile: 915-638-3106