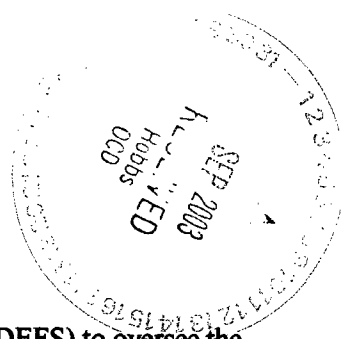




August 7, 2003

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

Re: Removal of Hydrocarbon-Impacted Soils from the C-23-2 (Site #2) site  
Township 20 South, Range 36 East, Section 25, 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, C-23-2 (Site #2), is located in Section 25 (Unit C), Township 20 South, Range 36 East on property owned by Dale Cooper and managed by Clay Cooper. The location of the C-23-2 (Site #2) 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<sup>3</sup> dump trucks for earthmoving services. An area adjacent to two pipelines was excavated where Mr. Cooper identified indications of hydrocarbon-impacted soils. The source of hydrocarbon-impacted soil was observed directly below a pipe clamp along the 12" steel (active) pipeline (C-23-2 line). The 12" steel pipeline had already been replaced with polyline adjacent to east side of excavation. Another 12-inch steel pipeline (F-3 line) located approx. 10 feet south of the active line is temporarily out of service and showed no indication of hydrocarbon-impacted soil beneath it. 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)

Duke - 229153  
facility - FPAC0605349836

inspect - ePAC0605349976  
incident - nPAC0605350126  
application - pPAC0605354085

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 or GRO 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.

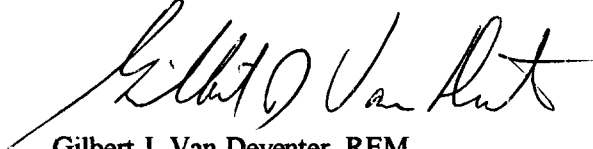
Approximately 1,172 cubic yards of hydrocarbon-impacted soils were transported by Walton Construction to cell C-4 at the South Monument Landfarm, which is owned and operated by Ms. Kena Kay Cooper (OCD Rule 711 Permit Approval NM-01-0032). A completed *Release Notification and Corrective Action* (C-141) 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



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Lori Wrotenbery**

Director

**Oil Conservation Division**

September 19, 2003

**Duke Energy Field Services (DEFS)**

**Attn: Stephen Weathers**

**370 17<sup>th</sup> Street, Suite 900**

**Denver, CO 80202**

**Re: Remediation Closure Approval for Removal of Hydrocarbon-Impacted Soils**

**C-23-2, (sites: 1, 2, 3)**

**Site Location: UL-B, Sec 25-T20S-R36E**

**All Dated: August 7, 2003**

Dear Mr. Weathers,

The remediation closures referenced above and submitted to the New Mexico Oil Conservation Division (OCD) by Trident Environmental for DEFS are **hereby approved**. According to the information provided no further action is required at this time.

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 write or call: (505) 393-6161, ext. 113, or email:

[psheeley@state.nm.us](mailto:psheeley@state.nm.us)

Sincerely,

Paul Sheeley-Environmental Engineer

Cc: Roger Anderson - Environmental Bureau Chief

Chris Williams - District I Supervisor

Bill Olson - Hydrologist

Larry Johnson - Environmental Engr.

**ATTACHMENT A**

**TOPOGRAPHIC MAP**

**SITE MAP**

**SITE DATA FORM**

**C-141 FORM**

**PHOTODOCUMENTATION**



## Site Data Form

Trident Technician: GJV Excavation Crew Names: Walton Construction Site ID: C-23-2 (Site #2)  
 Site Location: Latitude 32° 33.081' N Longitude 103° 18.614' W County: Lea State: New Mexico  
 Township 20 South Range 36 East Section 25 Unit C  
 Begin Excavation (Date/Time) 01/24/03 Complete Excavation (Date/Time) 03/05/03

**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 Silty clay at depth

**EXCAVATION DIMENSIONS** Length ~ 50 feet Width ~ 45 feet Average Depth 15 feet Maximum Depth 18 feet

**VOLUME EXCAVATED:** ~1,800 yd<sup>3</sup> **VOLUME HAULED TO LANDFARM:** 1,172 yd<sup>3</sup>

### SUMMARY OF ANALYTICAL RESULTS

Sample ID (Depth)	Sample Location	OMV (ppm)	GRO (mg/kg)	DRO (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
A (3')	Floor	1.0	< 10	< 10	NA	NA	NA	NA
B (5')	Floor	0.0	< 10	< 10	NA	NA	NA	NA
C (3')	Floor	211	2,660	11,200	1.28	2.26	6.24	22.4
C (8')	Floor	57	< 10	< 10	<0.025	<0.025	<0.025	<0.025
C (15')	Floor	2.2	< 10	< 10	NA	NA	NA	NA
D (18')	Floor	1.0	< 10	< 10	NA	NA	NA	NA
E (8')	East Wall	3.5	< 10	< 10	NA	NA	NA	NA
F (8')	North Wall	2.6	< 10	< 10	NA	NA	NA	NA
G (8')	West Wall	1.3	< 10	< 10	NA	NA	NA	NA
H (8')	South Wall	1.3	< 10	< 10	NA	NA	NA	NA
Backfill	Stockpile	0.5	< 10	< 10	NA	NA	NA	NA
Exc. Soil	Stockpile	275	1,030	4,840	2.01	6.04	2.73	8.42

Comments: The area below sample C ( 3' ), directly below the clamp along the active 12" steel pipeline, was excavated further until concentrations were below OCD guidelines as confirmed by subsequent samples C (8'), C (15'), and D (18').

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: C-23-2 (Site #2)	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
C	25	20S	36E	32° 33.081' N	103° 18.614' W	Lea

**NATURE OF RELEASE**

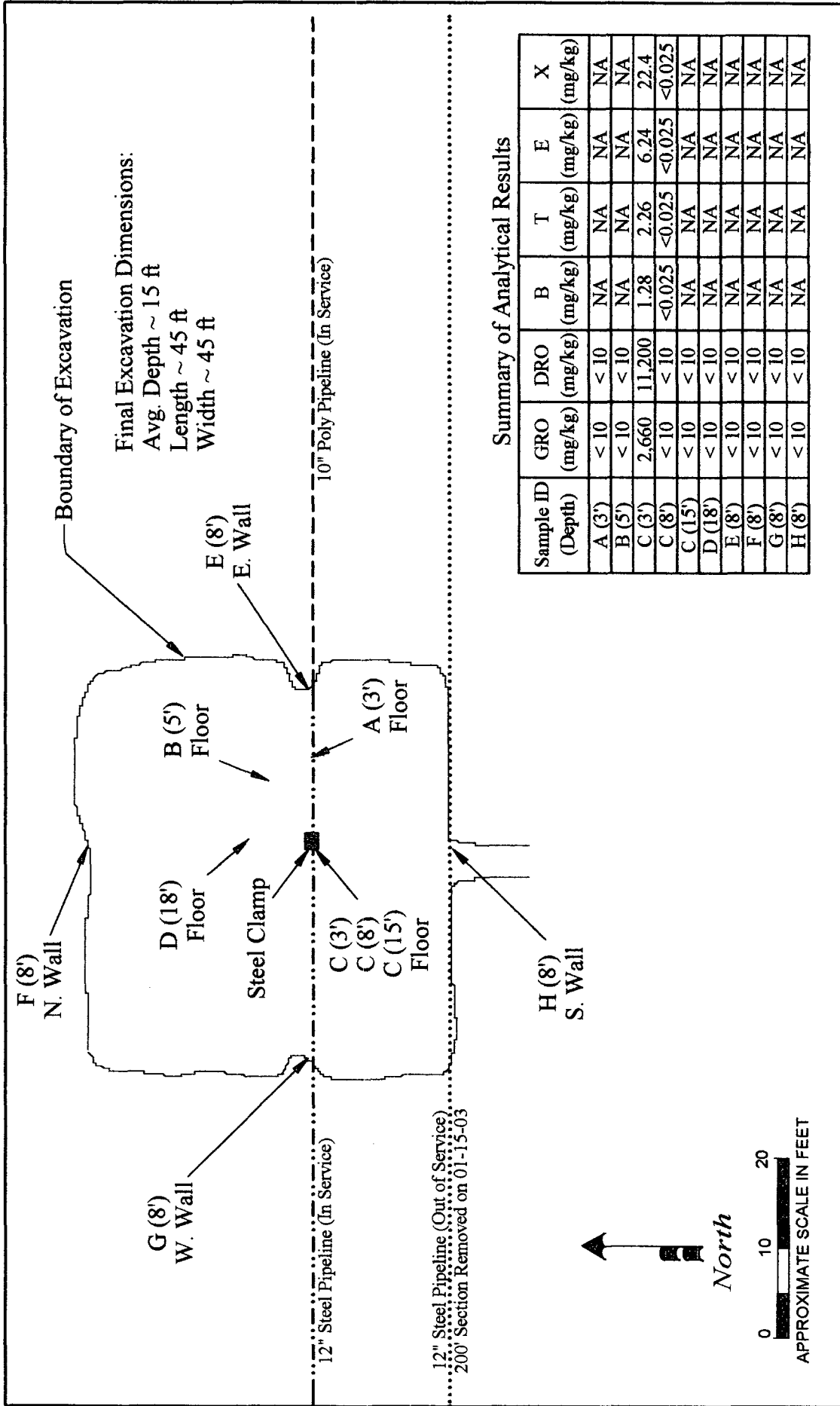
Type of Release Condensate	Volume of Release Unknown	Volume Recovered 1,172 yd <sup>3</sup> soil removed	
Source of Release Pipeline	Date and Hour of Occurrence Unknown	Date and Hour of Discovery Unknown	
Was Immediate Notice Given? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Required	If YES, To Whom? Larry Johnson, 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 subsurface external corrosion. During excavation activities one clamp was visible along the 12" steel pipeline. The 12" steel pipeline was replaced with polyline adjacent to east side of excavation. Removal of impacted soil requested by landowner (Clay Cooper).			
Describe Area Affected and Cleanup Action Taken.* On 01/24/03 over-excavation was initiated. Excavation continued until 02/07/03. The excavation was approximately 15 ft deep and measured approx. 45 ft wide by 45 ft long. Approximately 1,172 cu yds of soil was transported to cell C-4 at the South Monument Land Farm. Backfilling of excavation was completed on 02/14/03. 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:		Approved by District Supervisor:	
Printed Name: Stephen Weathers			
Title: Environmental Specialist	Approval Date:	Expiration Date:	
Date:	Phone: (303) 605-1718	Conditions of Approval:	Attached <input type="checkbox"/>

\* Attach Additional Sheets If Necessary



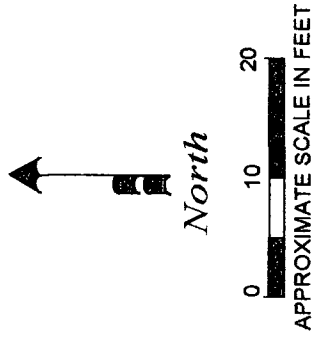






Summary of Analytical Results

Sample ID (Depth)	GRO (mg/kg)	DRO (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
A (3')	< 10	< 10	NA	NA	NA	NA
B (5')	< 10	< 10	NA	NA	NA	NA
C (3')	2,660	11,200	1.28	2.26	6.24	22.4
C (8')	< 10	< 10	< 0.025	< 0.025	< 0.025	< 0.025
C (15')	< 10	< 10	NA	NA	NA	NA
D (18')	< 10	< 10	NA	NA	NA	NA
E (8')	< 10	< 10	NA	NA	NA	NA
F (8')	< 10	< 10	NA	NA	NA	NA
G (8')	< 10	< 10	NA	NA	NA	NA
H (8')	< 10	< 10	NA	NA	NA	NA



**CLIENT NAME:** DUKE ENERGY FIELD SERVICES LP

**DATE:** 03/05/03      **REVISION NO.:** 1

**DRAWN BY:** GJV      **FILENAME:** SITE2.TCW

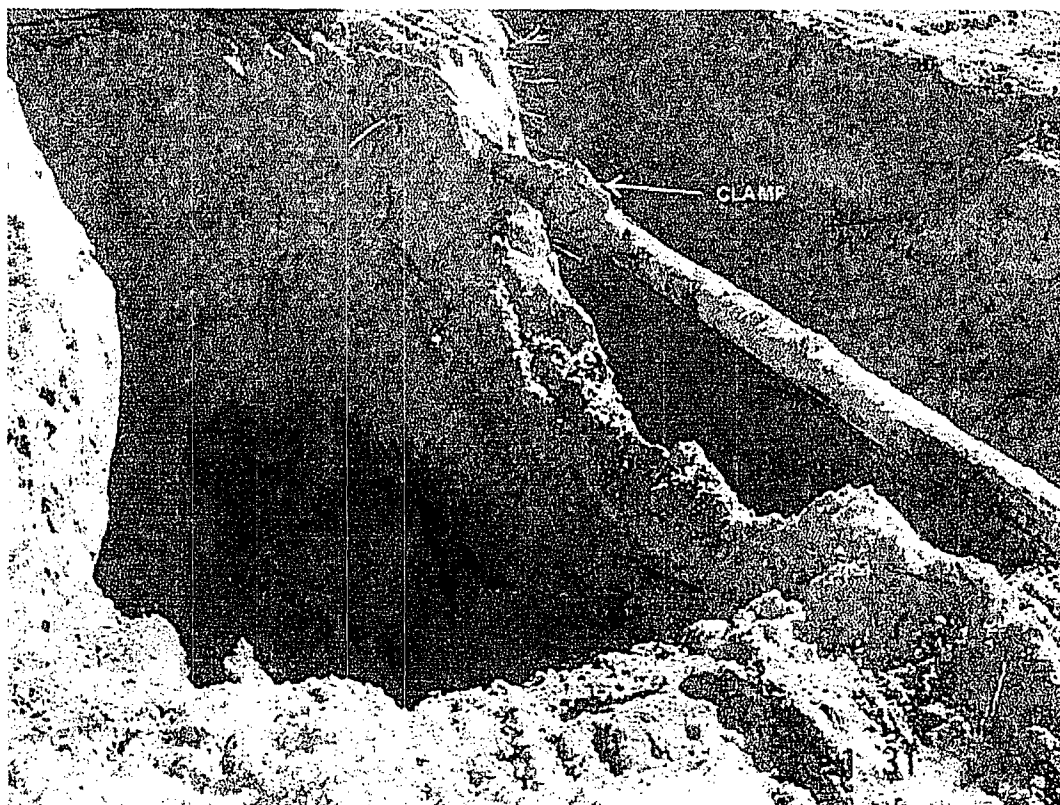
**CHECKED BY:** DTL      **SCALE:** 1 INCH = 15 FT

# SITE MAP

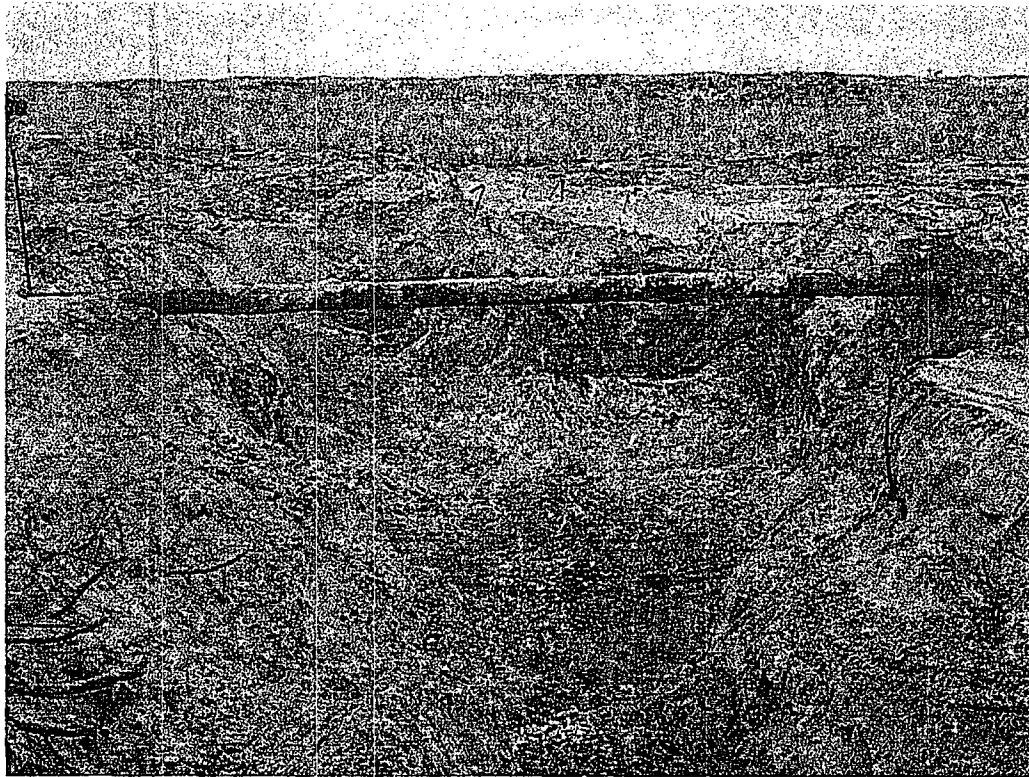
C-23-2 (Site #2)



1 View facing west showing initial excavation. Pipeline marker (center) marks where 12-inch steel line (west side) is joined with 10-inch poly line (east side) along active pipeline. Inactive 12-inch steel pipeline (upper left) is shown where a 200-ft section was cut off and removed. 01-24-03



2 View facing southeast showing hydrocarbon-stained soil and location of pipe clamp along 12-inch active pipeline (top center). 01-31-03



3 View facing north showing floor and north wall after completion of excavation. 02-07-03



4 View facing south showing floor and south wall after completion of excavation. 02-07-03

**ATTACHMENT B**

**LABORATORY ANALYTICAL REPORTS**

**AND**

**CHAIN-OF-CUSTODY DOCUMENTATION**

C-23(#2)

## ANALYTICAL REPORT

**Prepared for:**

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

**Project:** Duke Energy Field Services  
**PO#:** V-106  
**Order#:** G0305553  
**Report Date:** 01/27/2003

**Certificates**

**US EPA Laboratory Code TX00158**

C-23(#2)

# ENVIRONMENTAL LAB OF TEXAS

## SAMPLE WORK LIST

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

Order#: G0305553  
Project:  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

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, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305553-01	A (3')	SOIL	1/24/03 12:25	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305553-02	B (5')	SOIL	1/24/03 12:30	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305553-03	Backfill	SOIL	1/24/03 12:40	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305553-04	Exc. Soil	SOIL	1/24/03 12:45	1/24/03 19:30	4 oz Glass	Ice
	<u>Lab Testing:</u> 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#: G0305553  
Project:  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305553-01

Sample ID: A (3')

**8015M**

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		1/25/03	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	112%	70	130
1-Chlorooctadecane	121%	70	130

Lab ID: 0305553-02

Sample ID: B (5')

**8015M**

Method	Date	Date	Sample	Dilution		
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>	<u>Analyst</u>	<u>Method</u>
		1/25/03	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	118%	70	130
1-Chlorooctadecane	126%	70	130

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0305553  
Project:  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305553-03

Sample ID: Backfill

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
		1/25/03	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	114%	70	130
1-Chlorooctadecane	125%	70	130

Lab ID: 0305553-04

Sample ID: Exc. Soil

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
		1/25/03	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	114%	70	130
1-Chlorooctadecane	130%	70	130

Approval: *Raland K Tuttle* 1-27-03  
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.



# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0305553

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004451-02			<10.0		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305554-01	1127	952	1860	77.7%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305554-01	1127	952	2030	94.9%	8.7%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004451-05		1000	834	83.4%	

**V-106-C-23-1-02**

# Chain of Custody

Date 1-24-03 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)						
Sample Identification		Matrix	Date	Time		
A(3')		Soil	1-24-03	12:25		
B(5')		Soil	1-24-03	12:30		
Backfill		Soil	1-24-03	12:40		
Exc. Soil		Soil	1-24-03	12:45		
Analysis Request						
BTEX (EPA 8021B)	MTBE (EPA 8021B)	SVOC (EPA 8270)	PAH (EPA 8270)	VOC (EPA 8260)	TPH (EPA 418.1)	TPH (TX-1005)
GRO (EPA 8015G)	DRO (EPA 8015D)	TDS (EPA 160.1)	Anions/Cations	Total Metals	TCLP Metals	Number of Containers
✓	✓	✓	✓	✓	✓	1
✓	✓	✓	✓	✓	✓	1
✓	✓	✓	✓	✓	✓	1
✓	✓	✓	✓	✓	✓	1
Relinquished By:						
(1) (Company)	(2) (Company)	(3) (Company)				
Trident Environmental						
Project Information		Sample Receipt				
Project Name:	Duke Energy Field Services	Total Containers:				
Project Location:	C-234 (Site #2)	COC Seals:				
Project Manager:	Gil Van Deventer	Rec'd Good Cond/Cold:	302			
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						
PO Box 5493						
Denver, CO 80217						

Copy signed original form for Trident Environmental records

C-23(42)

# ANALYTICAL REPORT

## Prepared for:

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

**Project:** Duke Energy Field Services  
**PO#:** V-106  
**Order#:** G0305607  
**Report Date:** 02/07/2003

## 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#: G0305607  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

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, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305607-01	C (3')	SOIL	1/31/03 9:30	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 4 C		
0305607-02	C (8')	SOIL	1/31/03 9:35	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 4 C		
0305607-03	C (15')	SOIL	1/31/03 10:05	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 4 C		
0305607-04	D (18')	SOIL	1/31/03 11:00	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 4 C		
0305607-05	Exc. Soil	SOIL	1/31/03 10:10	1/31/03 14:10	4 oz Glass	Ice
	<u>Lab Testing:</u> 8015M 8021B/5030 BTEX	Rejected: No		Temp: 4 C		

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0305607  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305607-01

Sample ID: C (3')

### 8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
		1/31/03	1	10	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	2660	100
DRO, >C12-C35	11200	100
TOTAL, C6-C35	13860	100

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	14%	70	130
1-Chlorooctadecane	28%	70	130

### 8021B/5030 BTEX

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
0004551-02		2/6/03 1:37	1	200	RKT	8021B

Parameter	Result mg/kg	RL
Benzene	1.28	0.200
Toluene	2.26	0.200
Ethylbenzene	6.24	0.200
p/m-Xylene	15.9	0.200
o-Xylene	6.48	0.200

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	127%	80	120
Bromofluorobenzene	128%	80	120

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0305607  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305607-02

Sample ID: C (8')

### 8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/31/03	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	90%	70	130
1-Chlorooctadecane	91%	70	130

### 8021B/5030 BTEX

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004510-02		2/2/03	1	1	RKT	8021B

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

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	98%	80	120
Bromofluorobenzene	116%	80	120

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

Page 2 of 4

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# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0305607  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305607-03  
Sample ID: C (15')

**8015M**

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		1/31/03	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	86%	70	130
1-Chlorooctadecane	87%	70	130

Lab ID: 0305607-04  
Sample ID: D (18')

**8015M**

Method	Date	Date	Sample	Dilution	Analyst	Method
<u>Blank</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Amount</u>	<u>Factor</u>		
		1/31/03	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	92%	70	130
1-Chlorooctadecane	92%	70	130

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

Page 3 of 4

# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0305607  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305607-05

Sample ID: Exc. Soil

**8015M**

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		1/31/03	1	5	CK	8015M

Parameter	Result mg/kg	RL
GRO, C6-C12	1030	50.0
DRO, >C12-C35	4840	50.0
TOTAL, C6-C35	5870	50.0

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	22%	70	130
1-Chlorooctadecane	34%	70	130

**8021B/5030 BTEX**

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
0004510-02		2/2/03	1	1	RKT	8021B

Parameter	Result mg/kg	RL
Benzene	2.01	0.10
Toluene	6.04	0.100
Ethylbenzene	2.73	0.100
p/m-Xylene	6.28	0.100
o-Xylene	2.14	0.100

Surrogates	% Recovered	QC Limits (%)	
aaa-Toluene	244%	80	120
Bromofluorobenzene	139%	80	120

Approval:

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

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# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305607

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004510-02			< 0.025		
Benzene-mg/kg		0004551-02			<0.025		
Toluene-mg/kg		0004510-02			< 0.025		
Toluene-mg/kg		0004551-02			<0.025		
Ethylbenzene-mg/kg		0004510-02			< 0.025		
Ethylbenzene-mg/kg		0004551-02			<0.025		
p/m-Xylene-mg/kg		0004510-02			< 0.025		
p/m-Xylene-mg/kg		0004551-02			<0.025		
o-Xylene-mg/kg		0004510-02			< 0.025		
o-Xylene-mg/kg		0004551-02			<0.001		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305598-01	0.041	2.73	2.58	94.5%	
Benzene-mg/kg		0305630-01	0	0.1	0.110	110.%	
Toluene-mg/kg		0305598-01	0.2	2.73	2.68	90.8%	
Toluene-mg/kg		0305630-01	0	0.1	0.117	117.%	
Ethylbenzene-mg/kg		0305598-01	0.094	2.73	2.72	99.6%	
Ethylbenzene-mg/kg		0305630-01	0	0.1	0.129	129.%	
p/m-Xylene-mg/kg		0305598-01	0.358	5.45	5.85	100.8%	
p/m-Xylene-mg/kg		0305630-01	0	0.2	0.253	126.5%	
o-Xylene-mg/kg		0305598-01	0.082	2.73	2.725	99.8%	
o-Xylene-mg/kg		0305630-01	0	0.1	0.127	127.%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0305598-01	0.041	2.73	2.62	94.5%	1.5%
Benzene-mg/kg		0305630-01	0	0.1	0.106	106.%	3.7%
Toluene-mg/kg		0305598-01	0.2	2.73	2.82	96.%	5.1%
Toluene-mg/kg		0305630-01	0	0.1	0.118	118.%	0.9%
Ethylbenzene-mg/kg		0305598-01	0.094	2.73	2.98	105.7%	9.1%
Ethylbenzene-mg/kg		0305630-01	0	0.1	0.129	129.%	0.%
p/m-Xylene-mg/kg		0305598-01	0.358	5.45	6.28	108.7%	7.1%
p/m-Xylene-mg/kg		0305630-01	0	0.2	0.258	129.%	2.%
o-Xylene-mg/kg		0305598-01	0.082	2.73	2.98	106.2%	8.9%
o-Xylene-mg/kg		0305630-01	0	0.1	0.122	122.%	4.%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
Benzene-mg/kg		0004510-05		0.1	0.102	102.%	
Benzene-mg/kg		0004551-05		0.1	0.111	111.%	
Toluene-mg/kg		0004510-05		0.1	0.104	104.%	
Toluene-mg/kg		0004551-05		0.1	0.111	111.%	
Ethylbenzene-mg/kg		0004510-05		0.1	0.096	96.%	

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0305607

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004515-02			<10.0		
<b>CONTROL</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004515-03		952	760	79.8%	
<b>CONTROL DUP</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004515-04		952	1000	105.%	27.3%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004515-05		1000	850	85.%	

# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8021B/5030 BTEX

Order#: G0305607

<b>SRM</b>	<b>SOIL</b>	<b>LAB-ID #</b>	<b>Sample Concentr.</b>	<b>Spike Concentr.</b>	<b>QC Test Result</b>	<b>Pct (%) Recovery</b>	<b>RPD</b>
Ethylbenzene-mg/kg		0004551-05		0.1	0.120	120.0%	
p/m-Xylene-mg/kg		0004510-05		0.2	0.214	107.0%	
p/m-Xylene-mg/kg		0004551-05		0.2	0.231	115.5%	
o-Xylene-mg/kg		0004510-05		0.1	0.097	97.0%	
o-Xylene-mg/kg		0004551-05		0.1	0.114	114.0%	

# CASE NARRATIVE

## ENVIRONMENTAL LAB OF TEXAS

**Prepared for:**

TRIDENT ENVIRONMENTAL  
P.O. BOX 7624  
MIDLAND, TX 79708

**Order#:** G0305607

**Project:** Duke Energy Field Services

The following samples were received as indicated below and on the attached Chain of Custody record. All analyses were performed within the holding time and with acceptable quality control results unless otherwise noted.

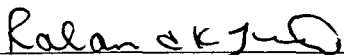
SAMPLE ID	LAB ID	MATRIX	Date Collected	Date Received
C (3')	0305607-01	SOIL	01/31/2003	01/31/2003
C (8')	0305607-02	SOIL	01/31/2003	01/31/2003
C (15')	0305607-03	SOIL	01/31/2003	01/31/2003
D (18')	0305607-04	SOIL	01/31/2003	01/31/2003
Exc. Soil	0305607-05	SOIL	01/31/2003	01/31/2003

Surrogate recoveries are outside control limits due to matrix interference from coeluting compounds.BTEX (0305607-01 & 02)

Surrogate recoveries are outside the control limits because they were diluted out. 1005 (0305607-01, -05)

The enclosed results of analyses are representative of the samples as received by the laboratory. Environmental Lab of Texas makes no representations or certifications as to the methods of sample collection, sample identification, or transportation handling procedures used prior to our receipt of samples. To the best of my knowledge, the information contained in this report is accurate and complete.

Approved By:

  
Environmental Lab of Texas I, Ltd.

Date:

2-07-03



**TRIDENT**  
ENVIRONMENTAL

# Chain of Custody

Date 1-31-03 Page 1 of 1

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**Copy signed original form for Trident Environmental records**

\*Add BTD to # 01 as per Gil / 2/3/03 @ 1630

C-23 (#2)

# ANALYTICAL REPORT

## Prepared for:

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

**Project:** Duke Energy Field Services  
**PO#:** V-106  
**Order#:** G0305669  
**Report Date:** 02/11/2003

## 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#: G0305669  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

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, unless otherwise noted.

<u>Lab ID:</u>	<u>Sample :</u>	<u>Matrix:</u>	<u>Date / Time</u> <u>Collected</u>	<u>Date / Time</u> <u>Received</u>	<u>Container</u>	<u>Preservative</u>
0305669-01	E (8')	SOIL	2/7/03 8:30	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305669-02	F (8')	SOIL	2/7/03 8:35	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305669-03	G (8')	SOIL	2/7/03 8:40	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 8015M	Rejected: No		Temp: 3.0 C		
0305669-04	H (8')	SOIL	2/7/03 8:45	2/7/03 19:15	4 oz glass	Ice
	<u>Lab Testing:</u> 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#: G0305669  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305669-01

Sample ID: E (8')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		2/10/03	1	1	CDH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	96%	70	130
1-Chlorooctadecane	93%	70	130

Lab ID: 0305669-02

Sample ID: F (8')

8015M

Method Blank	Date Prepared	Date Analyzed	Sample Amount	Dilution Factor	Analyst	Method
		2/10/03	1	1	CDH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	94%	70	130
1-Chlorooctadecane	93%	70	130

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

Page 1 of 2

ENVIRONMENTAL LAB OF TEXAS I, LTD.

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# ENVIRONMENTAL LAB OF TEXAS

## ANALYTICAL REPORT

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

Order#: G0305669  
Project: V-106  
Project Name: Duke Energy Field Services  
Location: C-23 (Site #2)

Lab ID: 0305669-03

Sample ID: G (8')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
		2/10/03	1	1	CDH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	92%	70	130
1-Chlorooctadecane	94%	70	130

Lab ID: 0305669-04

Sample ID: H (8')

8015M

Method	Date	Date	Sample	Dilution	Analyst	Method
Blank	Prepared	Analyzed	Amount	Factor		
		2/10/03	1	1	CDH	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

Surrogates	% Recovered	QC Limits (%)	
1-Chlorooctane	96%	70	130
1-Chlorooctadecane	99%	70	130

Approval:

Raland K. Tuttle, Lab Director, QA Officer  
Celey D. Keene, Org. Tech. Director  
Jeanne McMurrey, Inorg. Tech. Director  
Sandra Biezugbe, Lab Tech.  
Sara Molina, Lab Tech.

Date

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

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ENVIRONMENTAL LAB OF TEXAS I, LTD.

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# ENVIRONMENTAL LAB OF TEXAS

## QUALITY CONTROL REPORT

8015M

Order#: G0305669

<b>BLANK</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004576-02			<10.0		
TOTAL, C6-C35-mg/kg		0004583-02			<10.0		
<b>MS</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305663-01	0	952	989	103.9%	
TOTAL, C6-C35-mg/kg		0305670-01	0	1073.86	935	87.1%	
<b>MSD</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0305663-01	0	952	998	104.8%	0.9%
TOTAL, C6-C35-mg/kg		0305670-01	0	1073.86	949	88.4%	1.5%
<b>SRM</b>	SOIL	LAB-ID #	Sample Concentr.	Spike Concentr.	QC Test Result	Pct (%) Recovery	RPD
TOTAL, C6-C35-mg/kg		0004576-05		1000	1060	106.6%	
TOTAL, C6-C35-mg/kg		0004583-05		952	909	95.5%	

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

**TRIDENT**  
ENVIRONMENTAL

## Chain of Custody

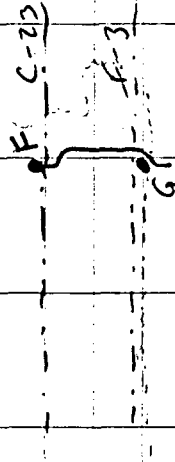
Date 2-7-03 Page 1 of 1

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**ATTACHMENT C**

**FIELD BOOK NOTES**

On site at 2:30 pm to collect floor sample beneath C-23 line below connection to 4" steel line (C-23-4) and a sample from the southeast wall beneath the C-23-4 line.



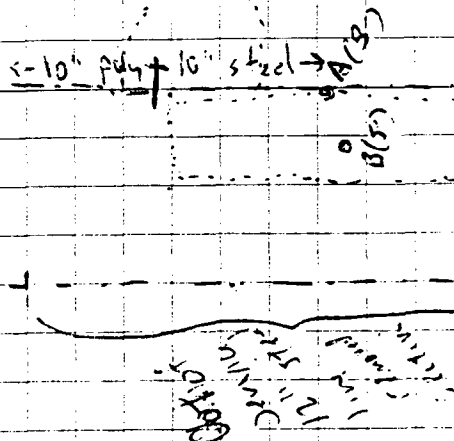
Time	OVM
F(9')	1440
G(5')	1445
	56

Calibrated OVM 98 ppm prior to sampling  
98 ppm after sampling

GP Van Dine

1200 C-23 (H2) Site

Backfilled soil was moved aside for access. Not much excavation was done at this point as the deposit appeared to be much contamination (no dark stained soil) however top sand dune soil was strong color (yellowish green) light gray color.



A(3) 1 ppm  
B(5) 0  
Backfill 0  
Exc Se 10

GP Van Dine

1-30-03

C-23 (#2)

~~After~~ Received lab results on Monday (1-27-03) and all samples A, B, Exc Soil, & Backfill had GRV & DRV less than 10 mg/kg. Paul Sheeley (OCD) that hole was clean and we intended to back fill. ~~Wed~~ after noon. Since excavation appeared clean. Paul Sheeley approved backfilling and was on site Wed afternoon. However, later in afternoon, Mike found some dark hydrocarbon stained soil further east. So I notified Steve W. & Paul Sheeley again that we would resume excavating/delineating on Friday morning.

Jim Van Dine

1-31-02

C-23 (#2)

0700-0900 Drive Midland to C-23 (#2) site

103 miles

0900 - Observed excavation, took photos. Observed source of leak to be from directly beneath a steel/rubber clamp. Size of impacted area does not appear very large or deep. Collected two samples C(3') & C(8') directly beneath clamp where highest observed staining was observed.

Sample ID	Time	OVM
C(3')	0930	211 ppm
C(8')	0935	57 ppm

OVM calibration  
Initial reading 36 ppm of calib gas  
100 ppm after calibration, before sampling  
104 ppm after sampling

0940. ~~0940~~ Paul Sheeley & Larry Johnson arrived on site. Took photos and were satisfied with our work on project. Paul asked us to excavate further east which we intended to do. They left at 0955.

Jim Van Dine

1-31-03

C-23 (#2)

Mile excavated deeper below clamp below bottom of observed contamination (15' below pipeline) soil could collect another bottom sample. Also collected another composite sample of excavated soil.

\* Clamp is located 20 ft east of pipe line marker where 10" poly line from west is connected to 12" line which continues east.

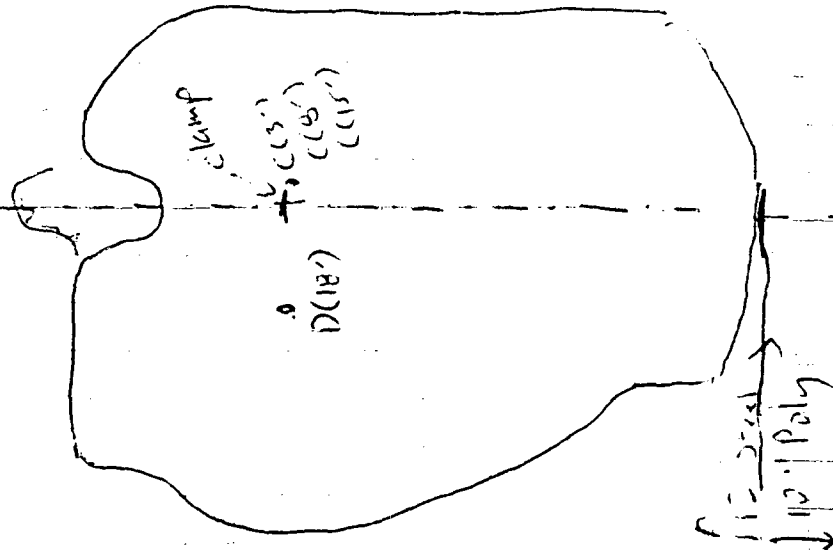
Sample ID	Time	QVM
C(15')	1005	212 ppm
Exc. Soil-2	1010	275 ppm
D(18')	1100	1 ppm

1130 MST Left site to deliver samples to Env. Lab of TX

Exc. Soil is being put in cell C-4

1-31-03

C-23 (#2)



2-7-03 C-23 (#2)

0600-0800 Drive Millard to site  
Objective: collect closure samples.  
Excavation is expected to be complete (pending analytical results of samples taken today).  
(Crew has been busy on another site for another client (Phillips near Buckeye), so not much work done at this location until recently.)

Equipment: PPE, camera, sampling tools,  
OVM

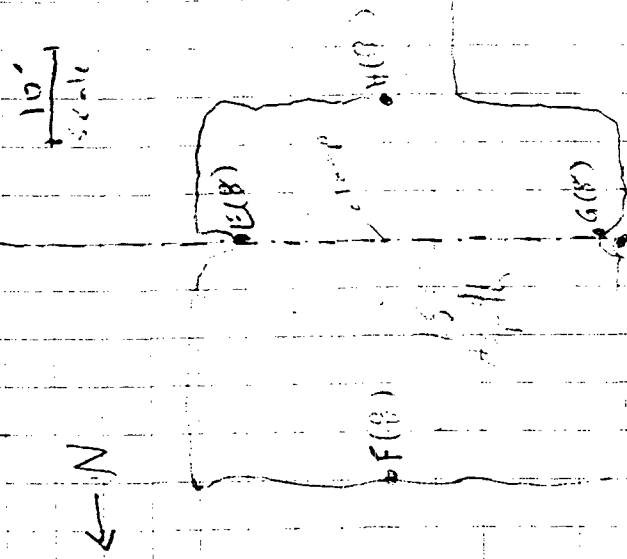
Weather: cold (25°F) light winds SE at 5-15 mph

Collected well samples E(8) & G(8) directly below pipeline and F(8) & H(8) directly north & south of clamp, respectively.

OVM Calibration

106 ppm before sampling  
102 ppm after sampling

2-7-03



Sample ID / Location	Time	OVM
E(8) East Well	0830	3.5
F(8) North Well	0831	2.6
G(8) South Well	0832	1.3
H(8) South Well	0835	1.3

Left site at 0830



2-11-02

C-23 (#2)

Received word from En. Lab. Tx  
(Kaland) that all samples (C, F, G, H)  
were <10 mg/kg. G.R.O. & D.R.O.  
En. Lab. Steve Weather & Paul Sholey  
that we ~~will~~ planned on backfilling  
excavation as early as Wednesday  
afternoon.

~~After~~

2-12-02

Received call from Steve Weather  
approving the backfill of C-23 (#2)

2-13-02

Received call from Roy Ruseon (Walter  
Curt) on okay to backfill. I  
requested to Roy that they minimize  
surface damage as much as possible.  
Roy will call tomorrow to let  
me know damages (sq ft) and amount  
of soil (yds) hauled to cell  
for C-23 (#1) side.

3-5-03

Received call from Roy:

Site #2

C-23 (#2)

Total 1172 yds hauled to cell C-4  
170' x 180' - damaged

C-23 (Site #3)

Hauled 28 loads into cell C-1

Roy said that at C-23 (#3) they  
began excavating with a backhoe  
yesterday. Down to about 6' deep  
(20'-30' long). Had to remove old  
steel out-of-service pipe line which  
had a riser and a  $\frac{1}{4}$ " hole  
(external corrosion).

No (excavating) activity  
scheduled for today, will resume  
tomorrow morning.