DEPUTY OIL & CAS INSPECTOR

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Jicarilla Apache Tribe Environmental Protection Office P.O. Box 507 Dulce, New Mexico 87528



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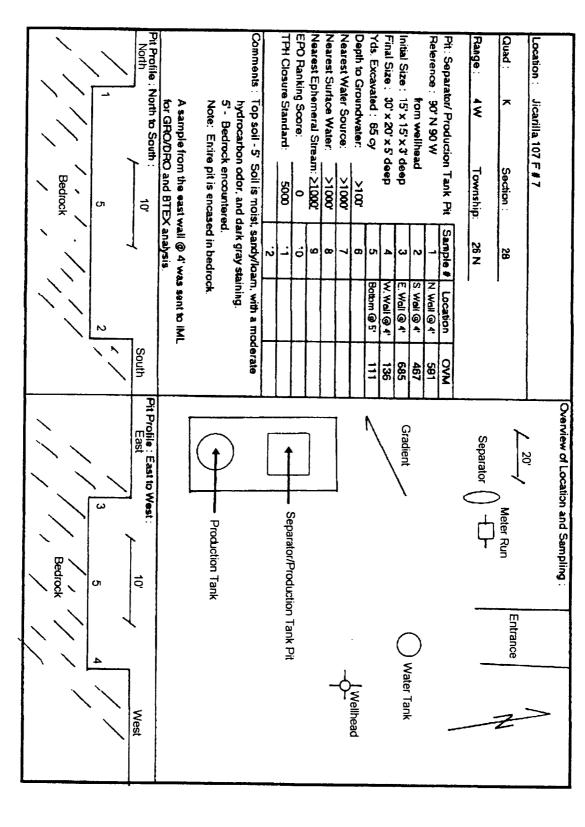
## Pit Remediation and Closure Report

Operator:	Taurus Explorat	ion U.S.A.,	Inc Telepho	ne:	(505)	<b>325-6800</b>		
Address:	2198 Bloomfield				·····			
Facility or Wel		Jicarilla 10				<del></del>	<del></del>	
Location:	Unit or Qtr/QTR	Sec "K" S	ec 28, T 26 N.	R4W	Count	<u>———</u> у	Rio Arriba	
Pit Type:	Separator:	Dehydrato				Production	Tank Pit	
Land Type:	Range							-
Pit Location:	Pit dimensions:	length:30 f	ft width: 20	O ft	depth:	5 ft		
(Attach Diagrai	m)						•	
	Reference:	wellhead: 2	X other:					
Foota	ige from reference:	90 fee	et .				•	
Directi	ion from reference:	90	Degrees	;	East	North	X	
			<u> </u>		•	of		
			>	<	West	South		
	- <u> </u>		·					
Depth To Grou			Less than	50 feet	(	(20 points)		
(Vertical distan			50 feet to	99 feet	(	(10 points)		
contaminants to			Greater than	100 feet		(0 points)	0	
high water elev	rations of							
groundwater)								
Distance to an	Cahamaral Stroom		l aca Albania	100 fa al	,	oran da kan		
1	Ephemeral Stream		Less than 1		•	10 points)		
ten feet in width	dry wash greater t	nan	Greater than 1	100 teet		(0 points)	0	—
ren ieer in widt	1)							
Distance to Ne	arest Lake, Playa,	or Waterino	Less than 1	100 feet	,	10 points)		
li .	adient lakes, playa	_	Greater Than 1		`	10 points)	0	
	dlife watering pond		Greater man	IOO IEEL		(0 points)		
	Ame matering Ferra	<b>5</b> ,						
Wellhead Prote	ection Area:			Yes	C	20 points)		
1	feet from a private			No	•	(0 points)	0	
	source, or less tha					(C PO, _		
ľ	all other water soul							
		,						
Distance To Su	ırface Water:		Less than 1	00 feet	(2	20 points)		
(Horizontal dist	ance to perennial		100 feet to 10	000 feet	•	10 points)		
lakes, ponds, ri	vers, streams, cree	eks, C	Greater than 10	000 feet	•	(0 points)	0	
irrigation canals	s and ditches.)					` · · · <u>-</u>		
			RANKING S	CORE (T	FOTAL	SCORE):	0	

## Jicarilla Apache Tribe Environmental Protection Office P.O. Box 507 Dulce, New Mexico 87528

## Pit Remediation and Closure Report

Date Remediation Started:	11/4/98	Date Completed	11/10/98
Remediation Method:	Excavation:	X	Approx. cubic yards: 65
(Check all appropriate	Landfarmed:	X	Insitu Bioremediation:
sections)	Other:		·
Remediation Location:	On-site:	X	Off-site:
(I.e. landfarmed on site,			
name and location of		•	
off site location)			
General Description of Remedial	Action:	Soil was excavat	ted and landfarmed on location.
·			
Groundwater Encountered:	No: X	Yes:	Depth:
Final Pit	Sample location:	: Pit east wall @ 4	feet below surface. Pit
Closure Sampling:	walls were analy	zed for Headspac	ce (see attachment).
(If multiple samples,			
attach sample results			
and diagram of sample	Sample depth:	4 feet	
locations and depths.)	Sample date:	11/10/98	Sample time: 13:45
Sample Results:	•		
Soil:			Water:
Benzene (ppm)	ND		Benzene (ppb)
Total BTEX (ppm)	<del></del>	•	Toluene (ppb)
Field Headspace (ppm)		Etr	nylbenzene (ppb)
TPH (ppm)		•	tal Xylenes (ppb)
Groundwater Sample:	Yes:		No: X
(If yes, attach sample results.)			
((,,,==,,=,,=,,,,,,,,,,,,,,,,,,,,,,,,,,			
I HEREBY CERTIFY THAT TH	IF INFORMATIO	ON ABOVE IS T	RUE AND COMPLETE TO
THE BEST OF MY KNOWLED			NOL /110 00 22.2.2
	OE / 1110 DEL	-'	
DATE: 12/4/98			Frank McDonald
$\sim$ 1	1 1	7	
SIGNATURE:	V(1) 1	AND TITLE:	Env. Division Manager
	( ) -		
AFTER REVIEW OF THE PIT	CLOSURE INF	ORMATION PIT	CLOSURE IS APPROVED
IN ACCORDANCE TO THE JI			
114 A O O O A O O A O O O O O O O O O O O		// (_ // // // // // // // // // // // // //	
APPROVED: Yes:	No:	(Reason)	
1/	·	$\hat{n}$	
SIGNED: La C7	Yland		DATE: 12-8-98



Environmental Specialist: <u>VC</u>

Cimarron Oilfield Services

Page \_\_\_\_ of \_\_\_\_\_

# **GASOLINE RANGE ORGANICS - GRO**

## TAURUS EXPLORATION U.S.A., INC.

Project ID:

Jicarilla 107-7 Sep. Pit

Sample ID:

E. Wall @ 5 '

Lab ID:

Condition:

0398G06650

Sample Matrix:

Soil

Cool/Intact

Report Date:

11/20/98

Date Sampled:

11/10/98

Date Received:

11/11/98

Date Analyzed:

11/11/98

TPH GAS-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Gasoline-Range Petroleum Hydrocarbons	<5.0	5.0 mg/Kg
Total Purgeable Hydrocarbons	<5.0	5.0 mg/Kg

QUALITY CONTROL - SURROGATE RECOVERY	% Recovery	QC limits
Bromofluorobenzene	113%	70-130%

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

Reported By:

Reviewed By:

11/11/98

11/18/98

## **DIESEL RANGE ORGANICS - DRO**

# TAURUS EXPLORATION U.S.A., INC.

Project ID:

Jicarilla 107-7 Sep. Pit

Report Date: 11/20/98

Sample ID:

E. Wall @ 5' 0398G06650

Date Sampled: 11/10/98

Lab ID: Sample Matrix:

Soil

Date Received:
Date Analyzed:

Condition:

Cool/Intact

TPH DIESEL-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	<5.0	5.0 mg/Kg
Total Extractable Hydrocarbons	<5.0	5.0 mg/Kg

QUALITY CONTROL - SURROGATE RECOVERY	%Recovery	QC Limits
o-Terphenyl	59%*	70-130%

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

\*Surrogate recovery failed to meet established QC limits due to matrix interferences.

Reported By:

Reviewed By:

## **VOLATILE AROMATIC HYDROCARBONS**

### **Taurus Exploration**

Project ID:

Jicarilla 107-7 Sep. Pit

Sample ID:

E. Wall @ 5'

Lab ID:

0398G06650

Cool/Intact

Sample Matrix:

Soil

Condition:

Report Date:

11/20/98

Date Sampled:

11/10/98

Time Sampled: Date Received: 1:45pm

Date Extracted:

11/11/98 NA

Date Analyzed:

11/11/98

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	10.0
Toluene	ND	50.0
Ethylbenzene	ND	50.0
m,p-Xylenes	ND	50.0
o-Xylene	ND	50.0

ND - Analyte not detected at the stated detection limit.

**Quality Control:** 

Surrogate

Percent Recovery

**Acceptance Limits** 

Bromofluorobenzene

113%

70%-130%

Reference:

Method 5030, Purge and Trap; Method 8021B, Aromatic Volatile Organics; Test

Methods for Evaluating Solid Wastes, SW-846, United States Environmental

Protection Agency, Revision 2, December, 1996.

Comments:

Review



# CHAIN OF CUSTODY RECORD

<b>5</b> 7685	11183 State Hwy. 30 College Station, TX 77845 Telephone (409) 776-8945	9718 8450	1160 Research Drive Bozeman, Montana 59718 Telephone (406) 586-8450	737	2506 West Main Street Farmington, NM 87401 Telephone (505) 326-4737	ircle ng 82718 ) 682-8945	1701 Phillips Circle Gillette, Wyoming 82718 Telephone (307) 682-8945	_	1633 Terra Avenue Sheridan, Wyoming 82801 Telephone (307) 672-8945
		<b>.</b>	s, Inc.	oratorie	Inter-Mountain Laboratories, Inc	Inter-Mo		<b>.</b>	<u> </u>
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arks	Remarks	mo	ers	e No.	Chain of Custody Tape No.	Chair	VP		Sampler: (Signature)
<b>•</b>	ANALYSES / PARAMETERS	ANA	144	.ocation 107-7 S	Inc 107		beston	S.	Rueus Same
									Oliveina Manager

### JICARILLA APACHE TRIBE ENVIRONMENTAL PROTECTION OFFICE P.O. BOX 507 DULCE, NEW MEXICO 87528

## ON-SITE SOIL REMEDIATION REPORT

Operator: Taurus Exploration USA Inc.	Telephone:(505) 325 - 6800			
Address: 2198 Bloomfield Hwy, Farming	gton N.M. 87401			
Facility or Well Name: <u>Jicarilla 107 F 7</u>				
Location: Unit or Qtr/Qtr Sec_K_Sec_	28 T 26 N R 4 W County Rio Arriba			
Land Type: Range				
Date Remediation Started: 11/4/98 Date	te Completed: 12/14/98			
Remediation Method: Landfarmed X	Approx. cubic yards65			
Composted	<del>_</del>			
Other	_			
Depth to Groundwater: (pts) 0	Final Closure Sampling:			
Distance to an Ephemeral Stream (pts) 0	Sampling Date: <u>12/14/98</u> Time: <u>10:35</u>			
Distance to Nearest Lake, Playa, or Watering Pond (pts) 0	Sample Results:			
Wellhead Protection Area (pts) 0 Field Headspace (ppm) 1.6  TPH (ppm) <10 Method 8015				
(TOTAL POINTS): 0				
I HEREBY CERTIFY THAT THE INFORMATION ABO KNOWLEDGE AND BELIEF DATE: 1/6/99 PRINTED NA				
SIGNATURE /	AND TITLE ENV. SPECIALIST			
AFTER REVIEW OF THE SOIL REMEDIATION INFOR APPROVED IN ACCORDANCE TO THE JICARILLA A APPROVED: YES	MATION. ON-SITE SOIL REMEDIATION IS PACHE TRIBE PIT CLOSURE ORDINANCE.			
SIGNED: LECTION DA'	TE: 1-7-99			

		Overview of Landfarm and Sampling:	
Location: Jicarilla 107 F # 7		<b>&gt;</b>	
Quad : K Section :	28		
Township: 26 N Range:	4 W	North	
Pit: Separator/Prod Tank	)š		
Reference 365' S 85 E	2		
	3		
Size: 40' x 100' x .5' deep	4		
	ס ס	-	
Yds: 65	7		
	8	water tank	
	9	$\bigcirc$	
	11	well head	and arm
	12	earthen nit	ļ
			<b>J</b>
		product i on tank	p p
Comments: Soil is moist, brown, clay/loam with no visible staining or detectable hydrocarbon odor.	clay/loam with no visible staining	or detectable hydrocarbon odor.	
A sample from comp	A sample from composite # 1 was sent to IML for GRO/DRO analysis.	O/DRO analysis.	
Environmental Specialist : VC			

Client: Taurus Exploration USA Inc.

Date Started: November 4, 1998 Date Completed: December 14, 1998

Ranking Score: 0\_Closure Standard: 5000 ppm

Cimarron Oilfield Services

Page \_1\_ of \_1\_

Phone (505) 326-4737 Fax (505) 325-4182

2506 West Main Street, Farmington, NM 87401

# **GASOLINE RANGE ORGANICS - GRO**

## **ENERGEN RESOURCES**

Project ID:

Jicarilla 107 F7 Landfarm

Sample ID:

Comp #1

12/31/98

Lab ID:

0398G07314

Date Sampled: 12/14/98 Date Received:

Sample Matrix:

Soil

Date Analyzed:

Report Date:

12/15/98 12/30/98\*

Condition:

Cool/Intact

TPH GAS-RANGE (MOD EPA 8015) RESULT	
TPH GAS-RANGE (MOD EPA 8015) RESULT	

**DETECTION LIMIT** 

Gasoline-Range Petroleum Hydrocarbons

<5.0

5.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

\*Sample was analyzed within the holding times, however, due to instrument problems and

QC failure, the sample had to be re-analyzed to verify results.

Reported By:



Phone (505) 326-4737 Fax (505) 325-4182

# **DIESEL RANGE ORGANICS - DRO**

## **ENERGEN RESOURCES**

Project ID:

Jicarilla 107 F7 Landfarm

2506 West Main Street, Farmington, NM 87401

Sample ID:

Comp #1

12/31/98

Lab ID:

0398G07314

12/14/98

Sample Matrix:

Soil

Date Received: Date Analyzed:

Report Date:

Date Sampled:

12/15/98 12/30/98

Condition:

Cool/Intact

TPH DIESEL-RANGE (MOD EPA 8015)	RESULT	DETECTION LIMIT
Diesel-Range Petroleum Hydrocarbons	<5.0	5.0 mg/Kg

ND - Analyte not detected at the stated detection limit.

Reference:

Comments:

Reported By:



# CHAIN OF CUSTODY RECORD

Relinquished by: (Signature)	Relinquished by: (Signature)	(aurhillico) i comenchimos	Religantehad by: (Classifica)												( L M C M C)	Sample No./	Sampler: (Signature)		Client/Project Name
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