Form 3160-5 (September 2001)

# UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED OMB No. 1004-0135 Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an
abandoned well lise Form 3160-3 (APD) for such proposals.

5. Lease Serial No.	
NMSF-079968	

abandoned we	ell. Use Form 3160-3 (APD) f	or such propo	sals.	6. II Indian,	Anottee of Tribe Name
SUBMIT IN TRIPLICATE - Other instructions on reverse side				7. If Unit or CA/Agreement, Name and/or No.  8. Well Name and No.	
1. Type of Well Oil Well ☐ Gas Well ☐ Other					
2. Name of Operator				Ropco 4 #1	
	Richardson Operating Company		9. API Well No.		
3a. Address 3b. Phone No. (include area code)		ciuae area coae)	30-045-30		
3100 La Plata Highway Farmington, NM 87401 505-564-3100		1	10. Field and Pool, or Exploratory Area		
4. Location of Well (Footage, Sec., T, R., M., or Survey Description) 870' FNL & 1205' FEL A Sec. 4, T29N, R14W			Bas. Fr. Coal & Tw. Mo. PC  11. County or Parish, State  San Juan, NM		
12. CHECK AP	PROPRIATE BOX(ES) TO I	NDICATE NA	TURE OF NOTICE,	REPORT, OR	OTHER DATA
TYPE OF SUBMISSION			TYPE OF ACTION		
✓ Notice of Intent	Acidize Alter Casing	Fracture Treat	Production (Sta		Water Shut-Off Well Integrity
Subsequent Report	Casing Repair	New Construction	= '		Other Downhole
<b></b>	Change Plans	Plug and Aband			Commingling App.
Final Abandonment Notice	Convert to Injection	Plug Back	Water Disposal	<u> </u>	
determined that the site is ready Richardson Operating Company copy of their application to down Your concurrence of this proposa	proposes to downhole commingle hole commingle these "pre-appro	e the Basin Fruitl oved pools," as po	land Coal and Twin Mou er NMOCD Rule 303c (3	nds Pictured Cl	liffs in this well. Attached is a
<b>©</b> 6	- Bot Attached for Mehidagef <b>Appaov</b> a	N.			
14. I hereby certify that the foregoin	g is true and correct		· · · · · · · · · · · · · · · · · · ·	91 	
Name (PrintedlTyped)		Title	Omenations Manage		
Drew Carnes			itle Operations Manager		
Signature		Date	ate 10/10/02		
		R FEDERAL OI	R STATE OFFICE US	E	
Approved by (Signature)		Name (Printed/Typed)		Title	
Conditions of approval, if any, are certify that the applicant holds legs which would entitle the applicant to determine the appl	al or equitable title to those rights i	loes not warrant o n the subject lease	r Office		DatOCT 3 1

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## Richardson Operating Company

## **Downhole Commingling Application**

The Ropco 4 #1 is a newly drilled Basin Fruitland Coal/Twin Mounds Pictured Cliffs well. This well is part of Richardson's development program.

Pursuant to Order R-11363, Richardson Operating company seeks approval to downhole commingle the "Pre-approved pools and areas": Basin-Fruitland Coal (71629) and Twin Mounds Pictured Cliffs (86620) in this well.

The Basin-Fruitland Coal is perforated at 874'-882', 912'-924'. The Twin Mounds Pictured Cliffs is perforated at 930'-940'.

Due to the intermingled nature of the pools and since neither pool has enough data to prepare a reliable production forecast or predict the ultimate reserves, therefore, based on production from the surrounding sections, Richardson will allocate production as follows:

<u>Pictured Cliffs Production</u> = 0.51 x Total Production. <u>Fruitland Coal Production</u> = 0.49 x Total Production.

The data used and the corresponding calculations are attached for reference.

The downhole commingling will not reduce the value of the total remaining production of this well.

Ownership between the two pools is not identical.

Richardson Operating Company has sent notice to all interest holders in the spacing units by certified mail (return receipt) of their intent to apply for downhole commingling and no objection was received within 20 days of sending the notice.

A copy of this application has been submitted via Sundry Notice Form 3160-5 to the Bureau of Land Management.

### Richardson Operating Company

## **Downhole Commingling Allocation Methodology**

This document describes the methodology used in determining the allocation between the proposed pools to be commingled in the Ropco 4 #1 well. Production data was obtained from the OnGard system when possible. The Ropco 4 #3 data was obtained using current production for Richardson Operating Company files. For consistency the average production from the wells was calculated by using a minimum of 6 months of initial production in the well. This average should represent the initial potential of the well. Data was gathered for the Section 4 T29N, R14W and the eight adjacent sections.

The data from four sections did not provide a reliable correlation to determine the allocation: Section 34, T29N R14W, Section 5, Section 8, and Section 9 T29N R14W.

#### Section 32 T30N R14W:

Fruitland Coal:	Dugan Bi Knobs Com 90	23 Mcf/day

Dugan Bi Knobs 91 75 Mcf/day

Pictured Cliffs: Dugan Bi Knobs 1 52 Mcf/day

Dugan Bi Knobs 2R 104 Mcf/day Richardson WF State 32-1 42 Mcf/day

FC avg. = 49

PC avg. = 66 Section 32 allocation = 43% FC, 57% PC

Section 33 T30N R14W:

Fruitland Coal: Richardson WF Federal 33-1 203 Mcf/day

Pictured Cliffs: Dugan Cline #1R 75 Mcf/day

Richardson WF Federal 33 #3 555 Mcf/day

FC avg. = 203

PC avg. = 315 Section 33 allocation = 39% FC, 61% PC

Section 4 T29N R14W:

Commingled FC/PC: Richardson Ropco 4 #3 425 Mcf/day

Pictured Cliffs: Richardson Ropco 4 #2 231 Mcf/day

Richardson Ropco 4 #4 129 Mcf/day

Comm. avg. = 425

PC avg. = 180 Section 4 allocation = 57% FC, 43% PC

#### Section 3 T29N R14W:

Fruitland Coal:

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Dugan Federal 1 #99

187Mcf/day

Richardson WF Federal 3 #2

160 Mcf/day

Pictured Cliffs:

Dugan Federal 1 #7

266 Mcf/day

Richardson WF Federal 3 #1

128 Mcf/day

FC avg. = 174

PC avg. = 160

Section 3 allocation = 47% FC, 53% PC

## Section 10 T29N R14W:

Fruitland Coal:

Dugan Federal 1 #98

165 Mcf/day

Pictured Cliffs:

Richardson Ropco 10 #2

115 Mcf/day

FC avg. = 165

PC avg. = 115

Section 10 allocation = 59% FC, 41% PC

#### **Summary:**

Section 32 allocation = 43% FC, 57% PC

Section 33 allocation = 39% FC, 61% PC

Section 4 allocation = 57% FC, 43% PC

Section 3 allocation = 47% FC, 53% PC

Section 10 allocation = 59% FC, 41% PC

#### AVERAGE = 49% FC, 51% PC

The proposed allocation for the Ropco 4 #1 will be 49% Fruitland Coal and 51% Pictured Cliffs.

# **Conditions of Approval:**

**Notice of Intent: Down hole commingle** 

Richardson Operating Company Ropco 4 # 1 870 FNL & 1205 FEL Sec 4, T29N, R14W

1) Due to the Basin Fruitland Coal and Twin Mounds Pictured Cliffs intervals being Close in proximately to each other, and lack of reliable production history to make accurate determinations. You will be given authorization to produce the well with your proposed Allocation factors until November 1, 2003. At the end of period, you will be required to resubmit your allocations factors.