Form 3160-5 (August 2007)

#### **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

FORM APPROVED OMB NO. 1004-0135 Expires July 31, 2010

SUNDRY Do not use thi abandoned wel	tesia	Lease Serial No. NMNM102917     If Indian, Allottee or Tribe Name     The Name and/or No. Name and/or No. Nam				
SUBMIT IN TRI						
Type of Well     Gas Well ☐ Oth		8. Well Name and No RDX FEDERAL 21 34				
Name of Operator     RKI EXPLORATION & PROD		9. API Well No 30-015-39941-00-X1				
3a Address 3817 NW EXPRESSWAY SU OKLAHOMA CITY, OK 73112	3b. Phone No. (include area code) Ph: 405-996-5750 Fx: 405-949-2223			10. Field and Pool, or Exploratory BRUSHY DRAW		
4. Location of Well (Footage, Sec., 7 Sec 21 T26S R30E NESE 23	i)			11. County or Parish, and State EDDY COUNTY, NM		
12. CHECK APPI	ROPRIATE BOX(ES) TO	INDICATE	NATURE OF	NOTICE, RE	EPORT, OR OTHE	R DATA
TYPE OF SUBMISSION		F ACTION				
Notice of Intent	☐ Acidize	□ Dee	pen	□ Product	ion (Start/Resume)	□ Water Shut-Off
Subsequent Report	☐ Alter Casing	<del></del>	ture Treat	□ Reclama	ation	■ Well Integrity
	☐ Casing Repair		Construction	□ Recomp		Other Change to Original A
☐ Final Abandonment Notice	Change Plans	_	and Abandon	_	arily Abandon	PD
	Convert to Injection			☐ Water Disposal  g date of any proposed work and appr		
Attach the Bond under which the wo following completion of the involved testing has been completed. Final Al determined that the site is ready for f RKI Exploration & Production 34 well. Please see the attack.	operations. If the operation re pandonment Notices shall be fil inal inspection)  requests permission to m	sults in a multipl led only after all	e completion or rec requirements, inclu	completion in a raiding reclamation	new interval, a Form 316 n, have been completed,	60-4 shall be filed once
SE CO	E ATTACHED FO NDITIONS OF AF	R PPROVAL	Approv 8	val Subject to La Special Stip	General Requirementulations Attached	CEIVED
14. Thereby certify that the foregoing is	true and correct. Electronic Submission #	132769 verifie	d by the BLM We	ell Information	System	AR 2 2 2012
Com Name (Printed/Typed) BILL AUB	For RKI EXPLOI mitted to AFMSS for proce	DATION & DD	DD LLC, sent to LEY INGRAM or	the Carlehad	• •	CD ARTESIA
			THE REGUL	LATOITI		
Signature (Electronic S	Submission)		Date 03/12/2	2012		
	THIS SPACE FO	OR FEDERA	L OR STATE	OFFICE US	SE	
Approved By TED MORGAN			TitlePETROLE	EUM ENGINE	ER	Date 03/19/201
Conditions of approval, if any, are attached. Approval of this notice does not warrant certify that the applicant holds legal or equitable title to those rights in the subject leas which would entitle the applicant to conduct operations thereon.			Office Carlsba	ad		
Title 18 U.S C. Section 1001 and Title 43 States any false, fictitious or fraudulent	U.S.C. Section 1212, make it a statements or representations as	crime for any p to any matter w	erson knowingly ar ithin its jurisdiction	nd willfully to m	ake to any department or	agency of the United

# Sundry for hole size 8 ¾" to 7 7/8":

Well

RDX Federal 21-34

Location

2,310 FSL

4. 34

County

Section 21-26S-30E

Eddy State New México

## Casing program:

Hole Size	Тор	Bottom	OD Csg		Wt/Grade	Connection	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17 1/2" 12 1/2" 7 7/8"	0 0 0	2,3,450 7,500	13 3/8" 9 5/8" 5 1/2"	-	54.5#/J-55 40#/J-55 17#/N-80	ST&C LT&C LT&C	3.24 1.35 1.93	6.59 5.38 1.55	11.72 3.77 2.73

Prodcution	7 7/8"	hole			
Pipe OD	5 1/2"				
Setting Depth	7,500	ft			
Annular Volume	0.1733	cf/ft	0.26074	cf/ft	ેન્ડ ⊬હ્ન્જે300ે, ft
Excess	0.25		25	%	
Total Annular Volume	780	cf			
With Excess	975	cf			
DV Tool Depth	5000	ft			

Stage 1

Lead:

368 sx

1.47 cf/sk

13.0

Lead: PVL + 1.3% PF44 + 5% PF174 + .5% PF606 + .1% PF153 + .2% PF13

Top of cement:

DV tool

Stage 2

Lead:

140

cf/sk

12.6 ppg

Tail:

100, sx

1.47 cf/sk

13.0 ppg

Lead: 35/65 Poz "C" + 5% PF44 + 6% PF20 + .2% PF13 + .125 pps PF29 + .25% PF46

Tail: PVL + 1.3% PF44 + 5% PF174 + .5% PF606 + .1% PF153 + .2% PF13

Top of cement:

3,150 ft

### Sundry for BOP testing:

#### Pressure control equipment:

The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a double ram type

(3,000 psi WP) preventer, a bag-type annular preventer (3,000 psi WP), and rotating head. Both units will be hydraulically operated and the ram type preventer will be equiped with blind rams on top and pipe rams (sized to accommodate the drill pipe size being utilized) on bottom. A 13 3/8" SOW x 13 5/8" 3M casing head will be installed on the 13 3/8" casing and utilized until total depth is reached. All BOP and associated equipment will be tested to 3,000 psi and the annular will be tested to 1,500 psi after setting the 13 3/8" casing string. The 13 3/8" and 9 5/8" casing wil be tested to .22 psi per ft of casing string length or 1,500 psi whichever is greater, but not to exceed 70% of the minimum yield. The 9 5/8" will be hung in the wellhead and the stack will not be broke at this point. The stack will not be isolated and tested after running the 9 5/8" casing, but will be tested along with the 9 5/8"

casing.

Pipe rams will be operatied and checked each 24 hour period and each time the drill string is out of the hole. These function test will be documented on the daily driller's log.

A drilling spool or blowout preventer with 2 side outlets (choke side shall be 3" minimum diameter, kill side shall be at least 2"

diameter).

2 kill line valves, one of which will be a check valve.

2 chokes on the manifold along with a pressure gauge.

Upper kelly cock valve with handle available.

Safety vavle and subs to fit all drill string connections in use.

All BOP equipment connections subjected to pressure will be flanged, welded, or clamped.

Fill up line above the upper most preventer.

# RDX Federal 21 34 RKI Exploration & Production, LLC 30-015-39941 Mar 19, 2012 Conditions of Approval

6. 17

# **Summary of Current Status:**

- Original APD Approved Feb 2012 as Brushy Draw Delaware East well.
- Original APD was for 13-3/8" x 9-5/8" x 5-1/2" casing strings and vertical design.

# Requests:

Operator is requesting to:

- 1. Change the hole size for 5-1/2" production casing from 8-3/4" to 7-7/8".
- 2. Change the 2 stage cement design for the 5-1/2" casing to bring TOC to 3150' instead of 3200'.
- 3. Revise BOPE specification to be double ram 3M with rotating head instead of 5M BOPE used as a 3M system.
- 4. Pressure test casings to Onshore Order standards simultaneously with BOP testing. (Operator has previously stated intention to use multi-bowl wellhead.)

# **Conditions of Approval:**

Terms and Conditions of the original COA for the APD shall remain in effect, including:

- Casing Point for the 13-3/8" surface casing to be approximately 805';
- Casing Point for the 9-5/8" intermediate casing to be approximately 3450';
- Top of cement for the 5-1/2" production casing revised to be 3150'. OK. Operator to provide method of verification.
- Simultaneous BOP and casing test proposal is only approved for use of multi-bowl wellhead that will allow testing of the BOP to the required pressures.

TMM 03192012