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SEP 14 2015

Form 3160-5
(August 2007)

Farmington Field Office
Bureau of Land Management

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

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

SUBMIT IN TRIPLICATE - Other Instructions on page 2.

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. Jicarilla 464
2. Name of Operator Black Hills Gas Resources, Inc.		6. If Indian, Allottee, or Tribe Name Jicarilla Apache Tribe
3a. Address P.O. Box 249 Bloomfield, NM 87413	3b. Phone No. (include area code) (505) 634-5104	7. If Unit or CA. Agreement Name and/or No.
4. Location of Well (Footing, Sec., T., R., M., or Survey Description) 1890' FSL & 980' FEL NE/SE Section 32 T30N R3W (UL: I)		8. Well Name and No. Jicarilla 464-32 #15
		9. API Well No. 30-039-29305
		10. Field and Pool, or Exploratory Area Cabresto Canyon Tertiary
		11. County or Parish, State Rio Arriba County, New Mexico

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Altering Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input checked="" type="checkbox"/> Plug and abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation Clearly state all pertinent details including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with the BLM/ BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notice shall be filed only after all requirements, including reclamanation, have been completed, and the operator has determined that the site is ready for final inspection.)

Black Hills Gas Resources intends to plug and abandon Jicarilla 464-32 #15 per attached procedure.

BHGR will be using a Close-loop system.

Attachments:
P&A Procedure
Reclamation Plan

OIL CONS. DIV DIST. 3

SEP 25 2015

Notify NMOCD 24 hrs
prior to beginning
operations

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**



H₂S POTENTIAL EXIST

14. I hereby certify that the foregoing is true and correct. Name (Printed/ Typed)

Daniel Manus

Regulatory Technician II

Signature

Title

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy Salvers

Title **PE**

Date **9/22/2015**

Conditions of approval, if any are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office **FFO**

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 any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

NMOCD

KC

PLUG AND ABANDONMENT PROCEDURE

July 29, 2015

Jicarilla 464-32 #15

Cabresto Canyon; San Jose Ext.

1890' FSL, 980' FEL, Section 32, T30N, R3W, Rio Arriba County, NM

API 30-039-29305 / Long: _____ / Lat: _____

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.

1. This project will use an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.
3. Rods: Yes _____, No X, Unknown _____.
Tubing: Yes X, No _____, Unknown _____, Size 2-3/8", Length 959'.
Packer: Yes _____, No X, Unknown _____.
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.

NOTE: PU tubing workstring, approximately 2380'.

4. **Plug #1 (Kirtland and Ojo Alamo interval, 3338' – 3088')**: RIH and tag existing plug at 3338'. If necessary modify Plug #1 based on tag. Mix 35 sxs Class B cement and spot a plug inside the casing to isolate Kirtland and Ojo Alamo intervals, PUH and WOC. TIH and tag TOC 50' higher than Ojo Alamo top.
5. **Plug #2 (Nacimiento top, 2136' – 2036')**: Mix 17 sxs Class B cement and spot a plug inside casing to cover the Nacimiento top. PUH.
6. **Plug #3 (San Jose perforations, 1010' – 906')**: Mix 24 sxs Class B cement (additional 50' excess due to 4' open perforations) and spot a plug to isolate the San Jose perforations. PUH and WOC. TIH and tag at 906'. If tag is low then spot additional cement as required. PUH.
7. **Plug #4 (8-5/8" casing shoe and surface, 314' – 0')**: Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 40 sxs cement and spot a balanced plug from 314' to surface, circulate good cement out casing valve. TOH and LD tubing. Shut well in and WOC. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casings to surface. Shut in well and WOC.
8. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. Cut off anchors and clean up location. Restore location per BLM stipulations.

Jicarilla 464-32 #15

Current

Cabresto Canyon; San Jose Ext.

1890' FSL & 980' FEL, Section 32, T-30-N, R-03-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-29305

Today's Date: 7/29/15

Spud: 6/11/05

Comp: 9/1/05

Elevation: 7040' GI
7053' KB

12-1/4" Hole

8-5/8" 24#, K-55 Casing set @ 264'
Cement with 175 sxs, circulated to surface

2-3/8" tubing at 959'
(30 jts, SN and collar)

San Jose Perforations:
956' - 960'

Nacimiento @ 2086'

Nacimiento Perforations:
3020' - 3030' (sqz'd w/ 75 sxs 2005)

Ojo Alamo @ 3138'

Ojo Alamo Perforations:
3146' - 3172' (sqz'd w/ 100 sxs 2005)

Kirtland @ 3349'

Cement Plug - 22 cu ft cement above
CR; tagged @ 3338' (5/12/08)

Fruitland @ 3553'

CR @ 3590' (2008)

Pictured Cliffs @ 3629'

Pictured Cliffs Perforations:
3634' - 3670'

7-7/8" Hole

5.5" 15.5#, K-55 Casing @ 3818'
Cement with 650 sxs, circ 28 bbls to pit

3818' TD
3771' PBD

3818' TD
3771' PBTD

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: Jicarilla 464-32 #15

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Leases."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. The following modifications to your plugging program are to be made:
 - a) Set plug #2 (1889-1789) ft. to cover the Nacimiento top. BLM picks top of Nacimiento at 1839 ft.

Note: High to very high concentrations of H₂S (205 ppm-820 ppm GSV) have been reported in wells which produce gas from the Pictured Cliffs, Nacimiento, Ojo Alamo and San Jose formations within a 1-mile radius of this location. It is imperative that H₂S monitoring and safety equipment be on location during the plugging operations at this wellsite.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.