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Form 3160-5  
(August 2007)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: July 31, 2010

## 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

☐ Oil Well☒ Gas Well☐ Other

2. Name of Operator

Black Hills Gas Resources, Inc.

3a. Address

P.O. Box 249 Bloomfield, NM 87413

3b. Phone No. (include area code)

(505) 634-5104

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

1850' FSL &amp; 1450' FWL NE/SW Section 29 T30N R3W (UL: K)

5. Lease Serial No.

Jicarilla Contract 464

6. If Indian, Allottee, or Tribe Name

Jicarilla Apache Tribe

7. If Unit or CA. Agreement Name and/or No.

8. Well Name and No.

Jicarilla 464 #8

9. API Well No.

03-039-24253

10. Field and Pool, or Exploratory Area

East Blanco Pictured Cliffs

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

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice

## TYPE OF ACTION

☐ Acidize☐ Altering Casing☐ Casing Repair☐ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☒ Plug and abandon☐ Plug back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-off☐ Well Integrity☐ Other

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 recompleat 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 recompleat 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 reclamation, 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 #8 per attached procedure.

BHGR will use a close loop system.

## Attachments:

Procedures

Current wellbore diagram

Proposed wellbore diagram

Reclamation Plan

SEE ATTACHED FOR  
CONDITIONS OF APPROVALBLM'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 LANDSNotify NMOCD 24 hrs  
prior to beginning  
operationsH<sub>2</sub>S POTENTIAL EXIST

OIL CONS. DIV DIST. 3

SEP 16 2016

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

Daniel Manus

Regulatory Technician II

Title

Signature

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

PE

Date

9/13/16

Office

FFO

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.

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

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## PLUG AND ABANDONMENT PROCEDURE

September 1, 2016

### Jicarilla 464 #8

East Blanco Pictured Cliffs/Cabresto Canyon; Ojo Alamo Ext.  
1850' FSL, 1450' FWL, Section 29, T30N, R3W, Rio Arriba County, NM  
API 30-039-24253 / Long: \_\_\_\_\_ / Lat: \_\_\_\_\_

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 3772'.  
Packer: Yes \_\_\_\_\_, No X, Unknown \_\_\_\_\_, Type \_\_\_\_\_.  
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.
4. **Plug #1 (Pictured Cliffs interval, Fruitland, Kirtland and Ojo Alamo tops, 3728' – 3206'):**  
Round trip 4.5" casing scraper or gauge ring to 3728', or as deep as possible. TIH and set 4.5" CR or CIBP at 3728'. Pressure test tubing to 1000 psi. Attempt to pressure test casing to 800 psi. Mix 44 sxs Class B cement and spot plug inside the casing above the CR or CIBP to isolate the PC interval and cover the Fruitland, Kirtland and Ojo Alamo tops. TOH with tubing.
5. RU A-Plus Wireline and run CBL from top of cement to surface. Note: Plug #2 may change based on CBL results.
6. **Plug #2 (Nacimiento top, 2102'- 2002'):** If CBL indicates no cement across Nacimiento top then perforate at 2102'. TIH. Attempt to establish rate. Mix and pump 51 sxs Class B cement and squeeze 39 outside and 12 inside. TOH and LD tubing.  
If CBL indicates cement across Nacimiento top then TIH, spot 12 sxs inside casing from 2102' to 2002'. TOH and LD tubing.
7. **Plug #3 (8-5/8" Surface casing shoe, 190' - Surface):** Perforate 3 HSC holes at 190'. Establish circulation out 4.5" x 8-5/8" annulus. Mix and pump approximately 55 sxs cement down the 4.5" casing until good cement returns out annuli and bradenhead. Shut in well and WOC.
8. ND cementing valves and cut off wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and cut off anchors. Restore location per BLM stipulations



# Jicarilla 464 #8

## Current

East Blanco Pictured Cliffs / Cabresto Canyon; Ojo Alamo Ext.

1850' FSL & 1450' FWL, Section 29, T-30-N, R-3-W, Rio Arriba County, NM

Long: \_\_\_\_\_ / Lat: \_\_\_\_\_ / API 30-039-24253

Today's Date: 9/1/16

Spud: 10/10/88

PC Comp: 11/25/88

OA Comp: 1/28/98

Elevation: 7197' GI

7209' KB

12-1/4" Hole

8-5/8" 24#, J-55 Casing set @ 140'  
Cement with 145 sxs, circulated to surface

Casing leaks: 1884', 2225', 2481'  
Sqz'd with total 129 sxs between 8/26 - 9/8/ 2003

2-3/8" tubing at 3772'  
(121 jts, 4.7#, J-55 tubing with SN)

Nacimiento @ 2052'

Before Squeeze CBL TOC @ 3220' (1988)

Ojo Alamo @ 3256'

Ojo Alamo Perforations:  
3256' - 3308'  
Sqz'd with 200 sxs cmt (2003)

Kirtland @ 3488'

Fruitland @ 3624'

Pictured Cliffs @ 3771'

Pictured Cliffs Perforations:  
3778' - 4043'

7-7/8" Hole

4.5" 10.5#, J-55 Casing @ 4187'  
Cement with 275 sxs  
TOC at 3220' (11/9/88 CBL)

4200' TD  
4147' PBD

## Jicarilla 464 #8

### Proposed P&A

East Blanco Pictured Cliffs / Cabresto Canyon; Ojo Alamo Ext.

1850' FSL & 1450' FWL, Section 29, T-30-N, R-3-W, Rio Arriba County, NM

Long: \_\_\_\_\_ / Lat: \_\_\_\_\_ / API 30-039-24253

Today's Date: 9/1/16

Spud: 10/10/88

PC Comp: 11/25/88

OA Comp: 1/28/98

Elevation: 7197' GI

7209' KB

12-1/4" Hole

8-5/8" 24#, J-55 Casing set @ 140'  
Cement with 145 sxs, circulated to surface

Perforate @ 190'

Plug #3: 190' - 0'  
Class B cement, 55 sxs

Casing leaks: 1884', 2225', 2481'  
Sqz'd with total 129 sxs between 8/26 - 9/8/ 2003

Plug #2: 2102' - 2002'  
Class B cement, 51 sxs  
39 outside and 12 inside

Nacimiento @ 2052'

Before Squeeze CBL TOC @ 3220' (1988)

Ojo Alamo @ 3256'

Ojo Alamo Perforations:  
3256' - 3308'  
Sqz'd with 200 sxs cmt (2003)

Kirtland @ 3488'

Plug #1: 3728' - 3206'  
Class B cement, 44 sxs

Fruitland @ 3624'

Set CR @ 3728'

Pictured Cliffs @ 3771'

Pictured Cliffs Perforations:  
3778' - 4043'

7-7/8" Hole

4.5" 10.5#, J-55 Casing @ 4187'  
Cement with 275 sxs  
TOC 3220' (11/9/88 CBL)

4200' TD  
4147' 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 #8

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
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 (2066-1966) inside/outside ft. to cover the Nacmiento top. BLM picks top of Nacimienta at 2016 ft.

H<sub>2</sub>S has not been reported at this location, however, **High to Very High concentrations of H<sub>2</sub>S (135 ppm – 820 ppm GSV)** have been reported in wells which produce gas from the San Jose, Nacimienta, and Ojo Alamo fms. within a 1 mile radius of this location. **It is imperative that H<sub>2</sub>S monitoring equipment and personnel be on location during P&A operations at this well site.**

Operator will run a CBL to verify cement top. Submit the electronic copy of the log for verification to the following addresses: [tsalvers@blm.gov](mailto:tsalvers@blm.gov) [Brandon.Powell@state.nm.us](mailto:Brandon.Powell@state.nm.us)

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.