

# RECEIVED

Form 3160-5

(August 2007)

JUN 10 2013

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED

OMB No. 1004-0137

Expires: July 31, 2010

Farmington Field Office  
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<br><input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other            |  | 5. Lease Serial No.<br><b>Jicarilla 460</b>                                |
| 2. Name of Operator<br><b>Black Hills Gas Resources, Inc.</b>   |  | 6. If Indian, Allottee, or Tribe Name<br><b>Jicarilla Apache Tribe</b>     |
| 3a. Address<br><b>3200 N 1st St, Bloomfield, NM 87413</b>   | 3b. Phone No. (include area code)<br><b>(505) 634-5104</b> | 7. If Unit or CA. Agreement Name and/or No.                                |
| 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)<br><b>1450' FNL &amp; 824' FEL SE/NE Section 21 T30N R3W (UL: H)</b> |  | 8. Well Name and No.<br><b>Jicarilla 460-21 #2</b>                         |
|   |  | 9. API Well No.<br><b>30-039-25867</b>                                     |
|   |  | 10. Field and Pool, or Exploratory Area<br><b>Cabresto Canyon Tertiary</b> |
|   |  | 11. County or Parish, State<br><b>Rio Arriba County, New Mexico</b>        |

**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 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 reclamantion, have been completed, and the operator has determined that the site is ready for final inspection.)

Per the Notice of Intent dated May 2, 2013, to plug and abandon Jicarilla 460-21 #2, Black Hills Gas Resources is submitting the attached plug and abandon procedure.

Notify NMOCD 24 hrs  
prior to beginning  
operations

RCVD JUN 14 '13  
OIL CONS. DIV.  
DIST. 3

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

Daniel Manus

Regulatory Technician

Title

Signature

Date

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Original Signed: Stephen Mason

Title

Date

JUN 13 2013

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

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

**PLUG AND ABANDONMENT PROCEDURE**  
**Proposed P&A (Originally PB in 2007)**

May 10, 2013

**Jicarilla 460-21 #2**

Cabresto Canyon; Ojo Alamo Ext.  
1450' FNL & 824' FEL, NE, Section 21, T30N, R3W  
Rio Arriba County, New Mexico, API #30-039-25867

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 requires a NMOCD C-144 CLEZ Closed-Loop System Permit for the use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
2. Note: this well will use a basebeam. 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 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\_\_\_\_, No X, Unknown\_\_\_\_, Size\_\_\_\_, Length\_\_\_\_.  
Packer: Yes\_\_\_\_, No X, Unknown\_\_\_\_, Type\_\_\_\_\_.
4. **Plug 3 (Nacimiento tops, 2139' – 2039'):** Circulate well clean. **Attempt to pressure test casing; if casing does not pressure test then spot or tag subsequent plugs as appropriate.** Mix 17 sxs cement and spot a balanced plug inside the casing to cover the Nacimiento top. PUH.
5. **Plug #4 (8-5/8" Surface casing shoe, 601' - Surface):** 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 70 sxs cement and spot a balanced plug from 601' 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 casing from 601' and the annulus from the squeeze holes to surface. Shut in well and WOC.
6. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. RD, MOL and cut off anchors. Restore location per BLM stipulations.

## Jicarilla 460-21 #2

### Proposed P&A

Cabresto Canyon; Ojo Alamo Ext.

1450' FNL & 824' FEL, NE, Section 21, T-30-N, R-3-W

Rio Arriba County, NM / API #30-039-25867

Today's Date: 5/10/13

Spud: 6/26/98

Completion: 7/14/98

Elevation: 7260' GI  
7273' KB

12.25" hole

Nacimiento @ 2089'

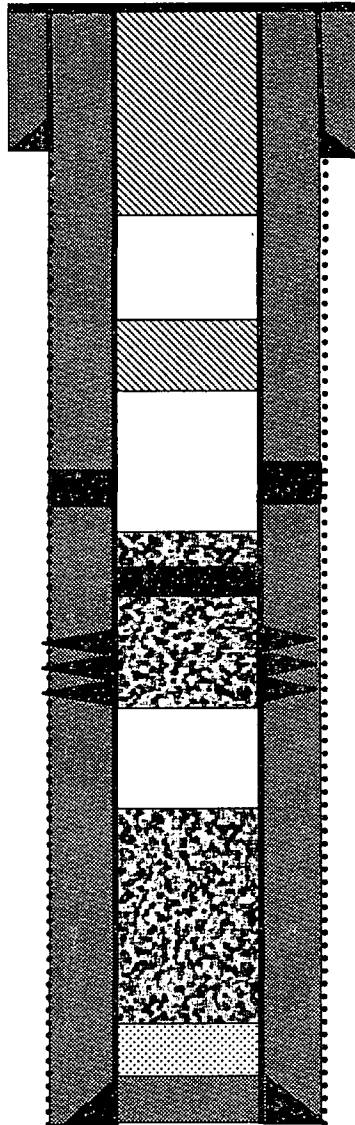
Ojo Alamo @ 3251'

Kirtland @ 3493'

Fruitland @ 3686'

Pictured Cliffs @ 3775'

7-7/8" hole



8.625" 24# K-55 Casing set @ 551'  
Cement with 300 sxs (Circulated to Surface)

Plug #4: 601' - 0'  
Type III cement, 70 sxs

Plug #3: 2139' - 2039'  
Type III cement, 17 sxs

DV Tool @ 3117'  
Stage 2: cemented with 450 sxs  
Circulated 57 sxs to surface

CR set at 3207' (2007)

Ojo Alamo Perforations:  
3253' - 3299'

'07 Plug #2: 3299' - 3099'  
Type III cement, 61 sxs:  
50 sxs below CR and 11 sxs  
above CR.

'07 Plug #1: 3617' - 3395'  
Type III cement, 23 sxs.

Fill at 3617' (5/16/07)

5.5", 15.5# K-55 Casing set @ 4013'  
Stage 1: Cemented with 150 sxs,  
Circulated 20 sxs to surface per sundry

TD 4040'  
PBTD 3902'

## Jicarilla 460-21 #2

### Plugback 2007

Cabresto Canyon; Ojo Alamo Ext.

1450' FNL & 824' FEL, NE, Section 21, T-30-N, R-3-W

Rio Arriba County, NM / API #30-039-25867

Today's Date: 5/10/13

Spud: 6/26/98

Completion: 7/14/98

Elevation: 7260' GI  
7273' KB

12.25" hole

Nacimiento @ 2089'

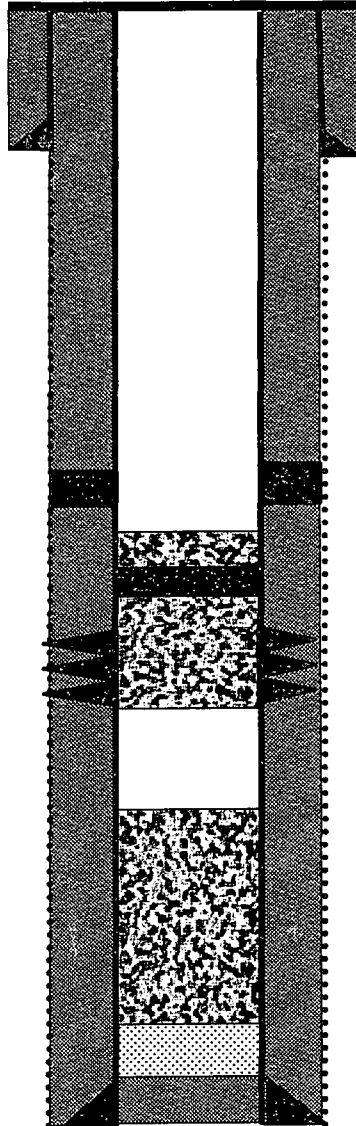
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PBTD 3902'

**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: 2 Jicarilla 460-21

**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) You are required to have H2S monitoring equipment and personnel on location during plugging operations.

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.