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Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT Farmington Field Office
Bureau of Land Management

FORM 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 <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. Jicarilla Contract 451
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 C.A. Agreement Name and/or No. 23931
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 870' FSL & 455' FWL SW/SW Section 3, T29N R3W (UL: M)		8. Well Name and No. Jicarilla 451-03 #41
		9. API Well No. 03-039-29247
		10. Field and Pool, or Exploratory Area Cabresto Cny Tert/ Basin Fruitland Coal / 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	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 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 451-03 #41 per attached procedure.
Black Hills will be using a close loop system**

Attachments:

Procedure
Current wellbore diagram
Proposed wellbore diagram
Reclamation plan

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

Notify NMOCD 24 hrs
prior to beginning
operations

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

OIL CONS. DIV DIST. 3

JUL 21 2016

14. I hereby certify that the foregoing is true and correct. Name (Printed/ Typed) Daniel Manus		Title Regulatory Technician II	
Signature <i>Daniel Manus</i>		Date <i>July 6 2016</i>	
THIS SPACE FOR FEDERAL OR STATE OFFICE USE			
Approved by <i>Chad Savage</i>		Title PE	Date 7/18/16
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

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PLUG AND ABANDONMENT PROCEDURE

June 29, 2016

Jicarilla 451-03 #41

East Blanco Pictured Cliffs/Basin Fruitland Coal /Cabresto Canyon Tertiary

870' FSL, 455' FWL, Section 3, T29N, R3W, Rio Arriba County, NM

API 30-039-29247 / Long: _____ / Lat: _____

1. 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.
2. This project will use an A-Plus steel tank to handle waste fluids circulated from well and cement wash up.
3. 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.
4. Rods: Yes _____, No X, Unknown _____.
Tubing: Yes X, No _____, Unknown _____, Size 2-3/8", Length 3663'.
Packer: Yes X, No _____, Unknown _____, Type Baker AR-1 pkr @ 2826'.
Packer: Yes X, No _____, Unknown _____, Type Baker Hornet pkr @ 3495'.

NOTE: This well has 2 packers. PU on tubing and release packer(s). TOH and LD packer(s). If packer dragged coming out of hole then RIH with scraper. If packer(s) came out of hole free then proceed to Plug #1.

5. **Plug #1 (Pictured Cliffs interval, Fruitland, Kirtland and Ojo Alamo interval, 3752' – 3110')**: Mix 95 sxs Class B cement (30% excess, long plug) and spot plug to fill the Pictured Cliffs and Fruitland Coal perforations and cover the Fruitland, Kirtland and Ojo Alamo tops. PUH and WOC. TIH and tag cement 50' above top of Ojo Alamo. If necessary top off cement and go to Plug #2.
6. **Plug #2 (Nacimiento perforations and top, 2826' – 2032')**: Round trip 5.5" gauge ring or mill to 2826'. TIH and set 5.5" CR or CIBP at 2826'. Mix 117 sxs Class B cement (30% excess, long plug) and spot to isolate the lower Nacimiento perforations and fill the upper Nacimiento perforations then cover through the top. TOH with tubing and WOC. TIH and tag cement 50' above Nacimiento top. If necessary top off cement and go to Plug #3.
7. **Plug #3 (8-5/8" Surface casing shoe, 330' - 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 40 sxs cement and spot a balanced plug from 330' 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 330' and the annulus from the squeeze holes to surface. 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 451-03 #41

Current

East Blanco Pictured Cliffs / Basin Fruitland Coal / Cabresto Canyon Tertiary

870' FSL & 455' FWL, Section 3, T-29-N, R-3-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-29247

Today's Date: 6/29/16

Spud: 10/15/04

Comp: 3/13/05

Elevation: 7052' GI
7065' KB

12-1/4" Hole

8-5/8" 24#, K-55 Casing set @ 280'
Cement with 175 sxs, circulated to surface

2-3/8" 4.7# J-55 tubing at 3663'
(Baker AR-1 pkr at 2826' and Baker Hornet
pkr at 3495') with WL re-entry guide at 3663'

Nacimiento @ 2082'

Nacimiento Perforations:
2246' - 2248'

Baker AR-1 Pkr (COE fullbore 1.91") 2826'

Nacimiento Perforations:
2876' - 2885'

Nacimiento Perforations:
3066' - 3141', sqz'd with 80 sxs (2005)

Ojo Alamo @ 3160'

Ojo Alamo Perforations:
3162' - 3166', sqz'd with 80 sxs (2005)

Ojo Alamo Perforations:
3251' - 3278', sqz'd with 50 sxs, 35 sxs (2005)

Kirtland @ 3399'

Baker Hornet Pkr (COE) 3495'

Fruitland @ 3527'

Fruitland Coal Perforations:
3536' - 3598'

Pictured Cliffs @ 3649'

Pictured Cliffs Perforations:
3648' - 3702'

7-7/8" Hole

5.5" 15.5#/17#, J-55 Casing @ 3760'
Cement with 650 sxs, circulate 5 bbls to surface

3760' TD
3760' PBTD

Jicarilla 451-03 #41

Proposed P&A

East Blanco Pictured Cliffs / Basin Fruitland Coal / Cabresto Canyon Tertiary

870' FSL & 455' FWL, Section 3, T-29-N, R-3-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-29247

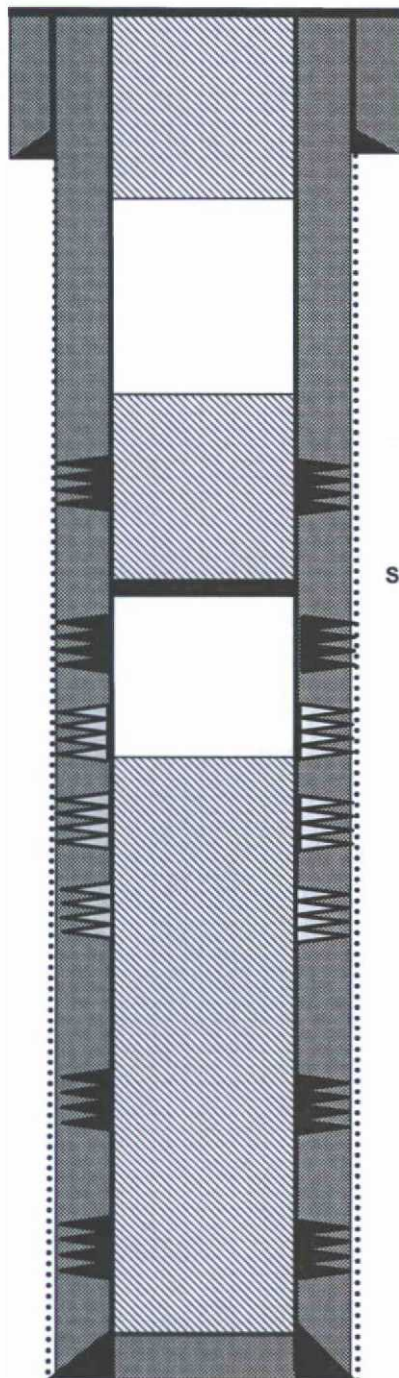
Today's Date: 6/29/16

Spud: 10/15/04

Comp: 3/13/05

Elevation: 7052' GI
7065' KB

12-1/4" Hole



8-5/8" 24#, K-55 Casing set @ 280'
Cement with 175 sxs, circulated to surface

Plug #3: 330' - 0'
Class B cement, 40 sxs

Nacimiento @ 2082'

Nacimiento Perforations:
2246' - 2248'

Plug #2: 2826' - 2032'
Class B cement, 117 sxs
(30% excess, long plug)

Set CR @ 2826'

Nacimiento Perforations:
2876' - 2885'

Nacimiento Perforations:
3066' - 3141', sqz'd w/ 80 sx (2005)

Plug #1: 3752' - 3110'
Class B cement, 95 sxs
(30% excess, long plug)

Ojo Alamo @ 3160'

Ojo Alamo Perforations:
3162' - 3166', sqz'd w/ 80 sx (2005)

Ojo Alamo Perforations:
3251' - 3278', sqz'd w/ 50 sx, 35 sx (2005)

Kirtland @ 3399'

Fruitland @ 3527'

Fruitland Coal Perforations:
3536' - 3598'

Pictured Cliffs @ 3649'

Pictured Cliffs Perforations:
3648' - 3702'

7-7/8" Hole

5.5" 15.5#/17#, J-55 Casing @ 3760'
Cement with 650 sxs, circulate 5 bbls to surface

3760' TD
3760' PBDT

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 451-03 #41

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) Bring the top of plug #2 to 1860 ft. to cover the Nacmiento top. BLM picks top of Nacimientos at 1910 ft. Adjust cement volume accordingly.

H₂S has not been reported at this location, however, low concentrations of H₂S (2 ppm – 46 ppm GSV) have been reported in wells within a 1 mile radius of this location.

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.