

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.

FORM APPROVED
OMB No. 1004-0135
Expires: January 31, 2004

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Black Hills Gas Resources, Inc.

3a. Address

PO Box 249 Bloomfield, NM 87413

3b. Phone No. (include area code)

505-634-1111

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

Sec. 21, T30N, R03W

1456' & 1476' FWL Unit F

5. Lease Serial No.

Jicarilla #460

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 460-21 #1

9. API Well No.

30-039-25866

10. Field and Pool, or Exploratory Area

East Blanco Pictured Cliffs

11. County or Parish, State

Rio Arriba, NM

12. CHECK APPROPRIATE BOX(ES) 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"/> Alter 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 <u>Test Pictured Cliffs</u>
	<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	

3. 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 recomplete 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 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 recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices 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, Inc. intends to test the above referenced well in the Pictured Cliffs formation. If deemed to be non-productive well will be plugged and abandoned.



H₂S in area Tertiary zone wells. Bryce notified 9/28/05

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

Agatha Snell

Title Admin Tech.

Signature

Agatha Snell

Date 9/27/05

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by (Signature)

[Signature]

Name Stephen W. Mason
(Printed/Typed)

Title PE

Office

FDO

Date

SEP 28 2005

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

(Continued on next page)

NMOCD

Black Hills Gas Resources

JICARILLA 460-21 #1

API # 30-039-25866

SE NW Sec 21, T30N - R3W

Rio Arriba County, New Mexico

GL: 7269', KB: 7282', PBTD: 3982'

Surface casing: 8-5/8", 24 lb/ft, Casing @ 542', TOC = surf
Production casing: 5 1/2" 15.5 lb/ft, Casing @ 4031', TOC = surf
Current prod tubing: 2 3/8" @ 3794
Current pump/ rods: N/A
Current Perforated Zones:

San Jose:	1694-1710' SQUEEZED
Nacimiento:	2904-3039' SQUEEZED
Ojo Alamo:	3271-3304' SQUEEZED
Pictured Cliffs:	3794-3805'

**Proposed Work: test PC, possible P & A.
(P&A procedure revised 9-28-05)**

1. General Note: All fluids entering the hole will have added **2 gpt MA-844 (MA-1) and a biocide.**
2. MIRU completion rig, ND WH, NU BOP.
3. Pick up 2 3/8" tubing, TIH to tag fill. TOOH. Check tubing for "crimped" joint(s)
4. Replace bad tubing joints. (A "crimp" was detected previously at +/- 1500'. A 2 3/8" broach would not pass through, a 1.9" swab will.)
5. TIH with a bit and scraper, run to PBTD, note any tight spots at the previous squeezed zones. TOOH.
6. TIH with 2 3/8" tubing and packer, trip down with the EOT @ 3805'. Leave packer unset and swab test the PC.
7. Set packer with the EOT @ 3805'. Swab test the PC. Record fluid levels, fluid rates and gas rates. Steps 6 & 7 are to determine if the previous squeeze holes are "leaking".
8. Test PC to determine potential, may also SI and obtain pressure build up data.

If PC is determined to be non-productive, prepare to P & A the well. The following P&A procedure is as per the BLM requirements.

9. TIH with cement retainer and set retainer @ +/- 3750'. Pump 25 cu ft (18.2 sx) Type III cement into the PC. Sting out of the retainer and pump a balanced plug of 19.6 cu ft Type III

cement above the retainer (15 sx) to leave cement in the casing over the Fruitland Coal. TOC will now be 3603'. Type III cement to be mixed at 14.6 ppg and yield of 1.37 cu ft/sx.

10. After pumping the cement above the retainer pressure test the casing to 560 psi. If the casing can pass the MIT requirement (less than 10% loss in 30 min) then the remaining plugs can be pumped in sequence and there will be no requirement to "tag" any of these plugs.
11. Pull up to 3542' and pump a balanced plug of 45 cu ft (32.8 sx) Type III neat cement from 3542' to 3206'. Type III cement to be mixed at 14.6 ppg and yield of 1.37 cu ft/sx.
12. Pull up to 2127' and pump a balanced plug of 15 cu ft (10.9 sx) Type III neat cement from 2127' to 2015'. Type III cement to be mixed at 14.6 ppg and yield of 1.37 cu ft/sx.
13. Pull up to 1574' and pump a balanced plug of 21 cu ft (15.3 sx) Type III neat cement from 1574' to 1424'. Type III cement to be mixed at 14.6 ppg and yield of 1.37 cu ft/sx.
14. Pull up to 592' and pump a balanced plug of 21 cu ft (15.3 sx) Type III + 2 % CaCl₂ cement from 592' to 442'. Type III cement to be mixed at 14.6 ppg and yield of 1.37 cu ft/sx.
15. Pull up to 50' and circulate a plug of Type III + 2% CaCl₂ (6 sx) cement from 50' to surface. Type III cement to be mixed at 14.6 ppg and yield of 1.37 cu ft/sx.
16. RDMO service unit.
17. Prepare to reclaim location as per BLM/State/Tribal requirements.

Formation Tops are:

San Jose:	Surf
Nacimiento:	2077'
Ojo Alamo:	3268'
Kirtland:	3492'
Fruitland Coal:	3686'
Pictured Cliffs:	3784'

Initiated by:

Loren Diede
7-13-05
REV 9-28-05

Approved by:

First call for services will be:

Logging/Perforating:	Basin: 327-5244
Cement/Acid/Frac:	BJ 327-6222
Tools:	open

Jicarilla 460-21 #1

P&A WB Dia

API # 25866

UNIT F SENW, Sec 21, T30N, R03W Rio Arriba, NM

1456 FNL, 1476 FWL

Spud Date 6-19-1998

Elev. GL= 7269'

Elev. KB= 7282'

SURF CSG

8 5/8" 24# @ 542' KB,
cmt 300sx TOC surf

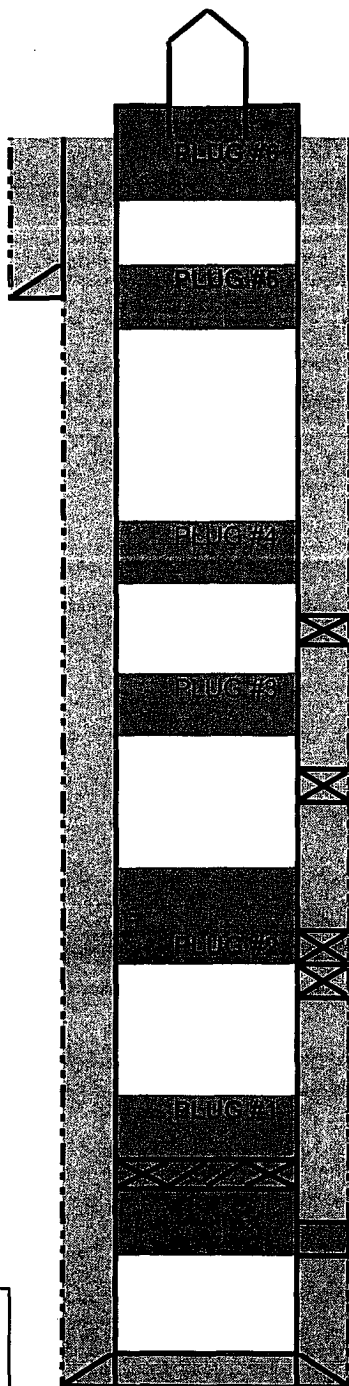
FORMATION TOPS:

San Jose	Surf
Nacimiento	2077'
Ojo Alamo	3268'
Kirtland	3492'
Fruitland	3686'
PC	3784'

Retainer set @ 3750'

PROD CSG

5 1/2" 15.5# J-55,
@4031' KB; cmt; 200
sx 35/65/12 poz, + 375
sx 50/50/2 poz.circ 13
sx to pit



PLUG #6: Surface plug of 7 cu ft Type III + 2 % CaCl2 from 50 ft to surface

PLUG #5: Balanced plug of 21 cu ft Type III + 2 % CaCl2 from 592' to 442'.

PLUG #4: Balanced plug of 21cuft Type III neat from 1574' to 1424'.

PLUG #3: Balanced plug of 15 cu ft Type III neat from 2127' to 2015'.

PLUG #2: Balanced plug of 45 cu.ft Type III neat from 3542' to 3206'.

PLUG #1: Retainer @ 3750', Pump 25 cu ft Type III neat cement under retainer to cover PC, dump 3.5 bbl on top of retainer to cover the FC, TOC will now be 3603'.. Type III 14.6 ppg, yield 1.31 cu ft/sx.

San Jose perfs: 1694-1710, 4 jspf, Fraced 7/20/1998 w/ 30217 # 12/20 N2 foam **Squeezed 12, 2003**

Nacimiento perfs: 2904-2914, 3028-3039, 4 jspf, BD no frac. **Squeezed 12-17-03**

Ojo Alamo perfs: 3271-3285, 3287-3304. 4jspf. Frac 7/2/1998 w/ 32900# 12/20, foam frac. N2 foam **Squeezed 12, 2003**

PC perfs: 3794-3805.4 jspf, holes, Fraced: 12/23/2003 w/ 85600# 20-40 sand. N2 foam.

PBTD=3982' ORIGINAL
TD=4050' KB

Prepared: 13-Jul-05