

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

RECEIVED

JUL 17 2014

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  
☐ Oil Well ☒ Gas Well ☐ Other **OIL CONS. DIV DIST. 3**

2. Name of Operator  
**Black Hills Gas Resources, Inc.**

JUL 25 2014

3a. Address  
**3200 N 1st St, Bloomfield, NM 87413**

3b. Phone No. (include area code)  
**(505) 634-5104**

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
**SHL: 775' FSL & 545' FEL SE/SE Section 4 T30N R3W (UL: P)**  
**BHL: 1181' FSL & 615' FEL SE/SE Section 5 T30N R3W (UL: P)**

5. Lease Serial No.  
**Jicarilla Contract 457**

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 457-04 #144**

9. API Well No.  
**30-039-30100**

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

Per the Notice of Intent dated May 14, 2014, to plug and abandon Jicarilla 457-04 #144, Black Hills Gas Resources is submitting the attached plug and abandon procedure.

Black Hills Gas Resources will be utilizing a Close Loop System.

**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**

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

**Daniel Manus**

**Regulatory Techician II**

Title

Signature

Date

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

**Troy Salvers**

Title **Petroleum Eng.**

Date **7/23/2014**

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 TV**

## PLUG AND ABANDONMENT PROCEDURE

July 16, 2014

### Jicarilla 457-04 #144

#### East Blanco Pictured Cliffs

Surface 775' FSL, 545' FEL, Section 4, T30N, R3W, Rio Arriba County, NM

API 30-039-30100 / 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.

This project will use of an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.

1. 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.
2. Rods: Yes X, No \_\_\_\_\_, Unknown \_\_\_\_\_.  
Tubing: Yes X, No \_\_\_\_\_, Unknown \_\_\_\_\_, Size 2-3/8", Length 4153'.  
Packer: Yes \_\_\_\_\_, No X, Unknown \_\_\_\_\_, Type \_\_\_\_\_.  
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.

Round trip 7" csg scraper to 4130' or as deep as possible.

3. **Plug #1 (Pictured Cliffs interval/top and Fruitland top, 4130' – 3660')**: RIH and set 7" Hydro-set CIBP at 4130'. Pressure test tubing to 1000#. *See COA*  
Pressure test casing to 800#. If casing does not test then spot or tag subsequent plugs as appropriate. Mix 98 sxs Class B cement and spot a balanced plug above CIBP, inside the casing, to cover the Pictured Cliffs interval/top and Fruitland top. PUH.
4. **Plug #2 (Kirtland and Ojo Alamo tops, 3390'- 3046')**: Mix 74 sxs Class B cement and spot a balanced plug inside the casing to cover the Kirtland and Ojo Alamo tops. PUH. *See COA*
5. **Plug #3 (Nacimiento top, 1969'- 1869')**: Mix 29 sxs Class B cement and spot a balanced plug inside the casing to cover Nacimiento top. PUH. *See COA*
6. **Plug #4 (Surface, 344' - 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 344' 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.
7. 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.

3/12/2014

**Jicarilla 457-04 #144**  
**CURRENT Wellbore Diagram**  
API # 30-039-30100  
**SESE Sec 04, T30N, R3W Rio Arriba, NM**

Spud 10/8/2008  
Compl 10/28/2008

7122' GL  
7134' KB

12 1/4" hole

**SURFACE CASING**

9 5/8", 32#, H-40 casing @ 294'.  
Cmt w/ 160 sx. Circ 10 bbls cmt to surface.

8 3/4" hole

**Tbg Detail (11/18/08):**

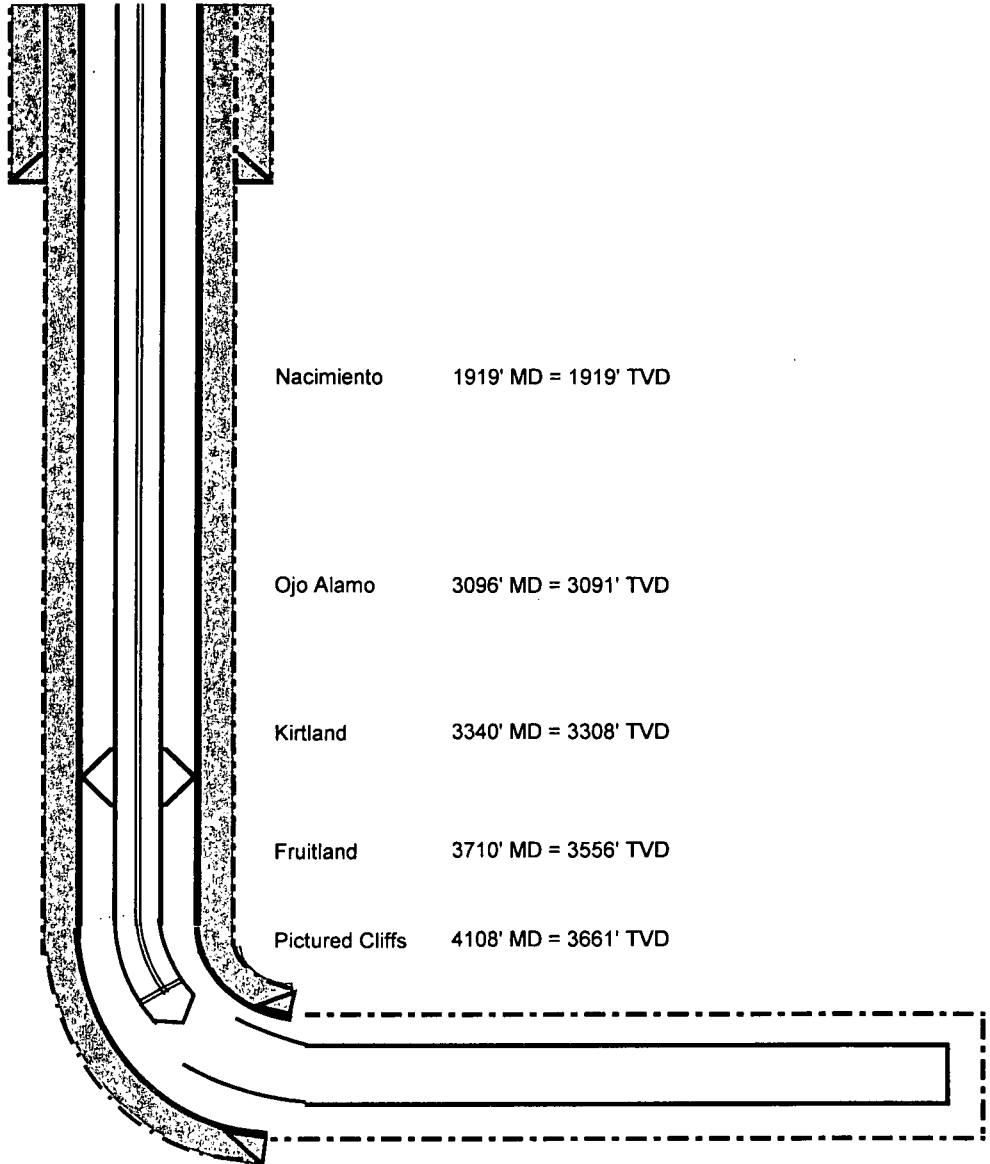
110 jts 2 3/8" J-55 tbg	
2 7/8" x 2 3/8" XO	
B2 TAC w/ 6K tension	3450'
2 7/8" x 2 3/8" XO	
20 jts 2 3/8" tbg	
SN	4080'
2 - 2 3/8" perf subs	
2 3/8" x 2 7/8" XO	
2 jts 2 7/8" tbg	
2 7/8" bullplug	4153'

**Rod & Pump Detail:**

3/4" pony rod  
107 - 3/4" rods  
54 - 3/4" guided rods  
3 - 3/4" pony rods  
2' rod sub  
2 x 1 1/4 x 20' RHAC

**PROD CASING**

7", 23#, J-55 casing @ 4251' MD.  
Cmt w/ 520 sx. Circ 7 bbls cmt to surface.



Nacimiento 1919' MD = 1919' TVD

Ojo Alamo 3096' MD = 3091' TVD

Kirtland 3340' MD = 3308' TVD

Fruitland 3710' MD = 3556' TVD

Pictured Cliffs 4108' MD = 3661' TVD

6 1/8" lateral hole from 4251' to 8584' MD  
inclination at 4251' = 87 degrees

**Liner Detail:**

4 1/2", 11.6#, J-55 liner (uncemented)  
Top of liner (H Latch tool) at 4187'  
Bottom of liner at 8583'  
11 perfed jts with tops at 4252', 4378', 4842', 5306',  
5770', 6233', 6675', 7159', 7621', 8082', 8542'. Each jt  
has 28 - 0.75" holes

7/16/2014

**Jicarilla 457-04 #144**  
**PROPOSED P&A Wellbore Diagram**  
API # 30-039-30100  
**SESE Sec 04, T30N, R3W Rio Arriba, NM**

Spud 10/8/2008,  
Compl 10/28/2008

7122' GL  
7134' KB

**SURFACE CASING**

9 5/8", 32#, H-40 casing @ 294'.  
Cmt w/ 160 sx. Circ 10 bbls cmt to surface.

**Plug #4: 344' - 0'**  
Class B cement, 70 sxs

*See COA*

**Plug #3: 1969' - 1869'**  
Class B cement, 29 sxs

*See COA*

**Plug #2: 3390' - 3046'**  
Class B cement, 74 sxs

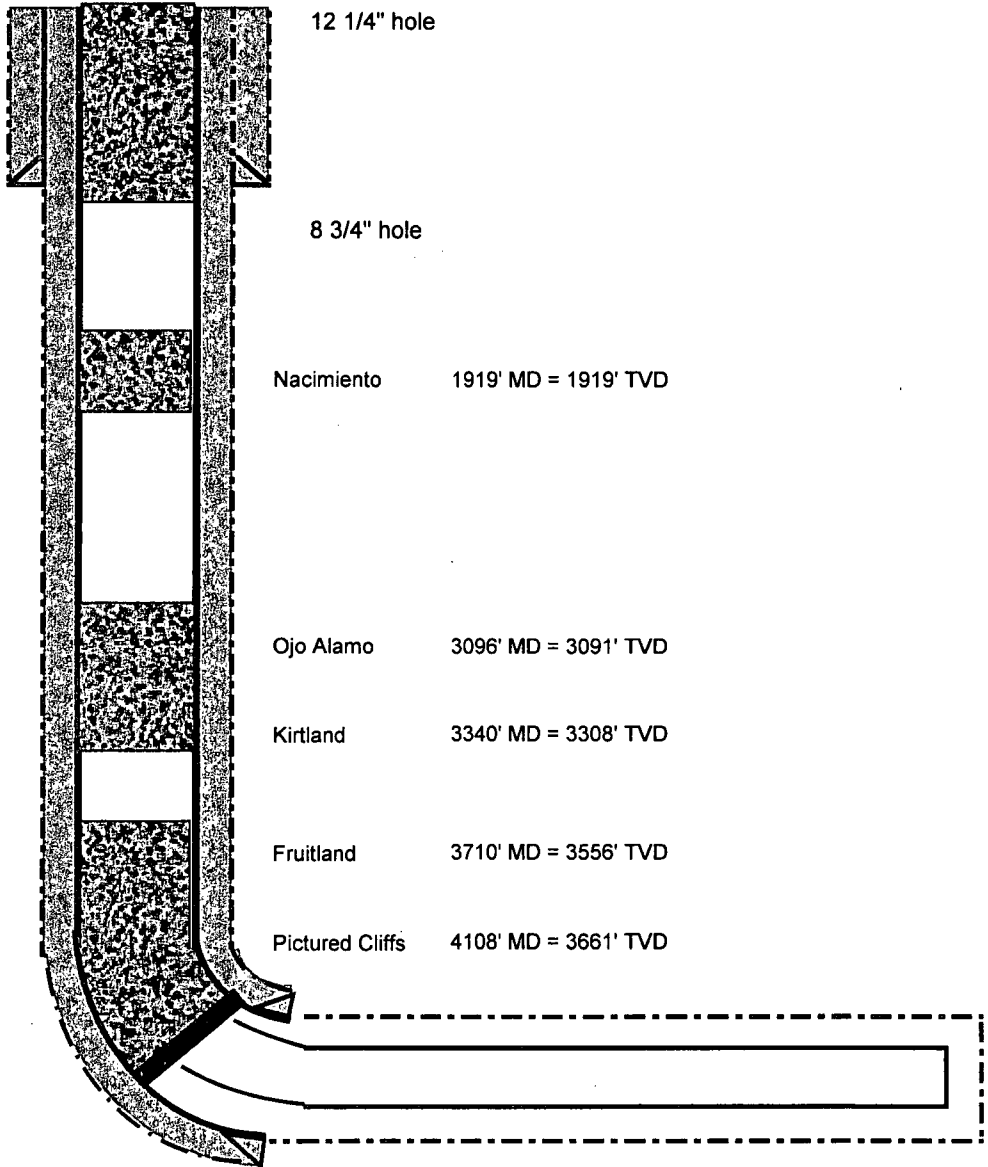
*See COA*

**Plug #1: 4130' - 3660'**  
Class B cement, 98 sxs

**Set Hydro-set CIBP @ 4130'**

**PROD CASING**

7", 23#, J-55 casing @ 4251' MD.  
Cmt w/ 520 sx. Circ 7 bbls cmt to surface.



6 1/8" lateral hole from 4251' to 8584' MD

**Liner Detail:**

4 1/2", 11.6#, J-55 liner (uncemented)  
Top of liner (H Latch tool) at 4187'  
Bottom of liner at 8583'  
11 perfed jts with tops at 4252', 4378', 4842', 5306',  
5770', 6233', 6675', 7159', 7621', 8082', 8542'. Each jt  
has 28 - 0.75" holes

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 457-04 #144

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. Bring the top of plug #1 to 3460' MD to cover the Fruitland top. Adjust cement volume accordingly.
4. Bring the top of plug #2 to 2990' to cover the Ojo Alamo top. Adjust cement volume accordingly.
5. Bring the top of plug #3 to 1785' to cover the Nacimiento top. Adjust cement volume accordingly.

Note: H<sub>2</sub>S has not been reported at this location; however, high to very high concentrations of H<sub>2</sub>S (130-2000) ppm GSV have been reported in wells which produce gas from the Pictured Cliffs, San Jose, Nacimiento and Ojo Alamo formations within a 1 mile radius of this location. It is imperative that H<sub>2</sub>S monitoring and safety equipment be on location during the P&A 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.