

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
WELL COMPLETION OR RECOMPLETION REPORT AND LOGFORM APPROVED
OMB NO. 1004-0137
Expires: March 31, 2007

5. LEASE DESIGNATION AND SERIAL NO.

Jic. Contract 458

1a. Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Workover ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other _____

6. INDIAN ALLOTTEE OR TRIBE NAME

Jicarilla Apache Tribe

7. UNIT AGREEMENT

8. FARM OR LEASE NAME

Jicarilla 458-05 #22

9. API WELL NO.

30-039-29314

10. FIELD NAME

Basin Dakota

11. SEC. T, R, M, OR BLOCK AND SURVEY
OR AREA Sec 5, T30N, R3W

12. COUNTY OR PARISH

Rio Arriba

13. STATE

NM

17. ELEVATIONS (DF, RKB, RT, GR, etc.)*

7271' GL & 7284' KB

2. Name of Operator
Black Hills Gas Resources, Inc.3. Address
P.O. Box 249 Bloomfield, NM 874133a. Phone No. (include area code)
720-210-1368

4. Location of Well (Report location clearly and in accordance with Federal requirements)*

At surface

Sec 5, T30N, R03W 2230' FNL & 2175' FWL Unit F

At top prod. Interval reported below

At total depth

14. Date Spudded 3/16/2006 15. Date T.D. Reached 4/6/2006 16. Date Completed X D & A Ready to Prod. 7/20/2006 (Dak only)

18. Total Depth: MD 8891' 19. Plug back T.D.: MD 8112' 20. Depth Bridge Plug Set: MD TVD

21. Type Electric & other Logs Run (Submit a copy of each)
Induction, Neutron-Density, CBL, Cased Hole Neutron22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/ Grade	Wt. (#/ft.)	Top (MD)	Bottom(MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (Bbl)	Cement Top*	Amount Pulled
12-1/4"	9-5/8"/J55	36	0	301'		165, G	38.6	circ to surf	0'
8 3/4"	7"/J55, L80	23	0	4025'		710, Poz	202.4	330', CBL	0'
6 1/4"	4 1/2"/N80	11.6	3718'	8891'		510, III	161.7	3718', circ	0'

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
N/A								

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. of Holes	Perf. Status
A) Basin Dakota	8538'	8891'	8750-60', 8786-94', 8798-8806'	.36"	26	sqz'd w/75 sx H cmt
B) Basin Dakota	8538'	8891'	8696-8701'	.36"	20	CIBP at 8680'+10' cmt
C) Basin Dakota	8538'	8891'	8566-72', 8606-18'	.36"	24	sqz'd w/50 sx V cmt
D)						

27. Acid, Fracture Treatment, Cement Squeeze, Etc.

Depth Interval	Amount and Type of Material
8750-8806'	250 gal 7.5% HCL, cmt ret at 8742', sqz w/75 sx H
8696-8701'	150 gal 7.5% HCL, CIBP at 8680', 10' cmt on CIBP
8566-8618'	300 gal 7.5% HCL, fraced w/79,726# 20/40 sand, 65Q CO2 foam, cmt ret at 8540', sqz w/50 sx cl V

28. Production- Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil Bbl	Gas MCF	Water Bbl	Oil Gravity Corr. API	Gas Gravity	Production Method
	6/14/2006		→		0				Flowing
Choke Size	Tbg. Press Fhwg. SI	Csg. Press.	24 Hr. Rate	Oil Bbl	Gas MCF	Water Bbl	Gas: Oil Ratio	Well Status	
	0		→		0			Sqz'd w/75 sx cmt	

28a. Production- Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil Bbl	Gas MCF	Water Bbl	Oil Gravity Corr. API	Gas Gravity	Production Method
	6/21/2006		→		0				Flowing
Choke Size	Tbg. Press Fhwg. SI	Csg. Press.	24 Hr. Rate	Oil Bbl	Gas MCF	Water Bbl	Gas: Oil Ratio	Well Status	
	0		→		0			CIBP at 8680' + 10' cmt	

* See instructions and spaces for additional data on page 2)

NMOCB

28b. Production- Interval C									
Date First Produced	Test Date 7/7/2006	Hours Tested	Test Production →	Oil Bbl	Gas MCF 0	Water Bbl	Oil Gravity Corr. API	Gas Gravity	Production Method Flowing
Choke Size 1/4"	Tbg. Press Flwg. SI 0	Csg. Press.	24 Hr. Rate →	Oil Bbl	Gas MCF 0	Water Bbl	Gas: Oil Ratio	Well Status	Sqz'd w/50 sx cmt

28c. Production- Interval D									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil Bbl	Gas MCF	Water Bbl	Oil Gravity Corr. API	Gas Gravity	Production Method
Choke Size	Tbg. Press Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil Bbl	Gas MCF	Water Bbl	Gas: Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

30. Summary of Porous Zones (include Aquifers):
Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

Formation	Top	Bottom	Descriptions Contents, Etc.	Name	Top Measured Depth
Dakota	8538'	8891'	sandstone, mudstone, water, gas	San Jose	0'
				Nacimiento	2287'
				Ojo Alamo	3346'
				Kirtland	3537'
				Fruitland	3763'
				Pictured Cliffs	3916'
				Lewis	4023'
				Cliffhouse	5906'
				Menefee	6125'
				Point Lookout	6251'
				Mancos	6785'
				Dakota	8538'

32. Additional remarks (include plugging procedure):
(see attached sundry)

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/ Mechanical Logs (1 full set required)	☐ Geologic Report	☐ DST Report	☒ Directional Survey
☐ Sundry Notice for plugging and cement verification	☐ Core Analysis	☒ Other:	approved sundry for testing, abandoning Dakota

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) **Leslie Lam**

Title **Sr. Petroleum Engineer**

Signature

Leslie Lam

Date **8/10/2006**

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.

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: March 31, 2007

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 reverse side.

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. Contract 329	
2. Name of Operator Black Hills Gas Resources, Inc.		6. If Indian, Allottee, or Tribal Name Hearlita Apache Tribe	
3a. Address P.O. Box 249 Bloomfield, NM 87413		7. If Unit or CA Agreement Hearlita Apache Tribe	
3b. Phone No. (Include area code) 720-210-1368		8. Well Name and No. Hearlita 458-5 #22	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 5, T30N, R03W 2230' FNL' & 2175' FWL Unit F		9. API Well No. 30-039-29314	
		10. Field and Pool, or Exploratory Area WC Basin Mancos	
		11. County or Parish, State Rio Arriba, NM	

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-off
☒ Subsequent Report	☐ Altering Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other <u>Ran CH logs</u>
	☐ Change Plans	☐ Plug and abandon	☐ Temporarily Abandon	<u>Tst Dakota, Abandon Dak.</u>
	☐ Convert to Injection	☐ Plug back	☐ Water Disposal	<u>Leave the fish in hole</u>

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 recompletes horizontally, give subsurface locations and measured and true vertical depths or pertinent markers and sands. Attach the Bond under which the work will be performed or provide the Bond No. on file with the BLM/BLA. 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 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, Inc., completion progress thru 7/20/06:

4/25/06 to 4/28/06: MIRUSU. Ran bit. Drilled cmt 8839' to 8853'. New PBTD 8853'. Ran bit & scraper. POH. RDMO.

4/29/06: Ran CBL and Neutron logs. Top of cmt 4 1/2" liner at liner top at 3718'. Top of cmt: 7" csg at 350'.

6/1/06 to 7/20/06: MIRUSU. Ran tbg & pkr & set in 4 1/2" liner at 3758'. Press test liner for 30 min to 6200 psi, ok. Press test 7" interm. csg & liner top for 30 min to 3000 psi, ok. Spot 150 gal acid across proposed perf interval. Perf Dakota 8750-60', 8786-94', 8798-8806', 1spf, total 26 holes. Pump 250 gal acid breakdown on perfs. Pump 2% KCL water & perform breakdown/falloff test. Swab test perfs. Swab water, no oil or gas show. Set cmt ret at 8742'. Sqz Dak perfs w/75 sx cl. H cmt + 1.2% R-3 retarder & 0.1% CD-32 dispersant (15.6 ppg, 1.18 yield), 30 sx below cmt ret. Left 5' cmt on top of cmt ret. Perf Dak 8696-8701', 4spf, total 20 holes. Pump 150 gal acid breakdown on perfs. Swab test perfs. Swab water, no oil or gas show. Set CIBP at 8680'. Dump ball 10' cmt on CIBP. Perf Dak 8566-8572', 2spf, 8606-8618', 1spf, 36" diam, total 24 holes. Pump 300 gal acid breakdown on perfs. Swab tested water with gas show. Frac perfs w/65Q CO2 foam &

(continued on attached page)

14. I hereby certify that the foregoing is true and correct.	
Name (Printed/ Typed) Leslie Lam	Title Sr. Petroleum Engineer
Signature <i>Leslie Lam</i>	Date 7/21/2006

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by 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 Office	Date
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)		

ACCEPTED FOR RECORD

AUG 03 2006

NMOCD

FARMINGTON FIELD OFFICE

Attachment to Sundry dated 7/21/06

Black Hills Gas Resources, Inc.
Jicarilla 458-5 #22
Sec 5, T30N, R03W
2230' FNL & 2175' FWL, Unit F
API No. 30-039-29314

13. (continued)

79,726# 20/40 Tempered LC sand. Flowed back load fluid. Well logged off & died. No commercial gas. Ran tracer log across perms. Set cmt ret at 8540'. Sqz Dak perms with 50 sx cl. V neat cmt (15.6 ppg, 1.18 yield), 10 sx below cmt ret. Pull up hole 120'. Unable to reverse out or pull tbg. Cmt set up. Tag cmt inside 2 3/8" tbg at 7112'. Ran wash pipe & external cutter. Cut & retrieved tbg fish in sections to 8112'. Milled cmt in 2 3/8" x 4 1/2" annulus 8136' to 8151'. Very slow progress. Made decision to cease fishing operations to prevent wearing hole in casing due to rotating. Cmt top in 2 3/8" x 4 1/2" annulus at 8151'. Cmt top inside tbg fish at 8112'. Top of 2 3/8" tbg fish at 8112'. Bottom of tbg fish at 8420'.

Will continue completion by testing Mancos.

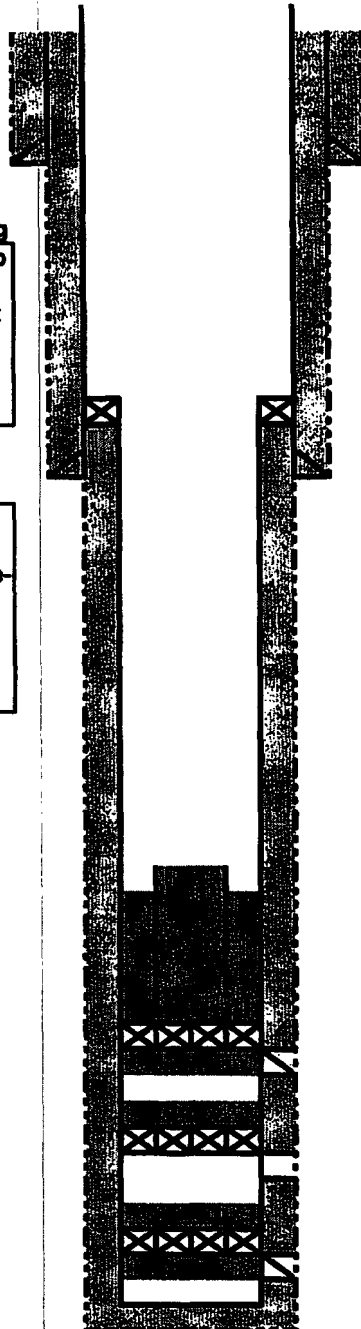
Black Hills Gas Resources, Inc.
Jicarilla 458-05 #22
 Current Wellbore Diagram
 API # 30-039-29314
 UNIT F SE NW, Sec 5, T30N, R03W Rio Arriba, NM
 Spud Date 3-16-2006

Elev. GL= 7271'
 Elev. KB= 7284'

SURF CSG
 9 5/8" 36# @301' KB,
 165 sx cmt, TOC: 10
 bbl circ to surf

Intermediate Casing
 7" 23# L-80 STC (Top
 30 jts), 69 jts J-55
 23# set at 4025'. Cmt
 w/410sx, 300 sx;
 TOC at 330' by CBL

Production Liner
 4 1/2" 11.6# N-80
 From 3718' to 8891"
 KB; cmt w/ 510 sx lite-
 weight Type III,
 Circulate 30 bbls
 cement off the liner
 top.



Tbg fish: 2 3/8" tbg fish cmt'd in hole. Top of fish at 8112'. Bottom of fish at 8420'. Cmt in tbg fish at 8112'. Cmt in tbg/csg annulus at 8151'.

Dakota A; perf 6-23-06, 8566-8572, 8606-8618. BD 6-28-06. Frac 7-01-06. Set retainer at 8540'. Cmt sqz. TOC at 8151' (tbg fish cmt'd in hole)

Dakota B; perf 6-15-06, 8696-8701. BD. Set CIBP 6-23-06 @ 8680' 10' cement on top

Dakota C&D; perf 8-02-06, 8750-8760, 8786-8794, 8798-8806. BD, Minifrac 6-05-06, No frac. Set retainer @ 8742', cmt sqz C&D. TOC=8737'.

PBTD=8853'
 TD = 8891'

Updated: Leslie Lam, 7/21/06



PATTERSON-UTI DRILLING COMPANY

A LIMITED PARTNERSHIP

328 County Road 3500, Aztec, New Mexico 87410-9567
505-334-8361 • Fax: 505-334-8391

August 9, 2006,

Rig#744
Black Hills Exploration
350 Indiana Street
Suite 400
Golden, Co 80401

This is to certify that Patterson UTI Drilling, did run deviation surveys at the listed depth on your
Jicarilla 458-5 #22 IN Sec 5T30NR03

Depth	Deviation	Depth	Deviation	Depth	Deviation
814'	¾°	2938'	3¾°	8867'	¾°
1315'	1°	3218'	MR		
1814'	1°	3436'	4°		
2314'	2°	3819'	4¾		
2655'	3¾°	8804'	3°		

To the best of my knowledge, I swear this information to be true.

Sincerely,

Gary Miller
Gary Miller
Area Manager

State of New Mexico County San Juan

This instrument was acknowledged before me

by Gary Miller

Notary public Angela P. [Signature] My commission expires 5/1/09

