Form 3160- 5 (April 2004)

## **UNITED STATES** DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT**

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FORM APPROVED

OMB No. 1004- 0137		
Expires. March	31, 2007	
Lease Serial No		
INM 18325		
If Indian Allottee or Tribe	Name	

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. 7. If Unit or CA. Agreement Name and/or No. SUBMIT IN TRIPLICATE - Other Instructions of Texers eside. Type of Well √ Gas Well Oil Well SEP 1 9 2007 Many Canyons 29-04-26 #133 Name of Operator Bureau of Land Management 9. API Well No. Black Hills Gas Resources Faminaton Field Office 3a. Address 30-039-29988 10. Field and Pool, or Exploratory Area 3200 N 1st Street PO Box 249 Bloomfield, NM 87413 4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Choza Mesa/Pictured Cliffs 11. County or Parish, State Surface: 1.960' FSL 1.915' FEL NW/SE Unit J Sec26 T29W R4W Bottom Hole: 670' FSL 670' FEL SE/SE Unit P Sec26 T29N R4W Rio Arriba, New Mexico CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION √ Notice of Intent Acidize Deepen Production ( Start/ Resume) Water Shut-off Altering Casing Fracture Treat Reclamation Well Integrity Subsequent Report Casing Repair New Construction Recomplete Change Plans Plug and abandon Temporarily Abandon Final Abandonment Notice Water Disposal Convert to Injection Plug back 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 recomplete horizontally, give subsurface locations and measured and true vertical depths or pertinent markers and sands.

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

A sundry was approved on March 27, 2007 to convert the undrilled well to a dual lateral completion. The well was given API # 30-039-29988. After evaluation of data the previous drilling plan will be updated. BHGR therfore is submitting an updated drilling plan, NEVIS plan, and a new C-102 BHGR requests that if tests of the tertiary and PC formations are favorable that we will complete these formations and submit comingle applications.

The surface location will remain the same but the new bottom hole is 670' FSL 670' FSL SE/SE Unit P Sec 26 T29N. R4W.

Surface disturbance will not change from the initial APD, therefore the Surface Use Plan will not be updated or modified.

This approval replaces all previously issued authorizations

14. I hereby certify that the foregoing is true and correct.  Name (Printed/ Typed)	1
Lynn Benally	Title Regulatory Specialist
Signature Officer	Date 9/19/2007
THIS SPACE FOR FEDI	ERAL OR STATE OFFICE USE
Approved by Ambyale	Title Ret. Eng. Date 9/76/07

States any false, fictitiousor fraudulent statements or representations as to any matter within its jurisdiction

(Instructions on page 2)

as drilled C-102 C-102 For war an ywall; Tenang

DISTRICT I 1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II 1301 W Grand Ave , Artesia, N M 88210

1000 Rio Brazos Rd , Aztec, N M 87410

DISTRICT IV

DISTRICT III

State of New Mexico Energy, Minerals & Natural Resources Department

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr Santa Fe, NM 87505

Form C-102 Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

☐ AMENDED REPORT

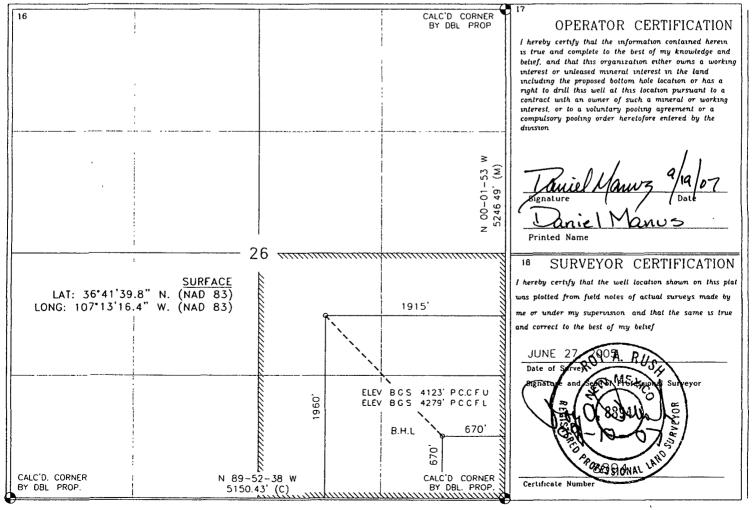
Fee Lease - 3 Copies

1220 South St Francis Dr., Santa Fe, NM 87505 WELL LOCATION AND ACDEACE DEDICATION DIAT

	WELL LOCATION AND	ACREAGE DEDICATION PLAT	
'API Number	² Pool Code	³ Pool Name	
30-039-29988	74960 CHOZA MESA PICTURE CLIF		S (GAS)
Property Code	<sup>5</sup> Property Name		<sup>6</sup> Well Number
35952	MANY CANYONS 29-04-26		133
OGRID No	Operator Name		° Elevation
013925	BLACK HILLS GAS RESOURCES		7396'

<sup>10</sup> Surface Location UL or lot no Section Township Range Lot Idn Feet from the North/South line Feet from the East/West line County 26 29-N 1960 SOUTH 1915 **EAST** RIO ARRIBA "Bottom Hole Location If Different From Surface UL or lot no Lot Idn Feet from the North/South line Section Township Range Feet from the East/West line County 1 26 29-N 670 SOUTH 670 RIO ARRIBA 4 - W**EAST** 12 Dedicated Acres 13 Joint or Infill 14 Consolidation Code 15 Order No 160 - SE/4

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





Black Hills Gas Resources (BHGR)
Many Canyons 29-04-26 #133

Surface Location: 1960' FSL 1915' FEL (NW/SE)
Bottom Hole Location: 670' FSL 670' FEL (SE/SE)
Sec.26 T29N R4W
Rio Arriba County, New Mexico
NMNM 18325

# DRILLING PROGRAM (Per Rule 320)

This Application for Permit to Drill (APD) was initiated under the NOS process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This APD process includes an onsite meeting which was held on November 28, 2005 as determined by Bureau of Land Management (BLM) and Carson National Forest Service, at which time the specific concerns of Black Hills Gas Resources (BHGR) were discussed.

This well was originally permitted and approved as a vertical PC well on 8/15/2006. A sundry with a new drilling plan changing the un-drilled well to a dual horizontal PC well was approved on 12/12/2006. This revised drilling plan based on recent drilling data will modify the drilling angle.

**SURFACE FORMATION** - San Jose

**GROUND ELEVATION** – 7,396'

ESTIMATED FORMATION TOPS - (Water, oil, gas and/or other mineral-bearing formations)

San Jose	Surface Sandstone, shales & siltstones	
Nacimiento	2,197	Sandstone, shales & siltstones
Ojo Alamo	3,658'	Sandstone, shales & siltstones
Kirtland	3,804'	Sandstone, shales & siltstones
Fruitland	3,923'	Sandstone, shales & siltstones
Pictured Cliffs	4,145'	Sandstone, shales & siltstones
Lwr Pic Cliffs	4,533'	Sandstone, shales & siltstones

TOTAL DEPTH 4,279' TVD 1,793' Vertical Length of Bore

Estimated depths of anticipated fresh water, oil, or gas:

**Tertiary** San Jose surface Gas Nacimiento 2,197 Gas Ojo Alamo 3,658 Gas Fruitland 3,923 Gas Pictured Cliffs 4,145 Gas Lwr Pic Cliffs 4,533' Gas

## **HORIZONTAL DRILLING PROGRAM**

Kick Off Point is estimated to be  $\pm$  3782' TVD

## **CASING PROGRAM**

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0'-275'	12-1/4"	9-5/8"	36# J-55	To surface (± 175 sxs Standard cement containing 2% CaCl <sub>2</sub> and 0.25lb/sx LCM)
275'-4590'	8-3/4"	7"	23# J-55 LT&C	TD to surface (Lead: ± 300 sxs lite standard cement. Tail: 400 sxs 50:50 poz containing 0.25 lb/sx LCM)
4590'–5849'	6-1/8"	Open hole**	Open hole	

- \* Actual cement volume to be determined by caliper log.
- \*\* If hole instability is encountered, a 4 ½", 10.5#, J-55 uncemented liner may be run in the 6 1/8" open hole section

Yields:

Surface: Standard cement yield =  $1.2 \text{ ft}^3/\text{sx}$  (mixed at 15.6 lb/gal)

Production: Lite Standard Cement yield: = 1.59 ft<sup>3</sup>/sx (mixed at 13.4 lb/gal)

 $50:50 \text{ poz yield} = 1.27 \text{ ft}^3/\text{sx} \text{ (mixed at 14.15 lb/gal)}$ 

All fresh water and prospectively valuable minerals encountered during drilling will be recorded by depth and protected.

## PRESSURE CONTROL

BOPs and choke manifold will be installed and pressure tested before drilling out under surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating conditions. BOP's will be pressure tested at least once every 30 days. Ram type preventors and related pressure control equipment will be pressure tested to 1,000 psi. Annular type preventor will be pressure tested to 50% of the rated working pressure, not to exceed 1,000 psi. All casing strings will be pressure tested to 0.22 psi/ft. or 1,000 psi, whichever is greater, not to exceed 70% of internal yield.

BOP to be either double gate rams or an annular preventor as per Onshore Order No. 2.

## Statement on Accumulator System and Location of Hydraulic Controls

The drilling rig has not yet been selected for this well. Selection will take place after approval of this application. Manual and/or hydraulic controls will be in compliance with Onshore Order No. 2 for 2M systems.

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DRILLING PROGRAM

Many Canyons 29-04-26 #133

A remote accumulator will be used. Pressures, capacities, location of remote hydraulic and manual controls will be identified at the time of the BLM supervised BOP test.

#### **MUD PROGRAM**

0' - 275' Fresh water – M.W. 8.5 ppg, Vis 30-33
275' - TD' Clean Faze - Low solids non-dispersed
M.W. 8.5 – 9.2 ppg
Vis – 28 – 50 sec

 $V_{1S} - 28 - 50$  sec W.L. 15cc or less

Sufficient mud materials to maintain mud properties, control lost circulation and to contain "kick" will be available at well site.

## **AUXILIARY EQUIPMENT**

- A) A Kelly cock will be kept in the drill string at all times
- B) Inside BOP or stab-in valve (available on rig floor)
- C) Mud monitoring will be visually observed

### LOGGING, CORING, TESTING PROGRAM

A) Logging: DIL-CNL-FDC-GR - TD - BSC (GR to surface)

Sonic (BSC to TD)

B) Coring: None

C) Testing: Possible DST – None anticipated. Drill stem tests may be run on shows of interest

#### ABNORMAL CONDITIONS

A) Pressures: No abnormal conditions are anticipated

Bottom hole pressure gradient – 0.31 psi/ft

B) Temperatures: No abnormal conditions are anticipated

C)  $H_2S$ : See attached  $H_2S$  plan in event  $H_2S$  is encountered.

D) Estimated bottomhole pressure: 1,395 psi

## ANTICIPATED START DATE

October 8, 2007

## COMPLETION

The location pad will be of sufficient size to accommodate all completion activities and equipment. A string of 2-3/8", 4.7#, J-55 tubing will be run for a flowing string. A Sundry Notice will be submitted with a revised completion program if warranted.

Job Number: 71xxx Company: Black Hills Gas Resources Lease/Well: Many Canyons 29-04-26 #133 Location: Rio Arriba County, NM



