

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOCD FOR: A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOCD PART 19.15.17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

RCVD JUN 24 '08

OIL CONS. DIV.

DIST. 3

FORM APPROVED

OMB No. 1004-0137

Expires March 31, 2007

UNITED STATES

DEPARTMENT OF THE INTERIOR

BUREAU OF LAND MANAGEMENT

2006 OCT 4 AM 10:00

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. Type of Work



DRILL



REENTER

1b. Type of Well



Oil Well



Gas Well



Other



Single Zone



Multiple Zone

2. Name of Operator

E-mail: lbenally@bhep.com

Black Hills Gas Resources, Inc.

Contact: Lynn Benally

3a. Address

P.O. Box 249

Bloomfield

NM

87413

3b. Phone No. (include area code)

505-634-1111

4. Location of Well (Report location clearly and in accordance with any State Requirements.)

At surface

2,105' FNL

660' FEL

SE 1/4

NE 1/4

Lat: 36.74091

Long: 107.04178

At proposed production zone

14. Distance in miles and direction from nearest town or post office. \*

Well is located approximately 62 miles east of Bloomfield, New Mexico.

12. County or parish

Rio Arriba

13. State

New Mexico

15. Distance from proposed location to nearest property of lease line, ft. (Also nearest Drig, unit line, if any)

Unit= n/a

Lease= ±660'

16. No. of acres in lease

9600.00

17. Spacing Unit dedicated to this well

160 NE 1/4

18. Distance from proposed location to nearest well, drilling, completed or applied for, on this lease, ft.

± 1,900'

Jicarilla

29-02-09

3

19. Proposed depth

4,000' TVD

20. BLM/BIA Bond No. on file

NMB000230

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

7,460' GR

22. Approximate date work will start \*

November 2, 2006

23. Estimated duration

45-60 days drig + completion

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature

Kathy L. Schneebeck

Name (Printed/Typed)

Kathy L. Schneebeck, 303-820-4480

Date

October 3, 2006

Title

Permit Agent for Black Hills Gas Resources, Inc.

Approved by (Signature)

[Signature]

Name (Printed/Typed)

Office

FEC

Date

6/23/08

Application approval 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.

Conditions of approval, if any, are attached.

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.

NOTIFY AZTEC OGD 24 HRS.  
PRIOR TO CASING & CEMENT

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

NMOCD

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

JUN 30 2008

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

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

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV  
1220 South St. Francis Dr., Santa Fe, NM 87505

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  
Fee Lease - 3 Copies

2006 OCT 4 PM 10 01

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30.039-30077	<sup>2</sup> Pool Code 72400	<sup>3</sup> Pool Name E. Blanco Pictured Cliffs
<sup>4</sup> Property Code 24247	<sup>5</sup> Property Name JICARILLA 29-02-09	<sup>6</sup> Well Number 24
<sup>7</sup> OGRID No. 013925	<sup>8</sup> Operator Name BLACK HILLS GAS RESOURCES	<sup>9</sup> Elevation 7460

<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
H	9	29-N	2-W		2105	NORTH	660	EAST	RIO ARRIBA

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<sup>12</sup> Dedicated Acres 160 acres - NE/4			<sup>13</sup> Joint or Infill		<sup>14</sup> Consolidation Code		<sup>15</sup> Order No.		

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

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FD. PIN & CAP  
W/ L.S. NO. 8894

S 89-31-06 W  
5288.54' (M)

2105'

N 01-10-55 W  
2628.54' (M)

LAT. 36.74091° N. (NAD 83)  
LONG. 107.04178° W. (NAD 83)

660'

9

FD. PIN & CAP  
W/ L.S. NO. 8894

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OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Kathy L. Schneebeck  
October 3, 2006  
Signature Date

Kathy L. Schneebeck  
Printed Name  
Permit Agent for Black Hills

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SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JULY 28, 2006  
Date of Survey

Signature and Seal of Professional Surveyor  
8894

8894  
Certificate Number

Black Hills Gas Resources, Inc.  
**Jicarilla 29-02-09 24**  
2,105' FNL 660' FEL (SE/4 NE/4)  
Sec. 9 T29N R2W  
Rio Arriba County, New Mexico  
Lease: MDA 701-98-0013, Tract 4

### DRILLING PROGRAM

This Application for Permit to Drill (APD) was initiated under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process included an onsite meeting, which was held on September 19, 2006, as determined by Bureau of Indian Affairs (BIA) and Jicarilla Oil and Gas Administration (JOGA), and at which time the specific concerns of Black Hills Gas Resources, Inc. (Black Hills), BIA and JOGA were discussed.

SURFACE FORMATION – San Jose

GROUND ELEVATION – 7,460'

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

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	2,275'	Sandstone, shales & siltstones
Ojo Alamo	3,292'	Sandstone, shales & siltstones
Kirkland	3,474'	Sandstone, shales & siltstones
Fruitland Coal	3,622'	Sandstone, shales & siltstones
Pictured Cliffs	3,670'	Sandstone, shales & siltstones
Lewis	3,779'	Sandstone, shales & siltstones
TOTAL DEPTH	4,000'	

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

Tertiary

San Jose	surface	Gas
Nacimiento	2,275'	Gas
Ojo Alamo	3,292'	Gas
Fruitland Coal	3,622'	Gas
Pictured Cliffs	3,670'	Gas

CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' – 250' TVD	12-1/4"	8-5/8"	J-55 24# ST&C New	To surface ( $\pm 175$ sxs Standard Cement containing 2% CaCl <sub>2</sub> and 0.25 lb/sx LCM) **
0' – 4,000' TVD	7-7/8"	5-1/2"	J-55 15.5# LT&C New	TD to surface (Lead: $\pm 300$ sxs Lite Standard Cement. Tail: $\pm 400$ sxs 50:50 POZ containing 0.25 lb/sx LCM)* **

\* Actual cement volume to be determined by caliper log.

\*\* Cement will be circulated to surface.

## Yields:

Surface: Standard Cement yield: = 1.2 ft<sup>3</sup>/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 POZ yield = 1.27 ft<sup>3</sup>/sx (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 condition. 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.

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' - 250' Fresh water – M.W. 8.5 ppg, Vis 30-33  
 250' - TD' Clean Faze - Low solids non-dispersed  
 M.W.: 8.5 – 9.2 ppg  
 Vis.: 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 wellsite.

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<sub>2</sub>S: See attached H<sub>2</sub>S plan in the event H<sub>2</sub>S is encountered.
- D) Estimated bottomhole pressure: 1,240 psi

ANTICIPATED START DATE

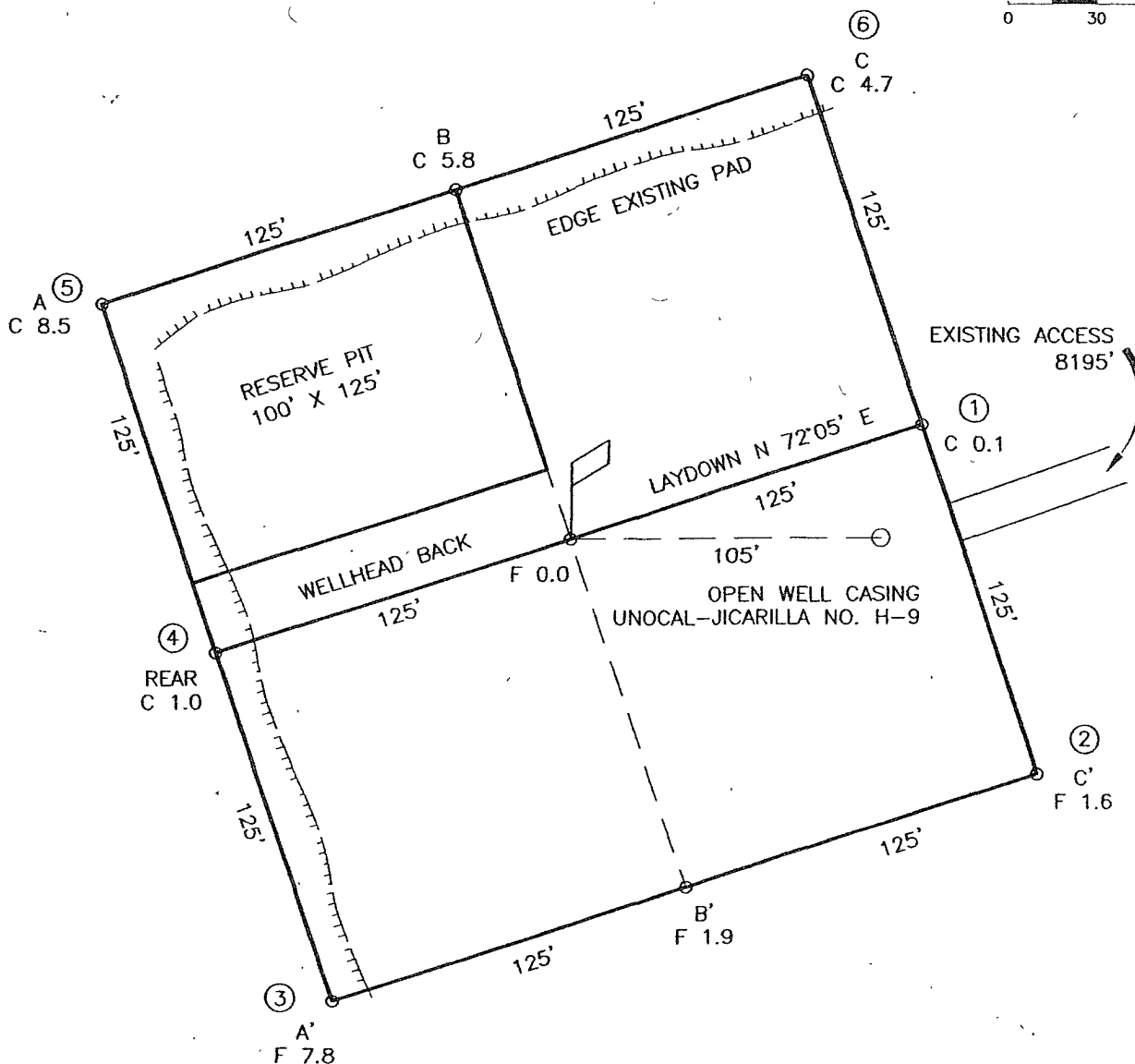
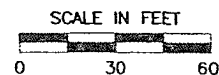
November 2, 2006

COMPLETION

The location pad will be of sufficient size to accommodate all completion activities and equipment. A string of 2-7/8" PH-6 tubing will be run for a flowing string. A Sundry Notice will be submitted with a revised completion program if warranted.


# WELL PAD DIAGRAM

COMPANY: BLACK HILLS GAS RESOURCES  
 LEASE: JICARILLA 29-02-09 No. 24  
 FOOTAGE: 2105 FNL, 660 FEL  
 SEC.: 9, TWN: 29-N, RNG: 2-W, NMPM  
 ELEVATION: 7460'



## NOTE:

DAGGETT ENTERPRISES, INC. IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. NEW MEXICO ONE CALL TO BE NOTIFIED 48 HOURS PRIOR TO EXCAVATION OR CONSTRUCTION.

REVISION:	DATE:	REVISED BY:
 <b>Daggett Enterprises, Inc.</b> Surveying and Oil Field Services P. O. Box 15068 • Farmington, NM 87401 Phone (505) 326-1772 • Fax (505) 326-6019 NEW MEXICO L.S. 8894		
DRAWN BY: G.V.	CADFILE: MN459_PL8	
ROW#: MN459	DATE: 08/14/06	

# WELL PAD CROSS-SECTIONAL DIAGRAM

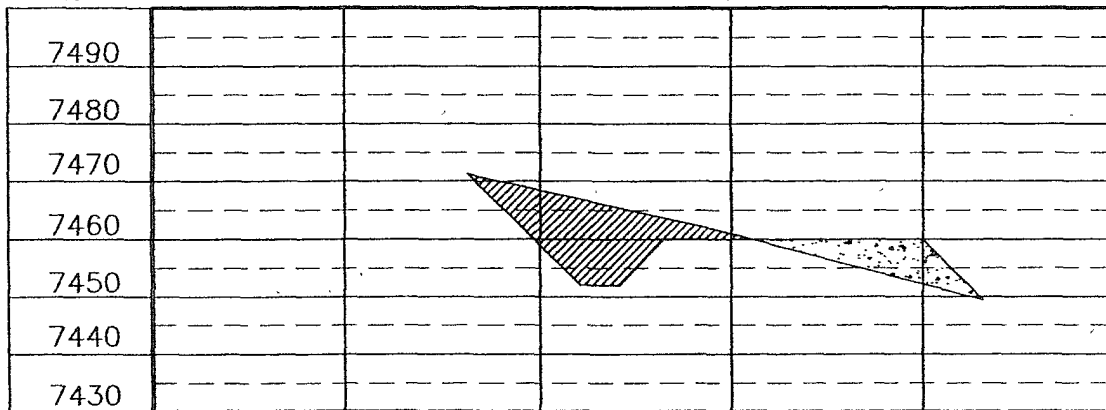
COMPANY: BLACK HILLS GAS RESOURCES  
 LEASE: JICARILLA 29-02-09 No. 24  
 FOOTAGE: 2105 FNL, 660 FEL  
 SEC.: 9, TWN: 29-N, RNG: 2-W, NMPM  
 ELEVATION: 7460'

## NOTE:

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 EXCAVATION OR CONSTRUCTION.

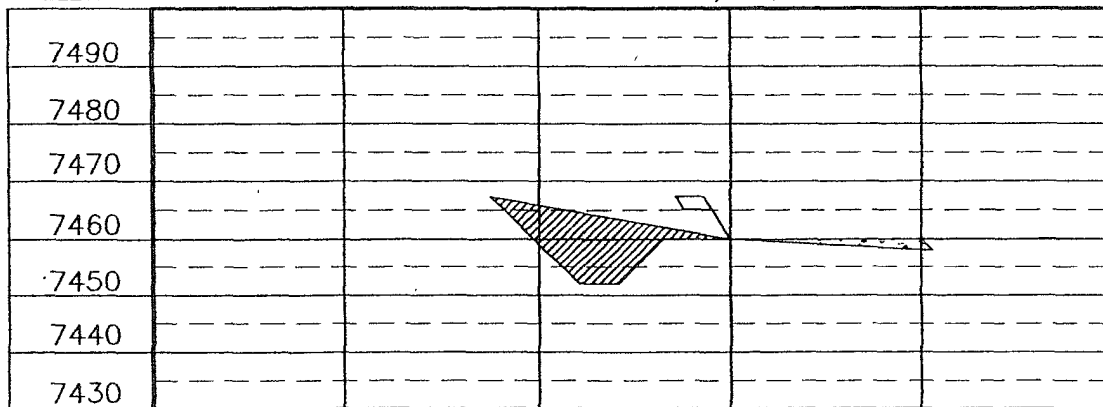
ELEV. A-A'

C/L



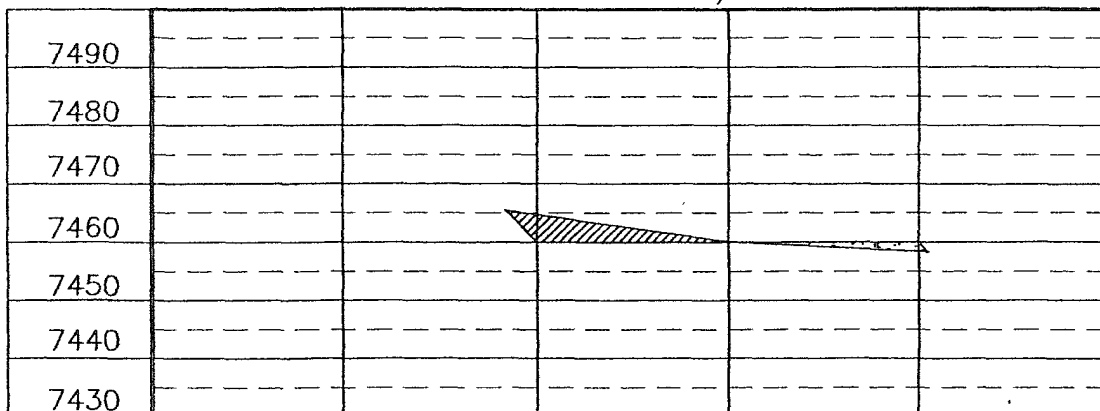
ELEV. B-B'

C/L



ELEV. C-C'

C/L



REF. DWG. MN459\_PL8 WELL PAD DIAGRAM

REVISION: DATE: REVISION: DATE:

**Daggett Enterprises, Inc.**  
 Surveying and Oil Field Services  
 P. O. Box 15068 • Farmington, NM 87401  
 Phone (505) 326-1772 • Fax (505) 326-6019  
 NEW MEXICO L.S. 8894



DRAWN BY: G.V.  
 ROW#: MN459  
 CAPTION: MN459\_C'F  
 DATE: 8/14/06

## 2-M SYSTEM

Black Hills Gas Resources, Inc.

ANNULAR PREVENTOR MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTORS  
BOP PRESSURE TEST TO 1,000 PSI

