

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. CONTRACT 452
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name JICARILLA APACHE NATION
2. Name of Operator BLACK HILLS GAS RESOURCES, INC		7. If Unit or CA Agreement, Name and No.
Contact: KATHY L SCHNEEBECK E-Mail: BPMIBlackHills@banko1.com		8. Lease Name and Well No. JIC 452-05 31 (25846)
3a. Address 350 INDIANA STREET, SUITE 400 GOLDEN, CO 80401	3b. Phone No. (include area code) Ph: 303-820-4480 Fx: 303-820-4124	9. API Well No. 30-039-29469
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSW 1455FSL 1005FWL At proposed prod. zone NWSW 1455FSL 1005FWL		10. Field and Pool, or Exploratory E BLANCO/PICTURED CLIFFS
14. Distance in miles and direction from nearest town or post office* 57 MILES FROM BLOOMFIELD, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area Sec 5 T29N R3W Mer NMP L
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 3,825' FNL (LEASE LINE)	16. No. of Acres in Lease 2560.00	12. County or Parish RIO ARRIBA
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1,900' FROM JICARILLA 452 1Y (SHUT IN)	19. Proposed Depth 4000 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 7136 GL	22. Approximate date work will start 03/25/2005	17. Spacing Unit dedicated to this well 160.00 SW/4
23. Estimated duration		

24. Attachments

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

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operator's liability for any and all damages caused by the operator on file (see Item 20 above).
- Operator certification.
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature (Electronic Submission)	Name (Printed/Typed) KATHY L SCHNEEBECK Ph: 303-820-4480	Date 02/22/2005
Title PERMIT AGENT FOR BLACK HILLS		
Approved by (Signature) 	Name (Printed/Typed) Name	Date 7/12/05
Title AFM	Office FPO	

Application approval does not warrant or certify 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.

Additional Operator Remarks (see next page)

Electronic Submission #54386 verified by the BLM Well Information System
For BLACK HILLS GAS RESOURCES, INC, sent to the Rio Puerco

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

NMOCD



DISTRICT I
1825 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
811 South First, Artesia, N.M. 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-2946A		*Pool Code 72400	*Pool Name E. Blanco / Pictured Cliffs
*Property Code 24245 35846	*Property Name JICARILLA 452-05		*Well Number 31
*OGRID No. 013925	*Operator Name BLACK HILLS GAS RESOURCES		*Elevation 7136'

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	29-N	3-W		1455	SOUTH	1005	WEST	RIO ARRIBA

¹¹ 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
*Dedicated Acres 160 acres - SW/4					*Joint or Infill		*Consolidation Code		*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

LOT 4		LOT 3		LOT 2		LOT 1	
QTR. COR. FD. 2 1/2" BC. 1917 GLO		LAT. 36-45-02.9 N (NAD 83) LONG. 107-10-47.6 W (NAD 83)		QTR. COR. FD. 2 1/2" BC. 1917 GLO		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Kathy L. Schneebeck Signature Kathy L. Schneebeck Printed Name Permit Agent for Black Hills Title February 22, 2005 Date	
N 00-08-50 W 2643.70' (M)		1005'		1455'		18 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 knowledge and belief. SEAN A. VUKOBICH Data Signature and Seal Professional Surveyor 14831 Certificate Number	
SEC. COR. FD. 2 1/2" BC. 1917 GLO		N 89-59-53 E 2639.21' (M)					

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☒ No ☐

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Black Hills Gas Resources, Inc. Telephone: 720-210-1300 e-mail address: cmaybee@bhgp.com
Address: 300 Indiana St. Suite 400, Golden, CO 80401 30-039-29469
Facility or well name: Jicarilla 452-0531 API #: Pending U/L or Qtr/Qtr: NW SW Sec 5 T 29N R 3W
County: Rio Arriba Latitude 36° 45' 02.9" Longitude 107° 10' 47.6" NAD: 1927 ☐ 1983 ☒ Surface Owner Federal ☐ State ☐ Private ☐ Indian ☒

Pit	Below-grade tank	
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness <u> </u> mil Clay <input checked="" type="checkbox"/> Pit Volume <u>±17,811</u> bbl	Volume: <u> </u> bbl Type of fluid: <u> </u> Construction material: <u> </u> Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not: <u> </u>	
Depth to ground water: (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet or more, but less than 100 feet	(10 points)
	100 feet or more	(0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	(0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet	(20 points)
	200 feet or more, but less than 1000 feet	(10 points)
	1000 feet or more	(0 points)
Ranking Score (Total Points)		0 points

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		
Date: <u>02/22/05</u>		
Printed Name/Title: <u>Kathy L. Schneebeck / Permit Agent for Black Hills Gas Resources, Inc.</u>		Signature: <u>Kathy L. Schneebeck</u>
Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Approval: <u>DEPUTY OIL & GAS INSPECTOR, DIST. 43</u>		Date: <u>JUL 14 2006</u>
Printed Name/Title: <u> </u>		Signature: <u> </u>

WELL PAD DIAGRAM

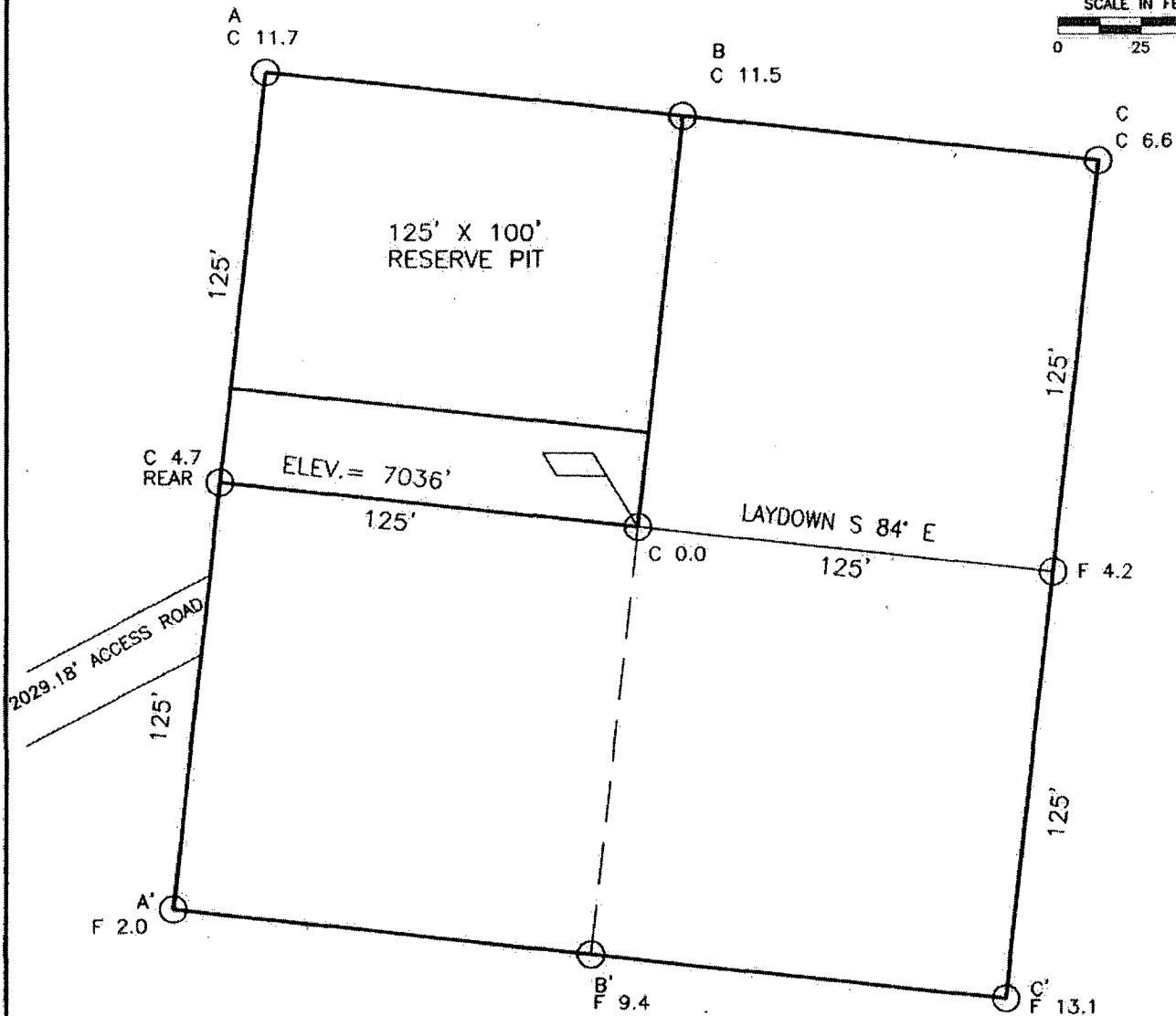
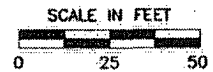
COMPANY: BLACK HILLS GAS RESOURCES

LEASE: JICARILLA 452-05 No. 31

FOOTAGE: 1455' FSL 1005' FWL

SEC.: 5 TWN: 29-N RNG: 3-W NMPM


ELEVATION: 7136'



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.

REF. DWG. MN329CF8 CROSS-SECT. DIAGRAM

REVISION:	DATE:	REVISED BY:
 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. 14831		
DRAWN BY: A.G.	CADD: MN329PL8	
ROW: MN329	DATE: 9/30/04	

WELL PAD CROSS-SECTIONAL DIAGRAM

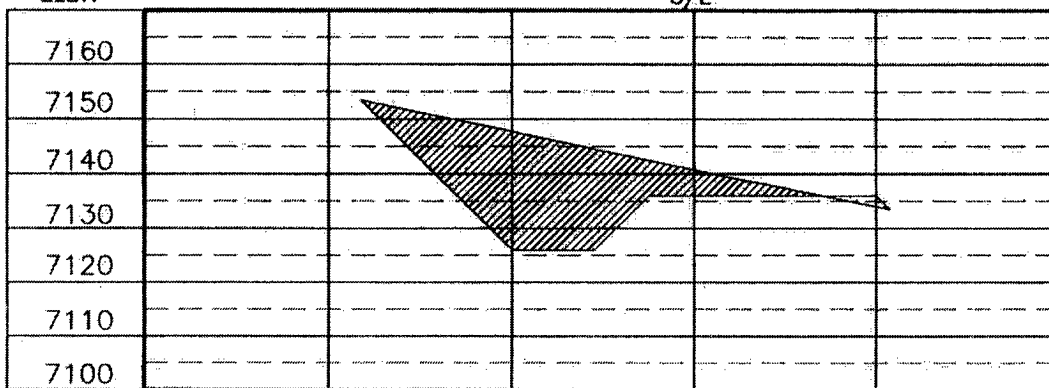
COMPANY: BLACK HILLS GAS RESOURCES
 LEASE: JICARILLA 452-05 No. 31
 FOOTAGE: 1455' FSL 1005' FWL
 SEC.: 5, TWN: 29-N, RNG: 3-W, NMPM
 ELEVATION: 7136'

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.

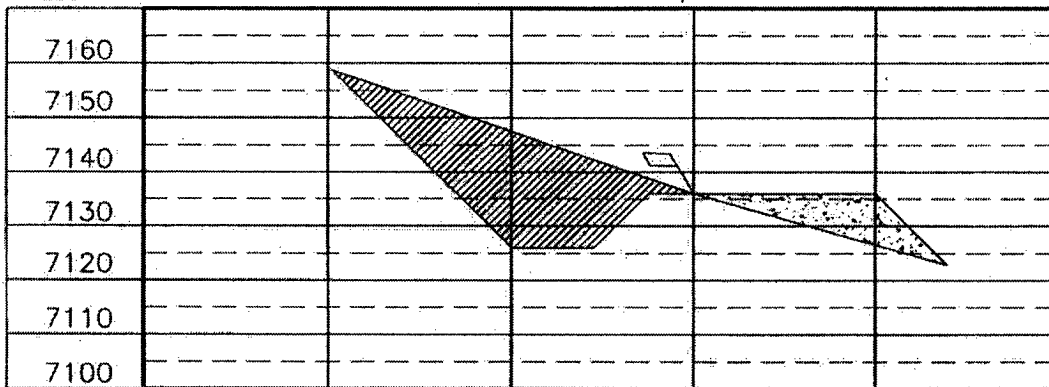
ELEV. A-A'

C/L



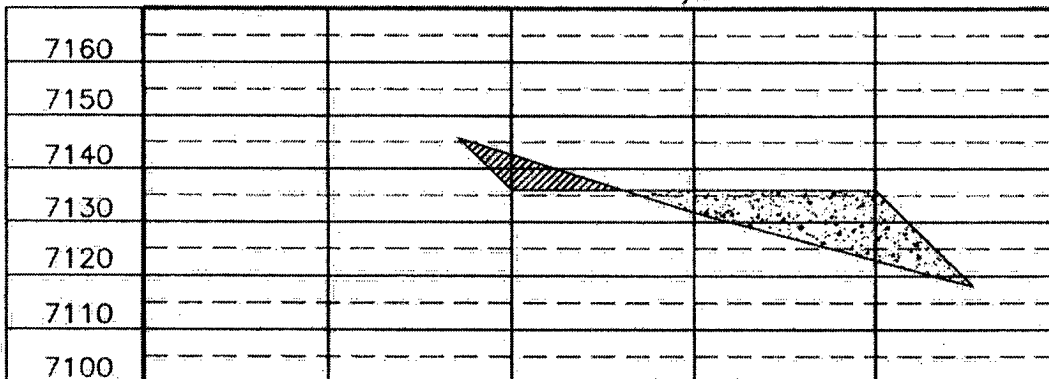
ELEV. B-B'

C/L



ELEV. C-C'

C/L



REF. DWG. MN329P18 WELL PAD DIAGRAM

REVISION: _____ DATE: _____ DESIGNED BY: _____

Daggett Enterprises, Inc.
 Surveying and Oil Field Services
 P. O. Box 15088 • Farmington, NM 87401
 Phone (505) 326-1772 • Fax (505) 326-6019
 NEW MEXICO L.S. 14831

DESIGN BY: A.C.
 DRAWN BY: MN329

CHECKED BY: MN329C78
 DATE: 05/30/04

Black Hills Gas Resources, Inc.
Jicarilla 452-05 31
1,455' FSL 1,005' FWL (NW/4 SW/4)
Sec. 5 T29N R3W
Rio Arriba County, New Mexico
Lease: Contract 452

DRILLING PROGRAM

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 NOS process includes an onsite meeting which was held on October 6, 2004, as determined by BLM, Bureau of Indian Affairs (BIA) and Jicarilla Oil & Gas Administration (JOGA), and at which time the specific concerns of Black Hills Gas Resources, Inc. (Black Hills), BLM, BIA and JOGA were discussed.

SURFACE FORMATION – San Jose

GROUND ELEVATION – 7,136'

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

San Jose	Surface	Sandstone, shales & siltstones
Nacimiento	1,977'	Sandstone, shales & siltstones
Ojo Alamo	3,185'	Sandstone, shales & siltstones
Fruitland	3,611'	Sandstone, shales & siltstones
Pictured Cliffs	3,700'	Sandstone, shales & siltstones
Lewis	3,808'	Sandstone, shales & siltstones
TOTAL DEPTH	4,000'	

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

Tertiary

San Jose	surface	Gas
Nacimiento	1,977'	Gas
Ojo Alamo	3,185'	Gas
Fruitland	3,611'	Gas
Pictured Cliffs	3,700'	Gas

CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' – 250'	12-1/4"	8-5/8"	J-55 24# ST&C New	To surface (±175 sxs Class B)
0' – T.D.	7-7/8"	5-1/2"	J-55 15.5# LT&C New	TD to surface (±630 sxs lite or 65:35 poz and ±270 sxs 50:50 poz)*

* Actual cement volume to be determined by caliper log.

Yields: Class B yield = 1.18 ft³/sx
 65:35 Poz yield = 1.62 ft³/sx
 50:50 Poz yield = 1.26 ft³/sx

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 Fresh water - 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) H₂S: None anticipated
- D) Estimated bottomhole pressure: 1,240 psi

ANTICIPATED START DATE

March 25, 2005

COMPLETION

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

2-M SYSTEM

Black Hills Gas Resources, Inc.

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

