Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED

OMB No. 1004-0	
Evnires: March 31	200

5. LEASE SERIAL NO.

BUREAU OF LAND MANAGEN	MDA 701-98-0013, Tract 4				
SUNDRY NOTICES AND REPORTS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME				
Do not use this form for proposals to drill, or to	Jicarilla Apache Nation				
abandoned well. Use Form 3160-3 (APD) for su	7. IF UNIT OR CA, AGREEMENT DESIGNATION				
SUBMIT IN TRIPLICATE		_			
1 TYPE OF WELL		8. WELL NAME AND NO.			
Oil Well X Other:		Jicarilla 29-02-05 4			
2. NAME OF OPERATOR		9. API WELL NO.	•		
Black Hills Gas Resources, Inc.		30-039-27596			
	: Lynn Benally	10. FIELD AND POOL, OR EXPLORATO	DRY AREA		
	505.634.1111				
Bloomfield NM 87413 Fax	505.634.1116	East Blanco / Pictured	Cliffs		
LOCATION OF WELL (Footage, T, R, M, or Survey Description) 705' FNL 2,245' FEL Sec. 5	T 29N R 2W	11. COUNTY OR PARISH, STATE Rio Arriba, N	lew Mexico		
12. CHECK APPROPRIATE BOX(s) TO INDICATE NA	TURE OF NOTICE, REP	ORT, OR OTHER DATA			
TYPE OF SUBMISSION	TY	PE OF ACTION			
X Notice of Intent Acidize	Deepen	Production (start/resume)	Water Shut-Off		
Afrage the fact Alter Casing	Reclamation	Reclamation	Well Integrity		
Subsequent Report Casing Repair	New Construction	X Recomplete	K Other		
Change Plans	Plug and Abandon	Temorarily Abandon	Horizontal Re-		
Final Abandonment Notice Convert to Injection	H-1	Water Disposal	entry		
Required subsequent reports shall be filed within 30 days follow completion or recompletion in a new interval, a form 3160-4 shall only after all requirements, including reclamation, have been contained. The APD for this well was submitted to Bureau of Conservation Division (NMOCD) on June 10, 200 given APH: 30-039-27596. Black Hills Gas Resort Cliffs formation with the horizontal bore ending at All other information in the original APD shall remember 100 per 100 p	Land Management (Bl. 3. The well was approvences, Inc. plans to re-e	n completed. Final Abandonment No determined that the site is ready for f _M) and to the New Mexico (yed by the BLM on February enter and directionally drill to in Section 5 T29N R2W.	otices shall be filed final inspection.) Oil 5, 2004, and		
I hereby certify that the foregoing is true and correct Name (Printed/Typed)		Agent for Black Hills Gas Res	DIST		
Signature Kathy L. Schneebeck, 303.820.4480 Signature Lathy & Schneebeck			S 3 4 Decision of the contract		
	Date: December Decemb				
Approved by	Title	(XEP) Date			
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable itle to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	JAN 1 2 2006	FICE		
applicant to conduct operations thereon.	<u></u>	FARMINGTON FIELD OF			
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, makes it a crin false, fictitious, or fraudulent statements or representations as to any matter w		illfully to make any departmental agen	cy of the United States any		

Black Hills Gas Resources, Inc. Jicarilla 29-02-05 4 API#: 30-039-27596

Surface: 705' FNL 2,245' FEL (NW/4 NE/4) End of Horizontal Bore: 660' FNL 0' FWL

Sec. 5 T29N R2W

Rio Arriba County, New Mexico Lease: MDA 701-98-0013. Tract 4

DRILLING PROGRAM

This Sundry Notice is submitted per CFR 3162.3-2. The existing well pad and reserve pit will be utilized "as is."

This is a horizontal entry into and a deepening of the existing Jicarilla 29-02-05 4 well to the Pictured Cliffs Formation. See also the attached Horizontal Re-completion Plan.

SURFACE FORMATION – San Jose. Surface water protection plan: Surface casing will be cemented to surface.

GROUND ELEVATION - 7,524' GL

<u>ESTIMATED FORMATION TOPS</u> (Water, oil, gas and/or other mineral-bearing formations). All Depths are True Vertical Depth (TVD)

San Jose	Surface	Sandstone, shales and siltstones
Nacimiento	2,279'	Sandstone, shales and siltstones
Ojo Alamo	3,461'	Sandstone, shales and siltstones
Kirtland	3,651'	Sandstone, shales and siltstones
Fruitland	3,751'	Sandstone, shales and siltstones
Pictured Cliffs	3,833'	Sandstone, shales and siltstones
Lewis	3,939'	Sandstone, shales and siltstones

TOTAL DEPTH 3,917.75' TVD (end of horizontal hole) 6,928.00' MD

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

Tertiary

San Jose	1,300'	Gas
Nacimiento	2,279'	Gas
Ojo Alamo	3,461'	Gas
Fruitland	3,751'	Gas
Pictured Cliffs	3,833'	Gas

RE-ENTRY - HORIZONTAL DRILLING PROGRAM

- A) A 2,000-psi WP double-gated BOP will be installed on the tubing head with blind rams on bottom and pipe rams on top controlled by an accumulator placed within easy access to drill and other crew members.
- B) No annular preventor will be placed above BOP stack.
- C) A retrievable whipstock is set at 3,849'.
- D) 2-3/8' tubing is set at 6,129'.

- E) Window to be milled out of 5-1/2" csg at $\pm 3,840$ '.
- F) Kick-off Point is estimated to be at 3,840'.
- G) Plug back depth is 3,953'.
- H) Approximately 204 joints of tubing will be run in the hole after drilling is complete.

CASING & TUBING PROGRAM

True Vertical Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement		
0'-250'	12-1/4"	8-5/8"	J-55 24# ST&C	To surface (previously set)		
0'-3,997'	7-7/8"	5-1/2"	K-55 15.5# LT&C	To surface (previously set)		
0' - 6,129' (MD)	4-3/4"	2-3/8"	Tubing	None		
6,129' - 6,928'	4-3/4"	Open Hole	None	None		

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

3,570' - 6,208' MD

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 Kelly cock will be kept in the drill string at all times A)
- B) Inside BOP or stab-in valve (available on rig floor)
- C) Mud monitoring will be visually observed
- D) Testing: None anticipated

LOGGING, CORING, TESTING PROGRAM

A) Logging: None

B) Coring: None

C) Testing: A flow test will be run after completions but no other testing is anticipated.

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: See H₂S Plan if H₂S is encountered.

Estimated bottomhole pressure: 1,240 psi D)

ANTICIPATED START DATE

November 14, 2004

COMPLETION

The location pad is 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.

DISTRICT (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. Sonta Fe. NW 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 June 10, 2003

Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

☐ AMENDED REPORT

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'API	Number	W !	CPF P	Pool Code	A WAD	AUI	REAGE DEDI	CAI	Pool Name			
	-27596	72400					East Blanco / Pictured Cliffs					
⁴ Property C	ode				⁶ Prop	erty	Name				e Wel	l Number
24245	.				JICARIL	LA 2	29-2-5			ſ		4
OGRID No	э.			······································	*Oper	ator 1	Name				9 E	levation
01392	.5			BLAC	K HILLS G	SAS F	RESOURCES				7	524'
							Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from	the	North/South line	ł	et from the	•	West line	County
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			" Bott	om Hole			f Different Fro					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from	the	North/South line	i	et from the		West line	Count
D	5	29-N	2-W		660		NORTH	0		WEST		RIO ARRIBA
¹⁸ Dedicated Acre	38		¹³ Joint or	Infili	14 Consolida	tion C	Code	10 Ord	er No.			
162.44	acres	- NE/4										
NO ALLOW	ABLE W						ON UNTIL ALL EN APPROVED				EN CO	NSOLIDATEI
D. 1/2" REBAI	R			7-05 W			FD. MARI		17 0	מתג מקום.	NO CET	OUTTO VALUE
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									Signature		8394	Merco
							SET P&C LS 1482 SET BY D.		Certificate	Number	SSIONAL	8894

WELL-PAD CROSS-SECTIONAL DIAGRAM

COMPANY: BLACK HILLS GAS RESOURCES

LEASE: JICARILLA 29-2-5 #4

FOOTAGE: 705' FNL, 2245' FEL

SEC.: 5 , TWN: 29-N , RNG: 2-W , NMPM

ELEVATION: 7524'

NOTE:

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





