UNITED STATES

FORM APPROVED OMB No. 1004-0135 Expires: March 31, 2007

DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

Contract 457	
IF INDIAN, ALLOTTEE OR TRIBE NAME	
000 10 100 100	

5. LEASE SERIAL NO.

SUNDRY NOTICES AND REPORTS Do not use this form for proposals to drill, or to		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
abandoned well. Use Form 3160-3 (APD) for aut	cty titl Co.	7. IF UNIT OR CA, AGREEMENT DESIGNATION
SUBMIT IN TRIPLICATE		IVED
		B.WELLNAME AND NO.
Oil Well Gas Well X Other:	JUN 2000	Jicarilla 457-09 2
2. NAME OF OPERATOR	1600 H	9. API WELL NO.
Black Hills Gas Resources, Inc🧲 💛		30-039 2606 4
3. ADDRESS AND TELEPHONE NO. CONTACT:	Lynn Benally	10. FIELD AND POOL, OR EXPLORATORY AREA
PO Box 249	505,634 1111 Ext. 27	
Bloomfield NM 87413 Fax	505 634:1116	East Blanco / Pictured Cliffs
4. LOCATION OF WELL (Footage, T, R, M, or Survey Description)	T 30N R 3W	11. COUNTY OR PARISH, STATE Rio Arriba New Mexico
12. CHECK APPROPRIATE BOX(s) TO INDICATE NAT	URE OF NOTICE, REP	ORT, OR OTHER DATA
TYPE OF SUBMISSION		PE OF ACTION
Notice of Intent Acidize		
	Deepen	Production (start/resume) .Water Shut-Off Reclamation Well Integrity
After Casing	Reclamation	
Subsequent Report Casing Repair	New Construction	
Change Plans	Plug and Abandon	Temorarily Abandon
Final Abandonment Notice Convert to Injection	Plug Back	Water Disposal
 Describe Proposed or completed Operation (clearly state all pertiapproximate duration thereof. If the proposal is to deepen direction true vertical depths of all pertinent markers and zones. Attach the with the BLM/BIA. Required subsequent reports shall be filed within 30 days following completion or recompletion in a new interval, a form 3160-4 shall filed only after all requirements, including reclamation, have been inspection. The location was permitted for Black Hills Gas Resour submitted to the Bureau of Land Management (BLM) Division (NMOCD) on May 29, 1998. This APD was go Black Hills proposed to re-enter and horizontally drill than ticipated to be 1,000' FNL and 100' FEL (NE/4 NE/4 BOP Diagram, Hydrogen Sulfide Drilling Operations For Please send a copy of all correspondence to Banko Penglewood, CO 80112-5849. Please contact David Badavid@banko1.com or kathys@banko1.com, respection. 	enally or recomplete horizontal Bond under which the work and completion of the involved be filed once testing has been completed, and the operator of the involved in Farmington, New Meagiven API# 30-039-2606 his location with a south 4) of Section 9 T30N R3 Plan and Horizontal Drillingtroleum Management I panko or Kathy Schneebe	ally, give subsurface locations and measured and will be performed or provide the Bond No. on file operations. If the operation results in a multiple en completed. Final Abandonment Notices shall be ready for final of the steem of that the site is ready for final of the Application for Permit to Drill (APD) cico, and the New Mexico Oil Conservation and approved by the BLM on July 1, 1998. east lateral bore. End of lateral bore is W. Please find: Revised Drilling Program, and Plan. Inc. at 385 Inverness Parkway, Suite 420, eack at 303-820-4480, or at
Name (Printed/Typed) Kathy L. Schneebeck	Pur Pormit /	cont for Plack Hills Con Pennings Inc.
Bonotura		gent for Black Hills Gas Resources, Inc.
Kody Lis chnelick 313-826-4	Date: May 24,	<u> </u>
Approved by	THE THE	Date ,)
Conditions of approval, if any, are attached. Approval of this notice	Petr. Eng	6/13/05
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.	Office	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, makes it a crime for any person knowingly and willfully to make to any department or agency of the United S false, fictitious, or fraudulent statements or representations as to any ma





Black Hills Gas Resources, Inc. Jicarilia 457-09 2 API #30-039-26064

Surface: 719' FNL 802' FWL (NW/4 NW/4)

T30N R3W Sec. 9

End of Horizontal Hole: 1,000' FNL 100' FEL (NE/4 NE/4)

T30N R3W Sec. 9

Rio Arriba County, New Mexico

Lease: Contract 457

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 well Jicarilla 457-09 2 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 - 7,216' GL

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

San Jose	Surface	Sandstone, shales and siltstones
Nacimiento	2,022'	Sandstone, shales and siltstones
Ojo Alamo	3,202'	Sandstone, shales and siltstones
Kirtland	3,500'	Sandstone, shales and siltstones
Fruitland Coal	3,595'	Sandstone, shales and siltstones
Pictured Cliffs	3,746'	Sandstone, shales and siltstones
Lewis	3,852'	Sandstone, shales and siltstones

TOTAL DEPTH 3,756.80' TVD (end of horizontal hole) 4,459.86' TVD (anticipated horizontal section) 8,274.38' MD

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

Tertiary

Pictured Cliffs 3,746' 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) Perforations at 2,372' -2,392' (Nacimiento), 3,205' -3,245' (Ojo Alamo) and 3,272' -3,282' (Ojo Alamo) will be squeeze cemented prior to drilling.
- D) Retrievable whipstock to be set at ± 3.763 '.
- E) Window to be milled out of 5-1/2" csg at $\pm 3,748$ ' -3,763'.
- F) Kick Off Point is estimated to be at 3,752' but can be adjusted based on collar locations.

CASING PROGRAM

True Vertical Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement
0' – 553'	12-1/4"	8-5/8"	K-55 24# ST&C	To surface (previously set)
0'-4,048'	7-7/8"	5-1/2"	K-55 15.5# LT&C	To surface (previously set)
3,757' – 8,274' (MD)	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

3,757' - 8,274' 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) 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
- C) Testing:

None anticipated.

LOGGING, CORING, TESTING PROGRAM

A) Logging: CBL-CCL log will be run prior to beginning squeeze work.

B) Coring: None

C) Testing: None

ABNORMAL CONDITIONS

Pressures: A)

No abnormal conditions are anticipated

Bottom hole pressure gradient - 0.31 psi/ft

B) Temperatures:

No abnormal conditions are anticipated

C)

See H₂S Plan if H₂S is encountered.

D) Estimated bottomhole pressure: 1,240 psi

ANTICIPATED START DATE

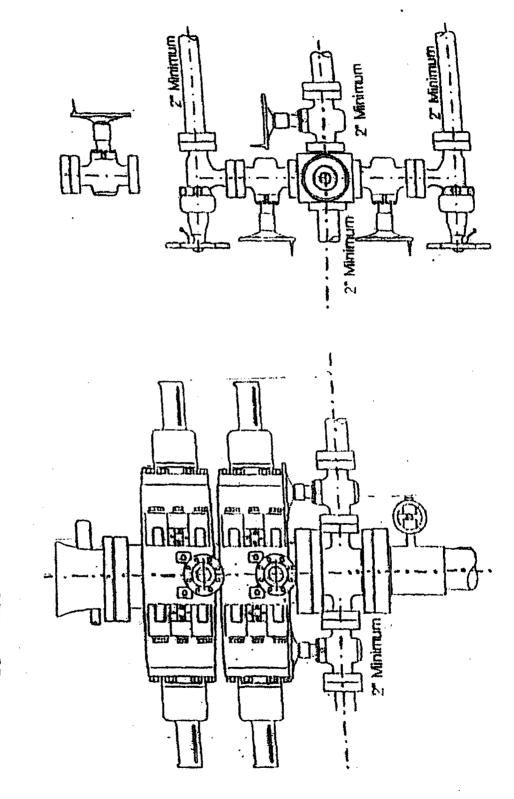
June 28, 2005

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.

2-M SYSTEM Black Hills Gas Resources, Inc.

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



Hydrogen Sulfide Drilling Operations Plan

I. Hydrogen Sulfide Training

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

- 1. The hazards and characteristics of hydrogen sulfide (H₂S).
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

- 1. The effects of H₂S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H₂S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H_2S zone (within 3 days or 500 feet) and weekly H_2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H_2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

II. H₂S Safety Equipment and Systems

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

A. Well control equipment:

- 1. Choke manifold with a minimum of one remote choke.
- Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.

B. Protective equipment for essential personnel:

1. Mark II Surviveair 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

C. H₂S detection and monitoring equipment:

1. Two portable H_2S monitors positioned on location for best coverage and response. These units have warning lights and audible sirens when H_2S levels of 10 ppm are reached.

D. Visual warning systems:

- 1. Wind direction indicators as shown on well site diagram.
- Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used when appropriate. See example attached.

E. Mud program:

1. The mud program has been designed to minimize the volume of H_2S circulated to the surface. Proper mud weight, safe drilling practices, and the use of H_2S scavengers will minimize hazards when penetrating H_2S bearing zones.

F. Metallurgy:

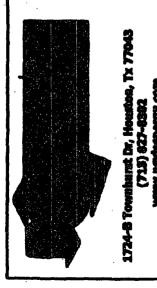
- All drill strings, casings, tubing, wellhead, blowout preventors, drilling spools, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
- 2. All elastomers used for packing and seals shall be H₂S trim.

G. Communication:

1. Cellular telephone communications in company vehicles.

H. Well testing:

 Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity which are necessary to safely and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill stem testing operations conducted in an H₂S environment will use the closed chamber method of testing.



Company: BHEP / mallon Oil Corp. Job Number: 9-5-05

Lease/Well: Jicarilia 457-09 # 2

Location: Rio Arriba Co., NIM Rig Name: Key 44

G.L. or M.S.L.:

State/Country: Declination:

Grid

File name: N:LOBDAT-1/BLACKH-1/2005/JIC457-2/45709#2.8VY

Date/Time: 12-May-05 / 14:43

Curve Name: Plan 1

Rectangular Coordinates Referenced to Wellhead Vertical Section Referenced to Wellhead WINSERVE PROPOSAL REPORT Vertical Section Plane 93.92 Minimum Curvature Method

Dogleg	Severtty	Deg/100	
SURE	Direction	Deg	
070	Distance	F	
Vertical	Section	Ŀ	
	E-¥	F	
	X-S	Ħ	
True	Vertical	Depth	
Drift	Direction	Ded	
Incl	Angle	Deg	
Measured	Depth	FT	

KOP~ 3752	KOP-> 3752 TVD Begin Build @ 57.68"/ 100"	d @ 57.68°/ 10	o,						
3752.00	00.	93.92	3752.00	00:	00	90:	00.	00.	00.
3782.00	17.30	93.92	3781.55	31	4.49	4.50	4.50	93.92	57.68
3812.00	34.61	93.92	3808.42	-1.20	17.54	17.58	17.58	93.92	57.68
3842.00	51.91	93.92	3830.18	-2.60	37.97	38.08	38.06	93.92	57.68
3872.00	69.22	93.92	3844.87	4.38	63.94	64.09	64.09	93.92	27.68
3902.00	86.52	93.92	3851.15	-6.38	83.09	93.31	83.31	93.92	57.68
Begin Build	Begin Build @ 10.00°/ 100°								
3908.03	90.00	93.92	3851.33	6.79	99.10	99.33	99.33	93.92	57.68

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CLOSURE ce Direction Deg	93.92	83.92		93.92	93.92	93.92 93.92		93.92	93.92	93.92	93.92		93.92	93.92	93.92	93.92	. 93.92	93.92	93.92	93.92	93.92	93.92	93.92	93:92	93.92	93.92	93.92
CLO (Distance FT	129.32 159.22	188.90		198.82	297.30	395.78 484.74		506.06	535.72	565.58	595,55		602.14	702.14	802.14	902.13	1002.13	1102.13	1202.13	1302.13	1402.13	1502.12	1602.12	1702-12	1802.12	1902.12	2002.11
Vertical Section FT	129.32 159.22	188.90		198.82	297.30	395.78		508.06	535.72	565.58	595.55		602.14	702.14	802.14	902.13	1002.13	1102.13	1202.13	1302.13	1402.13	1502.12	1602.12	1702.12	1802.12	1902.12	2002.11
E-W	129.01 158.85	188.52		198.36	296.61	394.86 480.86		504.87	534.47	564.26	594,16		600.73	700.49	800.26	900.02	999.79	1089.55	1199.32	1299.08	1398.84	1498.61	1598.37	1698.14	1797.90	1897.67	1997.43
8. F	-8.84 -10.88	78.71-	;	-13.59	-20.32	-27.08		-34.60	-36.62	-38.67	40.71	·	41.16	48.00	54.84	-61.67	-68.51	-75.35	-82.18	-89.02	-95.85	-102.69	-109.53	-116.36	-123.20	-130.04	-136.87
True Vertical Depth	3850.54 3848.19 3844.79	3844.28		3842.63	3825.26	3807.90		3788.45	3784.02	3781.14	3779.83		3779.76	3779.16	3778.57		3777.38	3776.78	3776.19	3775.59	3775.00	3774.40	3773.81	3773.21	3772.62		3771.43
Drift Direction Deg	93.92 93.92	83.82	93.92° Azm	93.92	83.92	93.92		93.82	93.92	93.92	93.92	12° Azm	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92	93.92
Incl Angle Deg	93.00			100.00	100.00	6.6 6.6	Begin Drop @ -10.00°/ 100°	100.00	97.00	8 .8	91.00	Begin Hold @ 90.34°, 93.92° Azm	90.34	90.34	90.34	90.34	90.34	90.34	90.34	90.34	90.34 4	90.34	90.34	90.3 <u>4</u>	90.34	90.34	90.34
Measured Depth FT	3938.03	3938.03	Begin Hold @ 100.00°,	4008.03	4108.03	4208.03 4275.00	Begin Drop	4320.00	4350.00	4380.00	4410.00	Begin Hold	4416.59	4516.59	4616.59	4716.59	4816.59	4916.59	5016.59	5116.59	5216.59	5316.59	5416.59	5516.59	5616.59	5716.59	5816.59

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Depth	Angle	Direction	Vertical	SY	E-W	Section	_	Direction	Severity
Е	Deg	Deg	Depth	Ы	E	15	13	Ded	Deg/100
5916.59	90.34	93.92	3770.83	-143.71	2097.19	2102.11	2102.11	93.92	8
6016.59	90.34	93.92	3770.23	-150.54	2196.96	2202.11	2202.11	93.92	8
6116.59	90.34	93.92	3769.64	-157.38	2296.72	2302.11	2302.11	93.92	8.
6216.59	90.34	93.92	3769.04	-164.22	2396.49	2402.11	2402.11	93.92	8
6316.59	90.34	93.92	3768.45	-171.05	2496.25	2502.11	2502.11	93.92	%
6416.59	90.34	93.92	3767.85	-177.89	2596.02	2602.10	2602.10	93.92	8.
6516.59	90.34 24	93.92	3767.26	-184.73	2695.78	2702.10	2702.10	93.92	8
6616.59	90.34	93.92	3766.66	-191.56	2785.54	2802.10	2802.10	93.92	8
6716.59	90.34	93.92	3766.07	-198.40	2895.31	2902.10	2902.10	93.92	8
6816.59	80.34	93.92	3765.47	-205.23	2995.07	3002.10	3002.10	93.92	8.
6916.59	90.34 4	93.92	3764.88	-212.07	3094.84	3102.10	3102.10	93.92	8
7016.59	90.34	93.92	3764.28	-218.91	3194.60	3202.09	3202.09	93.92	8.
7116.59	90.34 24.	93.92	3763.69	-225.74	3294.37	3302.09	3302.09	93.92	8.
7216.59	90.34 24.	93.92	3763.09	-232.58	3394.13	3402.09	3402.09	93.92	8
7316.59	90.34	93.92	3762.50	-239.42	3493.89	3502.09	3502.09	93.92	0 .
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7516.59	90.34 42.	93.92	3761.31	-253.09	3693.42	3702.08	3702.08	93.92	8.
7616.59	90.34 45.04	93.92	3760.71	-259.92	3793.19	3802.08	3802.08	33'85 30'85	8
7716.59	90.34	93.82	3760.12	-266.76	3892.95	3902.08	3902.08	93.92	8
7816.59	90.34 4	93.92	3759.52	-273.60	3992.72	4002.08	4002.08	93.92	%
7916.59	20034	93.92	3758 93	-280.43	4092 48	4102.08	4102.08	93.92	8
9048 50	5	2	0750 00	207.07	74000	40000	400000	60	٤
97,00	t :	30.06	57.00.35	77.107-	+125.54	4502.00	20.2024	30.05	<u>ş</u> :
8116.59	90.34 4.	33.92	3757.74	-294.11	4292.01	4302.07	4302.07	93.92	8.
8216.59	90.34	93.92	3757.14	-300.94	4391.77	4402.07	4402.07	93.92	8.
End of Later	End of Lateral w/ 4459' Displacement	splacement							
8274.38	90.34	93.92	3756.80	-304.89	4449.43	4459.86	4459.86	93.92	00.

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