

ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
 [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
 [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
 [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
 [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
 [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☒ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☐ Does Not Apply

- [A] ☐ Working, Royalty or Overriding Royalty Interest Owners
- [B] ☐ Offset Operators, Leaseholders or Surface Owner
- [C] ☐ Application is One Which Requires Published Legal Notice
- [D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name

Signature

Title

Date

e-mail Address

District I
1625 N. French Drive, 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 Department

Form C-107A
Revised June 10, 2003

RECEIVED

Oil Conservation Division

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

APPLICATION TYPE

☒ Single Well

☐ Establish Pre-Approved Pools

EXISTING WELLBORE

☐ Yes ☒ No

MAY 27 2005

APPLICATION FOR DOWNHOLE COMMINGLING

OIL CONSERVATION
DIVISION

DHC-3453

Black Hills Gas Resources, Inc. 350 Indiana Street, Suite 400, Golden, CO 80401
Operator Address

Jicarilla 452-06

23

G-6-29N-03W

Rio Arriba, NM

Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 013925 Property Code API No. 30-039-27730 Lease Type: ☒ Federal State Fee

DATA ELEMENT	UPPER ZONE <i>UNDES</i>	INTERMEDIATE ZONE	LOWER ZONE <i>UNDES East BLANCO</i>
Pool Name	Cabresto Canyon, Tertiary <i>Go</i>	Basin Fruitland <i>✓</i>	Pictured Cliffs <i>Go</i>
Pool Code	97037 <i>✓</i>	71629 <i>✓</i>	72400 <i>✓</i>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1336'-2488'	3654'-3678'	3726'-3752'
Method of Production (Flowing or Artificial Lift)	Flowing	Flowing	Flowing
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	n/a	n/a	2842 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1.0575	1.0575	1.0575
Producing, Shut-In or New Zone	Producing	Producing	Producing
Date and Oil/Gas/Water Rates of Last Production. (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: 2/4/05 Rates: 22 mcfpd	Date: 1/15/05 Rates: 22 mcfpd	Date: 3/13/05 Rates: 175 mcfpd
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil Gas <i>100</i> % 10%	Oil Gas <i>0</i> % 10%	Oil Gas <i>0</i> % 80%

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones?
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail?

Yes No ☒
Yes ☒ No

Are all produced fluids from all commingled zones compatible with each other?

Yes ☒ No

Will commingling decrease the value of production?

Yes No ☒

If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application?

Yes ☒ No

NMOCD Reference Case No. applicable to this well:

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE *Allison Newcomb* TITLE Engineering Technician DATE 5/20/2005

TYPE OR PRINT NAME Allison Newcomb TELEPHONE NO. (720)210-1308

E-MAIL ADDRESS anewcomb@bhep.com

C107A Supplemental Information

Jicarilla 452-06 #23

Production and Pressure Date

Pictured Cliffs/Fruitland Basin and Tertiary Formations

The Pictured Cliffs formation was perforated at intervals 3726' – 3736' and 3742' – 3752' with 4 jspf. Based upon pressure data obtained from the breakdown and fracture stimulation treatment the fracturing pressure of the Pictured Cliffs formation at mid-perforation is 2842 psi with a fracture gradient of 0.76 psi/ft. After fracture stimulation and clean up the Pictured Cliffs formation was flow tested for twenty-four hours, 175 MCFPD.

The Fruitland Basin formation was perforated at intervals 3654 – 3656', 3658' – 3660', 3662' – 3664', 3666' – 3668' and 3676' – 3678' with 4 jspf. The Fruitland Basin formation was not fracture stimulated. The Fruitland Basin formation was flow tested for twenty-four hours, 22 MCFPD.

The Tertiary formation was perforated at intervals 1336' – 1338', 1380' – 1382', 1386' – 1388', 2478' – 2480' and 2486' – 2488' with 4 jspf. The tertiary formation was not fracture stimulated. A stabilized flow test was conducted for twenty-four hours, 22 MCFPD.

The allocation method that has been agreed upon between Black Hills Gas Resources, Inc. and the Jicarilla Apache Nation is to use a percent based on the initial test for allocation of the produced volumes from the downhole commingled formations. In summary, the following calculations reflect the allocation percentages for the subject well.

Formation Name	Gas Flow Rate (MCFPD)	Water Rate (BWPD)	Allocation Factor
Pictured Cliffs	175		80%
Tertiary	22		10%
Basin, Fruitland	22		10%
Total	219		100%

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DISTRICT IV
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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

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number		*Pool Code 72400	*Pool Name East Blanco; Pictured Cliffs
*Property Code 24245	*Property Name JICARILLA 452-6		*Well Number 23
*GRID No. 013925	*Operator Name MALLON OIL COMPANY		*Elevation 7030'

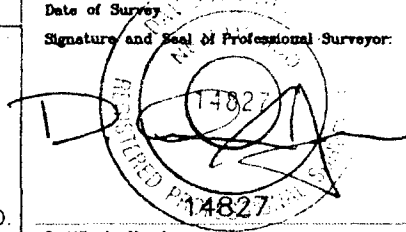
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	6	29-N	3-W		2060	NORTH	2215	EAST	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
¹² Dedicated Acres			¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ 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

¹⁶ FD. 3 1/2" U.S.G.L.O. BC. 1917	S 89-42-51 W 4043.30' (M)	FD. 1/2" REBAR w/ PLASTIC CAP "LS 8894"	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <i>Kathy L. Schneebeck</i> Signature Kathy L. Schneebeck Printed Name Agent for Mallon Oil Company Title February 19, 2004 Date
LOT 3	2060'	LOT 2	
		LOT 1	
LAT. 36°45'19"N (NAD 83) LONG. 107°11'27"W		2215'	
LOT 4	6		S 00-09-13 E 5127.7' (M)
LOT 5			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 belief. 12-16-03 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number
LOT 6			
FD. 2 1/2" U.S.G.L.O. BC. 1917			

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1626 N. French Dr., Hobbs, N.M. 88240

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039 27730	*Pool Code 97037	*Pool Name Cabresto Canyon, Tertiary
*Property Code 24245	*Property Name JICARILLA 452-6	*Well Number 23
*OGRID No. 013925	*Operator Name Black Hills Gas Resources, Inc.	*Elevation 7030'

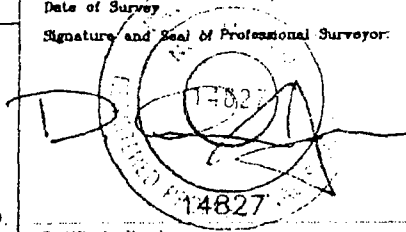
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	6	29-N	3-W		2060	NORTH	2215	EAST	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			*Joint or Infill		*Consolidation Code		*Order No.		

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¹⁶ FD. 3 1/2" U.S.G.L.O. BC. 1917	S 89-42-51 W 4043.30' (M)	FD. 1/2" REBAR w/ PLASTIC CAP "LS 8894"	¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief Signature <u>Allison Newcomb</u> Printed Name Allison Newcomb Title Engineering Technician Date May 20, 2005
LOT 3	LOT 2	LOT 1	
LAT. 36°45'19"N (NAD 83) LONG. 107°11'27"W		2215'	
LOT 4	6		
LOT 5			
LOT 6			
FD. 2 1/2" U.S.G.L.O. BC. 1917			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 belief 12-16-03 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039, 27730	*Pool Code 71629	*Pool Name Basin Fruitland
*Property Code 24245	*Property Name JICARILLA 452-6	*Well Number 23
*OGRID No. 013925	*Operator Name Black Hills Gas Resources, Inc.	*Elevation 7030'

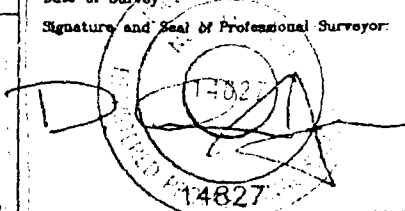
¹⁰ Surface Location

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G	6	29-N	3-W		2060	NORTH	2215	EAST	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 320			*Joint or Infill		*Consolidation Code		*Order No.		

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LAT. 36°45'19"N (NAD 83) LONG. 107°11'27"W		LOT 1	
LOT 4	6	2215'	
LOT 5		S 00-09-13 E 5127.7' (M)	
LOT 6			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 belief 12-16-03 Date of Survey Signature and Seal of Professional Surveyor:  Certificate Number 14827
FD. 2 1/2" U.S.G.L.O. BC. 1917			

Owner's List

300001 249 JIC 452-06 23

5211	BAYLESS GRANDCHILDREN PO Box 129 Farmington, NM 87499	.03333333 3 ORR
7041	JICARILLA APACHE NATION PO Box 2053 Albuquerque, NM 87103	.16666667 2 ROY
7079	KEVIN M FITZGERALD 66 N. Ranch Rd. Littleton, CO 80127	.00833333 3 ORR
999030	BLACK HILLS GAS RESOUR 350 Indiana St. Suite 400 Golden, CO 80401	.79166667 1 WOR

300001 249 JIC 452-06 23 FC

5211	BAYLESS GRANDCHILDREN PO Box 129 Farmington, NM 87499	.01750000 3 ORR
7041	JICARILLA APACHE NATION PO Box 2053 Albuquerque, NM 87103	.18250000 2 ROY
7079	KEVIN M FITZGERALD 66 N. Ranch Rd. Littleton, CO 80127	.00817500 3 ORR
999030	BLACK HILLS GAS RESOUR 350 Indiana St. Suite 400 Golden, CO 80401	.79182500 1 WOR



Black Hills Gas Resources, Inc.

A subsidiary of Black Hills Exploration and Production, Inc.

350 Indiana Street, Suite 400, Golden, CO 80401

Allison Newcomb
Engineering Technician

Bus: (720) 210-1300
Fax: (720) 210-1363
anewcomb@bhep.com

VIA CERTIFIED MAIL

May 20, 2005

Owner's List Attached

Re: Black Hills Gas Resources, Inc.
Application to Commingle Production

Dear Owner:

Black Hills Gas Resources, Inc. has filed an application with the State of New Mexico Oil and Gas Conservation Commission requesting approval to commingle the Cabresto Canyon, Tertiary, the East Blanco, Pictured Cliffs and the Fruitland Basin formation production for the referenced wellbore as set forth in the attached application.

If you have any questions regarding this matter, please contact Jim Bob Byrd at 720-210-1300.

Sincerely,

Allison Newcomb
Engineering Technician for
Black Hills Gas Resources, Inc.