

5/9/05 5/29/05 ENGINEER JONES 5/16/05 TYPE DHC 3835 APP NO. PSEM0513044783

DATE IN SUSPENSE ENGINEER LOGGED IN TYPE APP NO.

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

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

APPLICATION FOR DOWNHOLE COMMINGLING

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

Jicarilla 451-03 14 A-03-29N-03W Rio Arriba, NM  
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 013925 Property Code 24245 API No. 30-039-29266 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Cabresto Canyon, Tertiary	Basin Fruitland	East Blanco Pictured Cliffs
Pool Code	97037	71629	72400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1352'-3190'	3638'-3694'	3732'-3814'
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)	868, 1137 psi	N/A	2637 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)			
Producing, Shut-In or New Zone	Shut In	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: 2/3/2005 Rates: 255 mcfpd	Date: 1/18/2005 Rates: 62 mcfpd	Date: 1/5/2005 Rates: 88 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 100% Gas 63%	Oil 0% Gas 15%	Oil 0% Gas 22%

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes ☐ No ☒  
If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? 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 5/4/2005

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

E-MAIL ADDRESS anewcomb@bhep.com

## C107A Supplemental Information

Jicarilla 451-03 #14

Production and Pressure Data

Pictured Cliffs/Fruitland and Tertiary Formations

The Pictured Cliffs formation was perforated at intervals 3732' – 3750' and 3808' – 3814' 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 2637 psi with a fracture gradient of 0.70 psi/ft. After fracture stimulation and clean up the Pictured Cliffs formation was flow tested for twenty-four hours, 88 MCFPD.

The Fruitland Basin formation was perforated at intervals 3638' – 3642', 3658' – 3660', 3662' – 3664', 3684' – 3686' and 3692' – 3694' with 4 jspf. The Fruitland Basin formation was not fractured stimulated. The Fruitland Basin formation was flow tested for twenty-four hours, 62 MCFPD.

The Tertiary formation was perforated at intervals 1352' – 1354', 1358' – 1360', 1375' – 1379', 1388' – 1390' and 1398' – 1400' with 2 jspf, 1676' – 1678', 1682' – 1684', 2136' – 2140, 3150' – 3152' and 3188' – 3190' with 4 jspf. Based upon the pressure data obtained from the fracture stimulation treatment of the Upper San Jose, Tertiary formation (1352-1400), the fracturing pressure of the Tertiary formation is 868 psi with a fracture gradient of 0.65 psi/ft. Based upon the pressure data obtained from the fracture stimulation treatment of the Lower San Jose, Tertiary formation (1676-1640), the fracturing pressure of the Tertiary formation is 1137 psi with a fracture gradient of 0.65 psi/ft. The Nacimiento, Tertiary formation (3150-3190), was not fracture stimulated. After fracture stimulation of the Tertiary formation, a stabilized flow test was conducted for twenty-four hours, 255 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	88		22%
Tertiary	255		63%
Basin, Fruitland	62		15%
<b>Total</b>	405		100.000%

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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 June 10, 2003

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

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29266		*Pool Code 97037	*Pool Name Cabresto Canyon, Tertiary
*Property Code	*Property Name JICARILLA 451-03		*Well Number 14
*GRID No. 013925	*Operator Name Black Hills Gas Resources, Inc.		*Elevation 7246'

#### <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
A	3	29-N	3-W		740	NORTH	610	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
*Dedicated Acres 160					*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

16 LOT 4	16 CALC'D CORNER NO MARKER FOUND	N 89-25-12 E 2640.62' (C)	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  <u>Allison Newcomb</u> Signature Allison Newcomb Printed Name Engineering Technician Title March 10, 2005 Date	
	LOT 3	CLOSING CORNER FD. 2 1/2" B.C U.S.G.L.O. 1917		LOT 1
	LAT. 36°45'33"N (NAD 83) LONG. 107°07'53"W (NAD 83)			
		QTR. CORNER FD. 2 1/2" B.C U.S.G.L.O. 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  <u>JOHN A. VORONICH</u> Date of Survey Signature and Seal of Professional Surveyor 14831 14831 Certificate Number	

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

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29266		*Pool Code 71629	*Pool Name Basin, Fruitland
*Property Code	*Property Name JICARILLA 451-03		*Well Number 14
*GRID No. 013925	*Operator Name Black Hills Gas Resources, Inc.		*Elevation 7246'

<sup>10</sup> Surface Location

UL or lot no. A	Section 3	Township 29-N	Range 3-W	Lot Idn	Feet from the 740	North/South line NORTH	Feet from the 610	East/West line EAST	County RIO ARRIBA
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<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
*Dedicated Acres 320		*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 34 35

16 LOT 4	CALC'D CORNER NO MARKER FOUND	N 89-25-12 E 2640.62' (C)	740'	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief  Signature Allison Newcomb Printed Name Allison Newcomb Title Engineering Technician Date March 10, 2005
	LOT 3	CLOSING CORNER FD. 2 1/2" B.C U.S.G.L.O. 1917	610'	
		LAT. 36°45'33"N (NAD 83) LONG. 107°07'53"W (NAD 83)	N 00-01-45 W 2573.64' (M)	
		QTR. CORNER FD. 2 1/2" B.C U.S.G.L.O. 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.  Date of Survey Signature and Seal of Professional Surveyor 14831 Certificate Number

ACT I

5 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

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Revised June 10, 2003

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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 451-03		*Well Number 14
*OGRID No. 013925	*Operator Name MALLON OIL COMPANY		*Elevation 7246'

**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
A	3	29-N	3-W		740	NORTH	610	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 CALC'D CORNER NO MARKER FOUND	N 89-25-12 E 2640.62' (C)	740'	17 <b>OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief
LOT 4	LOT 3	LOT 2	LOT 1
LAT. 36°45'33"N (NAD 83) LONG. 107°07'53"W (NAD 83)		CLOSING CORNER FD. 2 1/2" B.C U.S.G.L.O. 1917	610'
3		N 00-01-45 W 2573.64' (M)	Signature <i>Kathy L. Schneebeck</i> Kathy L. Schneebeck Printed Name Agent for Mallon Oil Company Title June 14, 2004 Date
		QTR. CORNER FD. 2 1/2" B.C U.S.G.L.O. 1917	18 <b>SURVEYOR CERTIFICATION</b> 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
			14831 Certificate Number



# 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 4, 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 Chuck Maybee at 720-210-1300.

Sincerely,

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

## Owner's List

### 300001 350 JIC 451-03 14

5211	BAYLESS GRANDCHILDREN PO Box 129 Farmington, NM 87499	.03333333 3 ORR
7041	JICARILLA APACHE NATIO 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 350 JIC 451-03 14 FC

5211	BAYLESS GRANDCHILDREN PO Box 129 Farmington, NM 87499	.01750000 3 ORR
7041	JICARILLA APACHE NATIO 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