

5/16/05 | SUSPENSE | ENGINEER JONES | 5/17/05 | LOGGED IN | TYPE DHC | APP NO. PSEM05-13734327

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
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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
☒ X Single Well
☐ Establish Pre-Approved Pools
EXISTING WELLBORE
☐ Yes ☒ X No

RECEIVED

JUN 16 2005

APPLICATION FOR DOWNHOLE COMMINGLING

DHC-3452

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

Jicarilla 30-03-33 Lease 14 Well No. A-33-30N-03W Unit Letter-Section-Township-Range Rio Arriba, NM County

OGRID No. 013925 Property Code API No. 30-039-29264 Lease Type: ☒ X Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
	Cabresto Canyon, Tertiary <input checked="" type="checkbox"/>	Basin Fruitland <input checked="" type="checkbox"/>	East Blanco <input checked="" type="checkbox"/>
Pool Name			Pictured Cliffs <input checked="" type="checkbox"/>
Pool Code	97037 <input checked="" type="checkbox"/>	71629 <input checked="" type="checkbox"/>	72400 <input checked="" type="checkbox"/>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	2553' - 3068'	3540' - 3570'	3614' - 3700'
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)	2108 psi	n/a	2487 psi
Oil Gravity or Gas BTU (Degree API or Gas BTU)			
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: 2/3/05 Rates: 175 mcfpd	Date: 1/27/05 Rates: 68 mcfpd	Date: 1/22/05 Rates: 678 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 % 19%	Oil Gas % 7%	Oil Gas % 74%

ADDITIONAL DATA

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

Are all produced fluids from all commingled zones compatible with each other? Yes ☒ X No ☐

Will commingling decrease the value of production? Yes ☐ No ☒ X

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 ☒ X 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 5/11/2005

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

E-MAIL ADDRESS anewcomb@bhep.com

C107A Supplemental Information

Jicarilla 30-03-33 #14

Production and Pressure Data

Pictured Cliffs/Fruitland Basin and Tertiary Formations

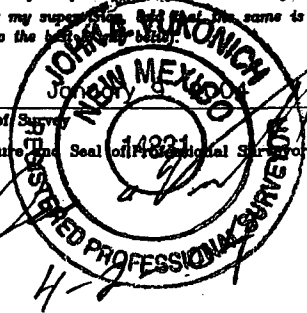
The Pictured Cliffs formation was perforated at intervals 3614' – 3616', 3624' – 3626', 3640' – 3642', 3648' – 3652', 3674' – 3676', 3682' – 3684', 3688' – 3690' and 3696' – 3700' with 2 jspf. Based upon pressure data obtained from the breakdown and fracture stimulation treatment the fracturing pressure of the Pictured Cliffs formation at mid-perforation is 2487 psi with a fracture gradient of 0.68 psi/ft. After fracture stimulation and clean up the Pictured Cliffs formation was flow tested for twenty-four hours, 687 MCFPD.

The Fruitland Basin formation was perforated at intervals 3540' – 3544' and 3564' – 3570' with 4 jspf. The Fruitland Basin formation was not fracture stimulated. The Fruitland Basin formation was flow tested for twenty-four hours, 68 MCFPD.

The Tertiary formation was perforated at intervals 2553' – 2555', 2560' – 2562', 2762' – 2764', 3050' – 3052', 3054' – 3056', 3060' – 3062' and 3066' – 3068' with 2 jspf. Based upon the pressure data obtained from the fracture stimulation treatment of the Nacimiento, Tertiary formation, the fracturing pressure of the Tertiary formation is 2108 psi with a fracture gradient of 0.75 psi/ft. After fracture stimulation of the Tertiary formation, a stabilized flow test was conducted for twenty-four hours, 175 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	678		74%
Tertiary	175		19%
Basin, Fruitland	68		7%
Total	921		100.000%

16 FD. 2 1/2" BC U.S.G.L.O. 1914	S 89-36-51 W	5229.2' (M)	560' 365'	FD. 1/2" REBAR w/ PLAS. CAP LS8894 (EST. BY DBL. PROP.)	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 <u>Engineering Technician</u> Title <u>5/11/05</u> Date
	LAT. 36°46'26"N (NAD 83) LONG. 107°08'52"W (NAD 83)		5265.95' (M)		
		33			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.
			S 00-10-02 W		Date of Survey Signature and Seal of Professional Surveyor 
				FD. MARKED STONE	14831 Certificate Number

DISTRICT I
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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
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <i>30-039-29264</i>		*Pool Code <i>71629</i>	*Pool Name <i>Basin, Fruitland</i>
*Property Code	*Property Name JICARILLA 30-3-33		*Well Number 14
*OGRID No. <i>013935</i>	*Operator Name <i>Black Hills Gas Resources, Inc.</i>		*Elevation 7129'

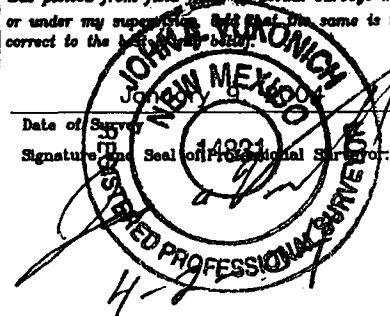
10 Surface Location

UL or lot no. A	Section 33	Township 30-N	Range 3-W	Lot Idn	Feet from the 560	North/South line NORTH	Feet from the 365	East/West line EAST	County RIO ARRIBA
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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 <i>320</i>		*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 FD. 2 1/2" BC U.S.G.L.O. 1914	S 89-36-51 W	5229.2' (M)	FD. 1/2" REBAR w/ PLAS. CAP LS8894 (EST. BY DBL PROP.)	560'	365'	5265.95' (M)	S 00-10-02 W	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. <i>Allison Newcomb</i> Signature <i>Allison Newcomb</i> Printed Name <i>Engineering Technician</i> Title <i>5/11/05</i> Date
	LAT. 36°46'26"N (NAD 83) LONG. 107°08'52"W (NAD 83)							
	33							
FD. MARKED STONE								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 <i>H</i> 14831 Certificate Number

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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 Blanco/Pictured Cliffs
*Property Code 24245	*Property Name JICARILLA 30-3-33		*Well Number 14
*OGRID No. 013925	*Operator Name MALLON OIL COMPANY		*Elevation 7129'

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	33	30-N	3-W		560	NORTH	365	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.

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OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ FD. 2 1/2" BC U.S.G.L.O. 1914	S 89-36-51 W	5229.2' (M)	560' 365'	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 Agent for Mallon Oil Company Title June 11, 2004 Date
	LAT. 36°46'26"N (NAD 83) LONG. 107°08'52"W (NAD 83)		5265.95' (M)	
	33		S 00-10-02 W	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. JOHN L. KRONICH NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 14831 Seal of Professional Surveyor
				Date of Survey Signature 14831 Certificate Number
				FD. MARKED STONE