

DATE IN 1/10/07	SUSPENSE	ENGINEER W. Jones	LOGGED IN 1/10/07	TYPE DHC	APP NO. PTDSO701058661
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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

Operator **BLACK HILLS GAS RESOURCES, INC.** c/o Mike Pippin LLC (agent), 3104 N. Sullivan, Farmington, NM 87401  
Address

Lease **JICARILLA 459-20 #34** Unit Letter-Section-Township-Range **1 SEC. 20 T30N R03W**  
Well No. County **Rio Arriba**

OGRID No. **013925** Property Code **22862** API No. **30-039-29303** Lease Type: ☒ Federal ☐ State ☐ Fee

THIS IS PART OF THE BLACK HILLS CLEAN-UP PROGRAM

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<b>Cabresto Canyon Tertiary</b>	<b>Basin Fruitland Coal</b>	<b>East Blanco Pictured Cliffs</b>
Pool Code	97037	71629	72400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1396'-3238'	3789'-3810'	3832'-3906'
Method of Production (Flowing or Artificial Lift)	Plan to Pump	Plan to Pump	Plan to Pump
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)	258	1130	1150
Oil Gravity or Gas BTU (Degree API or Gas BTU)	1052	1165	1175
Producing, Shut-In or New Zone	Shut-in	Shut-in	Shut-in
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: 12/18/06 Rates: 88 MCF/D	Date: 12/16/06 Rates: 138 MCF/D DHC-3747	Date: 12/16/06 Rates: 688 MCF/D DHC-3747
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 0% 10%	Oil Gas 0% 15%	Oil Gas 100% 75%

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 Mike Pippin TITLE Petroleum Engineer - Agent DATE January 7, 2007

TYPE OR PRINT NAME Mike Pippin TELEPHONE NO. ( 505 ) 327-4573

E-MAIL ADDRESS mike@pippinllc.com

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. 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**

1 APT Number 30-039-29303		2 Pool Code 97037		3 Pool Name Cabresto Canyon Tertiary		
4 Property Code		5 Property Name Jicarilla 459-20			6 Well Number 34	
7 OGRID No.		8 Operator Name Black Hills Gas Resources, Inc.			9 Elevation KB 7315' GL 7302'	

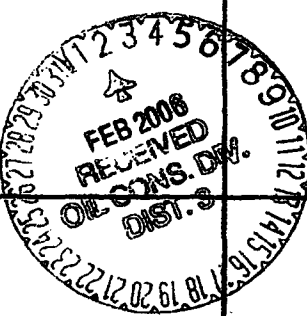
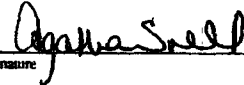
**10 Surface Location**

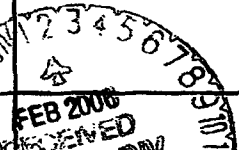
UL or lot no.	Section 20	Township 30N	Range 03W	Lot Idn	Feet from the 1870'	North/South line South	Feet from the 815	East/West line East	County Rio Arriba
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**11 Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 160									
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

 FD. 2 1/2" BC 1917 GLO		<b>17 OPERATOR CERTIFICATION</b> I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature Anatha Snell Printed Name Admin. Tech. Title and E-mail Address Date 1/2/05	
		<b>18 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. Date of Survey Signature and Seal of Professional Surveyor: Certificate Number	
LAT.=36-47-45 N. (NAD 83) LONG.=107-10-05 W (NAD 83) 815' 1870' N 00-05-12 W 2639.69' (M) S 89-57-50 W 2634.40' (M) FD. 2 1/2" BC 1917 GLO			

	<div style="border: 1px solid black; height: 150px; margin-bottom: 10px;"></div> <div style="border: 1px solid black; height: 150px;"></div>
<div style="border: 1px solid black; height: 150px; margin-bottom: 10px;"></div> <div style="border: 1px solid black; height: 150px;"></div>	<div style="border: 1px solid black; height: 150px; margin-bottom: 10px;"></div> <div style="border: 1px solid black; height: 150px;"></div>

**FD. 2 1/2" BC**  
1917 GLO

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1917 GLO

**DIRECTOR :**  
1625 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

**DISTRICT II**  
811 South First, Artesia, N.M. 86210

**DISTRICT III**  
1000 Elko Dragoon Rd., Aztec, N.M. 87410

**OIL CONSERVATION DIVISION**  
2040 South Pacheco  
Santa Fe, NM 87505

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

**DISTRICT IV**  
2040 South Pacheco, Santa Fe, NM 87506

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-29303		*Pool Code 72400	*Pool Name E. Blanco/Pictured Cliffs
*Property Code 24249	*Property Name JICARILLA 459-20		*Well Number 34
*OGBD No. 013925	*Operator Name MALLON OIL CO. Black Hills		*Elevation 7302'

### **<sup>10</sup> Surface Location**

UL or lot no.	Section	Township	Range	Lot 1/4	Feet from the	North/South line	Feet from the	East/West line	County
1	20	30-N	3-W		1870	SOUTH	815	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. R-118586 (iii) infill Pilot			

**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**

	<div style="border: 1px solid black; padding: 5px;"> <p><b>17 OPERATOR CERTIFICATION</b></p> <p><i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i></p> <p style="text-align: right;"><u>Kathy L. Schneebeck</u> Signature</p> <p><u>Kathy L. Schneebeck</u> Printed Name</p> <p><u>Agent for Mallon Oil Company</u> Title</p> <p><u>August 13, 2004</u> Date</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p><b>18 SURVEYOR CERTIFICATION</b></p> <p><i>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.</i></p> <div style="text-align: center;"> </div> <p style="text-align: right;"><u>14831</u> Certificate Number</p> </div>
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## 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. Schmalzer  
Signature

Kathy L. Schneebeck  
Printed Name

~~Agent for Mallon Oil Company~~

August 13, 2004  
Date

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.

14831

14831

**Certificate Number**

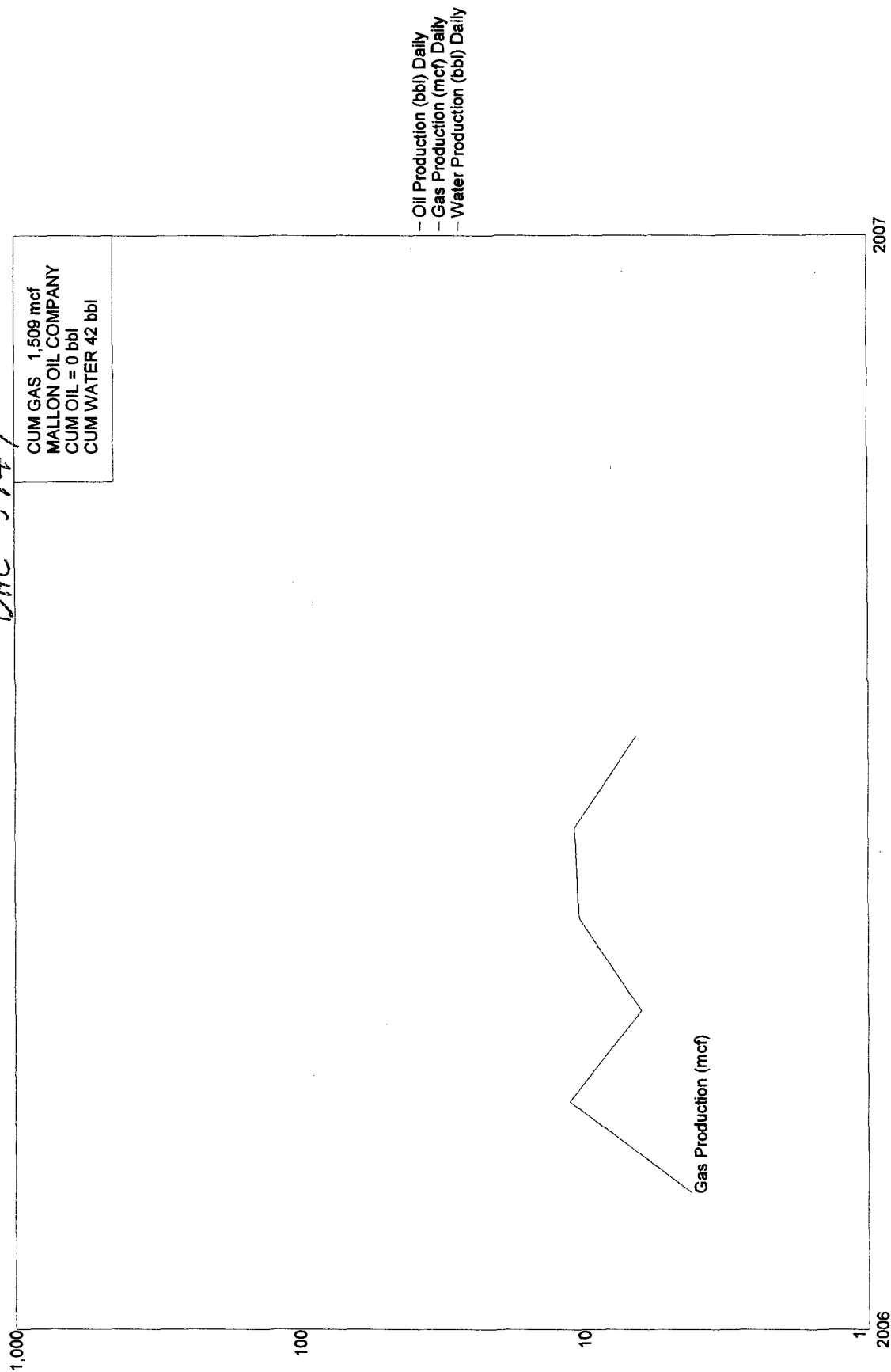
Lease Name: JICARILLA 459 20  
 County, State: RIO ARBA, NM  
 Operator: MALLON OIL COMPANY  
 Field: BASIN  
 Reservoir: FRUITLAND COAL  
 Location: 20 30N 3W SW NE SE

JICARILLA 459 20 - 34 20 30N 3W SW NE SE FRUITLAND COAL 02/2006 30039293030000

DHC 3747

CUM GAS 1,509 mcf  
 MALLON OIL COMPANY  
 CUM OIL = 0 bbl  
 CUM WATER 42 bbl

Daily Rates



Oil Production (bbl) Daily  
 Gas Production (mcf) Daily  
 Water Production (bbl) Daily

YEAR

Lease Name: JICARILLA 459 20  
County, State: RIO ARBA, NM  
Operator: MALLON OIL COMPANY  
Field: BLANCO EAST  
Reservoir: PICTURED CLIFFS  
Location: 20 30N 3W SW NE SE

JICARILLA 459 20 - 34 20 30N 3W SW NE SE PICTURED CLIFFS 09/2005 30039293030000

DHC 3747

CUM GAS 29,256 mcf  
MALLON OIL COMPANY  
CUM OIL = 0 bbl  
CUM WATER 638 bbl

Gas Production (mcf)

Water Production (bbl)

Daily Rates

Oil Production (bbl) Daily  
Gas Production (mcf) Daily  
Water Production (bbl) Daily

2007

2006

2005

YEAR

BLACK HILLS GAS RESOURCES, INC.  
JICARILLA 459-20 #34 PC / FRTC/TERTIARY  
I Section 20 T30N R03W  
1/7/2007

## Trimingle Allocation Calculations

### OIL

The Basin Fruitland Coal gas pool and the Cabresto Canyon Tertiary do not make any oil in the vicinity of the subject well. The East Blanco Pictured Cliffs gas pool does produce a little oil. Therefore, any and all oil will be assigned to the Pictured Cliffs.

### GAS

The **PC** choke test stabilized at 95 psi on a 1/2" choke for a 15 hour period on 12/16/06.

$$Q = .0555 \cdot C \cdot P \quad \begin{array}{l} C = \text{coefficient for } 1/2" \text{ choke} = 112.72 \\ P = \text{gauge pressure} + 15 \text{ psi} = 110 \text{ psi.} \end{array}$$
$$Q = .0555 \cdot 112.72 \cdot 110 = \underline{688 \text{ MCF/D.}}$$

(PC & FRTC – DHC 3747)

The **FRTC** choke test stabilized at 7 psi on a 1/2" choke for a 3 hour period on 12/16/06.

$$Q = .0555 \cdot C \cdot P \quad \begin{array}{l} C = \text{coefficient for } 1/2" \text{ choke} = 112.72 \\ P = \text{gauge pressure} + 15 \text{ psi} = 22 \text{ psi.} \end{array}$$
$$Q = .0555 \cdot 112.72 \cdot 22 = \underline{138 \text{ MCF/D.}}$$

The **Tertiary** (only) choke test stabilized at 45 psi on a 1/4" choke for 2 hours period on 12/18/06.

$$Q = .0555 \cdot C \cdot P \quad \begin{array}{l} C = \text{coefficient for } 1/4" \text{ choke} = 26.51 \\ P = \text{gauge pressure} + 15 \text{ psi} = 60 \text{ psi.} \end{array}$$
$$Q = .0555 \cdot 26.51 \cdot 60 = \underline{88 \text{ MCF/D.}}$$

**Total gas** = 88 + 138 + 688 = **914 MCF/D.**

$$\begin{array}{lll} \% \text{ PC} = \frac{688}{914} = 75\% & \% \text{ FRTC} = \frac{138}{914} = 15\% & \% \text{ TERTIARY} = \frac{88}{914} = 10\% \end{array}$$