

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 87419

District IV

1220 S. St. Francis Dr., Santa Fe, NM 87505

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MAY 17 2005

OIL CONSERVATION
DIVISIONState of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division

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

APPLICATION FOR DOWNHOLE COMMINGLING

Form C-107A
Revised June 10, 2003

APPLICATION TYPE

☒ X Single Well☐ Establish Pre-Approved Pools

EXISTING WELLBORE

☐ Yes ☒ X No

DHC-3451

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

Jicarilla 30-03-27

14

A-33-30N-03W

Rio Arriba, NM

Lease

Well No.

Unit Letter-Section-Township-Range

County

OGRID No. 013925 Property Code 24237 API No. 30-039-29246 Lease Type: ☒ X Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Cabresto Canyon, Tertiary	Basin Fruitland	Pictured Cliffs
Pool Code	97037	71629	72400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1098' - 2899'	3502' - 3522'	3548' - 3618'
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)	1798, 1024, 730 psi	2985 psi	2508 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: 1/31/05 & 2/14/05 Rates: 1002 mcfpd	Date: 12/29/04 Rates: 145 mcfpd	Date: 12/23/04 Rates: 462 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 62%	Oil 0 % Gas 9%	Oil 0 % Gas 29%

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 ☒ X No ☐
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 ☒ XIf 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 5/12/2005TYPE OR PRINT NAME Allison Newcomb TELEPHONE NO. (720)210-1308E-MAIL ADDRESS anewcomb@bhep.com

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 30-03-27 14 A-33-30N-03W Rio Arriba, NM
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 013925 Property Code 24237 API No. 30-039-29246 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	Cabresto Canyon, Tertiary	Basin Fruitland	Pictured Cliffs
Pool Code	97037	71629	72400
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	1098' - 2899'	3502' - 3522'	3548' - 3618'
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)	1798, 1024, 730 psi	2985 psi	2508 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: 1/31/05 & 2/14/05 Rates: 1002 mcfpd	Date: 12/29/04 Rates: 145 mcfpd	Date: 12/23/04 Rates: 462 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 % 62%	Oil Gas % 9%	Oil Gas % 29%

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: _____

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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 5/12/2005

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

E-MAIL ADDRESS anewcomb@bhep.com

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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 30-03-27 14 A-33-30N-03W Rio Arriba, NM
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 013925 Property Code 24237 API No. 30-039-29246 Lease Type: ☒ Federal ☐ State ☐ Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
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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: 1/31/05 & 2/14/05 Rates: 1002 mcfpd	Date: 12/29/04 Rates: 145 mcfpd	Date: 12/23/04 Rates: 462 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 % 62%	Oil Gas % 9%	Oil Gas % 29%

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: _____

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- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

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- 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 5/12/2005

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

E-MAIL ADDRESS anewcomb@bhep.com

DISTRICT I
1625 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

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 30-039-29246		*Pool Code 97037		*Pool Name Cabresto Canyon, Tertiary	
*Property Code		*Property Name JICARILLA 30-3-27			*Well Number 14
*OGRID No. 013925		*Operator Name Black Hills Gas Resources, Inc.			*Elevation 7108'

¹⁰ Surface Location

UL or lot no. A	Section 27	Township 30-N	Range 3-W	Lot Idn	Feet from the 355'	North/South line NORTH	Feet from the 875'	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 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

¹⁸ FD. 2 1/2" BC U.S.G.L.O. 1917	S 89-39-28 W	5218.0' (M)	<div>5269.9' (M)</div> <div>875'</div> <div>FD. 1/2" REBAR w/ PLAS. CAP LS8894 (EST. BY DB. PROP.)</div>	<div>17 OPERATOR CERTIFICATION</div> <div>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</div> <div><u>Allison Newcomb</u> Signature Allison Newcomb Printed Name Engineering Technician Title May 13, 2005 Date</div>
	LAT. 36°47'21"N (NAD 83) LONG. 107°07'54"W (NAD 83)			
	27			
	FD. STONE WITH 1/2" REBAR w/ PLAS. CAP LS8894			
			S 00-19-27 E	<div>18 SURVEYOR CERTIFICATION</div> <div>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.</div> <div><u>JOHN A. VUKOVICH</u> Date of Survey NEW MEXICO Signature and Seal of Professional Surveyor: REGISTERED PROFESSIONAL SURVEYOR 14831 Certificate Number</div>

DISTRICT I
1626 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

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 30-039-29246	*Pool Code 71629	*Pool Name Basin, Fruitland
*Property Code	*Property Name JICARILLA 30-3-27	*Well Number 14
*GRID No. 013925	*Operator Name Black Hills Gas Resources, Inc.	*Elevation 7108'

¹⁰ Surface Location

UL or lot no. A	Section 27	Township 30-N	Range 3-W	Lot Idn	Feet from the 355'	North/South line NORTH	Feet from the 875'	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 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

¹⁸ FD. 2 1/2" BC U.S.G.L.O. 1917	S 89-39-28 W	5218.0' (M)	¹⁷ FD. 1/2" REBAR w/ PLAS. CAP LS8894 (EST. BY DB. PROP.)	5269.9' (M)	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 13, 2005
	LAT. 36°47'21"N (NAD 83) LONG. 107°07'54"W (NAD 83)				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 <u>May 13, 2005</u> Signature <u>JOHN A. YUKONICH</u> REGISTERED PROFESSIONAL SURVEYOR 14831 Certificate Number
	27			S 00-19-27 E	
			FD. STONE WITH 1/2" REBAR w/ PLAS. CAP LS8894		

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

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State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
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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 API Number		2 Pool Code		3 Pool Name	
4 Property Code		5 Property Name JICARILLA 30-3-27			6 Well Number 14
7 OGRID No.		8 Operator Name MALLON OIL COMPANY			9 Elevation 7108'

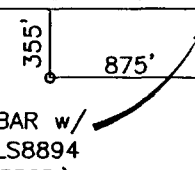
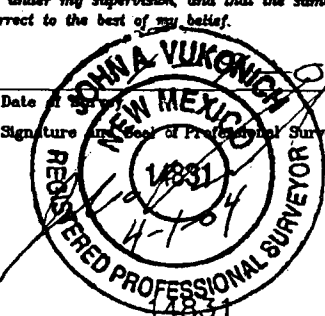
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	27	30-N	3-W		355'	NORTH	875'	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. 2 1/2" BC U.S.G.L.O. 1917	S 89-39-28 W	5218.0' (M)		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief <u>Kathy L. Schneebeck</u> Signature Kathy L. Schneebeck Printed Name Agent for Mallon Oil Company Title May 28, 2004 Date	
	LAT. 36°47'21"N (NAD 83) LONG. 107°07'54"W (NAD 83)				5269.9' (M)
	27				S 00-19-27 E
			FD. STONE WITH 1/2" REBAR w/ PLAS. CAP LS8894	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: Certificate Number	

C107A Supplemental Information

Jicarilla 30-03-27 #14

Production and Pressure Date

Pictured Cliffs/Fruitland Basin and Tertiary Formations

The Pictured Cliffs formation was perforated at intervals 3548' – 3566' and 3608' – 3618' 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 2508 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, 462 MCFPD.

The Fruitland Basin formation was perforated at intervals 3502' – 3508' and 3518' – 3522' with 4 jspf. Based upon pressure data obtained from the breakdown and fracture stimulation treatment the fracturing pressure of the Fruitland Basin formation at mid-perforation is 2985 psi with a fracture gradient of 0.85 psi/ft. The Fruitland Basin formation was flow tested for twenty-four hours, 145 MCFPD.

The Tertiary formation was perforated at intervals 1098' – 1100', 1106' – 1108', 1112' – 1114', 1120' – 1122', 1146' – 1148', 1567' – 1583' and 2897' – 2899' with 2 jspf. Based upon the pressure data obtained from the fracture stimulation treatment of the Upper San Jose, Tertiary formation, the fracturing pressure of the Tertiary formation is 730 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, the fracturing pressure of the Tertiary formation is 1024 psi with a fracture gradient of 0.65 psi/ft. Based upon the pressure data obtained from the fracture stimulation treatment of the Nacimiento, Tertiary formation, the fracturing pressure of the Tertiary formation is 1798 psi with a fracture gradient of 0.65 psi/ft. After fracture stimulation of the San Jose, Tertiary formation, a stabilized flow test was conducted for twenty-four hours, 927 MCFPD. After fracture stimulation of the Nacimiento, Tertiary formation, a stabilized flow test was conducted for twenty-four hours, 75 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	462		29%
Tertiary	1002		62%
Basin, Fruitland	145		9%
Total	1609		100.000%