

5/9/05 5/29/05 5/10/05
 DATE IN SUSPENSE ENGINEER LOGGED IN TYPE DHC 3457 APP NO. DEM0513044927
 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 462-22 22 F-22-30N-03W Rio Arriba, NM
Lease Well No. Unit Letter-Section-Township-Range County

OGRID No. 013925 Property Code 23821 API No. 30-039-27800 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)	1184' - 3408'	3637' - 3648'	3700' - 3760'
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)	1090, 2032, 2111, 2185 psi	3643 psi	2835 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: 11/11/2004 Rates: 184 mcfpd	Date: 10/7/2005 Rates: 92 mcfpd	Date: 10/7/2005 Rates: 92 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 50%	Oil 0% Gas 25%	Oil 0% Gas 25%

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 462-22 #22

Production and Pressure Data

Pictured Cliffs, Fruitland and Tertiary Formations

The Pictured Cliffs formation was perforated at intervals 3700' – 3710' and 3750' – 3760' 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 2835 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, 0.25 MCFPD.

The Fruitland Basin formation was perforated at intervals 3637' – 3648' 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 3643 psi with a fracture gradient of 1.0 psi/ft. After fracture stimulation and clean up the Fruitland Basin formation was flow tested for twenty-four hours, 0.25 MCFPD.

The Tertiary formation was perforated at intervals 1184' – 1186', 1210' – 1214', 1220' – 1222', 1238' – 1242', 1666' – 1670', 1682' – 1684', 2455' – 2457', 2462' – 2464', 2598' – 2600', 2758' – 2760', 2770' – 2772', 2870' – 2872', 2910' – 2914', 2956' – 2958', 2962' – 2964', 3192' – 3196, 3204' – 3214', 3262' – 3264', 3268' – 3270', 3276' – 3278', 3290' – 3292', 3296' – 3298', 3300' – 3302', 3316' – 3318', 3322' – 3324', 3328' – 3330', 3334' – 3336', 3342' – 3344', 3348' – 3350', 3356' – 3356', 3362' – 3364', 3369' – 3371', 3376' – 3378', 3384' – 3386', 3392' – 3394' and 3406' – 3408' with 2 jspf. Based upon the pressure data obtained from the fracture stimulation treatment of the San Jose (1184-1684), Tertiary formation, the fracturing pressure of the formation is 1090 psi with a fracture gradient of 0.76 psi/ft. Based upon the pressure data obtained from the fracture stimulation treatment of the Nacimiento (2455-2964), Tertiary formation, the fracturing pressure of the formation is 2032 psi with a fracture gradient of 0.75 psi/ft. Based upon the pressure data obtained from the fracture stimulation treatment of the Upper Ojo Alamo (3192-3302), Tertiary formation, the fracturing pressure of the formation is 2111 psi with a fracture gradient of 0.65 psi/ft. Based upon the pressure data obtained from the fracture stimulation treatment of the Lower Ojo Alamo (3316-3408), Tertiary formation, the fracturing pressure of the formation is 2185 psi with a fracture gradient of 0.65 psi/ft. After fracture stimulation of the Tertiary formation, a stabilized flow test was conducted for twenty-four hours, 0.5 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	0.25		25%
Tertiary	0.5		25%
Basin, Fruitland	0.25		50%
Total	1		100.000%

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

DISTRICT II
1901 W. Grand Avenue, 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

Form C-102
Revised June 10, 2003

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

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

☐ 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 462-22		*Well Number 22
*OGRID No. 013925	*Operator Name MALLON OIL CO.		*Elevation 7209'

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
F	22	30-N	3-W		1975	NORTH	2050	WEST	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			*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

<p>FD. 2 1/2" BC N 88-49-06 E 1917 GLO 2593.87'</p>		<p>FD. 2 1/2" BC 1917 GLO</p>	
<p>S 00-02-10 E 2630.79'</p>		<p>1975'</p>	
<p>2050'</p>		<p>LAT.= 36-47-57 N. (NAD 83) LONG.=107-08-22 W</p>	
<p>FD. 2 1/2" BC 1917 GLO</p>		<p>22</p>	
<p>FD. 2 1/2" BC 1917 GLO</p>		<p>S 00-28-48 E 230.36'</p>	

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

April 1, 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 to the best of my belief.

DAVID A. JOHNSON
Date of Survey

NEW MEXICO
Signature and Seal of Professional Surveyor

14827
REGISTERED PROFESSIONAL SURVEYOR

Certificate Number

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

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

DISTRICT III
1000 Rio Brazos Rd., Artesia, N.M. 87410

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State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-27800		*Pool Code 97037	*Pool Name Cabnesto Canyon, Tertiary
*Property Code 24245	*Property Name JICARILLA 462-22		*Well Number 22
*OGRID No. 013925	*Operator Name Black Hills Gas Resources, Inc.		*Elevation 7209'

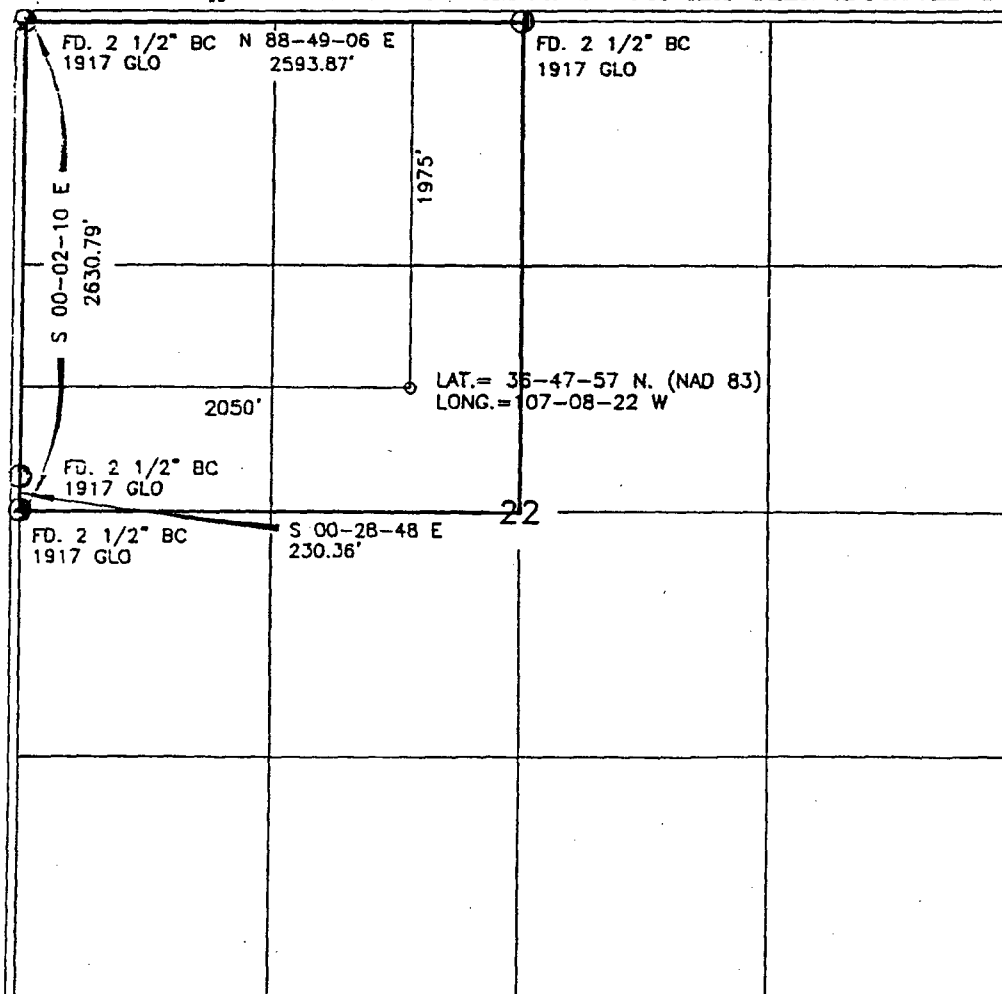
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	22	30-N	3-W		1975	NORTH	2050	WEST	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.

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



¹⁷ OPERATOR CERTIFICATION

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

Allison Newcomb
Signature

Allison Newcomb
Printed Name

Engineering Technician
Title

March 10, 2005
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 to the best of my belief.

DAVID J. JOHNSON
Date of Survey

Signature and Seal of Professional Surveyor

14827

RESIDED PRO 4827

14827

14827

14827

Certificate Number

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised June 10, 2003

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

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Santa Fe, NM 87505

Submit to Appropriate District Office
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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

'API Number 30-039-27800	'Pool Code 71629	'Pool Name Basin, Fruitland
'Property Code 24245	'Property Name JICARILLA 462-22	'Well Number 22
'GRID No. 013925	'Operator Name Black Hills Gas Resources, Inc.	'Elevation 7209'

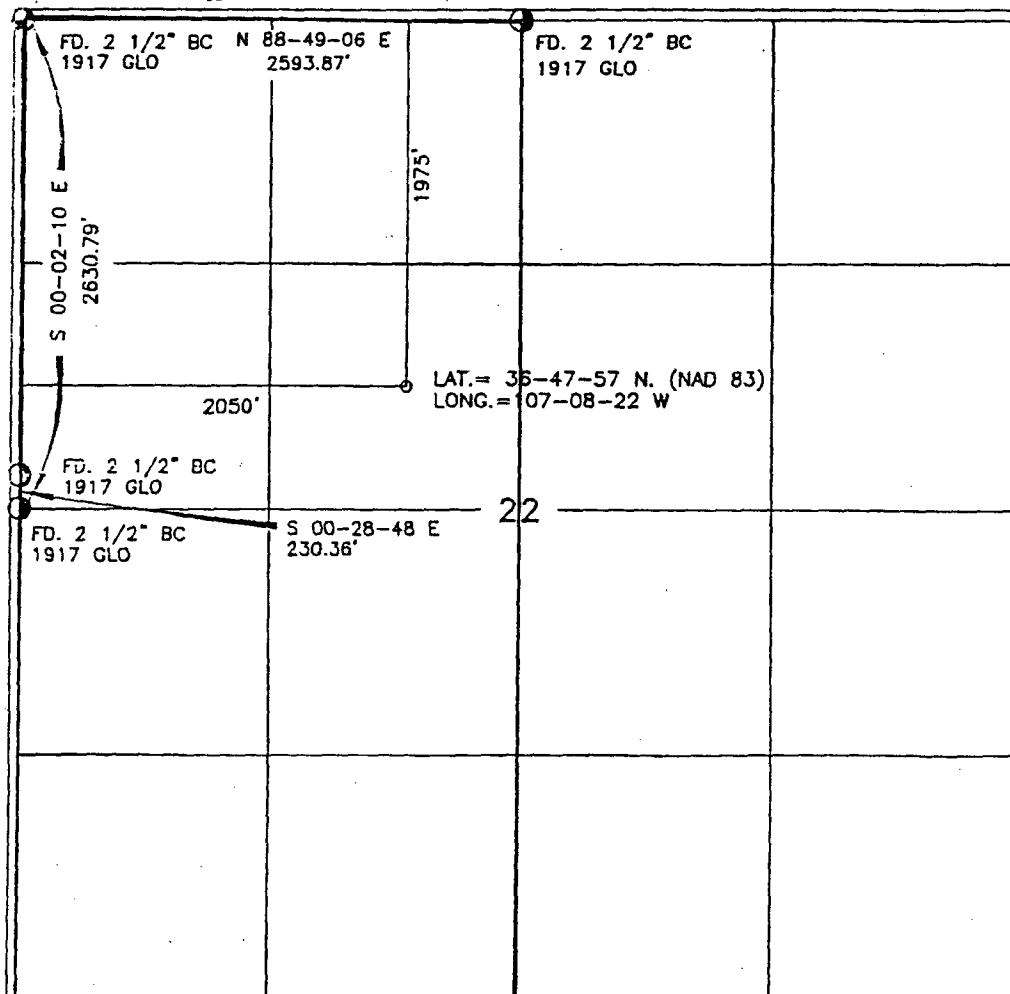
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	22	30-N	3-W		1975	NORTH	2050	WEST	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.		

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



¹⁷ OPERATOR CERTIFICATION

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

Allison Newcomb
Signature

Allison Newcomb

Printed Name

Engineering Technician

Title

March 10, 2005
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 to the best of my belief.

Date of Survey
Signature and Seal of Professional Surveyor
14827

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 349 JIC 462-22 22

5211	BAYLESS GRANDCHILDREN PO Box 129 Farmington, NM 87499	.00666666 3 ORR
7041	JICARILLA APACHE NATION PO Box 2053 Albuquerque, NM 87103	.16666667 2 ROY
7042	JACO PRODUCTION COMPANY PO Box 1807 Bakersfield, CA 93303	.00312500 3 ORR
7043	KEN KAMON PO Box 10589 Midland, TX 79702	.00937500 3 ORR
7079	KEVIN M FITZGERALD 66 N. Ranch Rd. Littleton, CO 80127	.00833333 3 ORR
999030	BLACK HILLS GAS RESOURCES 350 Indiana St. Suite 400 Golden, CO 80401	.80583334 1 WOR

300001 349 JIC 462-22 22 FC

5211	BAYLESS GRANDCHILDREN PO Box 129 Farmington, NM 87499	.00350000 3 ORR
7041	JICARILLA APACHE NATION PO Box 2053 Albuquerque, NM 87103	.18250000 2 ROY
7042	JACO PRODUCTION COMPANY PO Box 1807 Bakersfield, CA 93303	.00312500 3 ORR
7043	KEN KAMON PO Box 10589 Midland, TX 79702	.00937500 3 ORR
7079	KEVIN M FITZGERALD 66 N. Ranch Rd. Littleton, CO 80127	.00817500 3 ORR
999030	BLACK HILLS GAS RESOURCES 350 Indiana St. Suite 400 Golden, CO 80401	.79332500 1 WOR