

INSTRUMENT PREPARED BY
VIRGINIA GAS AND OIL

ORDER RECORDED UNDER CODE
OF VIRGINIA SECTION 45.1-361.26

VIRGINIA:

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: **RANGE RESOURCES - PMI**

VIRGINIA GAS AND
OIL BOARD
VGOB DOCKET NO.:
89-0126-0009-82

RELIEF SOUGHT:

MODIFICATION OF THE OGCB NORA GAS
FIELD RULES ORDER, ENTERED MARCH 26,
1989, AS AMENDED, TO ALLOW MORE THAN
ONE COALBED GAS WELL TO BE DRILLED IN
THE UNITS IDENTIFIED ON EXHIBIT "A" HERETO

LEGAL DESCRIPTION:

DRILLING UNITS: 66AF, 69AF, 66AG, 66AH, 67AH, 67AI,
67AJ, 68AJ, 62BE, 63BE, 64BE, 65BE, 62BF, 63BF, 64BF, 62BG
LOCATED IN BUCNANAN COUNTY, VIRGINIA; *Dickenson County, Virginia.*
SEE ANNEXED EXHIBIT "H2"

**REPORT OF THE BOARD
FINDINGS AND ORDER**

1. Hearing Date and Place: This matter came on for hearing before the Virginia Gas and Oil Board (hereinafter "Board") at 9:00 a.m. on **March 17, 2015** at the Conference Center at the Russell County Office Facility, Lebanon, Virginia.

2. Appearances: **James E. Kaiser of Wilhoit and Kaiser**, appeared for the Applicant; and Sharon B. Pigeon, Assistant Attorney General was present to advise the Board.

3. Jurisdiction and Notice: Pursuant to Va. Code §§45.1-361.1 *et seq.*, as amended, the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by the Applicant, the Board also finds that the Applicant has (1) exercised due diligence in conducting a meaningful search of reasonably available

sources to determine the identity and whereabouts of each gas and oil owner, coal owner, or mineral owner, or in the case of conflicting claims to the ownership of the coalbed methane gas, each person identified by Applicant as a potential owner of the coalbed methane gas underlying the area described at paragraph 7.h below and in **Exhibit "B"** attached hereto; and (2) has given notice to all parties so identified (hereinafter sometimes "person(s)" whether referring to individuals, corporation, partnerships, associations, companies, businesses, trusts, joint ventures or other legal entities) and entitled by §§ 45.1-361.19 and 45.1-361.20, Virginia Code, as amended, to notice of the Application, and (3) that the persons listed in the Notice of Hearing are the persons so identified by the Applicant. Further, the Board has caused notice of this hearing to be published as required by § 45.1-361.19.B., Virginia Code, as amended. Whereupon, the Board hereby finds that the notices given satisfy all statutory requirements, Board rule requirements and the minimum standards of State due process.

4. Amendments and Dismissals: **None.**

5. Relief Requested: (1) Modification of the Nora Gas Field Rules to allow more than one coalbed methane gas well to be drilled within each of the Nora Field Drilling Units identified above and in **Exhibit "H2"** attached hereto; and (2) for an administrative order providing that additional well permits may be issued in the Nora Field after the Application is filed and while it is pending.

6. Relief Granted: Available data and the evidence adduced at the hearing support Applicant's position that the production from the pool underlying the Nora Coal Bed Gas Field Drilling Units in question would be enhanced and benefit from in-field drilling; accordingly,

a. With regard to the Drilling Units described above and in **Exhibit "H2"** hereto, the Nora Coal Bed Gas Field Rules Order, OCGB order entered of March 26, 1989, is hereby amended to allow the Board's Designated Unit Operator in Drilling Units pooled by Board Order and the Well Operator/Permittee in voluntary Drilling Units to drill a total of two (2) wells, said total to include any previously permitted well(s), within the units affected by the Application and this Order;

b. In the event that an additional coalbed methane gas well(s) permitted and drilled after the entry of this order is located within the drilling window(s) of a Nora Coal Bed Gas Field Drilling Unit affected by this order, the production therefrom shall be solely attributed to and allocated to the Nora Drilling Unit within which the wells are located.

c. In the event a second well is proposed that is to be located outside the drilling window of any Nora Unit affected by this order and a permit application is submitted to the Division of Gas and Oil seeking such location exception, the Inspector shall assess the permit as follows:

(i) If a 58 acre square with the proposed well at its center lies entirely within Nora Drilling Units which are voluntary in nature and are not subject to existing pooling order, the Inspector may grant or deny the location exception on a case-by-case basis according to standard procedures and provisions of the Nora Order which allow wells to be drilled outside the drilling windows; or

(ii) If a 58 acre square with the proposed well at its center lies entirely or partially within any Nora Drilling Unit(s) which is subject to existing pooling orders, the Inspector shall refer the permit application to the Board for its recommendations concerning correlative rights considerations, modification of pooling orders, and escrow provisions. Alternatively, the Unit Operator may present a pooling proposal directly to the Board prior to filing a permit application. No permit under this paragraph (ii) shall be issued until the Board has acted on the matter.

7. Special Findings:

- a. Applicant's proposed field rule modification is not an unreasonable or arbitrary exercise of the owner's right to explore for or produce gas;
- b. The Applicant's proposal would not unreasonably interfere with the present or future mining of coal or other minerals;
- c. The acreage to be embraced in the Drilling Units affected by and/or created by this Modification Order shall be as set forth above and in Exhibit "H2" attached hereto.
- d. The formations subject to this Modification Order are described in the OGCB Order entered March 26, 1989, as amended.
- e. The boundaries of the Drilling Units are the same as heretofore established by the OGCB Order entered March 26, 1989, as amended.
- f. Unit Operator's production simulations indicate that drilling of an additional well in each Unit could facilitate the recovery of an additional 250,000 MCF of gas per Unit within ten (10) years of drilling.
- g. The boundaries of any Drilling Units created subsequent to this Modification Order shall be according to paragraph 6.c.ii. above and as defined by Board action specific to individual units.
- h. The acreage subject to this Modification Order is depicted in Exhibit "H2" attached hereto:

150000808

i. Having considered the evidence presented, the Board found no reason to establish any allowable production rates for the wells contemplated by this Modification Order;

j. Except as herein specifically modified, the proposed Drilling Units in **Exhibit "H2"** shall be developed and produced in compliance with the OGCB Order entered on March 26, 1989 regarding the Nora Gas Field Rules, as amended.

k. This Modification Order shall be effective as of the date of the hearing, to wit: **March 17, 2015.**

8. Conclusion: The relief granted hereby will assist in enhancing production from existing wells, will assist in more efficiently recovering coalbed methane gas from the area in question, prevent waste by more effectively extracting the resource, and will continue to protect the correlative rights of all owners and claimants. Therefore, the relief and all terms and provisions set forth above be and are hereby granted and **IT IS SO ORDERED.**

9. Effective Date: **March 17, 2015.**

DONE AND EXECUTED this 20th day of April, 2015 by a majority of the Virginia Gas and Oil Board.

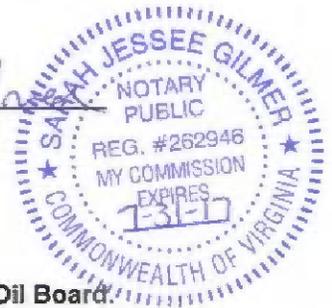
Bradley C. Lambert

Chairman, Bradley C. Lambert

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

Acknowledged on this 20th day of April, 2015, personally before me a notary public in and for the Commonwealth of Virginia, appeared Bradley C. Lambert, being duly sworn did depose and say that he is the Chairman of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

Sarah Jessee Gilmer
Sarah Jessee Gilmer, Notary Public
262946



My Commission expires: July 31, 2017

DONE AND PERFORMED this 22 day of April, 2015 by Order of the Virginia Gas and Oil Board.

Rick Cooper

Rick Cooper
Principal Executive to the
staff, Virginia Gas and Oil Board

COMMONWEALTH OF VIRGINIA
COUNTY OF RUSSELL

Acknowledged on this 22nd day of April, 2015, personally before me a notary public in and for the Commonwealth of Virginia, appeared Rick Cooper, being duly sworn did depose and say that he is the Principal Executive to the staff of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

Sarah Jessee Gilmer
Sarah Jessee Gilmer, Notary Public
262946



My Commission expires: July 31, 2017

	64AD	65AD	66AD	67AD	68AD	69AD	70AD	71AD	72AD	73AD	74AD
	64AE	65AE	66AE	67AE	68AE	69AE	70AE	71AE	72AE	73AE	74AE
	64AF	65AF	66AF	67AF	68AF	69AF	70AF	71AF	72AF	73AF	74AF
	64AG	65AG	66AG	67AG	68AG	69AG	70AG	71AG	72AG	73AG	74AG
	64AH	65AH	66AH	67AH	68AH	69AH	70AH	71AH	72AH	73AH	74AH
	64AJ	65AJ	66AJ	67AJ	68AJ	69AJ	70AJ	71AJ	72AJ	73AJ	74AJ
	64AK	65AK	66AK	67AK	68AK	69AK	70AK				
	Dickenson County			Buchanan County							
	PROPOSED UNITS			APPROVED UNITS							

EXHIBIT H-2 (page 1)
 RANGE RESOURCES - PINE MOUNTAIN INC.
 INCREASED DENSITY DRILLING
 NORA FIELD
 12/15/2014

Exhibit B

Dickenson-Russell Coal Company
Maxxim Shared Services, LLC
Attn: Steve Smith
5703 Crutchfield Drive
Norton, VA 24273

ALPHA Land & Reserves, LLC
Attn: Steve Smith
5703 Crutchfield Drive
Norton, VA 24273

WBRD LLC
Chad Mooney
5260 Irwin Road
Huntington, WV 25705-3247

ACIN LLC
Chad Mooney
5260 Irwin Road
Huntington, WV 25705-3247

Mullins Land & Mineral, Inc.
Freddy Mullins
PO Box 951
Clintwood, VA 24228

Wayne Grant
P.O. Box 2015
Clintwood, VA 24228

Jennifer Brown Osborne
792 E. Meadows Rd.
Moravian Falls, NC 28654

Stephen and Kimberly Beshears
728 Haynes Road
Hays, NC 28635-9318

Benjamin Harrison and Ethel Beshears
2163 Big Ivy Road
Pulcar, NC 28665

150000808

Exhibit B

Susan B. & Terry Odom
4007 Hazel Lane
Grensboro, NC 27408

Bobby Kenneth White
8100 Statesville Road
North Wilkesboro, NC 28659-8547

Jessica & Allyn Morrow
428 Will Faw Rd.
Millers Creek, NC 28651

Ike and Renida Bowman
5792 Sandlick Rd
Birchleaf, VA 24220

Janice Bowman
101 West Main Street
New Lebanon, OH 45345

Gladwell Bowman
5096 Frying Pan Road
Birchleaf, VA 24220-9717

Jerry Lynn & Barbara Ann Coleman
2613 Cranesnest Road
Vansant, Virginia 24656

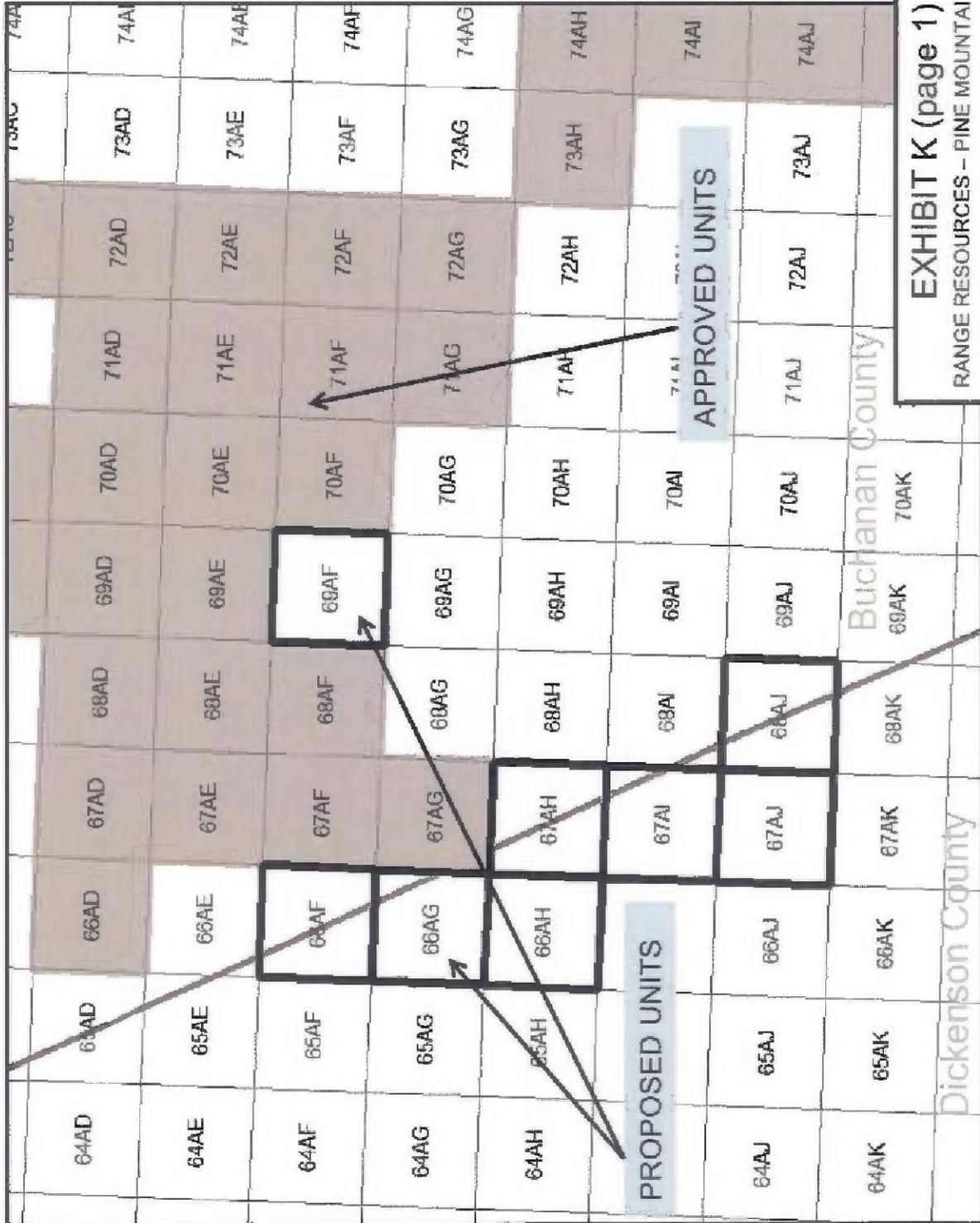


EXHIBIT K (page 1)
RANGE RESOURCES - PINE MOUNTAIN INC.
INCREASED DENSITY DRILLING
NORA FIELD
12/15/2014

58BD	59BD	60BD	61BD	62BD	63BD	64BD	65BD	66BD
58BE	59BE	60BE	61BE	62BE	63BE	64BE	65BE	66BE
58BF	59BF	60BF	61BF	62BF	63BF	64BF	65BF	66BF
58BG	59BG	60BG	61BG	62BG	63BG	64BG	65BG	66BG
58BH	59BH	60BH	61BH	62BH	63BH	64BH	65BH	66BH

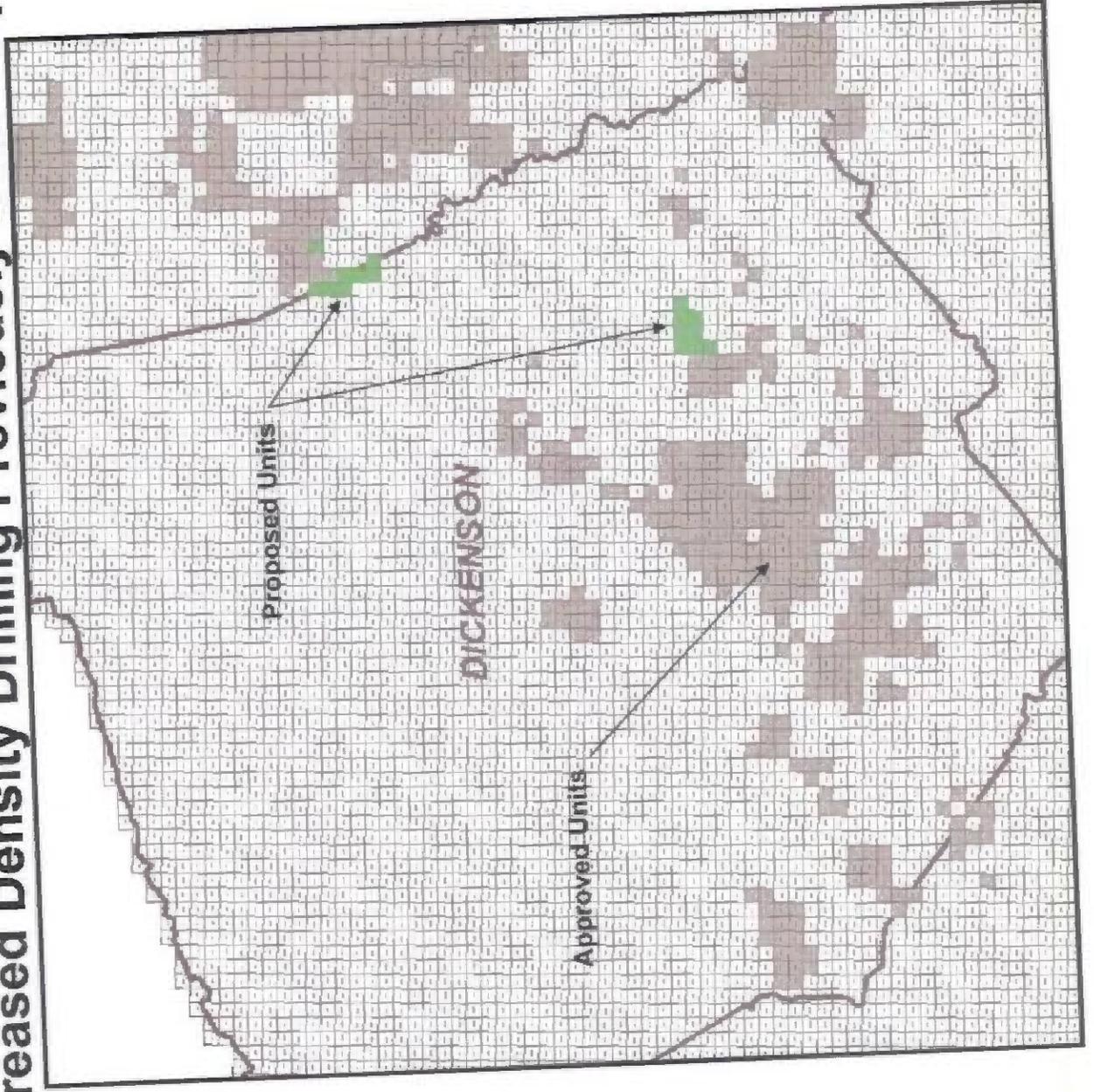
Dickenson County

APPROVED UNITS (shaded area: 59BF, 60BF, 61BF, 62BF, 63BF, 64BF, 65BF, 66BF)

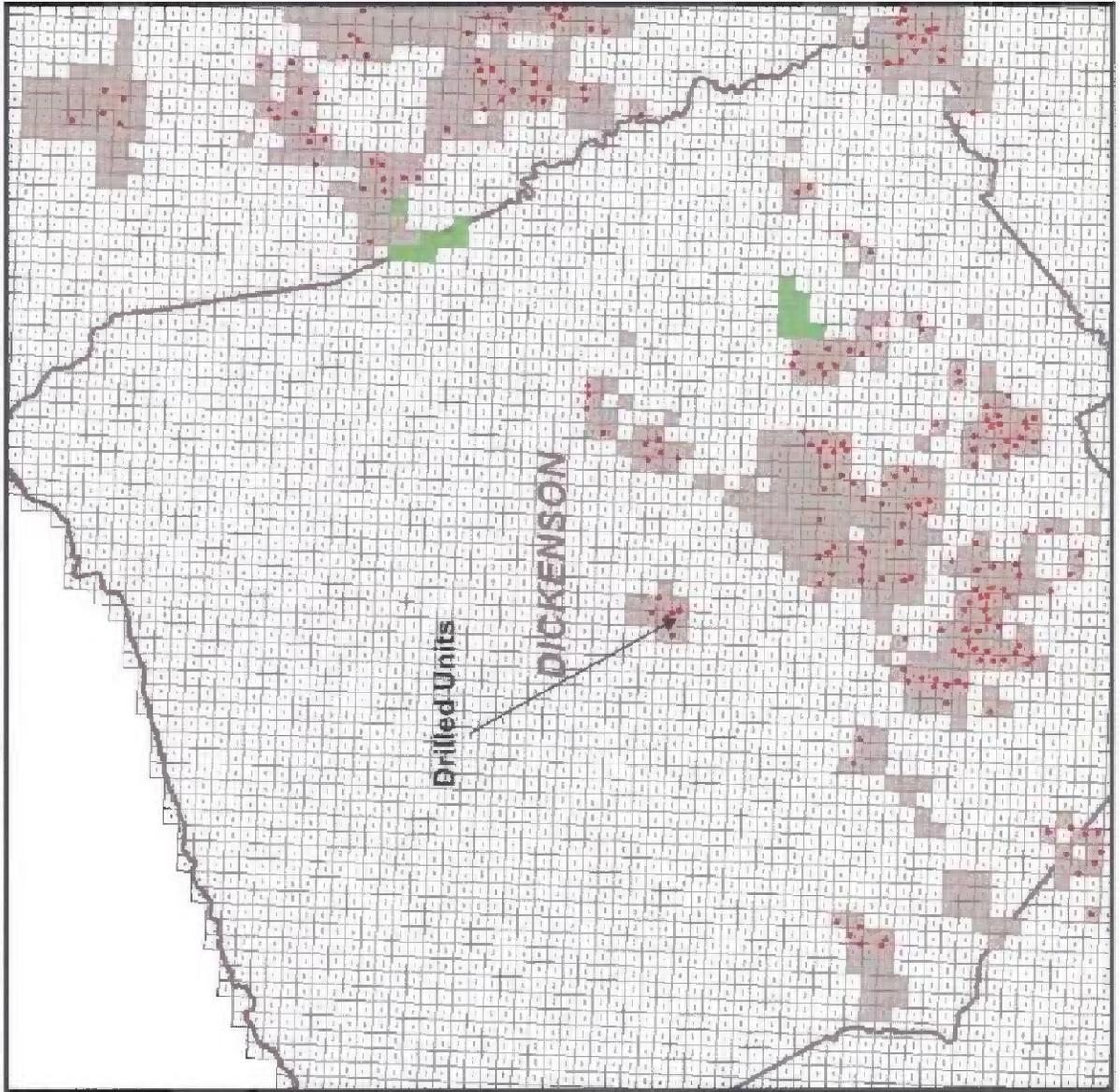
PROPOSED UNITS (shaded area: 64BG, 65BG, 66BG)

EXHIBIT K (page 2)
 RANGE RESOURCES - PINE MOUNTAIN INC.
 INCREASED DENSITY DRILLING
 NORA FIELD 12/15/2014

Map View of Nora CBM Field Increased Density Drilling Previously Board Approved



Map View of Nora CBM Field Increased Density Drilling Completed to Date



Close up - Map View of Nora Increased Density Areas



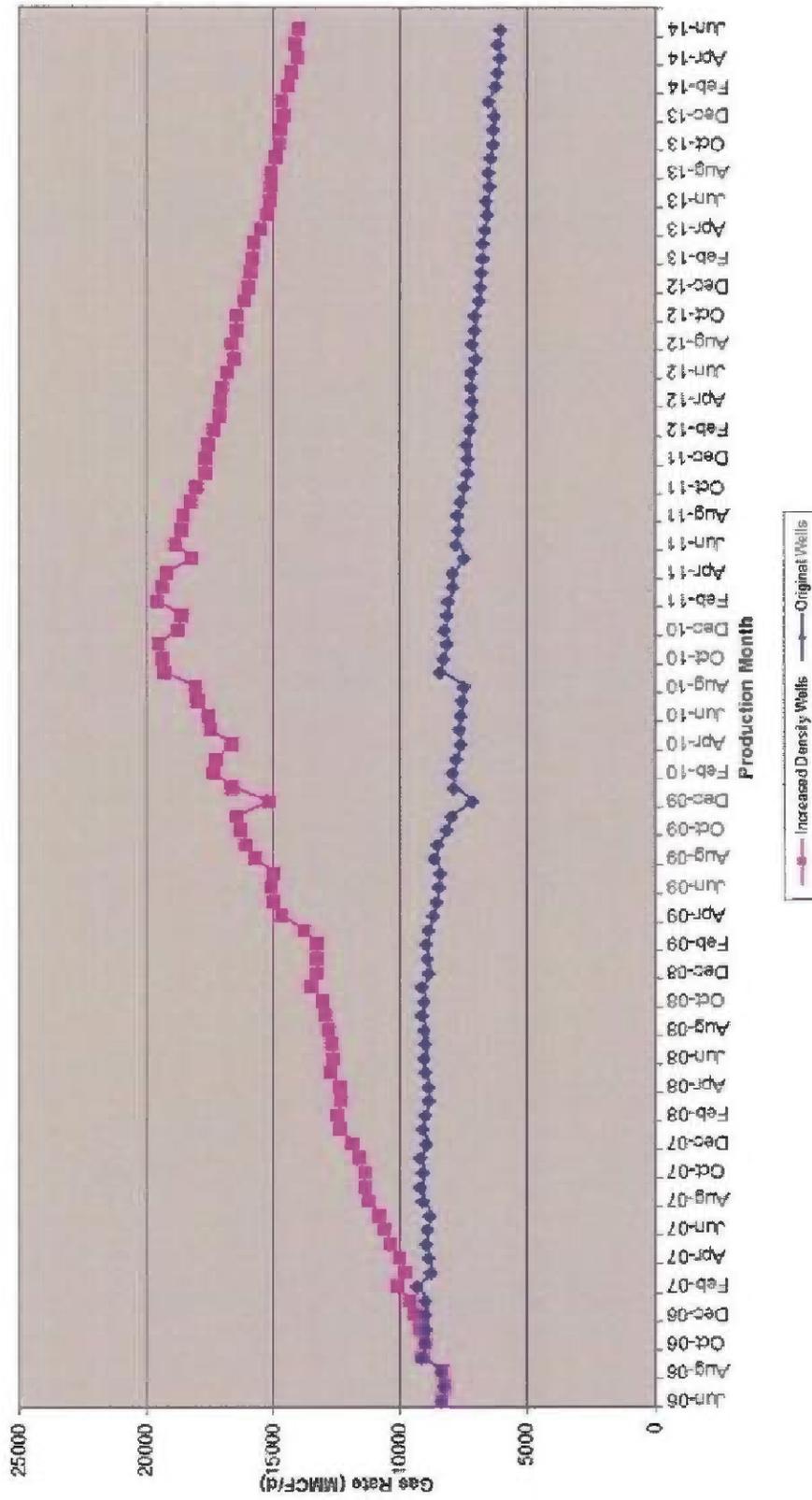
EXHIBIT K (pg 5)

Close up - Map View of Nora Increased Density Areas



EXHIBIT K (pg 6)

Increased Density Drilling Nora Field Thru 06-2014



Benefits of Increased Density Drilling

- Increase fracturing network promoting gas flow at low pressure
- Decrease de-watering time frame
- Increase recovery factor of reservoir
- Reservoir production achieved faster and more economical
- No significant negative impact to 1st well production, generally see improvement in existing production

Infill drilling from 2006 – 2014
 Production represents 196 units

EXHIBIT K (pg7)

Summary of Infill Drilling

- Working Interest Owners, Royalty Owners, and the State will likely benefit by maximizing production
- Promote conservation of the gas resource and prevent waste by more effectively extracting the resource
- Allow for shared facilities such as roads, pipelines, etc. to help minimize environmental impact
- No correlative rights issues within proposed units

Map View of Area Coal Mine Activity

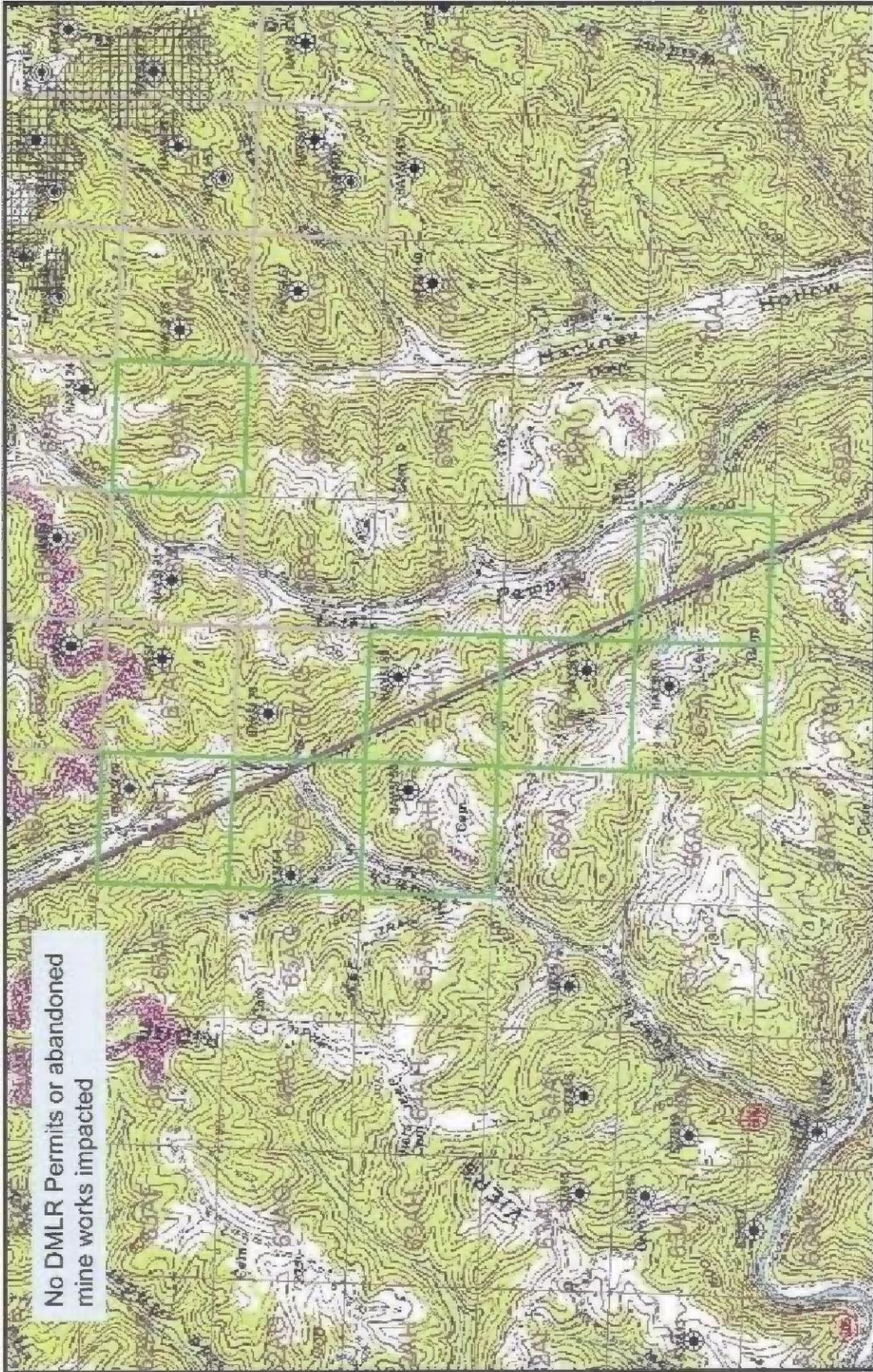


EXHIBIT K (pg 9)

Map View of Area Coal Mine Activity

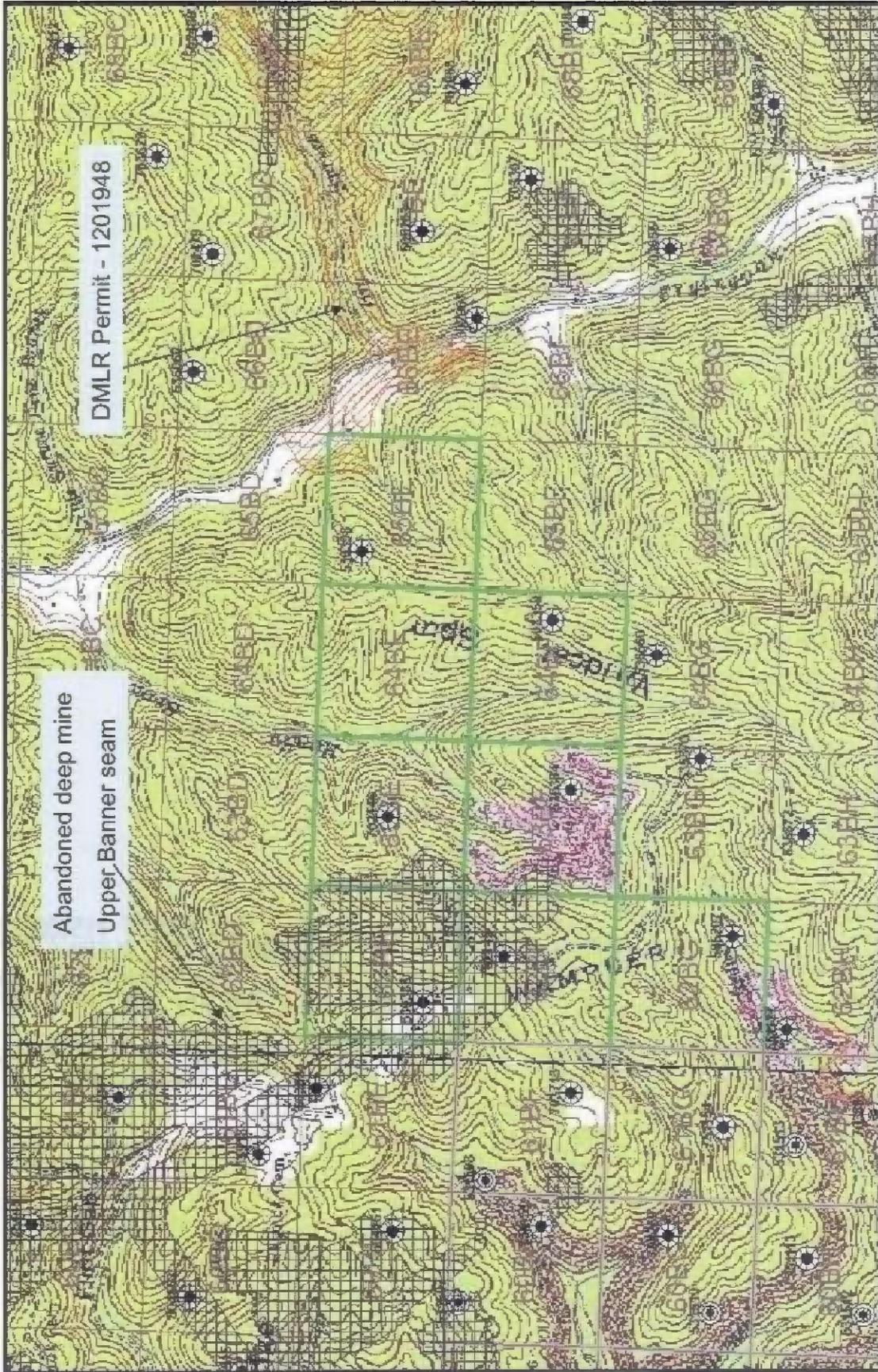


EXHIBIT K (pg 10)

INSTRUMENT #150000608
RECORDED IN THE CLERK'S OFFICE OF
DICKENSON ON
JUNE 3, 2015 AT 02:54PM

RICHARD W. EDWARDS, CLERK
RECORDED BY: CFF

INSTRUMENT #150000808
RECORDED IN THE CLERK'S OFFICE OF
BUCHANAN COUNTY ON
MAY 18, 2015 AT 03:57PM

BEVERLY S. TILLER, CLERK
RECORDED BY: GGB