

BEFORE THE VIRGINIA GAS AND OIL BOARD

APPLICANT: OXY USA INC.

DIVISION OF GAS AND OIL DOCKET NO.

RELIEF SOUGHT:

**ESTABLISHMENT OF DRILLING
UNITS FOR THE PRODUCTION OF
UNSEALED GOB GAS, SHORT HOLE
GAS AND GAS FROM ANY
ADDITIONAL WELL AUTHORIZED
BY §45.1-361.20.C, Code of
Virginia, 1950 as amended,
(hereafter known as "OAKWOOD
COALBED METHANE GAS FIELD II")**

VGOB-91-1119-162

LEGAL DESCRIPTION:

**IN THE OAKWOOD COALBED METHANE GAS FIELD
IN BUCHANAN, RUSSELL, AND TAZEWELL
COUNTIES, VIRGINIA**

(more particularly described in Subparagraph 7.b below and in Exhibit "A" hereto and herein referred to as "Subject Lands")

REPORT OF THE BOARD FINDINGS AND ORDER

1. Hearing Date And Place: This cause came on for hearing before the Virginia Gas and Oil Board (hereinafter "Board") at 9:00 a.m. on November 19, 1991 and December 17, 1991 in the Dickenson Conference Room, Southwest Virginia 4-H Center, Abingdon, Virginia.

2. Appearances: Howard G. Salisbury and Mark A. Swartz, Attorneys of Kay, Casto, Chaney, Love & Wise, and Patricia Dunnire Bragg of Hall, Estill, Hardwick, Gable, Golden and Nelson, P.C. appeared for the Applicant; James P. Jones and Elizabeth McClanahan, Attorneys, appeared for Pocahontas Gas Partnership; Donald Johnson, Attorney, appeared for Lon B. Rogers Bradshaw Trust No. 2; James Levy appeared for Cabot Oil and Gas Corporation; and Susan Lowry, Legal Assistant Senior, was present for the Office of the Attorney General.

3. **Jurisdiction And Notice:** Pursuant to Section 45.1-361.1, et seq., Virginia Code, 1950 as amended, the Board finds that it has jurisdiction over the subject matter. Based upon the evidence presented by Applicant, the Board also finds that the Applicant has (1) exercised due diligence in conducting a meaningful search of reasonable available sources to determine the identify and whereabouts of each gas or oil owner, coal owner, or mineral owner having an interest underlying the Subject Lands., (2) has given notice to all parties (hereafter sometimes "person(s)" whether referring to individuals, corporations, partnerships, associations, companies, businesses, trusts, joint ventures or other legal entities entitled by §§ 45.1-361.19 and 45.1-361.20, Virginia Code, 1950 as amended, to notice of this application. Further the Board has caused notice of this hearing to be published as required by § 45.1-361.19B, Virginia Code, 1950 as amended. Whereupon, the Board hereby finds that the notices given herein satisfy all statutory requirements, Board rule requirements and the minimum standards of state due process.

4. Dismissals: At the time of hearing, Applicant dismissed its request to establish 80-acre drilling units for the production of coalbed methane gas from long holes.

5. **Findings:** The Board finds as follows:

- a. Applicant claims to own oil and gas leases, coalbed methane gas leases and/or coal leases and the right to explore for, develop and produce coalbed methane gas from all seams below the Tiller seam, including but not limited to the Upper Seaboard, Greasy Creek, Middle Seaboard, Lower Seaboard, Upper Horsepen, Middle Horsepen, War Creek, Lower Horsepen, Pocahontas No. 9, Pocahontas No. 8, Pocahontas No. 7, Pocahontas No. 6, Pocahontas No. 5, Pocahontas No. 4, Pocahontas No. 3, Pocahontas No. 2 and various unnamed seams and associated strata ("Subject Formation") underlying a portion of the lands shown on Exhibit "A" in Buchanan, Russell and Tazewell Counties, Virginia (hereinafter "Subject Lands"), which Exhibit "A" is attached hereto and made a part hereof.
- b. The Virginia Oil and Gas Conservation Board, by its Order No. 3-90, dated May 18, 1990, (herein "Oakwood Coalbed Methane Gas Field I") heretofore has established drilling units for all coalbed methane gas wells drilled into and produced from Subject Formation in the Subject Lands except for those coalbed methane wells drilled into the gob area of any working mine or any other conventional gas well:

<u>Subject Formation</u>	<u>Unit Size</u>	<u>Permitted Well Location</u>	<u>Field and Well Classification</u>	<u>Order Number</u>
All coal seams below the Tiller seam (including the Upper Seaboard, Greasy Creek, Middle Seaboard, Lower Seaboard, Upper Horsepen, Middle Horsepen, War Creek, Lower Horsepen, Pocahontas No. 9, Pocahontas No. 8, Pocahontas No. 7, Pocahontas No. 6, Pocahontas No. 5, Pocahontas No. 4, Pocahontas No. 3, Pocahontas No. 2 and various other unnamed seams and associated strata	Approximately 80-acre square drilling units	Any point within the drilling unit allowed by Order No. OGCB 3-90	Oakwood Coalbed Gas Field I - Coalbed Methane (CBM) Gas	OGCB 3-90 (5/18/90) (Oakwood Coalbed Methane Gas Field I Order)

- c. The Virginia Gas and Oil Board has not heretofore established drilling units for the production of unsealed gob gas from the Subject Formation underlying Subject Lands pursuant to its Order number OGCB 3-90 dated May 18, 1990 wherein such units are identified by the alpha/numeric system set forth therein. To the extent that short hole gas production and production from any additional well allowed under §45.1-361.20 C.,

Code of Virginia, 1950 as amended (hereafter "Additional Well(s)") for Subject Formation underlying Subject Lands were addressed by the Board's Order numbered OGCB 3-90 dated May 18, 1990, then the drilling units for and the production of said coalbed methane gas is hereby made subject to the terms of this Order; however, in order to distinguish the alpha/numeric designation of a drilling unit under Order OGCB 3-90 from a drilling unit established pursuant to this Order, the alpha/numeric designation for drilling units established under this Order shall follow the numbering system established by Order OGCB 3-90, but be followed by "/B", e.g., Drilling Unit No. A-10/B;

- d. Applicant is a Delaware corporation duly authorized and qualified to transact business in the Commonwealth of Virginia;
- e. Applicant has demonstrated the mining methods and "de-gas" techniques commonly employed by coal operators on and under the Subject Lands, which techniques include the use of continuous and longwall mining methods and the associated removal of coalbed methane gas from coal seams, associated strata, and mines before, during and after mining. The lands involved herein are wholly or substantially underlain by the Subject Formation in the Subject Lands as a common accumulation of coalbed methane which will be developed and produced by various methods and in various phases including the production of unsealed gob gas, short hole gas and gas from Additional Wells. The Oakwood Coalbed Gas Field Order entered on May 18, 1990 specifically found that the seams identified above "have characteristics and similar natures such as to be treated as a coalbed methane pool or reservoir separate and distinct from other coalbed methane pools." The Board herein likewise finds that the Subject Formation is a pool as defined and used in Va. Code Ann. § 45.1-361.1 et seq. The drilling units established by this Order will have the same shape and size as those created by the Oakwood Coalbed Gas Field Order dated May 18, 1990;
- f. Drilling and development in the Subject Formation indicates that the requested development will drain the recoverable coalbed methane gas in each drilling unit and that the drilling units hereby created are economically practicable and necessary to recover the recoverable coalbed methane hydrocarbons, including unsealed gob gas, short hole gas and gas from Additional Wells from the Subject Formation underlying Subject Lands. The prevention of waste and protection of correlative rights will best be served by granting the relief herein requested.
- g. Applicant is an operator in the Commonwealth of Virginia and has satisfied the requirements for operations in Virginia;
- h. The relief requested and granted is just and reasonable, is supported by substantial evidence and will afford each person in a drilling unit the opportunity to recover or receive, without unnecessary expense, each such person's just and fair share of the production from such unit. The granting of the Application and relief requested therein will ensure to the extent possible the greatest ultimate recovery of petroleum hydrocarbons, prevent or assist in preventing the various types of waste prohibited by statute and protect or assist in protecting the correlative rights of all persons in the Subject Formation in the Subject Lands.

6. Legal Authority: Va. Code Ann. § 45.1-361.1 et seq., V.R. 480-05-22.2 et seq. and such regulations as are promulgated pursuant to law.

7. Board Decision: The requested relief in this cause be and hereby is granted by the Virginia Gas and Oil Board. More specifically this Order hereby:

- a. For purposes of this order, adopts the following definitions for short hole gas, unsealed gob gas, and gas produced from Additional Wells:
 1. Short Hole Gas - Coalbed methane gas produced from subsurface boreholes which are drilled horizontally into a longwall panel.
 2. Gob Gas - Production from the destressed zone associated with any full-seam extraction of coal that extends above and below the mined-out coal seam. (Va. Code § 45.1-361.1) Thus, Unsealed Gob Gas is hereby defined as Coalbed methane gas produced from a vertical borehole drilled in advance of, during or after mining from the surface to a point immediately above the proposed longwall panel. As the panel is mined, a gobbed area forms behind the advancing longwall and coalbed methane collects in the de-stressed zone.
 3. Gas From Additional Well(s) - Gas produced from any Additional Well allowed under §45.1-461.20.C, Code of Virginia, 1950 as amended, in an established drilling unit which contains an existing well.
- b. Establishes 80-acre drilling units for the following lands, which lands are shown on Exhibit "A" attached hereto and made a part hereof.

Bounded on the north by latitude line 37 degrees, 17 minutes, 30 seconds (37° 17' 30");
On the east by longitude line 81 degrees, 52 minutes, 30 seconds (81° 52' 30").
On the south by latitude line 37 degrees, 7 minutes, 30 seconds (37° 07' 30"); and
On the west by longitude line 82 degrees, 7 minutes, 30 seconds (82° 07' 30").
(More particularly described on Exhibit "A")

The above description, when converted to state plane coordinates is as follows:

<u>Northwest Point</u>	<u>Southwest Point</u>
N 369.154.22	N 308.518.08
E 945.729.45	E 943.399.94
<u>Northeast Point</u>	<u>Southeast Point</u>
N 366.458.52	N 305.816.43
E 1.018.405.64	E 1.016.236.71

Less and except the 80-acre drilling units affected by the Board Orders issued in Docket Nos. VGOB-91-1119-158, VGOB-91-1119-160, and VGOB-91-1119-180 in applications filed by Pocahontas Gas Partnership, and which 80-acre units contain all or a part of a drilling unit established by said orders.

- c. Establishes the following 80-acre drilling units for the production of unsealed gob gas, short hole gas and gas from Additional Wells from the pool in Subject Formation underlying Subject Lands:

Subject
Formation/Pool

All coal seams below the Tiller seam (including the Upper Seaboard, Greasy Creek, Middle Seaboard, Lower Seaboard, Upper Horsepen, Middle Horsepen, War Creek, Lower Horsepen, Pocahontas No. 9, Pocahontas No. 8, Pocahontas No. 7, Pocahontas No. 6, Pocahontas No. 5, Pocahontas No. 4, Pocahontas No. 3, Pocahontas No. 2 and various other unnamed seams and associated strata

Unit Size

Approximately 80-acre square drilling units (more or less)

Permitted
Well Locations

Any point within the drilling unit

Field and
Well Classification

Oakwood Coalbed Methane Gas Field II - coalbed methane gas from any unsealed gob, shorthole and any Additional Well drilled pursuant to § 45.1-361.20, Virginia Code, 1950 as amended.

- d. Establishes the size and shape of each 80-acre drilling unit to be as shown on Exhibit "A" attached hereto (with boundary units to be 80-acres, more or less) with the permitted location for wells for the production of short hole gas, unsealed gob gas and/or gas from Additional Wells to be at any point in said units;
- e. Establishes a uniform method of development in the Oakwood Coalbed Methane Gas Field II for the various methods and phases of production both before, during and after long wall mining of the subject coal seams. Specifically, the Board adopts the following method for the calculation of production, revenue and costs for short hole, unsealed gob and Additional Well production of coalbed methane gas dependent upon the particular long wall mining plan applicable to each 80-acre drilling unit. The designated operator of any 80-acre drilling unit or units within the boundaries of which any long wall panel is located and from which unsealed gob gas, short hole gas or gas from any Additional Well is produced, shall calculate production and revenue based upon the mine plan being implemented within each affected 80-acre drilling unit and in particular, based upon the surface acreage in each 80-acre drilling unit actually contained within a long wall panel as shown on the applicable mine plan. A copy of the pertinent portion of the mine plan being utilized to calculate production, revenue and costs from any effected 80-acre drilling units shall be filed of record with the Board prior to the payment of any revenue based upon such calculations. The formula or division of interest for production from any 80-acre drilling unit affected by a long wall panel and from any separately owned tract in any such 80-acre unit shall be calculated as follows:

1. For Short Hole Gas - The amount of production produced from and attributed to each 80-acre drilling unit shall be the ratio (expressed as a percentage) that the amount of surface acreage in any affected 80-acre drilling unit bears to the total surface acreage contained in the entire long wall panel affecting such 80-acre drilling unit.
2. For Unsealed Gob Gas - The amount of production produced from and attributed to each 80-acre drilling unit shall be the ratio (expressed as a percentage) that the amount of surface acreage in any affected 80-acre drilling unit bears to the total surface acreage contained in the entire long wall panel(s) affecting such 80-acre drilling unit.
3. For Gas from Any Additional Well - After actual commencement of coal mining operations by the driving of entries and completion of isolation of a long wall panel, the amount of gas produced from and attributed to each 80-acre drilling unit shall be the ratio (expressed as a percentage) that the amount of surface acreage in any affected 80-acre drilling unit bears to the total surface acreage contained in the entire long wall panel affecting such 80-acre drilling unit.

Prior to the actual commencement of coal mining operations by the driving of entries and completion of isolation of a long wall panel, gas from an increased density well shall be produced from only the 80-acre drilling unit in which the well is located.

- f. Provides that the Virginia Gas and Oil Inspector may grant well location exceptions and Additional Wells in any 80-acre drilling unit in the Oakwood Coalbed Methane Gas Field II established by this Order once and to the extent specifically authorized by the Board and provided for on a case-by-case basis by any Board Order.
- g. Establishes Applicant's coalbed methane wells (1) heretofore permitted and drilled or permitted in the Oakwood Field and (2) those wells heretofore or hereafter permitted and drilled or permitted under § 45.1-361.20.C; as properly permitted wells, in each respective 80-acre drilling unit for the production of short hole gas, unsealed gob gas and gas from Additional Wells, if done in accordance with applicable Board Orders, the law and regulations applicable at the time.
- h. Provides that operations carried on under and in accordance with this order shall be regarded and considered as development, operations, and production upon lands included within any 80-acre drilling unit and upon lands included within any such 80-acre drilling unit affected by a long wall panel. Production from and wells drilled on, operated, or produced from any part of an 80-acre drilling unit or from any part of a longwall panel, no matter where located, shall for all purposes be regarded as wells drilled on each separately-owned tract within each such 80-acre drilling unit, including each 80-acre drilling unit affected by a long wall panel. The portion of production produced from and attributed to any 80-acre drilling unit and any separately owned tract therein, shall be deemed for all purposes to have been actually produced from such drilling unit and tract, and development, exploration or production operations with respect to any 80-acre drilling unit shall be deemed for all purposes to be the conduct of such operations for the production of gas from each separately owned tract in said 80-acre unit.
- j. Provides that when there are two or more separately owned tracts or undivided interests separately owned within an 80-acre drilling unit established hereby, the owners thereof may validly pool their interests and develop the drilling unit as a unit; that where, however, such owners have not agreed to so pool their interests and to develop the drilling unit as

a unit, upon proper application to the Board pursuant to §45.1-361.22, Virginia Statute, 1950 as amended, their rights and equities may be pooled pursuant and subject to an Order of the Board.

- k. Provides that the order to be issued herein be made effective as of the date of hearing, December 17, 1991.

8. Conclusion: The relief requested is necessary to prevent or to assist in preventing the various types of waste of gas or oil prohibited by statute, or any of said wastes, and to protect or assist in protecting the correlative rights of interested parties. Therefore, the requested relief and all terms and provisions set forth above be and hereby are granted and IT IS SO ORDERED.

9. Effective Date: This order shall be effective as of December 17, 1991.

DONE AND PERFORMED this 28th day of May, 1992.

VIRGINIA GAS AND OIL BOARD

Benny Wampler
Chairman, Benny Wampler

DONE AND PERFORMED
BY ORDER OF THE BOARD:

Byron T. Fulmer
Byron Thomas Fulmer,
Principal Executive To The Staff
Virginia Gas and Oil Board

STATE OF VIRGINIA)
COUNTY OF WISE)

Acknowledged on this 28th day of May, 1992, personally before me a notary public in and for the Commonwealth of Virginia, appeared Benny Wampler, being duly sworn did depose and say that he is Chairman of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

Susan G. Garrett
Susan G. Garrett
Notary Public
My commission expires 7/31/94

STATE OF VIRGINIA)
COUNTY OF WASHINGTON)

Acknowledged on this 28th day of May, 1992, personally before me a notary public in and for the Commonwealth of Virginia, appeared Byron Thomas Fulmer, being duly sworn did depose and say that he is Principal Executive to the Staff of the Virginia Gas and Oil Board, that he executed the same and was authorized to do so.

Diane J. Davis

Diane Davis

Notary Public

My commission expires 9/23/92

OAKWOOD FIELD

80-ACRE DRILLING UNITS

FOR CBM

