#### BEFORE THE STATE OIL AND GAS BOARD OF MISSISSIPPI

RE: PETITION OF DENBURY ONSHORE, LLC TO AMEND THE SPECIAL FIELD RULES FOR THE WEST LITTLE CREEK FIELD, PIKE AND LINCOLN COUNTIES, MISSISSIPPI

FILED FOR RECORD

JUN 15 2005

STATE OIL AND GAS BOARD WALTER BOONE, SUPERVISOR

**DOCKET NO. 63-2005-851** 

ORDER NO. <u>142 - 2005</u>

## **ORDER**

THIS CAUSE came to be heard on the Petition of Denbury Onshore, LLC ("Petitioner") requesting the Board to amend the Special Field Rules for the West Little Creek Field in Pike and Lincoln Counties, Mississippi; and

WHEREAS, the Boards finds that due, proper, and legal notice of the meeting of the Board for the purpose of considering and taking action with respect to such matter was given in the manner required by the rules and regulations of the Board; that due, legal, and sufficient proofs of publication and service are on file with the Board; and that the Board has full jurisdiction of the subject matter to hear and determine same; and

WHEREAS, pursuant to said Notice, a public hearing was held by said Board in the Hearing Room, Suite E, 500 Greymont Avenue, Jackson, Mississippi, commencing on May 18, 2005, at 9:30 o'clock a.m. at which hearing all persons present who desired to be heard on said matter were heard and all testimony and the evidence were duly considered by those present at said meeting; and

WHEREAS, the Board has fully considered said matter and the evidence and recommendations made in said hearing and finds as follows:

1.

Petitioner is the current operator of the Field. Special Field Rules for the Field were last adopted or amended for this Field in Docket No. 115-2001-851, Order No. 201-2001.

2.

The Field contains one unitized pool. Petitioner installed a CO<sub>2</sub> tertiary oil recovery program in the Field which is operated in conjunction with a similar program in the West Lazy Creek, Lazy Creek, and Little Creek Fields. The tertiary oil recovery program will require that the crude oil be commingled from the various unitized fields because of the common facilities necessary to inject CO<sub>2</sub> into the ground and separate the crude oil, CO<sub>2</sub>, water, and natural gas produced from each field. Finally, Petitioner will use a central tank

battery from which all oil sales from all fields will be made.

3.

Petitioner seeks authority to commingle production from all wells at one facility and prorate the production to each well, field, and unit based on individual well tests which will be performed not less than once per month.

4.

The Special Field Rules as set forth in Exhibit "A" will promote conservation, protect the co-equal and correlative rights of all owners in interest, avoid the drilling of unnecessary wells and permit oil and gas to be produced which would not otherwise be recoverable.

IT IS, THEREFORE, ORDERED AND ADJUDGED by the State Oil and Gas Board of Mississippi that the Special Field Rules for the West Little Creek Field shall be and hereby are amended as follows:

# SPECIAL FIELD RULES WEST LITLE CREEK FIELD PIKE AND LINCOLN COUNTIES, MISSISSIPPI

## A. FIELD AREA:

The West Little Creek Field, as used herein, is comprised of the following lands:

Township 5 North, Range 8 East Lincoln County, MS

**Section 32** 

SW/4 of the SE/4

SE/4 of the SE/4

## Township 4 North, Range 8 East Pike County, MS

#### Section 4

SW/4 of the NW/4

SE/4 of the NW/4

SW/4 of the NE/4

NE/4 of the SE/4

NW/4 of the SE/4

NE/4 of the SW/4

NW/4 of the SW/4

N/2 of the SW/4 of the SW/4

N/2 of the SE/4 of the SW/4

N/2 of the SW/4 of the SE/4

SE/4 of the SE/4

Section 5

NE/4 of the NE/4

NW/4 of the NE/4

SW/4 of the NE/4

SE/4 of the NE/4

NE/4 of the SE/4

Section 9

NE/4 of the NE/4

E/2 of the SE/4 of the NE/4

Section 10

NE/4 of the NW/4

NW/4 of the NW/4

SW/4 of the NW/4

SE/4 of the NW/4

(1) The Lower Tuscaloosa Pool as used herein, shall be construed to mean the subsurface portion of the Unit Area described as those strata of the Tuscaloosa Formation productive or formerly productive of oil and gas from the depth of 10,650 feet to 10,950 feet in the Denbury Resources Inc. - Bacot Heirs 10-3 No. 1 Well, located in the NE¼ of the NW¼ of Section 10, Township 4 North, Range 8 East, Pike County, Mississippi, and including those strata productive of oil and gas which are in communication therewith.

## B. RULES

## **RULE 1 - SPACING OF OIL WELLS**

(1) Every well drilled and completed in the Lower Tuscaloosa Pool located within the Unit Areas of the West Little Creek Field Unit shall be located not less than 100 feet from any exterior boundary of any Unit boundary with the operator being granted the flexibility of drilling, completing and operating, upon approval of the Supervisor, as many wells as deemed necessary by the operator and the Oil and Gas Board Supervisor for the efficient operation of said Units. When a well is drilled at any location less than 100 feet from any exterior boundary of the Unit Area, a directional survey shall be run and submitted to the Board prior to the issuance of an allowable.

## RULE 2 - WEST LITTLE CREEK FIELD UNIT

(1) The West Little Creek Field Unit is that portion of the following lands lying within the West Little Creek Field, underlain by the unitized portion of the Lower Tuscaloosa Pool ("Unitized Formation") and described as follows:

## Township 5 North, Range 8 East <u>Lincoln County, MS</u>

Section 32

SW/4 of the SE/4

SE/4 of the SE/4

## Township 4 North, Range 8 East <u>Pike County, MS</u>

## **Section 4**

SW/4 of the NW/4

SE/4 of the NW/4

SW/4 of the NE/4

NE/4 of the SE/4

NW/4 of the SE/4

NE/4 of the SW/4

NW/4 of the SW/4

N/2 of the SW/4 of the SW/4

N/2 of the SE/4 of the SW/4

N/2 of the SW/4 of the SE/4

SE/4 of the SE/4

#### Section 5

NE/4 of the NE/4

NW/4 of the NE/4

SW/4 of the NE/4

SE/4 of the NE/4

NE/4 of the SE/4

#### Section 9

NE/4 of the NE/4

E/2 of the SE/4 of the NE/4

#### Section 10

NE/4 of the NW/4

NW/4 of the NW/4

SW/4 of the NW/4

SE/4 of the NW/4

(2) "Unitization Formation" is the subsurface portion of the Unit Area described as those strata of the Tuscaloosa Formation productive or formerly productive of oil and gas from the depth of 10,650 feet to 10,950 feet in the Denbury Resources Inc. - Bacot Heirs 10-3 No. 1 Well, located in the NE¼ of the NW¼ of Section 10, Township 4 North, Range 8 East, Pike County, Mississippi, and including those strata productive of oil and gas which are in communication therewith.

## (3) Spacing of Wells in West Little Creek Oil Pool Unit

(a) Notwithstanding any other provisions contained in these Special Field Rules, the location of injection and production wells in the Lower Tuscaloosa Pool shall be selected by the operator and shall be governed by the standards of geology and petroleum engineering designed to promote the greatest ultimate recovery of hydrocarbons contained in the pool. However, no well may be drilled, injected into or produced from said pool nearer than

100 feet from any exterior boundary of the fieldwide unit, except upon permit issued by the Mississippi State Oil and Gas Board, after notice and hearing.

- (b) The operator may drill wells utilizing directional or horizontal drilling techniques designed to increase the ultimate recovery of hydrocarbons contained in the pool without notice and hearing; provided, however, that (a) no portion of the drainhole of any such well so drilled shall be nearer than 100 feet from any exterior boundary of the Unit, except upon permit issued by the Mississippi State Oil and Gas Board, after notice and hearing, and (b) the operator shall file a directional survey and other information required by rule or written policy of the Board after completion.
- Pressure Maintenance and Secondary Recovery Program Authorized (4) Denbury Onshore, LLC, as operator of the Unit, is hereby authorized to conduct secondary recovery, pressure maintenance, repressuring operations, cycling operations, water flooding operations, and the injection of extraneous substances in the Unit and any combination thereof, or any other form of joint effort calculated to substantially increase the ultimate recovery of oil or gas, or both, from the fieldwide unit as is authorized by the Plan of Unitization placed into effect by the Mississippi State Oil and Gas Board. The operator may use for injection purposes existing wells located in said Unit which may be converted to injection wells or wells may be drilled on said fieldwide unit for such purposes. Any such wells drilled as injection wells or converted to injection wells by operator on the fieldwide unit as a part of pressure maintenance and/or secondary recovery operations may be approved by the Mississippi State Oil and Gas Board on administrative permit, without notice and hearing, upon the operator filing with the Board a duly executed FORM 2, the required permit fee for each such well, and all evidence and information required under Statewide Rule 63.

#### (5) <u>Allocation of Production</u>

The allowable for the Unit shall be established by the Mississippi State Oil and Gas Board. A temporary allowable is hereby set at 2,500 barrels of oil per day. The allowable production of the said fieldwide unit may be produced by any well or wells on said fieldwide unit; provided, however, that no well shall be operated in such a

manner as to cause waste as defined by the Laws of the State of Mississippi.

## (6) Surface Storage, Measurement and Transfer Systems

- (a) The operator of the Unit may maintain such separators, stock tanks, metering devices, connections and storage facilities as it deems necessary to accurately measure the total production from the fieldwide unit. Separate measurement or storage for the wells and leases within the fieldwide unit shall not be necessary.
- (b) Automatic custody transfer systems which automatically test, sample, measure and transfer the production from the operator to the purchaser are hereby authorized in said fieldwide unit. Such systems, if used, will be equipped with a sampling device which will take a representative sample of the total production passing through the system in order that the specific gravity and basic sediment and water content can be determined. Each custody transfer system, if used, will be equipped with a volume displacement type metering device which registers the volume of oil passed through it in barrels or multiples thereof.
- (c) Operator shall have the right to use surface storage, measurement, and transfer systems of other fieldwide units in this area for all purposes so long as reasonably accurate measurement for production may be obtained.

## RULE 6 - MEASUREMENT PROCEDURES AND FACILITIES

The Operator of the Field shall be permitted to commingle production at the surface from the Lazy Creek, the West Lazy Creek, the West Little Creek, and the Little Creek Fields for collection and sale at a central tank battery as part of its secondary and tertiary oil recovery projects. This includes a central tank battery and a central facility for oil, water, and CO<sub>2</sub> production, cycling and injection operations. The oil and gas production from the Fields may be commingled in a common storage system. The Operator shall install a flowline, header and measurement system that allows each well in each of the four Fields to be separately and individually tested on a periodic basis, not less than once each month. If,

upon a sale therefrom, a variance exists between the measurement from the common storage system and the measurement from the production of all the wells commingled in such common storage system, then such variance shall be allocated back to each of the wells producing into the common storage system proportionately to the production measured from each of the wells on the basis of the periodic tests.

- (b) Each producing well shall be so equipped that gas/oil ratio and bottomhole or other pressure test may be made.
- (c) Each producing well shall be connected to a metering system as will permit the adequate testing of each individual well under usual operating conditions without the necessity of closing in any other well. Each well shall be tested not less than once per month for allocation of fieldwide production and between individual units. Separators, stock tanks or measuring devices and connections thereto shall be subject to approval by the Supervisor.

## **RULE 7 - AMENDMENT OF SPECIAL FIELD RULES**

The Board expressly reserves the right, after notice and hearing, to alter, amend or repeal any and all of the above rules and regulations, or to grant exceptions to all or any part thereof.

## **RULE 8 - APPLICABILITY OF STATEWIDE RULES**

All rules and regulations contained in the Statewide Order No. 201-51, and any amendments thereto, are hereby adopted and shall apply to said field, to the extent not inconsistent with the above rules.

\* \* \* End of Special Field Rules \* \* \*

IT IS FURTHER ORDERED AND ADJUDGED that this Order shall be in force and effect from and after May 18, 2005.

IT IS FURTHER ORDERED AND ADJUDGED that Petitioner shall acquire any other permits, if any, required by any other permitting authority.

ORDERED AND ADJUDGED this 15H day of \_\_\_\_\_\_, 2005.

STATE OIL AND GAS BOARD OF MISSISSIPPI

VICE CHAIRMAN (Acting Chairman)

## Prepared By:

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