

MAY 13 1982

STATE OIL AND GAS BOARD  
Robert E. Wilson, Acting Supervisor

## IN THE STATE OIL AND GAS BOARD OF MISSISSIPPI

DOCKET NO. 129-82-289

ORDER NO. 185-82

IN RE: PETITION OF SHELL  
OIL COMPANY TO AMEND AND  
RE-ESTABLISH SPECIAL FIELD  
RULES FOR THE GOODWATER  
FIELD, CLARKE COUNTY,  
MISSISSIPPI, AND TO PROVIDE  
RULES FOR THE OPERATION OF  
THE GOODWATER FIELD UNIT.

ORDER

This day this cause came on for hearing before the State Oil and Gas Board of Mississippi on the Petition of Shell Oil Company as Unit Operator of the Goodwater Field Unit, requesting the Board to amend and re-establish the Special Field Rules for the Goodwater Field, to define the Goodwater Field Unit, Clarke County, Mississippi, and to provide rules for the operation of the said unit for secondary recovery and pressure maintenance, and water flooding operations. After examining the Petition, Proofs of Publication, and after hearing all of the evidence offered upon the hearing of said cause and considering the exhibits presented and having considered the arguments of Counsel and being fully advised in the premises, the Board finds as follows:

(1)

Due, proper and legal notice of the meeting of the Board for the purpose of considering and taking action with respect to this matter has been given in the time, manner and way as provided by law and the rules and regulations of the Board, and due, legal and sufficient Proofs of Publication are on file with the Board and the Board has full jurisdiction of the parties and the subject matter and has authority to hear and determine said matter.

(2)

Pursuant to said notice, a public hearing was held by said Board in the Woolfolk State Office Building, Jackson, Mississippi, on April 21, 1982, at which time and place all persons present who desired to be heard on said matter were heard and all proposed amendments to the Special Field Rules for the Goodwater Field were fully discussed and duly considered by those persons at said meeting.

(3)

Special Field Rules for the Goodwater Field, Clarke County, Mississippi, were initially established pursuant to Docket No. 83-69-289 by Order No. 115-69 of this Board dated April 16, 1969.

(4)

The definition of the Goodwater Field should be amended to delete therefrom lands which have now been established as non-productive from the Smackover Formation.

(5)

It is now necessary to amend and re-establish Special Field Rules for the Goodwater Field to implement the repressuring or pressure maintenance operations, secondary recovery operations and/or the water flooding operations as applied to the Goodwater Field Unit in order to increase the ultimate recovery of oil from said unit. Petitioner should be permitted to drill additional wells for injection or production and to convert any previously abandoned well to an injection well. The Special Field Rules should authorize such injection program for the injection of water in secondary recovery operations.

The injection of water and the commencement of secondary recovery operations and the proposed appropriate allocation of production will inure to the benefit of all concerned, will prevent waste, and will protect the co-equal and correlative rights of all interested parties.

(6)

The Special Field Rules for the Goodwater Field as proposed herein should supersede and replace all previous rules adopted by this Board.

IT IS, THEREFORE, ORDERED ADJUDGED AND DECREED by the State Oil and Gas Board of Mississippi that the following Special Field Rules be, and the same are, hereby adopted for the Goodwater Field located in Clarke County, Mississippi, to take effect on and after June 1, 1982, to-wit:

EXHIBIT A

SPECIAL FIELD RULES FOR THE  
GOODWATER FIELD, CLARKE COUNTY, MISSISSIPPI

FIELD LIMITS:

The Goodwater Field as used herein is that area consisting of Sections 35 and 36, Township 1 North, Range 14 East, Sections 4, 5, 6, 8 and 9, Township 10 North, Range 8 West, Clarke County, Mississippi, underlain by the Smackover Oil Pool as hereinafter defined and all productive extensions thereof.

That section of the Goodwater Field, Clarke County, Mississippi, which is included within the Goodwater Field Unit is defined as follows:

Township 10 North, Range 8 West:

South 160.00 acres of the northeast one-quarter (NE $\frac{1}{4}$ ), the North 160.00 acres of the southeast one-quarter (SE $\frac{1}{4}$ ); the North 160.00 acres of the southwest one-quarter (SW $\frac{1}{4}$ ) and the South 160.00 acres of the northwest one-quarter (NW $\frac{1}{4}$ ); all in Section 5.

SMACKOVER OIL POOL DEFINED:

(1)

The Smackover Oil Pool in the Goodwater Field and the Goodwater Unit shall be construed to mean those strata of the Smackover Formation productive of oil in the interval between 14,600 feet and 14,730 feet in the Shell-Johnston, Et Al. No. 1 Well located 3,056 feet South of the North line of Section 5, Township 1 North, Range 8 West, Clarke County, Mississippi, and 1,824 feet West of the East line of said section as indicated on the electric log of said well and all sands correlative of said strata productive of hydrocarbons.

(2)

This section shall apply to the Smackover formation in the Goodwater Field Unit of the Goodwater Field, as above described. With respect to the Smackover formation, the Goodwater Field Unit has been created by the voluntary agreement of over eighty-five percent (85%) of the operating owners and over eighty-five percent (85%) of the royalty owners with respect to which it is proper and necessary for the promotion of conservation to consider and

treat the unit area in said pool as a single drilling and producing unit as to all tracts therein contained. As to said unit, the rules hereinafter provided applicable to it will enable said Smackover pool to be efficiently drilled and the recoverable oil and gas therein contained to be recovered with full protection of the co-equal and correlative rights of all parties, without avoidable waste.

RULE 1 - SPACING OF OIL WELLS:

A. The fieldwide drilling unit is hereby established for each and all oil wells drilled and completed in the Smackover formation as to and as consisting of that unit area affected by the Unit Agreement, Goodwater Field Unit, Clarke County, Mississippi, underlain by the Smackover formation.

B. The location of wells upon the Goodwater Field Unit 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 future well may be drilled or produced from said pool nearer than 500 feet from any boundary of the fieldwide unit except upon permit issued by the Board after notice and hearing.

RULE 2 - ALLOCATION OF PRODUCTION:

A. The allowable of said Goodwater Field Unit and the Smackover Oil Pool underlying said unit area shall be the sum of the number of wells in the unit, excluding salt water disposal and waste water disposal wells, times the then effective allowable based on depth.

B. The allowable production of the fieldwide unit may be produced by any well or wells on said unit provided, however, that no well shall be operated in such manner as to cause waste as defined by the Laws of Mississippi.

RULE 3 - PRESSURE MAINTENANCE AND SECONDARY RECOVERY PROGRAM AUTHORIZED:

A. Shell Oil Company, as Operator of the Goodwater Field Unit, is hereby authorized to conduct pressure maintenance operations in the Smackover formation of the Goodwater Field by the injection of gas, carbon dioxide, water or other extraneous substances. Operator may use for injection purposes existing wells located in said Goodwater Field Unit which may be converted to injection wells or wells may be drilled on said unit for such purpose,

provided, however, that before additional well or wells may be used for injection purposes, said Operator must first file with the Oil and Gas Board a plat showing the location of such injection well or wells, the applicable information required by Statewide Rule 45, the plan proposed or adopted by it for pressure maintenance in said pool, and obtain the Board's approval thereof, after notice and hearing.

B. The conversion of producing wells to injection wells will not affect the unit allowable as determined by Rule 2.

RULE 4 - AUTOMATIC CUSTODY TRANSFER SYSTEMS AUTHORIZED:

Automatic custody transfer systems which automatically test, sample, measure and transfer the production from the Operator to the purchaser are hereby authorized for the Goodwater Field Unit.

Each such system 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 the basic sediment and water content can be determined.

Each such system will be equipped with a volume displacement type metering device which registers the volume of oil passed through it in barrels or multiples thereof; said metering device will be compensated for temperature, will be so equipped as to provide a cumulative total of all oil transferred by such system and will have an accuracy standard equivalent to the accuracy obtained in measurements made in calibrated stock tanks.

RULE 5 - APPLICABILITY OF STATEWIDE RULES:

A. All rules and regulations contained in Statewide Order No. 201-51, and any amendments thereto, not specifically covered in the foregoing Special Field Rules are hereby adopted and shall apply to said field.

B. These amended rules and regulations to become effective as of the date of the Board's Order adopting and establishing same.

C. The Board expressly reserves the right after notice and hearing to alter, amend or repeal any and all of the foregoing rules and regulations.

(3)

This section shall apply to the Smackover formation in all parts of the Goodwater Field, except that portion of the Goodwater Field included within the Goodwater Field Unit, as above described.

RULE 1 - SPACING OF OIL WELLS:

Every well drilled as an oil well:

(a) shall be drilled on a drilling unit consisting of a half governmental quarter section containing not less than 72 acres nor more than 88 acres or on a unit consisting of 80 contiguous surface acres upon which no other drilling or producible well is located;

(b) the longest boundary line of said unit shall run on an east-west basis;

(c) shall be located at least 500 feet from every exterior boundary of the drilling unit;

(d) shall be located at least 1,000 feet from every other drilling or producible well located in the Goodwater Field.

(e) any drilling unit not composed of a governmental half quarter section must be completely encompassed by the perimeter of a rectangle 1,600 feet by 2,725 feet. Provided, however, no unit shall be permitted which will create island acreage.

RULE 2 - MEASUREMENT OF PRODUCTION:

The operator of each producing lease shall maintain proper separators and stock tanks or metering devices and such connections thereto as are necessary to continuously measure the total production from such lease. Where metering devices are used, as herein provided, the production may be commingled in a common storage system and if, upon a sale therefrom a variance exists between the measurement from the common storage system and the total measurement of the production of all the leases commingled in such common storage system, then such variance shall be allocated back to each of the leases producing into the common storage system proportionately to the production measured from each lease.

RULE 3 - EQUIPMENT FOR TESTS:

- A. Each producing well shall be so equipped that gas/oil ratio tests and bottom hole or other pressure tests may be made.
- B. The operator of each producing lease on which there are two or more producing wells shall maintain proper separators and stock tanks or metering devices and such connections thereto as will permit the adequate testing of each individual well under usual

operating conditions without the necessity of closing in any other well. Such separators, stock tanks or metering devices and connections thereto shall be subject to approval by the Supervisor.

RULE 4 - USE OF METERS:

A. The use of meters for testing and for measurement of lease production shall be subject to and in accordance with the following provisions:

1. Only a volume displacement type metering device or vessel which registers the volume of oil passed through it in barrels or multiples thereof may be used.
2. All meters shall be downstream of the necessary separating or treating vessels. All meters shall be designed and installed in conformance with recognized metering practices and shall be subject to the approval of the Supervisor of the Oil and Gas Board.
3. No meter used for oil production measurement shall be directly or indirectly by-passed in such manner as to permit oil to pass into common storage without first being measured.
4. All meters and equipment affecting meter accuracy shall be kept in good working order. Each meter shall be calibrated at least once a month by means of a calibrated tank, a calibrated meter prover or a master meter. When a meter is found to deviate in its recording by more than two per cent, it must be adjusted to conform to the said tolerance limitation of two per cent or the meter calibration factor corrected.
5. The meter reading and meter calibration factor in use at 7:00 a.m. on the first day of each month for each meter shall be reported on the bottom of the Form 9 reporting the monthly production from the wells being measured by such meter.

RULE 5 - AUTOMATIC CUSTODY TRANSFER SYSTEMS AUTHORIZED:

Automatic custody transfer systems which automatically test, sample, measure and transfer the production from the operator to the purchaser are hereby authorized for the Goodwater Field. Such system may be used to transfer production from individual leases or from common storage facilities as authorized in Rule 2 above. In the event the transfer is from such a common storage facility, the allocation of production to the leases being produced into such common storage system will be on the basis of the relationship of the measured production from each lease to the total measured production transferred by the automatic custody transfer system.

Each such system will be equipped with a sampling duction passing through the system in order that the specific gravity and the basic sediment and water content can be determined.

Each such system will be equipped with a volume displacement type metering device which registers the volume of oil passed through it in barrels or multiples thereof. In addition to meeting all of the requirements set out in Rule 4 above which deals with the use of meters, said metering device will be compensated for temperature, will be so equipped as to provide a cumulative total of all oil transferred by such system and will have an accuracy standard equivalent to the accuracy obtained in measurements made in calibrated stock tanks.

RULE 6 - APPLICABILITY OF STATEWIDE RULES:

- A. All rules and regulations contained in Statewide Order No. 201-51, and any amendments thereto, not specifically covered in the foregoing Special Field Rules are hereby adopted and shall apply to said field.
- B. The Board expressly reserves the right after notice and hearing to alter, amend or repeal any and all of the foregoing rules and regulations.

ORDERED this the 22<sup>nd</sup> day of April, 1982.

STATE OIL AND GAS BOARD OF MISSISSIPPI

BY: Joe R. Faucher, Jr.  
Chairman