

OIL & GAS DOCKET NO. 8A-0251769

THE APPLICATION OF ROCA OPERATING, INC. TO CONSIDER UNITIZATION, SECONDARY RECOVERY AUTHORITY AND ENTITY FOR DENSITY FOR THE HUNT WATERFLOOD UNIT, WELLS, SOUTH (SPRABERRY) FIELD, DAWSON COUNTY, TEXAS

HEARD BY: Donna K. Chandler, Technical Examiner
Marshall F. Enquist, Hearings Examiner

DATE OF HEARING: June 28, 2007

APPEARANCES:

Skipper Lay
Robert Shelton
John Truitt
George Friesen

REPRESENTING:

ROCA Operating, Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

ROCA Operating, Inc. requests Commission authority for unitization of the Hunt Waterflood Unit and approval of secondary recovery operations on the Unit. ROCA also requests that the Hunt Waterflood Unit be approved as an entity for density purposes in the Wells, South (Spraberry) Field.

This application was unopposed and the examiners recommend approval.

DISCUSSION OF THE EVIDENCE

The Wells, South (Spraberry) Field was discovered in 1961. Cumulative production from the field is approximately 473,000 BO and 576 MMCF of gas from a total of 3 wells. There are currently two producing wells in the field, both operated by ROCA. These wells currently produce a total of about 10 BOPD.

The proposed Hunt Waterflood Unit consists of 2 tracts which contain 337.12 acres. There are no producing wells outside the proposed unit boundaries and the field is in an advanced stage of primary depletion.

The unitized formation is the subsurface productive portion of the Unit Area which is that stratigraphic interval or its correlative equivalent between the subsurface depths of 7,890 feet and 8,434 feet, as shown on the log of the ROCA Resource Company, Inc. - Hunt No. 2, located 990 feet from the north line and 820 feet from the west line of Labor 30, League 277, Glasscock County School Land Survey, Dawson County, Texas. This interval is from the top of the Spraberry Formation to 100 feet below the base of the Middle Spraberry Formation. The primary objective of the waterflood are the Gin and Middle Spraberry sands.

The Spraberry is continuous in all wells in the field as demonstrated by cross sections across the field. The limits of the field are defined by dry holes. Only productive portions of the reservoir are within the unit boundaries. Some small portions of productive reservoir are outside the unit boundaries. Offers to join the Unit were made to all interest owners within the productive limits.

Remaining primary recovery from the leases within the unit boundaries is 23,000 BO, for an ultimate primary recovery of 496,000 BO. Estimated secondary recovery from the unit is estimated to be 450,000 BO, or a secondary to primary ratio of approximately 1:1. This estimate is based on the performance of three nearby Spraberry waterfloods in Dawson County.

Average porosity of the reservoir is 16% and average water saturation is 35%. Permeability averages 5 md. Original reservoir pressure was 3,570 psia.

ROCA Operating plans to implement a waterflood with two injection wells and three producing wells. Additional producing wells may be necessary depending on response. The source water for the waterflood will be salt water produced from the Santa Rosa at about 1,300 feet. The total cost to implement and operate the secondary recovery project is \$2 million. Estimated revenue as a result of the secondary recovery project is \$14 million. These estimates are based on an oil price of \$60 per barrel.

The participation formula for the Unit is based on 35% acreage, 45% cumulative production from the tract, and 20% last six months production from the tract. At the time of the hearing, approximately 96% of the working interest ownership and 78% of the royalty interest ownership had signed the unit agreement. On tracts which do not have 100% sign-up, ROCA Operating will maintain separate tank batteries in order to separately account for production from those tracts. There are no state lands in the Unit.

ROCA Operating requests that the Hunt Waterflood Unit be designated as an entity for density purposes. This will allow ROCA to drill wells new wells as needed in optimum locations on the unit without having to obtain between-well spacing exceptions. This designation will also eliminate the need to file proration unit plats for individual wells.

FINDINGS OF FACT

1. Notice of this hearing was sent to all operators and royalty interest owners within the proposed unit and to offset operators and mineral owners of offsetting unleased tracts. Notice was published in the *Lamesa Press Reporter*, a newspaper of general circulation in Dawson County, for four consecutive weeks beginning May 23, 2007.
2. The proposed unit consists of 2 tracts which contain 337.12 acres.
3. The unitized formation is the subsurface productive portion of the Unit Area which is that stratigraphic interval or its correlative equivalent between the subsurface depths of 7,890 feet and 8,434 feet, as shown on the log of the ROCA Resource Company, Inc. - Hunt No. 2, located 990 feet from the north line and 820 feet from the west line of Labor 30, League 277, Glasscock County School Land Survey, Dawson County, Texas. This interval is from the top of the Spraberry Formation to 100 feet below the base of the Middle Spraberry Formation.
4. At the time of the hearing, approximately 96% of the working interest ownership and 78% of the royalty interest ownership had signed the unit agreement.
5. Cumulative recovery from the leases proposed for unitization is 480,000 BO. Secondary recovery operations will result in the recovery of an estimated 450,000 BO which would otherwise go unrecovered.
6. Estimated cost to implement and operate the secondary recovery project is approximately \$2 million. The cost does not exceed the value of additional reserves to be recovered.
7. The participation formula for the Unit is based on 35% acreage, 45% cumulative production and 20% last six months production.
8. The secondary recovery project will not be successful unless the area is unitized.
9. The injected water will be salt water from the Santa Rosa.
10. The agreement was voluntarily executed by all parties affixing their signatures thereto and no person has been compelled or required to enter into the agreement. The unit agreement binds only those persons who have executed it, their heirs, successors, assigns and legal representatives. The rights of all owners of interests in the field will be protected under the operation of the unit, regardless of whether an owner signed the unit agreement.

11. The owners of interest in the oil and gas under each tract of land within the area reasonably defined by development have been given an opportunity to enter into the unit on the same yardstick basis as owners of interest in the oil and gas under the other tracts in the unit.
12. The proposed injection program will move hydrocarbons across lease lines, and unitization is necessary in order to protect the correlative rights of the various interest owners.
13. The unitization agreement is necessary to accomplish the purposes of establishing a unit to effect secondary recovery operations for water injection and to operate cooperative facilities necessary thereto. Other available or existing methods or facilities for secondary recovery operations are inadequate for the purpose of secondary recovery.
14. The unit agreement does not provide, either directly or indirectly, for the cooperative refining or marketing of crude petroleum, distillate, condensate, or gas, or any by-product thereof.
15. The unit agreement is subject to all valid orders, rules and regulations of the Railroad Commission.
16. The unit agreement contains no provision regarding field rules, nor does it limit the amount of production of oil or gas from the unitized area. The unit agreement does not release the operator from his obligation to reasonably develop lands or leases as a whole.
17. The unit agreement is a voluntary agreement entered into for the purpose of conducting secondary recovery operations.
18. The unit agreement does not provide for the location of wells.
19. There are no state lands in the unit.
20. The unit agreement is in the interest of public welfare as being reasonably necessary to prevent waste and to promote conservation.
21. The reservoir described in the unit agreement is identified as a single reservoir for Commission purposes and is a suitable reservoir for a water injection secondary recovery operation.
22. The unit agreement contains only the acreage reasonably necessary to accomplish the proposed secondary recovery project.
23. On tracts where 100% sign-up is not attained, applicant will maintain separate tank batteries to account for production from that tract.

24. Designation of the unit as an entity for density purposes will allow for the drilling of new infill wells as necessary without obtaining between-well spacing exceptions, provided the density is not exceeded.

CONCLUSIONS OF LAW

1. Proper notice was given to all persons legally entitled to notice.
2. All things have occurred or have been accomplished that are necessary to give the Commission jurisdiction in this matter.
3. Applicant's proposed secondary recovery project satisfies all of the requirements set out in TEX. NAT. RES. CODE ANN. §§101.001 et seq.
4. Approval of the proposed unit agreement, secondary recovery operations and entity for density is in the public interest and is necessary to prevent waste and to promote the conservation of oil or gas or both.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend approval of the proposed Hunt Waterflood Unit and secondary recovery operations project as set out in the attached order. It is further recommended that the Hunt Waterflood Unit be approved as an entity for density purposes.

Respectfully submitted,

Donna K. Chandler
Technical Examiner

Marshall F. Enquist
Hearings Examiner