

THE APPLICATION OF QUAIL CREEK OIL CORPORATION, INC. TO CONSOLIDATE THE MERCHANT (EY-1 RESERVOIR), MERCHANT (EY-1B RESERVOIR), MERCHANT (EY-2), MERCHANT (EY-3 RESERVOIR) AND HULL (COOK MOUNTAIN) FIELDS INTO A NEW FIELD TO BE KNOWN AS MERCHANT (CONSOLIDATED) FIELD AND ADOPT RULES FOR THE MERCHANT (CONSOLIDATED) FIELD, LIBERTY COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: June 12, 2006

Hearing held: August 1, 2006

Appearances

Rex White
John Ross

Representing
Quail Creek Oil Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Quail Creek Oil Corporation ("Quail Creek") is requesting that the Merchant (EY-1 Reservoir), Merchant (EY-1B Reservoir), Merchant (EY-2), Merchant (EY-3 Reservoir) and Hull (Cook Mountain) Fields be consolidated into a new field to be known as Merchant (Consolidated) Field. The requested field rules for the consolidated field are summarized as follows:

1. Designated interval from 7100' to 9600', as shown on the log of the Quail Creek A D (now Quail Creek) Lease Well No. 4;
2. 330'-660' well spacing;
3. 20 acre oil proration units with maximum diagonal of 2100'; and
4. allocation based 75% on acreage and 25% per well.

DISCUSSION OF THE EVIDENCE

All of the fields in the proposed consolidation are associated oil and gas fields, but there are no

gas wells at present. According to Quail Creek, the EY-1 and EY-3 fields had gas caps but they have been blown down. The EY-1B has a water drive and the wells in this field have submersible pumps to move the water. There are three water injection wells in the field area. The other fields have depletion and gas cap drives.

The Merchant (EY-1 Reservoir), (EY-1B Reservoir) and (EY-3 Reservoir) Fields were designated in 1950-1951. These three fields have rules specifying 330'-660' well spacing, 20 acre oil units and allocation based 75% on acreage and 25% per well. The top allowable for wells in these fields is 100 BOPD.

The Merchant (EY-1 Reservoir) Field was discovered at a depth of 8920'. It has three Quail Creek wells but all are inactive. This field's cumulative production has been 5.4 million barrels and 1.8 BCF. The Merchant (EY-1B Reservoir) Field was discovered at 8900', overlying the Merchant (EY-1 Reservoir) Field. It has five active Quail Creek wells and eight inactive wells owned by Transoil, Inc. The highest capability well is at 25 BOPD. Cumulative production has been 10.8 million barrels of oil and 5.8 BCF. The Merchant (EY-3 Reservoir) Field was discovered at 8750', and has one active Quail Creek well with a capability of 3 BOPD. Cumulative production from this field has been 3.2 million barrels of oil and 1.6 BCF.

The Merchant (EY-2) Field was discovered in 1977 at a depth of 8472', and is under Statewide Rules. This field has two active Quail Creek wells with deliverabilities of 1 and 16 BOPD. Its top allowable is 133 BOPD. This field's cumulative production has been 106,000 BO and 600 MMCF.

The Hull (Cook Mountain) Field was discovered in 1968 at a depth of 9667'. It has eight active wells operated by Quail Creek and one operated by Erg Operating Company. The highest deliverability is 36 BOPD in a well with a gas/oil ratio of 193. There are no special field rules and the top allowable is 100 BOPD. Cumulative production from the Cook Mountain is 9.2 million barrels of oil and 1.6 BCF.

All of the fields to be consolidated are on the northwest flank of the Hull salt dome. None of the subject fields have ever been classified as Piercement-Type Salt Dome fields. The Merchant (EY-1 Reservoir), (EY-1B Reservoir) and (EY-3 Reservoir) Fields produce from the Yegua sequence to the northwest of a major fault. The deeper Cook Mountain production overlaps the Yegua production but also extends across the southern bounding fault of the Merchant Fields.

Quail Creek believes that producing the sandstones together within the proposed interval (shown between 7100' and 9600' on the electric log of the Quail Creek's A Merchant D Lease Well No. 4) is a reasonable method to recover the remaining resources. Cross flow should not be a problem because the gas caps are depleted and the only water drive reservoir has submersible pumps. All of the other wells in this interval are on rod pump.

Downhole commingling will allow reserves to be produced faster and will lower the economic limit of each reservoir allowing the recovery of additional gas. Field consolidation will allow the recovery of an estimated 65,000 barrels of additional recovery. Consolidation of this interval will prevent waste, as these sandstones are no longer prolific enough to be stand-alone completions. Their

reserves will go unrecovered unless allowed to be commingled. The EY-2 sandstone is a particular target as its reservoir was thought to be too shaly and to have too low a permeability to be completed. The proposed designated interval also includes a few stringer sandstones uphole in the Yegua.

State statutes require two factors in the allocation formula of a field that combines multiple reservoirs. The existing allocation formula, based 75% on acreage and 25% per well, will satisfy statutory requirements for the consolidated field. The rules proposed for the consolidated field of 330'-660' well spacing and 20 acre density are the same as those in three of the five fields being consolidated.

FINDINGS OF FACT

1. Notice of this hearing was mailed to all operators in all fields proposed to be consolidated on July 20, 2006.

CONCLUSIONS OF LAW

1. Proper notice was issued as required by all applicable codes and regulatory statutes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. The requested field consolidation and proposed field rules will prevent waste, protect correlative rights and promote continued development of the resultant Merchant (Consolidated) Field.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends approval of the application of Quail Creek Oil Corporation, for consolidation of the Merchant (EY-1 Reservoir), Merchant (EY-1A Reservoir), Merchant (EY-2), Merchant (EY-3 Reservoir) and Hull (Cook Mountain) Fields into a new field to be known as Merchant (Consolidated) Field, along with the requested field rules, as per the attached order.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner