

OIL AND GAS DOCKET NO. 7C-0235357

THE APPLICATION OF EOG RESOURCES, INC., TO ESTABLISH AN MER AND INCREASED GAS/OIL RATIO AUTHORITY FOR THE SLAUGHTER 27 LEASE, WELL NO. 1, SHEFFIELD, S.E. (STRAWN) FIELD, PECOS COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: August 12, 2003

Hearing held: September 8, 2003

Appearances

Rick Johnston

Representing:
EOG Resources, Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

EOG Resources, Inc. ("EOG") initially wanted increased oil and gas allowable for its Slaughter 27 Lease Well No. 1, in the Sheffield, S.E. (Strawn) Field, Pecos County, Texas. After testing the well, EOG has determined that the well needs increased gas/oil ratio with a daily gas limit of 450 MCF but no increase in oil allowable.

DISCUSSION OF THE EVIDENCE

The Sheffield, S.E. (Strawn) Field was discovered in 1982, at a depth of 8230'. EOG operates all three wells on the proration schedule but only the Slaughter 27 No. 1 is active. This well was recompleted to the Strawn from the Devonian in June of 2003. The well's perforations are between 8738' and 8848' TVD and the initial daily potential was 224 BOPD with 211 MCF and no water. The top allowable for wells at this depth is 113 BOPD and 226 MCF.

The Slaughter 27 No. 1 is completed as a horizontal wellbore and was not logged through the Strawn Formation. A log from a nearby well shows the Strawn contains interbedded sandstones and shales. EOG believes that some of the sands open in this well are gas-bearing, while others are oil-bearing.

Oil production has decreased rapidly since the well was recompleted, while gas production has increased. Daily production during July averaged 96 BO and 242 MCF. During August, the well produced at a gas/oil ratio of 8000 cubic feet per barrel, which would result in a penalized oil allowable of 33 barrels per day.

The well was step-rate tested between September 1 and 21, 2003, with the following results:

Choke size (inches)	Average daily oil rate (barrels)	Water rate (bbl)	Average daily gas rate (MCF)	Flowing tubing pressure (psi)	Gas/oil ratio (cubic feet per barrel)
9/64th	1	0	296	702	338,905
12/64th	18	0	431	650	24,366
11/64th	7	0	353	625	47,503
10/64th	5	0	254	560	46,485

The applicant is requesting increased gas/oil ratio authority with a daily gas limit of 450 MCF. No increased oil allowable is necessary. There are no other active wells and cancellation of overproduction will not harm correlative rights.

FINDINGS OF FACT

1. Notice of this hearing was issued to all operators of record in the Sheffield, S.E. (Strawn) Field, on July 18, 2003.
2. The Sheffield, S.E. (Strawn) Field was discovered in 1982, and has a top daily allowable of 113 BO and 226 MCF.
3. The initial potential of the EOR Resources, Inc., Slaughter 27 Lease Well No. 1, when it was recompleted to the Sheffield, S.E. (Strawn) Field, was 224 BOPD and 211 MCF/D, without water.
4. The subject well was step-rate tested from July to September, 2003, and produces most efficiently at a higher gas/oil ratio than 2000 cubic feet per barrel.
 - a. On a 12/64th inch choke, the well's daily production averaged 18 BO and 431 MCF, for a gas/oil ratio of 24,366 cubic feet per barrel.
 - b. On a 11/64th inch choke, the well's daily production averaged 7 BO and 353 MCF, for a gas/oil ratio of 47,503 cubic feet per barrel.
 - c. On a 10/64th inch choke, the well's daily production averaged 5 BO and 254 MCF, for a gas/oil ratio of 46,485 cubic feet per barrel.
 - d. On a 9/64th inch choke, the well's daily production averaged less than 1 BO and 296 MCF, for a gas/oil ratio of 338,905 cubic feet per barrel.
5. The subject well does not need increased oil allowable as it is no longer capable of producing at a higher rate.
6. Cancellation of this well's overproduction will not harm correlative rights as it is the only active well in the field.

CONCLUSIONS OF LAW

1. Proper notice was given to all necessary parties as required by applicable statutory and regulatory provisions.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. Approval of increased gas allowable for the EOR Resources, Inc., Slaughter 27 Lease Well No. 1, in the Sheffield, S.E. (Strawn) Field, will prevent waste and protect correlative rights.
4. Cancellation of the overproduction of the EOR Resources, Inc., Slaughter 27 Lease Well No. 1, in the Sheffield, S.E. (Strawn) Field, will not harm correlative rights.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends approval of the request of EOR Resources, Inc., to produce its Slaughter 27 Lease Well No. 1, in the Sheffield, S.E. (Strawn) Field, at daily rates up to 450 MCF, and cancellation of this well's overproduction.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner