

OIL AND GAS DOCKET NO. 8A-0231105

THE APPLICATION OF OCCIDENTAL PERMIAN, LTD., FOR A NEW FIELD DESIGNATION, TEMPORARY FIELD RULES, AND MER FOR THE (PROPOSED) ANTON-IRISH (WOLFCAMP, UPPER) FIELD, HALE COUNTY, TEXAS

Heard by: Margaret Allen, Technical Hearings Examiner

Procedural history

Application received: April 5, 2002

Hearing held: June 26, 2002

Appearances

	Representing
Tim George	Occidental Permian, Ltd.
Rick Foppiano	
Mark Stephenson	Devon SFS Operating, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Occidental Permian, Ltd., ("Occidental") is seeking to transfer its Rollinsford Lease Well No. 1 out of the Anton-Irish (Wolfcamp) Field and into a new field to be designated the Anton-Irish (Wolfcamp, Upper) Field. Occidental is requesting the following temporary field rules for the new field:

1. Designated interval from 6136' to 6536' as shown on the log of the Occidental Rollinsford Lease Well No. 1;
2. 467-933' well spacing;
3. 80 acre oil proration units with maximum diagonal of 3250'; and
4. allocation based on acreage, with an MER of 650 barrels.

Devon SFS Operating, Inc., ("Devon") appeared at the hearing in support of the requested new field and field rules. Devon is seeking to have two of its wells transferred from the Anton-Irish (Wolfcamp) Field to the new field. Both parties requested cancellation of all overproduction for a well whose production was less than 650 barrels of oil per day.

DISCUSSION OF THE EVIDENCE

Occidental believes that Devon completed the first well in the proposed new field when it perforated its Myatt Lease Well No. 1 on October 1, 2001. The Myatt No. 1 was perforated from 6524' to 6550' and its initial potential was 661 BOPD. The producing interval in the Myatt No. 1 is separated

from the underlying Anton-Irish (Wolfcamp) Field by a 50 to 100' thick shale section. The Myatt is still producing about 550 BOPD and 45 MCF/D, with small amounts of water. Its overproduction is 2775 barrels, but it has only produced more than 650 barrels of oil on six days since October 2001.

In December 2001, Occidental completed its Rollinsford Well No. 1 open hole from 6520' to 6737' in the Anton-Irish (Wolfcamp) Field. Its initial potential in this field was 336 BOPD with 120 BWPD, but the producing rates declined rapidly. In February 2002, Occidental set a bridge plug at 6520' and perforated in the same producing interval as the Myatt No. 1.

The Rollinsford No. 1 is perforated from 6466' to 6498', but a production log showed all the production to be coming from the interval between 6495 and 6498'. The initial potential was 683 BOPD, 120 MCF/D and 1 BWPD, flowing at 150 psi. On its most recent test the well was capable of pumping 736 BOPD and 117 MCF/D, with no water. The average daily producing rates for March, April and May, 2002, were 343, 449 and 504 BOPD, respectively.

At the hearing, Devon testified that it has just recompleted its Hufstedler Lease No. 1 from the Anton-Irish (Wolfcamp) Field into the newly discovered upper Wolfcamp interval. The new perforations are from 6447 to 6494'. The initial potential of the Hufstedler No. 1 in the Upper Wolfcamp was measured at 696 BOPD, 32 MCF/D and 3 BWPD on May 19, 2002, and the well has not produced over 650 BOPD since it was recompleted.

This newly discovered producing interval is near the base of the upper Wolfcamp, just above the regional shale marker beds overlying the Anton-Irish (Wolfcamp) Field. There are no other Wolfcamp fields within 2-1/2 miles. The top of the upper Wolfcamp/base of the Clear Fork Formation is at 6136' in the Rollinsford No. 1 and the base of the upper Wolfcamp is at 6536'.

As there has been no new field approved yet, all three wells are still listed in the Anton-Irish (Wolfcamp) Field and will need to be transferred to the new field. The operating rules proposed for the new field are the same as those in the Anton-Irish (Wolfcamp) Field with the exception of the MER allowable. The proration schedule of the Anton-Irish (Wolfcamp) Field shows 15 wells each with an MER allowable of 400 BOPD. Devon operates five wells shown on the proration schedule and is the only operator apart from the applicant and its affiliated companies.

Occidental believes the shale separating the newly completed upper Wolfcamp from the Anton-Irish (Wolfcamp) Field is sealing for several reasons. The upper Wolfcamp is limestone, while the overlying Clear Fork and underlying Wolfcamp formations are dolomite. The initial reservoir pressure of the Anton-Irish (Wolfcamp) Field was 2566 psi and the pressure is being maintained by a strong water drive.

Wells in the Anton-Irish (Wolfcamp) Field produce considerable water but no gas and the solution gas/oil ratio is only 40 cubic feet per barrel. The three wells completed in the proposed Anton-Irish (Wolfcamp, Upper) Field produce almost no water and only a little gas, with a solution gas/oil ratio of 140 cubic feet per barrel. Oil gravity in the Anton-Irish (Wolfcamp) Field is 38 degrees API, and in the proposed Anton-Irish (Wolfcamp, Upper) Field is 41 degrees. The initial reservoir pressure of the proposed Anton-Irish (Wolfcamp, Upper) Field was 3376 psi, as measured in Devon's Myatt No. 1, and is being depleted as oil is withdrawn.

When Occidental recompleted its Rollinsford No. 1, five months after the Myatt No. 1 began producing, it encountered partially-depleted reservoir pressure 820 psi lower than the initial reservoir pressure. The Rollinsford No. 1 is 1342' from the Myatt No. 1, indicating a drainage area of at least 130 acres (the radius of an 80-acre drainage area is 1053'). Occidental believes the pressure transient survey on the Rollinsford No. 1 encountered reservoir depleted by the offset Myatt No. 1 within 60 hours of shut-in.

The surface overlying these fields is crisscrossed by flow lines and equipment necessary for the secondary and tertiary recovery operations in the Anton-Irish Clear Fork Unit. Somewhat smaller spacing than standard for 80-acre units will facilitate locating new wells without interfering with the existing structure. The requested spacing of 467-933' will also facilitate recompletions from the Anton-Irish (Wolfcamp) Field to the proposed Anton-Irish (Wolfcamp, Upper) Field.

Allocation based on acreage will protect correlative rights in this thin producing lens. The Statewide allowable for wells at this depth on 80 acre proration units is 184 BOPD. Occidental measured daily production from its Rollinsford No. 1 from March 15 through May 31, 2002. Between March 20 and April 15, 2002, a period of relatively stable production, the daily average rate was 362 barrels of oil, with a gas/oil ratio of 177 cubic feet per barrel. The well was then placed on a pump between April 20 and 26, but production was difficult to stabilize afterward. Between May 1 and May 15, 2002, the daily average producing rate was 726 barrels of oil, with a gas/oil ratio of 115 cubic feet per barrel. These daily rates show that the reservoir is not rate sensitive and has an expansion drive with only a small amount of solution gas.

Both parties requested that an MER of 650 barrels of oil per well be adopted. Because of the competitive nature of the field, the parties requested that all overproduction prior to and during the daily testing period on the Rollinsford No. 1 be canceled and that the MER be made effective the date that the test ended. Any production in excess of 650 barrels per day after May 31, 2002, would be subject to being made up.

FINDINGS OF FACT

1. Notice of this hearing was mailed to all operators in the Anton-Irish (Wolfcamp) Field and to all offset operators and unleased mineral interest owners to the discovery tract of the proposed new field on April 25, 2002.
2. Notice of this hearing was published in the Plainview Daily Herald, a newspaper of general circulation in Hale County, on May 1, 8, 15 and 22, 2002.
3. In October, 2001, the Devon SFS Operating, Inc., ("Devon") Myatt Lease Well No. 1 was the first well completed in a new productive interval separated from the Anton-Irish (Wolfcamp) Field.
 - a. There is a sealing shale section, 50 to 100' thick, between the Anton-Irish (Wolfcamp) Field and the proposed Anton-Irish (Wolfcamp, Upper) Field.
 - b. The Anton-Irish (Wolfcamp) reservoir has 38 degree gravity oil, and a strong water drive with a very small amounts of solution gas.

- c. The proposed Anton-Irish (Wolfcamp, Upper) reservoir produces 41 degree gravity oil without water, and has a depletion drive with a higher gas/oil ratio.
 - d. The initial pressure of 2566 psi in the Anton-Irish (Wolfcamp) is being maintained by the water drive, while the initial pressure of 3376 psi in the proposed Anton-Irish (Wolfcamp Upper) Field was already depleted by 820 psi five months after discovery.
4. The perforations in the Occidental Permian, Ltd., (“Occidental”) Rollinsford No. 1 are between 6466’ and 6498’, shallower than production in the Anton-Irish (Wolfcamp) Field, and Devon’s Myatt Lease No. 1 and Hufstedler No. 1 are also completed in the upper Wolfcamp.
5. The top of the upper Wolfcamp (base of the Clear Fork Formation) is at 6136’ in the Rollinsford No. 1 and the base of the upper Wolfcamp is at 6536’.
6. There are no wells completed in any other Wolfcamp field within 2-1/2 miles.
7. The Rollinsford No. 1, Myatt No. 1 and Hufstedler No. 1 belong in a new field under the proposed name of Anton-Irish (Wolfcamp, Upper) Field.
8. The requested temporary spacing and density rules for the Anton-Irish (Wolfcamp, Upper) Field are the same as those in the Anton-Irish (Wolfcamp) Field.
 - a. Well spacing of 467-933’ will facilitate locating new wells without interference with the existing surface structure necessary for the Anton-Irish (Clear Fork) secondary and tertiary recovery project.
 - b. The Rollinsford No. 1 was completed 1342’ from the Myatt No. 1, and its partially-depleted bottomhole pressure indicates a drainage area of at least 130 acres.
11. The requested acreage allocation formula will protect correlative rights in this thin producing lens.
12. The daily producing rates of the Rollinsford No. 1, reported from March 15 through May 31, 2002, show the reservoir is not rate sensitive.
 - a. The gas/ oil ratio was 177 cubic feet per barrel at an average flowing oil rate of 362 barrels per day.
 - b. The gas/ oil ratio was 115 cubic feet per barrel when the well was pumping at an average oil rate of 726 barrels per day.
 - c. There is no water production.
13. Cancellation of any overproduction that occurred prior to May 31, 2002, will start all the wells in the new field on an equal basis.

14. Approving an MER of 650 barrels of oil per day, effective May 31, 2002, will not cause waste and will protect correlative rights.

CONCLUSIONS OF LAW

1. Proper notice was given as required by statute.
2. All things have been done or occurred to give the Railroad Commission jurisdiction to resolve this matter.
3. The requested new field designation and proposed field rules for the Anton-Irish (Wolfcamp, Upper) Field will prevent waste, protect correlative rights within the field, and promote orderly development of the reservoir.
4. An MER of 650 BOPD for wells in the Anton-Irish (Wolfcamp, Upper) Field will not cause waste, will promote conservation and will protect correlative rights.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends approval of a new field discovery to be known as the Anton-Irish (Wolfcamp, Upper) Field. The requested temporary oil rules should be approved and reviewed in 18 months. The Occidental Permian, Ltd., Rollinsford Lease Well No. 1 and Devon SFS Operating, Inc., Myatt Lease Well No. 1 and Hufstedler Lease Well No. 1 should be transferred to the new field without the need to pay for a new drilling permit. All overproduction for these wells should be canceled as of May 31, 2002, and an MER of 650 BOPD should be made effective for all wells in the new field as of the same date.

Respectfully submitted,

Margaret Allen
Technical Hearings Examiner

Date of Commission Action: July 9, 2002