

**THE APPLICATION OF O'RYAN OIL AND GAS TO CONSOLIDATE VARIOUS DORA, NORTH FIELDS INTO THE PROPOSED DORA, NORTH (CONS.) FIELD AND TO ADOPT FIELD RULES FOR THE DORA, NORTH (CONS.) FIELD, NOLAN COUNTY, TEXAS**

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**HEARD BY:** Richard D. Atkins, P.E.

**DATE OF HEARING:** April 6, 2011

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

H. Philip Whitworth  
Robert Green  
Jason D. Bailey

O'Ryan Oil and Gas

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

O'Ryan Oil and Gas ("O'Ryan") requests to consolidate three Dora, North Fields into a new field to be known as the Dora, North (Cons.) Field. The three fields proposed for consolidation are as follows:

<b><u>FIELD NAME</u></b>	<b><u>FIELD NUMBER</u></b>
Dora, North (Caddo)	25377 142
Dora, North (Ellenburger)	25377 568
Dora, North (Cambrian)	25377 284

O'Ryan requests that the following Field Rules be adopted for the new field:

1. Designation of the field as the correlative interval from 5,899 feet to 6,147 feet, as shown on the log of the Skelly Oil Company - Boyd "B" Lease, Well No. 9 (API No. 42-353-01102);
2. 330'-0' well spacing;
3. 40 acre oil units with optional 20 acre density;
4. Allocation based on 75% acres and 25% per well with a top allowable based on the 1947 Yardstick Allowable of 111 BOPD.

The application was unopposed and the examiner recommends approval of the field consolidation and adoption of Field Rules.

### DISCUSSION OF THE EVIDENCE

The Dora, North (Caddo) Field was discovered in January 1954 at an average depth of 5,900 feet. There are 3 producing oil wells carried on the proration schedule and O’Ryan is the only operator in the field. The field operates under 330’-933’ well spacing and 40 acre density. The allocation formula is 75% acres and 25% per well. Cumulative production from the field through January 2011 is 7.2 MMBO and 4.7 BCFG.

The Dora, North (Ellenburger) Field was discovered in July 1953 at an average depth of 6,000 feet. There are no producing oil wells carried on the proration schedule. However, O’Ryan has two injection and 3 inactive wells and two other operators each have one inactive well. The field operates under 330’-933’ well spacing and 40 acre density. The allocation formula is 75% acres and 25% per well. Cumulative production from the field through January 2011 is 4.2 MMBO and 1.2 BCFG.

The Dora, North (Cambrian) Field was discovered in February 1954 at an average depth of 6,050 feet. There are 5 producing oil wells carried on the proration schedule and O’Ryan is the only operator in the field. The field operates under 300’-933’ well spacing and 40 acre density. The allocation formula is 75% acres and 25% per well. Cumulative production from the field through January 2011 is 7.0 MMBO and 3.3 BCFG.

O’Ryan is proposing to consolidate the three Dora, North Fields into the proposed Dora, North (Cons.) Field. The three fields are geographically intermingled and there are no other fields contained within the proposed correlative interval. The proposed designated interval for the consolidated field is from 5,899 feet to 6,147 feet, as shown on the log of the Skelly Oil Company - Boyd “B” Lease, Well No. 9 (API No. 42-353-01102), Section 58, Block 20, T&P RR Co. Survey, A-1664, Nolan County, Texas. This interval includes the Caddo, Ellenburger and Cambrian formations.

The Caddo reservoir is composed of carbonate limestone, the Ellenburger reservoir is composed of dolomite and the Cambrian reservoir is composed of sandstone. The primary drive mechanism for each reservoir is a moderate water drive. The three fields range in porosity from 15% to 18%, have an average water saturation of 15% and range in pay thickness from 15 feet to 110 feet. O’Ryan submitted produced water analysis for four wells which show that the produced waters are compatible and have no scaling tendencies. O’Ryan estimates a current field recovery factor of 13% of the original oil in place.

O’Ryan is planning on working over the existing wells and drilling infill wells to complete in all of the reservoirs within the consolidated interval simultaneously. This procedure will result in a lower operating expense and a lower combined economic limit for each well. The proposed consolidated field exists on rugged terrain of plateaus with

deep valleys and lies within a wind energy farm. As a result, O'ryan requests 300'-0' well spacing and 40 acre oil units with optional 20 acre density in order to have greater flexibility in selecting future drilling locations. O'Ryan believes that its re-development program will increase the field recovery factor to 26% and result in the recovery of an additional 13 to 19 MMBO.

O'Ryan also requests that the allocation formula be based on 75% acres and 25% per well with a top allowable based on the 1947 Yardstick Allowable of 111 BOPD.

**FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and there were no protests.
2. The Dora, North (Caddo) Field was discovered in January 1954 at an average depth of 5,900 feet.
  - a. There are 3 producing oil wells carried on the proration schedule and O'Ryan is the only operator in the field.
  - b. The field operates under 330'-933' well spacing and 40 acre density.
  - c. The allocation formula is 75% acres and 25% per well.
3. The Dora, North (Ellenburger) Field was discovered in July 1953 at an average depth of 6,000 feet.
  - a. There are no producing oil wells carried on the proration schedule. However, O'Ryan has two injection and 3 inactive wells and two other operators each have one inactive well.
  - b. The field operates under 330'-933' well spacing and 40 acre density.
  - c. The allocation formula is 75% acres and 25% per well.
4. The Dora, North (Cambrian) Field was discovered in February 1954 at an average depth of 6,050 feet.
  - a. There are 5 producing oil wells carried on the proration schedule and O'Ryan is the only operator in the field.
  - b. The field operates under 300'-933' well spacing and 40 acre density.
  - c. The allocation formula is 75% acres and 25% per well.

5. The three fields to be consolidated are geographically intermingled and there are no other fields contained within the proposed correlative interval.
6. The correlative interval from 5,899 feet to 6,147 feet, as shown on the log of the Skelly Oil Company - Boyd "B" Lease, Well No. 9 (API No. 42-353-01102), Section 58, Block 20, T&P RR Co. Survey, A-1664, Nolan County, Texas, should be designated as the Dora, North (Cons.) Field.
7. The Caddo reservoir is composed of carbonate limestone, the Ellenburger reservoir is composed of dolomite and the Cambrian reservoir is composed of sandstone. The primary drive mechanism for each reservoir is a moderate water drive.
8. Produced water analysis for four wells show that the produced waters are compatible and have no scaling tendencies.
9. Working over the existing wells and drilling infill wells to complete in all of the reservoirs within the consolidated interval simultaneously will result in a lower operating expense and a lower combined economic limit for each well.
10. The proposed consolidated field exists on rugged terrain of plateaus and gullies and lies within a wind energy farm.
11. Well Spacing of 330'-0' and 40 acre oil units with optional 20 acre density is appropriate for the field.
12. O'Ryan's re-development program will increase the field recovery factor to 26% and result in the recovery of an additional 13 to 19 MMBO.
13. Allocation based on 75% acres and 25% per well with a top allowable based on the 1947 Yardstick Allowable of 111 BOPD is a reasonable formula which will protect correlative rights and meet statutory requirements.

**CONCLUSIONS OF LAW**

1. Proper notice of this hearing was given to all persons legally entitled to notice.
2. All things have occurred or been accomplished to give the Railroad Commission jurisdiction in this matter.
3. Consolidation of the fields and the proposed field rules will prevent waste, protect correlative rights and promote development of the consolidated field.

**EXAMINER'S RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that the Commission consolidate the three Dora, North Fields into the proposed Dora, North (Cons.) Field and adopt Field Rules for the Dora, North (Cons.) Field, as requested by O'Ryan Oil and Gas.

Respectfully submitted,

Richard D. Atkins, P.E.  
Technical Hearings Examiner