

THE APPLICATION OF SYDSON ENERGY, INC. TO CONSOLIDATE VARIOUS RAY AND SAN DOMINGO FIELDS AND FOR FIELD RULES FOR THE (PROPOSED) RAY (VICKSBURG-HOCKLEY) FIELD, BEE COUNTY, TEXAS

Heard by: Andres J, Trevino, P.E. on September 22, 2010

Appearances:

Dale Miller

Representing:

Sydson Energy, Inc.

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Sydson Energy, Inc. requests that the thirteen Ray and San Domingo fields listed in Attachment "A" be consolidated into a new field to be known as the Ray (Vicksburg-Hockley) Field. Sydson requests that the following rules be adopted for the consolidated field:

1. Designated interval from 2,744 feet to 4,050 feet as shown on the log of the James W. Staples Production Co., Lon S. Moore Lease Well No. 2;
2. Well spacing a minimum of 330 feet from lease lines with no between-well spacing limitation;
3. 10 acre oil and gas proration units with a maximum diagonal of 2,100';
4. Oil allocation based 95% per 1965 top allowable and 5% per well, gas allocation based 5% per well and 95% deliverability;
5. Salvage classification for oil wells and suspend the gas allocation formula.

Because Sydson has requested salvage classification for oil, the Examiner informed the applicant's representative that a two factor allocation is not needed for oil. The applicant's representative agreed and withdrew the request. This application was unopposed and the examiner recommends approval of Sydson's request for field consolidation and field rules.

DISCUSSION OF THE EVIDENCE

The thirteen fields which are the subject of this hearing were discovered beginning in 1935. The fields include primarily Vicksburg and Hockley sands which are in the late stages of depletion. Six of the fields are oil fields, three are non-associated gas fields and four are associated fields. Three of the fields have special rules that provide for 10 to 20

acre density with the remainder of the fields operating under Statewide Rules with 40 acre density.

There are a total of 19 wells listed on the proration schedules for the various fields. The wells include 16 oil wells, 4 actively producing, 3 gas wells with 2 actively producing. A total of 95 wellbores have been completed in the fields and cumulative production from the fields is about 2.7 MMBO and 1.8 BCF of gas. Sydson has leased and farmed out approximately 1,000 acres in the area.

Sydson will drill four wells within the depleted reservoirs targeting the various sands within the consolidated interval. The sands are lenticular, thin and of varying reservoir quality. Additionally the sands are faulted within the area. Reducing the between-well spacing requirement will provide opportunities for infill drilling without the need for Rule 37 exceptions.

Sydson requests a density rule of 10 acres for the consolidated field due to the small average drainage pattern. Drainage area calculations for wells in the San Domingo (Vicksburg) Field demonstrates that wells will drain between 0.5 acres to 19 acres with an average of 8 acres per well. The estimated ultimate recovery for wells in this field ranged from 1,800 BO to 62,118 BO. Drainage calculation parameters for this field include a porosity of 25%, water saturation of 55%, net pay thickness of 20 feet and a recovery factor of 20%. Drainage area calculations for wells in the San Domingo, S. (Hockley) Field demonstrates that wells will drain between 1 acre to 26 acres with an average of 12 acres per well. The estimated ultimate recovery for wells in this field ranged from 1,630 BO to 104,608 BO. Drainage calculation parameters for this field include a porosity of 21%, water saturation of 66%, net pay thickness of 10 feet and a recovery factor of 20%. Drainage area calculations for wells in the San Domingo, S. (3100 SD.) Field demonstrates that wells will drain between 0.4 acre to 9 acres with an average of 4 acres per well. The estimated ultimate recovery for wells in this field ranged from 619 BO to 28,381 BO. Drainage calculation parameters for this field include a porosity of 28%, water saturation of 54%, net pay thickness of 9 feet and a recovery factor of 20%. Drainage area calculations for a well in the Ray (3100 Frio) Field demonstrates that well will drain 5 acres. The estimated ultimate recovery for the well in this field 13.8 MMCF of gas. Drainage calculation parameters for this field include a porosity of 20%, water saturation of 68%, net pay thickness of 10 feet and a recovery factor of 80%.

Sydson requests that the consolidated field be designated as the interval from 2,744 feet to 4,050 feet as shown on the log of the James W. Staples Production Co., Lon S. Moore Lease Well No. 2. Consolidation of the various sands into a single field will result in the recovery of additional reserves which would otherwise be uneconomic.

The proposed consolidated field will consist of numerous sands. A two factor allocation formula based on 95% deliverability and 5% per well for gas wells is requested for the consolidated field to meet statutory requirements. The gas wells are currently 100% AOF and Sydson request suspension of the allocation formula on any future gas wells.

Sydson requests salvage classification for oil wells found in the field. Given the depleted status of the reservoirs there is no reason to limit production. By combining

multiple sands there is the possibility that virgin conditions may be encountered which may cause production to temporarily exceed a ten acre top allowable.

FINDINGS OF FACT

1. Notice of this hearing was sent to all persons legally entitled to notice at least ten days prior to the date of hearing.
2. The subject fields proposed for consolidation were discovered beginning in 1935. Six of the fields are oil fields, three are non-associated gas fields and four are associated fields.
3. The thirteen fields produce from Vicksburg and Hockley sands which are thin lenticular sands of limited areal extent in the late stages of depletion.
4. Ten of the fields operate under Statewide Rules with 40 acre density with the remainder of the three fields have special field rules which allow 10 to 20 acre density.
5. Consolidation of the fields will result in the recovery of additional reserves from the various fields as a result of a lower combined economic limit.
6. The Ray (Vicksburg-Hockley) Field should be designated as the correlative interval from 2,744 feet to 4,050 feet as shown on the log of the James W. Staples Production Co., Lon S. Moore Lease Well No. 2.
7. The proposed 330'/0' well spacing rule for the consolidated field will provide flexibility in drilling infill wells for completion in the various lenticular Vicksburg and Hockley sands without the need for Rule 37 exceptions.
8. Adoption of a density rule providing for 10 acre units is appropriate for this field.
 - a. Drainage area calculations for wells in the San Domingo (Vicksburg) Field demonstrates that wells will drain between 0.5 acres to 19 acres with an average of 8 acres per well. The estimated ultimate recovery for wells in this field ranged from 1,800 BO to 62,118 BO.
 - b. Drainage area calculations for wells in the San Domingo, S. (Hockley) Field demonstrates that wells will drain between 1 acre to 26 acres with an average of 12 acres per well. The estimated ultimate recovery for wells in this field ranged from 1,630 BO to 104,608 BO.
 - c. Drainage area calculations for wells in the San Domingo, S. (3100 SD.) Field demonstrates that wells will drain between 0.4 acre to 9 acres with an average of 4 acres per well. The estimated ultimate

recovery for wells in this field ranged from 619 BO to 28,381 BO.

- d. Drainage area calculations for a well in the Ray (3100 Frio) Field demonstrates that well will drain 5 acres. The estimated ultimate recovery for the well in this field 13.8 MMCF of gas.
9. Allocation based 5% per well and 95% on deliverability for gas wells will protect correlative rights and satisfy statutory requirements.
10. Any oil wells should be exempt from proration and be classified as salvage.

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 as proposed by Sydson Energy, Inc. is necessary to prevent waste and protect correlative rights.
4. The proposed field rules will prevent waste, protect correlative rights, and satisfy statutory requirements.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiner recommends that the four subject fields be consolidated into a new field to be known as the Ray (Vicksburg-Hockley) Field and that the requested field rules be adopted for the consolidated field.

Respectfully submitted,

Andres J. Trevino, P.E.
Technical Hearings Examiner

Attachment "A"

<u>Field Name</u>	<u>Field Number</u>
RAY	74891 001
RAY (3100 FRIO)	74901 800
SAN DOMINGO (VICKSBURG)	80193 498
SAN DOMINGO S. (VICKSBURG)	80197 426
SAN DOMINGO, S. (3100 SD.)	80197 710
SAN DOMINGO (VICKSBURG-G- SD.)	80193 664
SAN DOMINGO, S. (VICKSBURG, UP.)	80197 568
SAN DOMINGO, S. (HOCKLEY)	80197 142
SAN DOMINGO (HOOK)	80193 166
SAN DOMINGO, S. (2800)	80197 700
SAN DOMINGO, S. (HOCKLEY, 2ND)	80197 146
SAN DOMINGO, S. (3200)	80197 750
SAN DOMINGO (PETTUS)	80193 360