# THE APPLICATION OF STRAND ENERGY, L.C. TO CONSOLIDATE VARIOUS LUCKY MAG FIELDS INTO THE (PROPOSED) LUCKY MAG (CONSOLIDATED) FIELD AND ADOPT FIELD RULES, IRION COUNTY, TEXAS

HEARD BY: Andres J. Trevino, P.E.

DATE OF HEARING: July 22, 2009

APPEARANCES: REPRESENTING:

Cary D. Brock Strand Energy, L.C.

Dale E. Miller TXP Incorporated

## EXAMINER'S REPORT AND RECOMMENDATION STATEMENT OF THE CASE

Strand Energy, L.C. requests to consolidate five Lucky Mag Fields into a new field to be known as the Lucky Mag (Consolidated) Field. The fields proposed for consolidation are as follows:

FIELD NAME	FIELD NUMBER
Lucky Mag (3200 Sand)	55504 800
Lucky Mag (Clearfork)	55504 190
Lucky-Mag (Clear Fork, Lower)	55504 200
Lucky Mag (Wolfcamp)	55504 675
Lucky-Mag (Divide Sand)	55504 400

Strand Energy requests that the following rules be adopted for the new field:

- Designation of the Lucky Mag (Consolidated) Field as the correlative interval from 3,065 feet to 6,620 feet as shown on the Gamma Ray and Induction Log of the Strand Energy, LC - Hamilton Lease Well No. 6;
- 2. Minimum well spacing of 467'/1200' (lease line/between well);
- 3. 80 acre oil units, maximum diagonal of 3,250', with 20 acre tolerance, 40 acre optional units, maximum diagonal of 2,100;

4. An allocation formula based on 95% acreage and 5% per well. An increased net gas-oil ration authority for each well in the consolidated field with a casinghead gas limit of 500 MCF of gas per day.

Strand Energy had requested an allocation formula based on 100% acreage in the notice, then requested a two factor allocation based on 95% acreage and 5% per well during the hearing. The examiner recommends approval of the proposed rules.

#### **DISCUSSION OF THE EVIDENCE**

The Lucky-Mag (Divide Sand) Field was discovered in May 1956 at a depth of 6,472' subsurface depth. The field is governed by Statewide field rules. Strand Energy operates one well in the field. The Lucky-Mag (Divide Sand) Field has 27 wells on the proration schedule. The Lucky-Mag (Divide Sand) is the main productive objective in the area. Cumulative production from the field is 362,861 BO.

The Lucky Mag Consolidated interval will consist of a thick, 3,500 foot interval of stratigraphically complex deposits. The pay zones are of low permeability and low porosity. The tight and/or pressure depleted reservoirs currently provide low deliverability and long recovery periods which discourage new well drilling. Most single zone completions are only marginally economic. Strand Energy is proposing to commingle the three reservoirs and drill additional wells. Vertical consolidation of the reservoirs will improve drilling economics by allowing multiple stage fracs upon initial completion of new wells. The consolidation of several low deliverability reservoirs into a single completion interval will allow for development of new oil reserves in offsetting and underdeveloped areas of the field. There is a long history of commingling the Clearfork, Wolfcamp and Canyon Sand reservoirs in the area and throughout the Permian Basin that has shown an increase of oil recovery without harming the reservoirs. Consolidating the fields will also facilitate the recovery of additional reserves by lowering the economic limit of each well and extending its life.

Strand Energy requests that the well density be 80 acre units with optional 40 acre units commonly used with other Clearfork, Wolfcamp and Canyon Sands fields throughout the area. Strand Energy believes this density is necessary to provide for the efficient and effective depletion of the subject field. Strand Energy plans to recomplete all wells into all three productive zones and to drill additional wells and fracture stimulate. The proposed minimum well spacing, 467'/1200' (leaseline/between well) is standard spacing for the optional 40 acre units.

Because the proposed designated intervals contains multiple productive zones, a two factor allocation formula is required by statute. Strand Energy proposes that allocation be based on 95% acreage and 5% per well. Strand Energy requests the increased net gasoil ratio authority approved in Oil and Gas Docket 7C-0258433 on October 20, 2008 for

each well in the Lucky-Mag (Divide Sand) Field be applied to the consolidated field. The increased Net Gas-Oil Ratio authority will allow a casinghead gas limit of 500 MCF of gas per day per well in the consolidated field.

### 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. There was no protest at the call of the hearing.
- 3. The Lucky-Mag (Divide Sand) Field was discovered in May 1956 at a depth of 6,472' subsurface depth.
  - a. The field is governed by Statewide Rules.
  - b. Strand Energy operates one well in the field and there are 27 wells on the proration schedule.
  - c. Cumulative production from the field is 362,861 BO.
- 4. The Lucky-Mag (Clear Fork, Lower) Field was discovered in September 1956 at a depth of 3,390' subsurface depth.
  - a. The field is governed by Special Field Rules that allow 467'/1200' well spacing.
  - b. There are 3 wells in the field.
  - c. Cumulative production from the field is 925,075 BO.
- 5. The Lucky Mag (3200 Sand) Field was discovered in 1958 at a depth of 3,090' subsurface depth.
  - a. The field is governed by Statewide Rules.
  - There are 4 wells in the field.
  - c. Cumulative production from the field is 111,027 BO.
- 6. The Lucky Mag (Clearfork) Field was discovered in 1981 at a depth of 3,577' subsurface depth.

- a. The field is governed by Statewide Rules.
- b. There are no wells in the field.
- c. Cumulative production from the field is 2,648 BO.
- 7. The Lucky Mag (Wolfcamp) Field was discovered in 1984 at a depth of 5,898' subsurface depth.
  - a. The field is governed by Statewide Rules.
  - b. Strand Energy operates all 5 wells in the field.
  - c. Cumulative production from the field is 36,746 BO.
- 8. All reservoirs are tight and or pressure depleted with low deliverability that makes single zone completions uneconomic.
- 9. Consolidation of the fields will result in the recovery of additional reserves from the five fields as a result of improved drilling and completion economics of fracture stimulating multiple zones and lowering the economic limit of each well.
- 10. The proposed minimum well spacing, 467'/1200' (leaseline/between well) is standard spacing for the optional 40 acre units.
- 11. Strand Energy requests that the well density be 80 acre units with optional 40 acre units commonly used with other Clearfork, Wolfcamp and Canyon Sands fields throughout the area.
- 12. Allocation based on 95% acerage and 5% per well is a reasonable allocation formula which satisfies statutory requirements.
- 13. Oil and Gas Docket 7C-0258433 approved on October 20, 2008, allowed a casinghead gas limit of 500 MCF of gas per day per well for each well in the Lucky-Mag (Divide Sand) Field.

### **CONCLUSIONS OF LAW**

1. Proper notice was given to all parties as set out in the provisions of all applicable codes and regulatory statutes.

- 2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
- 3. Consideration of field rules, a determination of their effectiveness and appropriate actions is a matter within the Commission jurisdiction.
- 4. Consolidation of the subject field and adoption of the proposed field rules will prevent waste, foster conservation and protect correlative rights.

### **EXAMINER'S RECOMMENDATION**

Based on the above findings and conclusions of law, the examiner recommends approval of the proposed field consolidation and the adoption of field rules for the Lucky Mag (Consolidated) Field.

Respectfully submitted,

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