

**THE APPLICATION OF ANADARKO PETROLEUM CORPORATION TO AMEND THE FIELD RULES FOR THE DOWDY RANCH (COTTON VALLEY) FIELD, FREESTONE AND LEON COUNTIES, TEXAS**

---

**HEARD BY:** Andres J. Trevino, P.E. - Technical Examiner

**HEARING DATE:** May 13, 2010

**APPEARANCES:**

**APPLICANT:**

Ana Maria Marsland-Griffith  
David Christian  
Stephen K. Ruhl

**REPRESENTING:**

Anadarko Petroleum Corporation

**EXAMINER'S REPORT AND RECOMMENDATION**

**STATEMENT OF THE CASE**

Field Rules for the Dowdy Ranch (Cotton Valley) Field were adopted in Order No. 05-0223483, effective February 8, 2000, as amended. The Field Rules in effect for the field are summarized as follows:

1. Designation of the field as the correlative interval from 11,050 feet to 13,580 feet as shown on the log of the Anadarko Petroleum Burgher "A", Well No. 1;
2. Allocation based on 95% deliverability and 5% per well with AOF status.;

Anadarko requests that the Field Rules for the subject field be amended to provide for a revised correlative interval, 330'-0' well spacing, "take point" language, a box rule, 640 acre gas units with optional 20 acre density, stacked lateral language and allocation based on 95% acreage and 5% per well. Anadarko also requests that the allocation formula in the field remain suspended and the filing of P-15's and plats not be required as long as the field is 100% AOF.

The examiner recommends that the field rules for the Dowdy Ranch (Cotton Valley)

## **OIL AND GAS DOCKET NO. 05-0265406**

Field be amended as proposed by Anadarko.

### **DISCUSSION OF EVIDENCE**

The Dowdy Ranch (Cotton Valley) Field was discovered in 1999. The field is classified as a non-associated gas field with AOF status. There are 252 producing wells carried on the current proration schedule, Anadarko operates 241 of those wells. The field has been developed densely and primarily with vertical wells. Cumulative production is 322 BCFG and 61.7 MBC. Anadarko plans to initiate horizontal development in the field as is currently occurring in other Cotton Valley fields in the area.

Anadarko requests that the entire correlative interval from 11,150 feet to 14,500 feet as shown on the log of the T-Bar-X/Roach Gas Unit Lease, Well No. 2 (API No. 42-161-31383), Freestone County, Texas, be considered a single field known as the Dowdy Ranch (Cotton Valley) Field. This interval includes the Upper Cotton Valley Sands, Bossier Sands/Shales and the Cotton Valley Lime. The expanded interval adds the Cotton Valley Lime to be consistent with other fields in the area. Currently most production is from the Bossier Sands within the Bossier Shales.

Anadarko is requesting field rules that will accommodate horizontal drilling. In the Nana Su Gail Field, Devon was encountering virgin pressures with their recently drilled horizontal wells completed between existing vertical wells. The sands in the productive zones are discontinuous and lenticular. Some of the wells had initial potential flow rate as high as 10,000 - 20,000 MFCGPD. Anadarko initially plans to drill the first horizontal wells into the added Cotton Valley Lime (deepest zone). In the second phase, Anadarko will drill stacked laterals in the Bossier sands then finally into productive sections of the Upper Cotton Valley. The stacked lateral rules will allow operators to target the three zones within the 3,300 foot interval.

Anadarko proposes field rules that provide for 330' lease line spacing and no between well spacing and 640 acre gas proration units with 10% tolerance and optional 20 acre density. Adopting the proposed field rules will allow greater flexibility in selecting future drilling locations between the numerous existing vertical wells. Adopting the 640 acre units with optional 20 acre units will prevent the break up of existing pooled unit pooled during the development of the Dowdy Ranch with vertical wells. The existing pooled units protect correlative rights.

The take point language is commonly used in most fields which are developed with horizontal wells. The take point rule will maximize recovery and prevent waste. The proposed box rule will allow operators reasonable minor deviations from the wellbore track that has been permitted with out needing to file an amended drilling permit. A horizontal well can be drilled more economically if the well is given a 33 foot tolerance box and have it considered in compliance with the original drilling permit.

## **OIL AND GAS DOCKET NO. 05-0265406**

Anadarko requests that a two factor allocation formula based on 95% acres and 5% per well be adopted for the field. Anadarko also requests that the allocation formula remain suspended, as there is a 100% market for all the gas produced, and that the filing of P-15's and plats not be required when the allocation formula is suspended.

### **FINDINGS OF FACT**

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Dowdy Ranch (Cotton Valley) Field was discovered in 1999. The field is classified as a non-associated gas field with AOF status. There are 252 producing wells carried on the current proration schedule, Anadarko operates 241 of those wells. The field has been developed densely and primarily with vertical wells.
3. Field Rules for the Dowdy Ranch (Cotton Valley) Field provide for a designated interval, 40 acre gas units and allocation based on 95% deliverability and 5% per well with AOF status.
4. Anadarko is requesting similar field rules that are adopted in many fields that are developed with horizontal wells.
5. The entire correlative interval from 11,150 feet to 14,500 feet as shown on the log of the T-Bar-X/Roach Gas Unit Lease, Well No. 2 (API No. 42-161-31383), Freestone County, Texas, be considered a single field known as the Dowdy Ranch (Cotton Valley) Field. This interval includes the Upper Cotton Valley Sands, Bossier Sands/Shales and the Cotton Valley Lime. The expanded interval adds the Cotton Valley Lime to be consistent with other fields in the area.
6. Field Rules that provide for 330' lease line spacing and no between well spacing will allow greater flexibility in drilling horizontal wells between numerous existing vertical wells.
7. 640 acre gas proration units with 10% tolerance and optional 20 acre density will allow operator to prevent the break up of existing pooled units created for the development of the Dowdy Ranch (Cotton Valley) Field with vertical wells. The existing pooled units protect correlative rights.
8. The take point language is commonly used in most fields which are developed with horizontal wells. The take point rule will maximize recovery and prevent waste. The proposed box rule will allow operators reasonable

## **OIL AND GAS DOCKET NO. 05-0265406**

minor deviations from the wellbore track that has been permitted with out needing to file an amended drilling permit.

9. Anadarko initially plans to drill the first horizontal wells into the Cotton Valley Lime (deepest zone). In the second phase, Anadarko will drill stacked laterals in the Bossier sands then finally into productive sections of the Upper Cotton Valley. The stacked lateral rules will allow operators to target the three zones within the 3,300 foot interval.
10. Allocation based on 95% acres and 5% per well will protect correlative rights.
11. Continued suspension of the allocation formula is appropriate, as there is a 100% market for all the gas produced. Elimination of the requirement to file P-15's and plats when the field has 100% AOF status will eliminate unnecessary paperwork.

### **CONCLUSIONS OF LAW**

1. Proper notice of this hearing was issued.
2. All things have been accomplished or have occurred to give the Commission jurisdiction in this matter.
3. Amending the Field Rules for the Dowdy Ranch (Cotton Valley) Field is necessary to prevent waste, protect correlative rights and promote development of the field.

### **RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that the Commission amend the field rules for the Dowdy Ranch (Cotton Valley) Field, as proposed by Anadarko Petroleum Corporation.

Respectfully submitted,

Andres J. Trevino, P.E.  
Technical Examiner