

THE APPLICATION OF CABOT OIL & GAS CORPORATION TO AMEND THE FIELD RULES FOR THE TRAWICK (JURASSIC) FIELD, NACOGDOCHES COUNTY, TEXAS

Heard by: Richard D. Atkins, P.E.

Date of Hearing: June 30, 2008

Appearances:

Dale E. Miller

Representing:

Cabot Oil & Gas Corporation

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Field rules for the Trawick (Jurassic) Field were adopted in Final Order No. 6-72,001, effective April 16, 1979, as amended. The rules in effect for the field are summarized as follows:

1. 1,320' - 2,640' well spacing;
2. 640 acre gas units;
3. Allocation based on 100% acreage;
4. Special cementing requirements.

Cabot Oil & Gas Corporation requests that the field rules be renumbered and amended to include a designated interval, allocation based on 95% deliverability and 5% per well and that the allocation formula in the field be suspended.

This application was unopposed and the examiner recommends that the field rules for the Trawick (Jurassic) Field be renumbered and amended as proposed by Cabot with the exception of the allocation formula. The examiner recommends that allocation be based on 75% deliverability and 25% acreage and that the allocation formula in the field be suspended as requested. Cabot did not consider this to be an adverse recommendation.

DISCUSSION OF EVIDENCE

The Trawick (Jurassic) Field was discovered by the Humble Oil & Refining Co.,

Trawick Gas Unit 6 Lease Well No. 2 in November 1962 with perforations from 11,820 feet to 11,840 feet. The field is classified as a non-associated gas field and the Trawick Gas Unit 6 Lease Well No. 2 is the only gas well currently listed on the proration schedule. The cumulative production as of April 1, 2008 for the field is approximately 4.34 BCFG.

Cabot Oil & Gas Corporation has recently drilled the Trawick Gas Unit 29 Lease Well No. 101. Although there has not been any potential test filed, the well is currently flowing at the rate of 168 MCFGPD while recovering frac fluid.

Cabot recommends that the entire correlative interval from 10,707 feet to 12,321 feet as shown on the type log of the Humble Oil & Refining Co. - Trawick Gas Unit 6 Lease Well No. 2 (API No. 42-347-00046), Nacogdoches County, Texas, be designated as a single reservoir for proration purposes and be designated as the Trawick (Jurassic) Field.

The correlative interval will allow Cabot to complete their wellbores in all four of the Jurassic sand accumulations during the initial completion operations. The cost to drill and complete wells in the main Jurassic reservoir are estimated at \$3.8 MM. If Cabot is allowed to complete a well in all four of the possible Jurassic sand accumulations initially, the total estimated cost is \$4.8 MM. Completing and producing a well from one reservoir at a time, will increase the completion and stimulation costs by an estimated \$500,000.

Cabot is attempting to recover the maximum amount of reserves from the Trawick (Jurassic) Field by designating a Jurassic correlative interval. This will lower the economic limit for individual zones and provide for the additional recovery of hydrocarbons. Cabot stated that the designated correlative interval is vital to increase the production rates for the wells and enhance the economic viability of drilling for these reserves.

Using a 20% exponential decline rate and a 30 MCFGPD economic limit, Cabot calculated an increased gas recovery of 147,215 MCF for each well. The additional recovery would be a direct result of completing simultaneously in the four Jurassic sands contained within the designated correlative interval. Approval of the correlative interval in the Trawick (Jurassic) Field will prevent waste, protect correlative rights and increase the ultimate recovery of reserves.

The gas produced from the Trawick (Jurassic) Field also contains 2.008 Mol% of CO₂. Due to the corrosive nature of CO₂ and the producing depth of the field, it is beneficial to recover the reserves as quickly as possible. This will reduce the chances of a mechanical failure of the production string, which could result in the loss of the wellbore and all of the remaining recoverable reserves.

A multi-factor allocation formula is necessary for the protection of correlative rights pursuant to State Statutes. To satisfy State Statutes, Cabot proposed a two factor allocation formula based on 95% deliverability and 5% per well. Cabot was not adverse to allocation based on 75% deliverability and 25% acreage. In addition, Cabot requested

that the allocation formula be suspended as there is a 100% market for all the gas produced from the field.

FINDINGS OF FACT

1. Notice of this hearing was given to all persons entitled to notice and no protests were received.
2. The Trawick (Jurassic) Field was discovered by the Humble Oil & Refining Co. - Trawick Gas Unit 6 Lease Well No. 2 in November 1962 with perforations from 11,820 feet to 11,840 feet.
3. The field is classified as a non-associated gas field and there is only one gas well carried on the proration schedule.
4. Cabot Oil & Gas Corporation has recently drilled the Trawick Gas Unit 29 Lease Well No. 101. Although there has not been any potential test filed, the well is currently flowing at the rate of 168 MCFGPD while recovering frac fluid.
5. Cabot recommends that the entire correlative interval from 10,707 feet to 12,321 feet as shown on the type log of the Humble Oil & Refining Co. - Trawick Gas Unit 6 Lease Well No. 2 (API No. 42-347-00046), Nacogdoches County, Texas, be designated as a single reservoir for proration purposes and be designated as the Trawick (Jurassic) Field.
6. The designated correlative interval will allow Cabot to complete their wellbores in all four of the Jurassic sand accumulations during the initial completion operations. This will reduce the well cost by approximately \$500,000.
7. The Jurassic correlative interval will lower the economic limit for each individual sand and provide for the additional recovery of hydrocarbons. Using a 20% exponential decline rate and a 30 MCFGPD economic limit, Cabot calculated an increased gas recovery of 147,215 MCF for each well.
8. The gas produced from the Trawick (Jurassic) Field also contains 2.008 Mol% of CO₂. Due to the corrosive nature of CO₂ and the producing depth of the field, it is beneficial to recover the reserves as quickly as possible.
9. Allocation based on 75% deliverability and 25% acreage is a reasonable formula which will protect correlative rights.
10. Suspension of the allocation formula in the field is appropriate because there is a market for any gas produced from the field.

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 Trawick (Jurassic) Field as proposed by Cabot Oil & Gas Corporation 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 field rules for the Trawick (Jurassic) Field be renumbered and amended as proposed by Cabot Oil & Gas Corporation and that the allocation formula in the field be suspended.

Respectfully submitted,

Richard D. Atkins, P.E.
Technical Examiner