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*****
* KEY ISSUES: CONFISCATION                                *
*           Multiple regular locations available          *
*           Uncompensated drainage                        *
*                                                         *
* FINAL ORDER: R37 EXCEPTION GRANTED                      *
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District 6
Rule 37 Case No. 0207685

**APPLICATION OF VALENCE OPERATING COMPANY FOR AN EXCEPTION TO
STATEWIDE RULE 37 TO DRILL ITS NO. 2 WELL, MOBLEY GAS UNIT, BLOCKER
(COTTON VALLEY), BLOCKER (TRAVIS PEAK), BLOCKER (PAGE), BLOCKER
(RODESSA), SHADY LANE (RODESSA), AND WILDCAT FIELDS, HARRISON
COUNTY, TEXAS**

APPEARANCES:

REPRESENTING:

APPLICANT -

David Gross, Attorney
David Willis, Geologic Manager
Stephen M. Manning, V.P. of Eng.

Valence Operating Company
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"

PROTESTANT -

A. Andrew Gallo, Attorney
Bruce B. Rowley, Petroleum Engineer
Kenneth L. Rosato, Land Surveying Eng.

Amoco Production Company
"
"

PROCEDURAL HISTORY

Application Filed:	December 23, 1994
Notice of Hearing:	March 10, 1995
Hearing Held:	June 14, 1995
PFD Circulated	September 1, 1995

Heard by:

Colin K. Lineberry,
Hearings Examiner
James M. Irwin, P.E.,
Technical Examiner

STATEMENT OF THE CASE

Valence Operating Company ("Valence" or "applicant") seeks an exception to Statewide Rule 37 to drill its proposed Well No. 2 on the Mobley Gas Unit for the Blocker (Cotton Valley), Blocker (Travis Peak), Blocker (Page), Blocker (Rodessa), Shady Lane (Rodessa), and Wildcat Fields. The application is protested by Amoco Production Company ("Amoco" or "protestant"). The proposed well location complies with the statewide spacing and density rules applicable to the Blocker (Travis Peak), Blocker (Page), Blocker (Rodessa), Shady Lane (Rodessa), and Wildcat Fields. An exception is necessary, however, to the Blocker (Cotton Valley) Field Rules. Those rules mandate spacing of 933 feet from unit lines and 1867 feet between wells, with 640 acre regular units (10% tolerance) and optional unit sizes of 320 acres and 160 acres.

The applied-for location is regular as to between-well spacing but is only 584 feet from the nearest unit line. Accordingly, an exception to Statewide Rule 37 is necessary. The irregularly shaped Mobley Gas Unit contains 677 contiguous acres and there is currently only one well on the unit producing from the Blocker (Cotton Valley) Field. As a result, no exception pursuant to statewide Rule 38 is necessary for Valence to drill the proposed Well No. 2.

APPLICANT'S EVIDENCE AND POSITION

Applicant Valence presented evidence that the Blocker (Cotton Valley) Field consists of tight sands, that the majority of production comes from the Taylor sands, and that frac treatments are required for wells in the field to produce in commercial quantities. Valence further presented evidence that neither structure nor thickness of net pay correlate strongly with well performance in the Blocker (Cotton Valley). Instead, good production tends to occur in "sweet spots" resulting from micro-fractures or higher energy deposition areas. Based on the estimated ultimate recoveries (EUR's) of wells in the Blocker (Cotton Valley) Field in the vicinity of the Mobley Unit that have been producing for 10 years or more, Valence contoured an iso-EUR map reflecting the sweet spots and trends in the relevant portion of the Blocker (Cotton Valley). The map shows a number of "sweet trends" and generally reflects higher EUR's to the south and west and diminishing EUR's to the north and east.

Valence estimated that there are 8.5 BCF of currently recoverable Blocker (Cotton Valley) gas reserves remaining under the Mobley Unit. Valence estimated that the existing well on the Mobley Unit will recover an additional .2 BCF. Valence acknowledged that, under the existing field rules, it could drill three additional wells in regular locations on the Mobley Unit. Based on its iso-EUR map, Valence estimated that wells in the three potential regular locations would collectively

recover a maximum of 2.7 BCF of gas (1.0 BCF each for the more central locations and .7 BCF for the most northerly location). Using the same methodology, Valence estimated that a well at the applied-for location, in the southern panhandle of the unit, would ultimately recover between 1.5 and 2.0 BCF of gas. Valence's representative testified that, given the cost to drill a well in the Blocker (Cotton Valley) Field and the estimated 21 year production life, a well that will ultimately produce 1.0 BCF of gas or less would not meet its economic guidelines.

Valence presented further evidence that, due to fracture stimulation, wells in the Blocker (Cotton Valley) typically drain elliptical or band-aid shaped areas that are slanted at an angle of approximately 65 degrees east of north. Valence estimated that the drainage pattern for the typical well in the Blocker (Cotton Valley) covers 87 acres and is 4000 feet long by 1000 feet wide. Based on these patterns, Valence concluded that several wells offsetting the Mobley Unit have drainage patterns that include significant portions of the Mobley Unit. Valence alleges that two of protestant Amoco's existing wells have drainage patterns that overlap substantial portions of the southern panhandle of the Mobley Unit. The drainage pattern of Valence's existing well is contained within the boundaries of the Mobley Unit except for one small portion to the east.

PROTESTANT AMOCO'S EVIDENCE AND POSITION

Amoco presented its own iso-EUR map and, based on that map, estimated that a well at the applied-for location would recover 1.25-1.30 BCF of gas without interference from other wells. Amoco asserted that due to drainage by Amoco's wells offsetting the location, the ultimate recovery of the well would be reduced to approximately 1.0 BCF. Amoco also estimated that each of the three potential regular locations would recover 1.3 BCF of gas and that the existing Valence well will recover an additional .4 BCF of gas.

Amoco agreed with Valence as to the 65 degree azimuth and the "band-aid" shape of the typical well drainage area in the Blocker (Cotton Valley). Amoco, however, assumed a 160 acre drainage area, resulting in a length of 5000 feet and a width of 1660 feet for the affected area. Amoco presented testimony and maps of the drainage areas of existing wells demonstrating that fractures induced by Amoco likely extend onto the Mobley Unit and that drainage by two of Amoco's wells affects substantially all of the southern panhandle of the Mobley Unit.

EXAMINERS' OPINION

Exceptions to Statewide Rule 37 may be granted to prevent waste or to protect correlative rights/prevent confiscation. There is no allegation that an exception is necessary in this case to prevent waste. To obtain an exception to Statewide Rule 37 to protect correlative rights, the applicant must show: 1) It is not possible for the applicant to recover his fair share by placing the well at any regular location.; and, 2) that the proposed irregular location is reasonable.

1. Regular Location Will Not Recover Applicant's Fair Share

Applicant Valence's estimate that the Blocker (Cotton Valley) under the Mobley Unit contains 8.5 BCF of recoverable gas reserves was undisputed. Valence estimated that its existing well No. 1 and wells at the three available regular locations would collectively ultimately produce 2.9 BCF. Protestant Amoco asserted that the existing well and the three potential regularly located wells would collectively produce 4.3 BCF from the Blocker (Cotton Valley). Under either parties' estimate, even if Valence drilled and produced every regular well location available, it would recover no more than one-half of its fair share of the recoverable gas in place under the Mobley Unit. Applicant has shown that it is not possible for it to recover its fair share of recoverable gas by placing wells at regular locations.

2. Applied-for Location is Reasonable

Valence presented credible evidence that the applied-for location, while still not allowing it to recover its fair share, would allow Valence to recover nearly twice as much gas as any single regular location. Both parties presented evidence that a substantial portion of the southern panhandle of the Mobley Unit (the area on which applicant seeks to locate the applied-for well) is being affected by drainage from Amoco's offset wells. The drainage maps presented by both parties reflect that the Mobley Unit is suffering net uncompensated drainage. Although the amount of drainage was not quantified, the maps demonstrate that the area of the Mobley Unit being affected by drainage from offset wells is significantly larger than the relatively small area outside the Mobley Unit being affected by drainage to Valence's single existing well on the unit.

In summary, the evidence showed: 1) applicant cannot recover its fair share of gas from regular locations (whether considered separately or collectively); 2) the applied-for location in the southern panhandle of the unit will recover substantially more gas than any regular location; 3) the unit is suffering net uncompensated drainage; and, 4) there is substantial drainage from the southern panhandle area of the unit to offset wells. Collectively, these circumstances establish the reasonableness of the applied-for location. *See Imperial American Resources Fund, Inc. v. Railroad Commission*, 557 S.W.2d 280, 286-288 (Tex. 1977).

3. Protestant Did Not Rebut Applicant's Showing

The evidence put on by Amoco did not rebut the elements of confiscation established by applicant Valence. Although Amoco's estimates of ultimate recoveries for wells in regular locations on the Mobley Unit were higher than those of applicant, Amoco's estimates also showed that the available regular locations would not allow applicant to recover its fair share of gas underlying the unit. The drainage patterns sponsored by Amoco showed that the Mobley Unit (and particularly the southern panhandle) was being affected by the drainage areas of Amoco's offset wells to an even larger degree than applicant has estimated.

The evidence demonstrated that applicant Valence cannot recover its fair share of hydrocarbons underlying the Mobley Unit by placing wells at regular locations and that the applied-for irregular location is reasonable. Accordingly, applicant established its right to a Rule 37

exception based on confiscation and its application should be granted.

FINDINGS OF FACT

1. Notice of the hearing was given at least 10 days prior to the hearing to all designated operators, lessees of record for tracts that have no designated operator, and owners of record of unleased mineral interests for each adjacent tract and each tract nearer to the well than the prescribed minimum lease-line spacing distance.
2. Valence Operating Co. ("applicant") has applied on Form W-1 for a permit to drill Well No. 2 on the Mobley Gas Unit. Applicant proposes to drill its well at a location 584 feet from the northeast line and 1100 feet from the southeast line of the unit, and 584 feet from the northerly northeast line and 1350 feet from the northerly southeast line of the J. Payne survey. Applicant has applied to drill its proposed well for the Blocker (Cotton Valley), Blocker (Travis Peak), Blocker (Page), Blocker (Rodessa), Shady Lane (Rodessa), and Wildcat Fields.
3. The applied-for location is a regular location in all proposed fields except the Blocker (Cotton Valley) Field.
4. The Blocker (Cotton Valley) Field has field rules requiring spacing of 933 feet from unit lines and 1867 feet between wells. The field rules further specify a density pattern of 640 acres per well with options of 320 acre or 160 acre spacing.
5. Applicant's Mobley Gas Unit is a tract of irregular shape, containing 677.04666 acres.
6. Applicant has no interest in tracts offsetting the unit.
7. Between 8.1 and 8.3 BCF of gas underlying the Mobley Gas Unit in the Blocker (Cotton Valley) Field will not be recovered by the single existing well on the unit.
8. Regularly located wells would recover a maximum of 3.9 BCF of gas from the Blocker (Cotton Valley) Field.
9. Without the applied for exception, reserves in the Blocker (Cotton Valley) Field of at least 4.2 to 4.5 BCF cannot be recovered by the mineral interest owners of the Mobley Gas Unit.
10. A well at the applied-for location will recover 1.5 - 2.0 BCF of gas from the Blocker (Cotton Valley) Field. A well located at one of the three potential regular locations will recover .7 - 1.3 BCF of gas from the Blocker (Cotton Valley) Field.
11. The Mobley Unit is currently suffering net uncompensated drainage in the Blocker (Cotton Valley) Field. Offset wells are draining a substantial portion of the southern panhandle of the Mobley Unit. The applied-for well location is in the southern panhandle of the Mobley

Unit.

12. The applied-for well location is reasonable because it will allow the mineral interest owners to recover more of the Blocker (Cotton Valley) Field gas under the Mobley Unit than any single regular location, without allowing recovery of more than the owners' fair share of hydrocarbons.

CONCLUSIONS OF LAW

1. Proper notice of hearing was timely given to all persons legally entitled to notice.
2. All things have occurred and have been done to give the Commission jurisdiction to decide this matter.
3. An exception pursuant to Statewide Rule 37 to the Blocker (Cotton Valley) field rules regarding well spacing is necessary to permit drilling the applied-for well.
4. Approval of the requested permit to drill a well at the proposed location is necessary to give the owners of the Mobley Gas Unit a reasonable opportunity to recover their fair share of hydrocarbons in the applied-for fields underlying the tract, or the equivalent in kind, thereby preventing confiscation.

RECOMMENDATION

The examiners recommend that the subject application be approved in accordance with the attached final order.

Respectfully submitted,

Colin K. Lineberry
Hearings Examiner

James M. Irwin, P.E.
Technical Examiner

CKL