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RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 01-0282369

THE APPLICATION OF BLACKBRUSH OIL & GAS, L.L.C. TO EXPAND THE CORRELATIVE INTERVAL FOR THE HUGH FITZSIMMONS (SAN MIGUEL) FIELD, DIMMIT AND MAVERICK COUNTIES, TEXAS

HEARD BY: Andres J. Trevino, P.E. - Technical Examiner
Terry Johnson - Legal Examiner

HEARING DATE: May 28, 2013

APPEARANCES:

REPRESENTING:

APPLICANT:

Paul Tough
John McBeath
Mark Norville
Steve Carter

Blackbrush Oil & Gas, L.L.C.

INTERVENOR:

David W. Cooney, Jr.

Railroad Commission Staff

OBSERVER:

Rick Johnston

Prime Operating Company

EXAMINER'S REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Blackbrush Oil & Gas, L.L.C. (Blackbrush) requests that the correlative interval for the Hugh Fitzsimmons (San Miguel) Field be expanded to include unproductive shales above the productive San Miguel B sand. Blackbrush needs to expand the interval so that horizontal well completions will be compliant with Statewide Rule 13. Blackbrush proposes that the field interval be defined as the correlative interval between 3,406 feet and 4,000 feet as shown on the log of the San Pedro Ranch No. 806.

This application was unopposed and the examiners recommend approval of Blackbrush's request to expand the correlative interval for the field.

DISCUSSION OF THE EVIDENCE

The Hugh Fitzsimmons (San Miguel) Field was discovered in 1959 and there are approximately 200 wells in the field. Cumulative production from the wells in the field has been 2.58 MMBO. The field has been developed primarily with vertical wells and recently is being developed with horizontal wells. The field is currently defined as the correlative interval from 3,846 feet to 3,950 feet as shown on the log of the San Pedro Ranch No. 806. This interval was adopted in Docket No. 01-0277584 on October 2, 2012.

Blackbrush is drilling horizontal wells in the field using oil based drilling mud and gas (propane) to fracture stimulate wells as they believe the shales above and within the productive San Miguel B sand are sensitive to water and swell. The shales are so sensitive to water that the water in the cement will react and swell causing reduced production. The wells require uncemented liners to be placed within the San Miguel B with outside packers and require gas fracs to economically produce the wells. In order to had a successful completion Blackbrush is required to set production casing at a depth of 3,400 feet and cement it in place. The well is typically kicked off at a depth of 3,466 feet to drill the horizontal section within the San Miguel B. Enforcement action was initiated by Commission staff as the wells were not compliant with Statewide Rule 13, requiring cement to be placed above the productive interval to isolate production.

An agreement was reached with Staff to expand the interval, allowing Blackbrush to complete the wells as necessary to maximize recovery and to be compliant with Rule 13. Commission Staff does not protest the expansion of the designated interval. A study performed by Blackbrush on 13 existing horizontal wells shows wells completed with gas fracks recover significantly higher volumes of oil over the same period than water fracked wells. Most gas fracked wells recover 70% more oil over a water fracked well while one gas fracked well recovered 250% more oil. Additionally, Blackbrush expects a cost savings of \$300,000 per well by not cementing the liner. With the cost savings and the increased oil recovery, Blackbrush will be able to justify drilling horizontal wells in areas previously considered marginal. The horizontal drilling in marginal areas will prevent waste and recover additional oil that would normally be bypassed.

The zone between the top of the San Miguel B sand, 3,850 feet and the top of the interval, 3,406 feet is an unproductive, low permeability, sandy shale. There should be no fluids expected to be released from the expanded uncemented interval. Blackbrush requests no change in the other existing field rules.

FINDINGS OF FACT

1. Notice of this hearing was given to all operators of wells in the Hugh Fitzsimmons (San Miguel) Field at least ten days prior to the date of hearing.

2. The Hugh Fitzsimmons (San Miguel) Field was discovered in 1959. The current interval for the field is from 3,846 feet to 3,950 feet as shown on the log of the San Pedro Ranch No. 806.
3. Production from the field is primarily from vertical wells. Cumulative production from the 200 wells in the field has been 2.58 MMBO.
4. Blackbrush is drilling horizontal wells in the field using oil based drilling mud and gas (propane) to fracture stimulate wells as they believe the shales above and within the productive San Miguel B sand are sensitive to water and swell.
5. The shales are so sensitive to water that the water in the cement will react and swell causing reduced production. The wells require uncemented liners to be placed within the San Miguel B with outside packers and require gas fracs to economically produce the wells.
6. Enforcement action was initiated by Commission staff as the wells were not compliant with Statewide Rule 13, requiring cement to be placed above the productive interval to isolate production.
7. An agreement was reached with Staff to expand the interval, allowing Blackbrush to complete the wells as necessary to maximize recovery and to be compliant with Rule 13. Commission Staff does not protest the expansion of the designated interval.
8. The interval from 3,406 feet and 4,000 feet as shown on the log of the San Pedro Ranch No. 806 includes unproductive, low permeability, sandy shale that is not expected to produce any fluids.
9. A study performed by Blackbrush on 13 existing horizontal wells shows wells completed with gas fracks recover significantly higher volumes of oil over the same period than water fracked wells.
10. With the cost savings and the increased oil recovery, Blackbrush will be able to justify drilling horizontal wells in areas previously considered marginal.
11. Expansion of the correlative interval for the field to include the unproductive zone will maximize ultimate recovery from wells in the field.

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. Expansion of the designated interval for the Hugh Fitzsimmons (San Miguel) Field as proposed by Blackbrush Oil & Gas, L.L.C. is necessary to prevent waste and protect correlative rights.

EXAMINER'S RECOMMENDATION

Based on the above findings and conclusions, the examiners recommend that the field interval for the Hugh Fitzsimmons (San Miguel) Field be expanded as proposed by Blackbrush Oil & Gas, L.L.C to promote the recovery of additional resources that would otherwise go unrecoverd.



Andres J. Trevino, P.E.
Technical Examiner

Respectfully submitted,



Terry Johnson
Legal Examiner