



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL & GAS DOCKET NO. 7B-0282744

THE APPLICATION OF TITAN ENERGY, INC. TO CONSIDER UNITIZATION AND SECONDARY RECOVERY AUTHORITY FOR THE HAMLIN UNIT IN THE KEELER-WIMBERLY (CANYON) FIELD, FISHER COUNTY, TEXAS

HEARD BY: Andres J. Trevino P.E., Technical Examiner
Michael Crnich, Hearings Examiner

DATE OF HEARING: July 12, 2013

APPEARANCES:

David Nelson
Dale E. Miller
David Paschal

REPRESENTING:

Titan Energy, Inc.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Titan Energy, Inc. (Titan) requests Commission authority for unitization of the Hamlin Unit and approval of secondary recovery operations on the Unit in the Keeler-Wimberly (Canyon) Field.

This application was unopposed and the examiners recommend approval.

DISCUSSION OF THE EVIDENCE

The Keeler-Wimberly (Canyon) Field was discovered in 1952 at an approximate depth of 4,528 feet. The Project Area that Titan will waterflood is an individual Canyon Sand lens within the boundaries of the Keeler-Wimberly (Canyon) Field. Titan has obtained leases in the proposed Project Area to initiate the waterflood unit. There are currently 11 producing wells and 7 shut-in wells within the Project area. Currently, Titan will operate all wells within the proposed Hamlin Unit.

The area proposed for the subject unitization covers acreage that includes the majority of the productive reservoir sand lens. The reservoir lens limits are well defined and are believed to include both drained and undrained areas. Mineral interest owners of



productive areas were given an opportunity to participate in the unit on the same yardstick basis as those mineral interest agreeing to participate in the unit. Cumulative primary production from the wells in the proposed Hamlin Unit is 323,423 BO. There is an estimated 15,689 BO remaining primary production from the wells on the proposed unit.

The unitized formation is the subsurface portion of the Unit Area commonly known as the Keeler-Wimberly (Canyon) Field. The formation is described as the Lower Canyon 'A' Sand which is an individual sand lens within the field. The Lower Canyon 'A' Sand is encountered within the interval from 4,200 feet to 4,600 feet on the Titan Energy Inc.'s Daniel No. 18, (API No. 42-151-32681) located in the BBB & C RR Co./ J.M. Kuykendall Survey, A-520, Section 194, Block 1, Fisher County, Texas.

The unitized interval includes the top of the Canyon Sand formation at 4,200 feet thru the base at 4,600 feet. The Canyon Sand formation is composed of multiple stratigraphic sandstone deposits. Within the 400 foot gross Canyon Sand interval lies the Lower Canyon 'A' Sand. The Lower Canyon 'A' Sand is a continuous sand lens encapsulated by shale that is found in all wells through out the Project Area. The Lower Canyon 'A' Sand's average porosity is 17.0% and average water saturation is 35 to 42%. The initial reservoir pressure was 1,905 psi and the current reservoir pressure is 497 psi. In the initial phase, Titan plans to waterflood the Project Area by utilizing 16 producing wells, one injection well and one saltwater supply well. In the next phase, Titan will convert three producers into injection wells and may drill three new producing wells in the final phase of the project. Titan will use a line drive/central type pattern to maximize sweep of the reservoir.

The proposed Hamlin Unit consists of 20 tracts which contain a total of 298.38855 acres. The participation formula is based on 50% on each tract's portion of production as of December 31, 2012 and 50% on each tract's portion of 298.38855 productive acres. The Unit Agreement has been ratified by 92.5% of the royalty interest ownership and 100% of the working interest ownership. Winstar Energy I LP owns 100% of working interest of the Project area and Titan will operate the Unit. There are no state lands in the Project Area.

It is estimated that the total cost to implement the project will be \$4,000,000. Secondary reserves are estimated to be 339,112 BO. Estimated net working interest revenue after taxes, lease expenses, royalties and initial operating expenses from the secondary recovery project is \$23.1 million.

FINDINGS OF FACT

1. Notice of this hearing was sent to all operators and royalty interest owners within the proposed unit and to offset operators and mineral owners of unleased tracts. Notice was also published in *The Rotan Advance/Roby Star Record*, a newspaper of general circulation in Fisher County, for four consecutive weeks beginning June 6, 2013. There were no protests to the application.

2. The proposed unit consists of 20 tracts which contain a total of 298.38855 acres.
3. The unitized formation is the subsurface portion of the Unit Area commonly known as the Keeler-Wimberly (Canyon) reservoir. The formation is described as the Lower Canyon 'A' Sand encountered within the interval from 4,200 feet to 4,600 feet on the Titan Energy Inc.'s Daniel No. 18, (API No. 42-151-32681) located in the BBB & C RR Co./ J.M. Kuykendall Survey, A-520, Section 194, Block 1, Fisher County, Texas.
4. Secondary recovery operations will result in the recovery of an estimated 339,112 BO which would otherwise go unrecovered.
5. The cost to implement the project does not exceed the value of additional reserves to be recovered.
6. The participation formula is based on 50% on each tract's portion of production as of December 31, 2012 and 50% on each tract's portion of 298.38855 productive acres.
7. The secondary recovery project will not be successful unless the area is unitized.
8. The secondary recovery program will use salt water from a water supply well.
9. The agreement was voluntarily executed by all parties affixing their signatures thereto and no person has been compelled or required to enter into the agreement. The unit agreement binds only those persons who have executed it, their heirs, successors, assigns and legal representatives. The rights of all owners of interests in the field will be protected under the operation of the unit, regardless of whether an owner signed the unit agreement.
10. The owners of interest in the oil and gas under each tract of land within the area reasonably defined by development have been given an opportunity to enter into the unit on the same yardstick basis as owners of interest in the oil and gas under the other tracts in the unit.
11. The proposed injection program will move hydrocarbons across lease lines, and unitization is necessary in order to protect the correlative rights of the various interest owners.
12. The unitization agreement is necessary to accomplish the purposes of establishing a unit to effect secondary recovery operations and to operate

- the necessary cooperative facilities. Other available or existing methods or facilities for secondary recovery operations are inadequate for the purpose of secondary recovery.
13. The unit agreement does not provide, either directly or indirectly, for the cooperative refining or marketing of crude petroleum, distillate, condensate, or gas, or any by-product thereof.
 14. The unit agreement is subject to all valid orders, rules and regulations of the Railroad Commission.
 15. The unit agreement contains no provision regarding field rules, nor does it limit the amount of production of oil or gas from the unitized area. The unit agreement does not release the operator from his obligation to reasonably develop lands or leases as a whole.
 16. The unit agreement is a voluntary agreement entered into for the purpose of conducting secondary recovery operations.
 17. The unit agreement does not provide for the location of wells.
 18. There are no State lands in the unit.
 19. The reservoir described in the unit agreement is a suitable reservoir for the proposed secondary recovery operation.
 20. The unit agreement contains only the acreage reasonably necessary to accomplish the proposed secondary recovery project.
 21. The unit agreement has been ratified by 100% of the working interest ownership and 92.5% of the royalty interest ownership.
 22. On tracts where 100% sign-up is not attained, applicant will conduct monthly well tests to account for production from that tract.

CONCLUSIONS OF LAW

1. Proper notice was given to all persons legally entitled to notice.
2. All things have occurred or have been accomplished that are necessary to give the Commission jurisdiction in this matter.
3. Applicant's proposed secondary recovery project satisfies all of the requirements set out in TEX. NAT. RES. CODE ANN. §§101.001 et seq. (Vernon 1993).

4. Approval of the proposed unit agreement and secondary recovery operations is in the public interest and is necessary to prevent waste and to promote the conservation of oil or gas or both.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the examiners recommend approval of the proposed Hamlin Unit and secondary recovery operations project as set out in the attached order.

Respectfully submitted,



Andres J. Trevino
Technical Examiner



Michael Crnich
Hearings Examiner