THE APPLICATION OF STABLEROCK ENERGY, L.L.C. TO CONSIDER UNITIZATION AND SECONDARY RECOVERY AUTHORITY FOR THE STOCKTON QUEEN UNIT, WELL NO. 1, U.S.M. (QUEEN) FIELD, PECOS COUNTY, TEXAS

HEARD BY: Peggy Laird, P.G. — Technical Examiner
Jennifer N. Cook — Administrative Law Judge

HEARING DATE: September 20, 2017

CONFERENCE DATE: November 7, 2017

APPEARANCES: REPRESENTING:

APPLICANT:

Michael E. McElroy
Jack Moores, CPL
Sheri Sullivan, P.G.
Richard Coleman, P.E.

StableRock Energy, LLC

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

StableRock Energy, LLC ("StableRock") requests Commission authority for unitization of the Stockton Queen Unit No. 1 ("Unit"), U.S.M. (Queen) Field ("Field"), Pecos County, Texas, and approval of secondary recovery operations on the Unit. The application is unprotested and the Technical Examiner and Administrative Law Judge ("collectively, Examiners") recommend approval of the authority for unitization and approval of secondary recovery operations on the Unit.

DISCUSSION OF EVIDENCE

The proposed Unit consists of 3,075 acres of the U.S.M. (Queen) Field, Pecos County, Texas. The unitized interval is identified as the Queen Sand Formation defined
as the stratigraphic interval or its correlative equivalent occurring from 3,150 feet measured depth to 3,502 feet measured depth, as seen on the Baker Hughes Density/Neutron log (dated 6-15-2008) of the George M. Shelton #24 well (API # 42-371-38296), in Pecos County, Texas. The boundaries of the Unit are established by adjacent wells which watered out with little recovery, adjacent wells which are uneconomic due to limited porosity, or a combination of both. There is only one offset operator with wells producing in the Field. This lease is in the lower southwest corner of the proposed Unit. That operator declined to join the Unit.

There has been oil and gas production from the area within the proposed Unit for more than forty years. Pay decks associated with the production provided the applicant with names and addresses for most of the owners of mineral rights within the proposed Unit. The Applicant's landmen conducted a thorough search of Pecos County records to confirm the names and addresses of owners of mineral interests within the boundaries of the proposed Unit. However, because of breaks in the title caused by some owners' failure to file copies of title documents, such as probated wills in the Pecos County Deed Records, the Operator elected to give notice by publication.

Notice of the application was published in *The Fort Stockton Pioneer*, a newspaper of general circulation in Pecos County, on August 10, 17, 24, and 31, 2017. Notice of the application and notice of the hearing were served on the working interest owners, royalty interest owners, surface owner, offset operators, and overriding royalty interest owners.

An offer to participate in the Unit was made to all owners of interests of mineral rights within the proposed Unit. All interest owners received a copy of the proposed Unit Agreement. The Unit Agreement has been approved by 99.17% of the working interest and more than 80.59% of the royalty interests within the area of the proposed Unit. There are State-owned lands in the proposed Unit, and the School Land Board has consented to participation in the Unit under the proposed allocation formula.

The proposed Stockton Queen Unit No. 1 consists of 24 tracts. The productive interval contained within the Queen Sand Formation consists of four to five principal zones of porosity. The proposed Unit contains all the lands reasonably defined by development in the U.S.M. (Queen) Field, save and except the tract in the southwest corner of the proposed Unit, the operator of which declined to join.

The Unit is currently being waterflooded in a pilot project area in the central portion of the proposed Unit. StableRock plans to expand the injection pattern and has applied for eleven more injection wells for that purpose. Cumulative production to date is over 2.5 million barrels of oil ("MMBO") and 5.8 million cubic feet of gas ("MMCFG"). StableRock intends to expand the current waterflood injection pattern by recompleted producing wells to injection. They anticipate a recovery factor secondary to primary ratio of 1:1, or 2.0 MMBO. However, more may be recovered because adjacent waterfloods conducted by Apache Corporation and American Resources, Inc. have both seen recovery factors secondary to primary ratios more than 2:1. Additional costs to implement the secondary recovery operation is expected to be $9.5 million. After accounting for the development costs, StableRock anticipates a rate of return of approximately 28%. The
cost to implement the secondary recovery project does not exceed the value of the additional revenues to be achieved.

Upon approval of the Unit by the Railroad Commission of Texas, StableRock intends to seek ratifications of the Unit Agreement from those few interest owners who have not yet signed. StableRock maintains a portable testing facility in the field will measure production from wells on tracts in which 100% sign up was not achieved.

**FINDINGS OF FACT**

1. Notice of Hearing was sent to working interest owners, royalty interest owners, other mineral interest owners within the Unit, and all operators in tracts offsetting the Unit least ten days prior to the hearing.

2. Notice was published in *The Fort Stockton Pioneer*, a newspaper of general circulation in Pecos County, Texas, for four consecutive weeks on August 10, 17, 24, and 31, 2017.

3. The proposed Unit consists of 24 tracts which contain 3,075 acres.

4. The unitized formation is the subsurface portion of the Unit area commonly known as the Queen Formation, being more particularly described as the stratigraphic interval or its correlative equivalent occurring from 3,150 feet, measured depth, to 3,502 feet, measured depth, as seen on the Baker Hughes Density/Neutron log (dated 6-15-2008) of the George M. Shelton #24 well (API # 42-371-38296), in Pecos County, Texas.

5. The productive interval contained within the U.S.M. (Queen) Field in the area of the proposed Unit consists of four to five principal zones of porosity.

6. At the time of the hearing, 99.17% of the working interest and more than 80.59% of the royalty interests within the Unit area have agreed to the Unitization Agreement.

7. Secondary recovery operations are expected to result in the recovery of an estimated 2.0 MMBO which could otherwise go unrecovered.

8. Additional costs to implement the secondary recovery operation is expected to be $9.5 million. The cost to implement the secondary recovery project does not exceed the value of the additional revenues to be achieved.

9. The secondary recovery project will prevent the waste of oil that otherwise would remain unrecovered.

10. The Unit Agreement was voluntarily entered by all parties affixing their signatures thereto and no person was 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.

11. The owners of interests 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 interests in the oil and gas under the other tracts in the Unit.

12. 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.

13. The Unitization Agreement is necessary to accomplish the purposes of establishing a unit to effect secondary recovery operations for water injection and to operate cooperative facilities necessary thereto. Other available or existing methods or facilities for secondary recovery operations are inadequate for the purpose of secondary recovery.

14. 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.

15. The Unit Agreement is subject to all valid orders, rules and regulations of the Railroad Commission.

16. The Unit Agreement contains no provision regarding the field rules, nor does it limit the amount of production of oil and 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.

17. The Unit Agreement is a voluntary agreement entered into for the purpose of conducting secondary recovery operations.

18. The Unit Agreement does not provide for the location of wells.

19. There are State-owned lands in the proposed Unit, and the School Land Board has consented to participation in the Unit under the proposed allocation formula.

20. The Unit Agreement is in the interest of public welfare as being reasonably necessary to prevent waste and to promote conservation.

21. The reservoir described in the Unit Agreement is identified as a single reservoir for Commission purposes and is a suitable reservoir for a secondary recovery project.
22. The Unit Agreement contains only the acreage reasonably necessary to accomplish the proposed secondary recovery project.

23. StableRock will measure production from wells on tracts for which 100% sign-up was not achieved.

24. At the hearing, the applicant agreed on the record that the Final Order in this case is to be effective when the Master Order is signed.

CONCLUSIONS OF LAW


2. All notice requirements have been satisfied. 16 Tex. Admin. Code § 1.42.


4. Approval of the proposed Unit Agreement for 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.

5. Pursuant to §2001.144(a)(4)(A) of the Texas Government Code and the agreement of the applicant, the Final Order is effective when a Master Order relating to the Final Order is signed on November 7, 2017.

RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend approval of the proposed Stockton Queen Unit No. 1 and secondary recovery operations project.

Respectfully submitted,

Peggy Laird
Technical Examiner

Jennifer N. Cook
Administrative Law Judge