



# RAILROAD COMMISSION OF TEXAS

## HEARINGS DIVISION

**OIL AND GAS DOCKET NO. 8A-0295299**

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**THE APPLICATION OF ROFF OPERATING COMPANY, LLC TO CONSIDER  
UNITIZATION AND SECONDARY RECOVERY AUTHORITY FOR THE PROPOSED  
KEY WEST TEN UNIT, KEY WEST (SPRABERRY) FIELD, DAWSON COUNTY,  
TEXAS**

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**HEARD BY:** Karl Caldwell – Technical Examiner  
John Dodson – Hearings Examiner

**DATE OF HEARING:** April 9, 2015  
**DATE OF CONFERENCE:** May 12, 2015

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

Clark Jobe  
Charles Roff  
Frank McColloch  
Randal Brush, P.E.  
John Polleys

Roff Operating Company, LLC

### EXAMINERS' REPORT AND RECOMMENDATION

#### STATEMENT OF THE CASE

Roff Operating Company, LLC ("Roff Operating") requests Commission authority for unitization of the Key West Ten Unit ("Unit"), approval of secondary recovery operations on the Unit, and designation of the Unit as an entity for density purposes. In the application, Roff Operating had also requested a capacity allowable for the Unit. However, Roff Operating withdrew the request for a capacity allowable at the hearing. The application is unopposed and the Examiners recommend approval of the authority for unitization, approval of secondary recovery operations on the Unit, and designation of the Unit as an entity for density purposes.

**DISCUSSION OF EVIDENCE**

The Key West (Spraberry) Field was discovered on November 23, 1982, at a depth of 7,680 feet. The Key West (Spraberry) Field rules provide for 330 feet lease line spacing, 933 feet between well spacing, 80 acre density with 40 acre tolerance, and allocation based on 100% acres. The top allowable is 198 BOPD with an allowable gas-oil ratio of 2,000 cubic feet per barrel and a casinghead gas limit of 396 Mcf per day. Cumulative oil production from the Key West (Spraberry) Field through March 2015 is 2.38 MMBO.

The unitized formation is the subsurface portion of the Unit area commonly known as the Key West (Spraberry) Field, between the subsurface depths of 7,192 and 8,150 feet as shown on the log of the Roff Operating Company, LLC - Waldrop Lease, Well #3 (API No. 42-115-33252), Section 10, Block 35, T5N, T&P RR Co., Dawson County, Texas.

The proposed Key West Ten Unit consists of four tracts which contain 640 acres. The productive interval contained within the Spraberry Formation is a stratigraphic trap. Primary depletion is the primary drive mechanism. The productive portion of the unitized interval has an average porosity of 16%, with a permeability ranging between 0.1 and 10 md, and an average structural thickness of 13 feet.

Primary recovery from the Unit is estimated to be 710 MMBO. Roff Operating estimates that secondary recovery will be equal to 48% of the primary recovery or approximately 340 MMBO. The total cost to implement and operate the secondary recovery project is expected to be \$1.2 million. The value of the oil to be recovered as a result of the unitization is expected to exceed the cost to recover the additional oil.

The participation formula for the Unit is comprised of two factors: the first factor is based 50% on current producing rate in 2013; the second factor is based 50% on remaining primary oil recover plus expected waterflood projected reserves. At the time of the hearing, 100% of the working interest ownership, and 98% of the royalty interest ownership had signed the Unit Agreement. There are no state owned lands in the proposed Unit. Roff Operating anticipates nearly 100% sign up of the working and royalty interest ownership by the time the secondary recovery project is initiated, and will maintain facilities to measure production from wells on tracts for which 100% sign-up was not achieved.

Designation of the unit as an entity for density will prevent waste by providing flexibility in locating wells to maximize the recovery of reserves in response to the waterflood operations.

**FINDINGS OF FACT**

1. Notice of hearing was sent to working interest owners, royalty interest owners and offset operators at least ten days prior to the hearing. Notice was published in the *Lamesa Press-Reporter*, a newspaper of general circulation in Dawson, for four consecutive weeks (February 25, 2015, March 4, 2015, March 11, 2015, and March 18, 2015).
2. The proposed Key West Ten Unit consists of four tracts which contain 640 acres.
3. The unitized formation is the subsurface portion of the Unit area known as the Key West (Spraberry) Field, which is the interval between the subsurface depths of 7,192 and 8,150 feet as shown on the log of the Roff Operating Company, LLC Waldrop Lease, Well #3 (API No. 42-115-33252), Section 10, Block 35, T5N, T&P RR Co. Survey, Dawson County, Texas.
4. The productive interval contained within the Spraberry Formation is a stratigraphic trap. Primary depletion is the primary drive mechanism.
5. At the time of the hearing, 100% of the working interest ownership and 98% of the royalty interest ownership had signed the Unit Agreement. Roff Operating anticipates nearly 100% sign up of the royalty interest ownership by the time the project is initiated.
6. Secondary recovery operations are expected to result in the recovery of an estimated 340 MMBO which could otherwise go unrecovered.
7. The total cost to implement and operate the secondary recovery project is expected to be \$1.2 million. The cost does not exceed the value of additional reserves to be recovered.
8. The participation formula for the Unit is comprised of two factors: the first factor is based 50% on current producing rate in 2013; the second factor is based 50% on remaining primary oil recover plus expected waterflood projected reserves.
9. The secondary recovery project will not be successful unless the area is unitized.
10. 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.

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 no state-owned lands in the proposed Unit.
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. Roff Operating will maintain facilities to measure production from wells on tracts for which 100% sign-up was not achieved.
24. Designation of the unit as an entity for density purposes will allow for the drilling of new wells without obtaining between-well spacing exceptions, provided the density is not exceeded.

**CONCLUSIONS OF LAW**

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code §81.051.
2. All notice requirements have been satisfied. 16 Tex. Admin. Code §1.45.
3. Applicant's proposed secondary recovery project satisfies all of the requirements set out in Tex. Nat. Res. Code Ann. §§101.001-052.
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.

**EXAMINERS' RECOMMENDATION**

Based on the above filings of fact and conclusions of law, the Examiners recommend approval of the proposed Key West Ten Unit, secondary recovery operations, and designation of the unit as an entity for density, as set out in the attached final order.

Respectfully submitted,



Karl Caldwell  
Technical Examiner



John Dodson  
Hearings Examiner