



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 03-0312241

APPLICATION OF ARCADIA OPERATING, LLC (028734) TO ADOPT FIELD RULES FOR THE ACE, NORTH (4350) FIELD, POLK COUNTY, TEXAS

HEARD BY: Karl Caldwell – Technical Examiner
Clayton Hoover – Administrative Law Judge

HEARING DATE: August 21, 2018
RECORD CLOSED: September 10, 2018
CONFERENCE DATE: October 16, 2018

APPEARANCES: **REPRESENTING:**

APPLICANT: Arcadia Operating, LLC

Dale Miller

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Arcadia Operating, LLC (Arcadia) requests to adopt permanent field rules for the Ace, North (4350) Field, Polk County, Texas. Arcadia proposes the following field rules:

- Rule 1: Designated Correlative Interval from 4,341' to 4,358' as shown on the Platform Express Array Induction, Compensated Neutron, Three Detector, Litho-Density Log of the Famcor Oil, Inc., Finch Lease Well No. 1, located in the Hiroms, S C Survey A-37, Polk County, Texas. The designated correlative interval is from the top of the Jackson Sand Formation to the base of the Jackson Sand Formation.
- Rule 2: 330'-660' well spacing.
- Rule 3: 40 acre base units with optional 20 acre density, 20 acre tolerance provision for the last well on the lease, the filing of Form P-16 to designate the number of acres to be assigned to individual wells with a plat of the entire lease, no requirement to file individual well

proration unit plats and no maximum diagonal limitation, however an operator may file individual proration plats at their option.

Rule 4: Field Top Oil Allowable of 93 BOPD and 186 MCFPD Daily Gas Limit per well.

Rule 5: 100% Per Well Allocation Formula.

Arcadia is the only operator in the field. The application is unopposed and the Technical Examiner and Administrative Law Judge (collectively, "Examiners") recommend approval of the application.

DISCUSSION OF THE EVIDENCE

The Ace, North (4350) Field, was discovered July 9, 1969 at a depth of 4353 feet with the drilling of the Kirby Lumber Corp. Tract 7, Well No. 3. The field has been under Statewide rules since its discovery, with a field top oil well allowable of 93 BOPD, 467-foot lease line spacing and 1,200-foot between-well spacing, and a standard proration unit size of 40 acres.

A total of seven wells have been drilled and completed in the subject field. There are currently two producing wells on the August 1, 2018 oil proration schedule, both operated by Arcadia. All other wells that have been completed in the field have either been plugged and abandoned, or re-completed in another field.

Arcadia requests to designate a correlative interval for the Ace, North (4350) Field, which is the Jackson Sand Formation. Arcadia proposes to designate the correlative interval from 4,341 feet to 4,358 feet as shown on the Platform Express Array Induction, Compensated Neutron Three Detector, Litho-Density Log of the Famcor Oil, Inc., Finch Lease Well No. 1, located in the Hiroms, S C Survey A-37, Polk County, Texas as a single reservoir for proration purposes.

The historical cumulative oil and gas production by lease indicates that this is a very low gas-oil ratio (GOR) reservoir. The annual production for the field shows there was no production in the field from 2007 to 2012. In 2013, the field was revived by the completion of the Finch No. 1 (API No. 373-31163).

The reservoir properties for the field are estimated as follows: 33% porosity, average water saturation of 50%, 16-feet of net-pay thickness, 39.4 API gravity oil, and an estimated formation volume factor of 1.28 reservoir barrels to stock tank barrels. The reservoir is estimated to be in the late-primary phase of depletion, with a weak to fair water drive. Volumetric calculations, using a recovery factor of 30% estimates the recoverable oil in place for a 40-acre unit to be 192,000 STB.

Drainage area calculations using historical production data varies from a low of 4.46 acres for the one-well Jackson East No. 1 Lease, to 45.93 acres for the Finch Lease.

Arcadia requests to retain the current 40-acre standard proration unit size for the field, but requests to add an optional 20-acre proration unit size. Arcadia also requests 330-foot lease line spacing and 660-foot between-well spacing to recover additional reserves that would otherwise go unrecovered under the current Statewide Rules. The applicant believes the drainage calculations support the request to add optional 20-acre density units. Arcadia also requests that the oil allowable be based on 100% per well. Since the field was discovered in 1969 and there is historical production data with adequate information available to determine the drainage abilities of wells in the field to support the requested field rules, Arcadia requests to adopt permanent field rules.

Arcadia agreed that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order shall be final and effective on the date a Master Order relating to this Final Order is signed.

FINDINGS OF FACT

1. Notice of this hearing was provided to all operators in the field and no protests were received.
2. Arcadia Operating, LLC (Arcadia) requests to adopt permanent field rules for the Ace, North (4350) Field, Polk County, Texas.
3. The Ace, North (4350) Field, was discovered July 9, 1969 at a depth of 4353 feet with the drilling of the Kirby Lumber Corp. Tract 7, Well No. 3.
4. The productive interval in the field is the Jackson Sand.
5. A total of seven wells have been drilled and completed in the subject field.
6. There are currently two producing wells on the August 1, 2018 oil proration schedule, both operated by Arcadia. All other wells that have been completed in the field have either been plugged and abandoned, or re-completed in another field.
7. The historical cumulative oil and gas production by lease indicates that this is a very low gas-oil ratio (GOR) reservoir.
8. The annual production for the field shows there was no production in the field from 2007 to 2012. In 2013, the field was revived by the completion of the Finch No. 1 (API No. 373-31163).
9. Drainage calculations were performed for wells in the subject field.
 - a. The drainage areas ranged from 4.46 acres to 45.93 acres.

- b. Arcadia requests to retain the current 40-acre standard proration unit size and to adopt 20-acre optional units.
 - c. Arcadia also requests to reduce the lease line spacing from 467 feet to 330 feet, and reduce the between-well spacing from 1,200 feet to 660 feet.
 - d. The drainage calculations support the request to amend the spacing rules.
10. Arcadia requests that the oil allowable be based on 100% per well.
11. Arcadia agreed, that, pursuant to the provisions of Texas Government Code §2001.144(a)(4)(A), this Final Order shall be effective on the date a Master Order relating to this Final Order is signed.

CONCLUSIONS OF LAW

1. Proper notice was issued as required by all applicable statutes and regulatory codes.
2. All things have occurred and been accomplished to give the Commission jurisdiction in this matter.
3. Adopting field rules for the Ace, North (4350) Field will allow operators in the field to recover additional reserves and prevent waste.
4. Pursuant to §2001.144(a)(4)(A), of the Texas Government Code, and the consent of the applicant, this Final Order is final and effective when a Master Order relating to this Final Order is signed.

EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Commission adopt permanent field rules for the Ace, North (4350) Field, Polk County, Texas.

Respectfully submitted,



Karl Caldwell
Technical Examiner



Clayton Hoover
Administrative Law Judge